THE EFFECTIVENESS OF A COUNSELLING PROGRAMME IN RELAXING SOCIAL ANXIETY RELATED TO IRRATIONAL THINKING AMONG SAUDI COLLEGE STUDENTS

By

JAHAZ FAHAD AL-MOTERI

SUPERVISOR

PROFESSOR DANY NOBUS

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Dedicated To

My Parents & Wife

ABSTRACT

This study is meant to replicate research by O'Toole (1997), investigating the effectiveness of Rational Emotive Behavioural Therapy (REBT), and REBT combined with REST, in reducing and treating social anxiety disorder (SAD). The present study used a counselling programme grounded in REBT and/or REST to re-examine the effects of REBT and/or REST on treating SAD in college students in a Saudi Arabian university. An experimental pre-test, post-test, control group design was utilised, and quantitative and content analysis data were collected and analysed using O'Toole's measures after being 'Arabicised' and standardised. Social anxiety was measured using the Interaction Anxiousness Scale and the Shyness Scale. Seventy-five volunteers, who were undergraduate students at King Abdul Aziz University, participated in the study. The measures were used in placing the clients in their respective groups in the empirical study and for comparing pre-testing data with post-testing and follow-up results. Findings indicated that both treatments of REBT-only and REST plus REBT proved effective in the reduction of prior irrational beliefs, considering their reduced irrational thinking scores at the advanced stages of the study. That notwithstanding, follow-up post-comparison analyses confirmed that REST plus REBT therapy is more effective than REBT only. Content analysis data derived from the reflections and cognitions of the participants yielded findings that support and integrate with the results obtained from the quantitative study, which involved the use of numerical scales. The findings were later compared and contrasted with the basal study findings and in congruence with prior research reviewed. Finally, the present study recommended that REBT should be supported by REST to gain more effective psychotherapeutic results with SAD patients by efficaciously reducing their irrational beliefs. The study also recommended conducting future research to tap into the relationship between religiosity and REBT, harnessing REBT/REST counselling programmes.

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INTRODUCTION

Introductory Note

It may be important to start the introduction of this research with the following important facts: (1) mental disorders have greater negative effects on people's abilities and functioning than many serious chronic physical illnesses (Kessler et al. 2001; Ormel et al. 1994; wells et al 1989 & Kessler et al. 2004), (2) most mental disorders in the world go unnoticed or untreated and, consequently are not represented in the results of surveys or studies particularly in the world's developing countries (Alegria, et al. 2000; Bijl et al. 2003 & Kessler et al. 2004), and (3) more than one third of those surveyed met criteria for a lifetime disorder according to the Composite International Diagnostic Interview (CIDI) of the World Health Organization (Kessler et al., 2004). These facts illustrate the seriousness and prevalence of mental disorders worldwide and demonstrate the importance of making the efforts to combat them at all levels including prevention and treatment. In addition, surveying fourteen countries in the Americas (Colombia, Mexico and the United States), Europe (Belgium, France, Germany, Spain, Italy, Netherlands and Ukraine), the Middle East (Lebanon) and Africa (Nigeria) and China (Beijing and Hong Kong) on the prevalence and severity of mental health disorders revealed that: (1) the Anxiety disorders including (agoraphobia, generalized anxiety disorder, obsessive compulsive disorder, panic disorder, posttraumatic stress disorder, social phobia, and specific phobia) are the most common disorders in all but one country which is Ukraine, (2) between one third and two third of these surveyed cases received no treatment, and (3) developed and rich countries could not afford to treat all people with mental disorders (Kessler at al., 2004).

Prevalence of Mental Health Disorders in Saudi Arabia

Saudi college students are no exception, and many are beset with social and psychological malaises such as depression, anxiety disorders, obsessive compulsive disorders and phobias (Bassiony, 2005; El-Rufaie, Albar & Al-Dabal, 2007; Quest Consulting, 2004). Before describing the prevalence of mental health disorders in Saudi Arabia, the researcher should declare that such disorders are likely to be underreported and understudied. The reasons for such lack of reporting include the stigma that surrounds mental illness in the Arab world in general and Saudi Arabia in particular (Tanios et al 2009). Furthermore, Saudi Arabian women may feel unable to reveal their own personal vulnerabilities to males who dominate the mental health professions,

which could be ascribed to cultural and religious reasons (Tanios et al. 2009). Furthermore, the presence of strong family ties and large extended family members living in the same dwellings may help lessen the severity of anxiety, hide its active symptoms or limit its impairing effects through the presence of safe family members (Ghubash et al., 1992).

Social Anxiety Disorder (SAD) is very common among the various psychopathologies (Jaber, 1995; Al-Jusmani & Mohammed, 1989). It is the second most prevalent among neurotic disorders which accounts for 3–13% of all cases of psychopathology. It has spread to 2–5% of human communities around the globe (Kaplan, Thompson & Searson, 1995). The effects of SAD cover a wide range of the afflicted individuals' lives such as academic achievement, employment, social relationships, physical health and their overall wellbeing.

In Saudi Arabia, although there are no comprehensive national studies that reflect the status of SAD in the whole country, the researcher seeks to provide a picture of the current situation through the limited number of region or area specific studies available in the Country. According to the World Health Organization (WHO, 2008), neuropsychiatric disorders in Saudi Arabia are estimated to contribute to 14% of the global burden of disease (Mental Health Atlas, 2011). In a review of studies on the epidemiology of anxiety disorder in the Arab world (Tanios et al, 2009).

Al-Rufaie et al. (1988) used the Hospital anxiety and depression scale among 100 patients of ages between 15-34 and found that 7% were having anxiety and depressive disorders at the comorbidity level. Qureshi et al. (2001), surveying 540 patients at primary health centres and general hospitals and using a circumscribed clinical interview in a primary health clinic and found that 7% had some sort of "anxiety disorder" comorbid with depression. Using the International Classification of Diseases 10 (ISD 10), Qureshi et al (2001) also found that 13.8 % of the patients interviewed were having anxiety and depressive disorders from among patients referred by a general hospital, while it was 17.4 from among patients referred to by primary health care.

Chaleby (1987), for example, indicated that SAD afflicts 13% of the total outpatient population of the King Faisal Specialised Hospital who are diagnosed with a psychopathology. In university clinics, however, the percentage seems higher as concluded by Chaleby & Raslan (1990) and Al-Ashgar (2004). By the same token, Chaleby (1987) and Saleh, (1985) assert that a significant percentage of Saudi youth suffers from debilitating social anxiety.

Social relationships are of major importance to adolescents and young adults as they move away from home for the first time and establish their independence and autonomy in early college life.

O'Toole (1997) observed that social anxiety is critically pervasive in the college student's life. Anderson (2000), Chamberlain et al. (2008), Grimes & Jensen, (2008), Jensen et al. (2008) & Moriarty (2002) contend that social anxiety explains the aetiology of depression, feelings of guilt and negative self-concept, irrationality, burnout and sluggish academic performance found among students, and, therefore, it does not only affect the students' social lives but also their academic performance. SAD is, therefore, a very prevalent disorder to the extent that it affects approximately 70% of young men in mental health facilities who are from the student population (Gonzalez et al. (2004).

In Saudi Arabia, Quest Consulting utilised qualitative research techniques and ethnography to focus on a cross-section of Saudi teenagers in the three main urban areas of Jeddah, Dammam and Riyadh. It found that more young men than women in Saudi Arabia tend to feel powerless, socially anxious and alienated from society (Quest Consulting, 2004). According to several researchers (Clark & Wells, 1995; McManus, Grey & Shfran, 2008; Melfsen et al., 2011; Rapee & Heimberg, 1997), cognition plays a significant role in the aetiology of social phobias, as increased self-focused attention and misleading internal information is used to make excessively negative inferences about how one appears to others.

Al Shammari and Al-Subaie (1999) used a 30-item scale to assess depressive symptoms among Saudis' age 60 or older. Among 8000 families identified and surveyed, 39% reported significant depressive symptoms. Among those 39%, with women represented 49% compared to men (33%), the divorced or widowed (51%), the illiterate (43%), those in remote or rural areas (45%), those not working (45%) and individuals over 80 years old (52%).

As for young people, local studies have also high prevalence of emotional disorders. In a sample of 490 secondary school students in Taif whose average age was 17 and 38 % of whom were females, Abdel Fatah and Asal (2007) assessed depressive symptoms using the 21 –item Beck Depression Inventory (BDI). The results revealed that one third scored moderate to severe depression range (19 or more on the Scale) and 11% scored in the severe to very severe range. In multivariate analysis, females were one third more likely (40 % vs. 29 %) to score 19 or higher.

Several researchers (e.g. Meleis, 1982; Racy, 1980; Saleh, 1987 & Zahran, 2000). have also indicated that Arab college students seem to lack the ability and/or desire to participate in independent, unstructured learning or to make bold decisions on their own. As a result, their morale is often low, which is further exacerbated by high degrees of loneliness and shyness. This common state of low morale seems to manifest itself in psychological diseases, especially social disorder, phobias, anxiety, depression and other related disorders Meleis (1982) suggests that psychological and social malaises, including social anxiety, with their somatic symptoms, 'may be due to an interplay between cultural exhaustion, culture shock, and the relationship between the mind and the body' (p. 445). That is to say, social anxiety may be engendered by the stress on the body of the conflict between a strong need for affiliation and the actual state of loneliness and shyness of these college students, as well as the stressful requirements of college life, whether studying in their home country or abroad.

Psychosocial disorders may also be precipitated by the effects of the mass media, such as TV, open satellite channels, mobile telephones, and more importantly, the Internet, where people can surf it anonymously. A relationship has also been detected between luxury and unhappiness. In this respect, Diener (2000) found that despite Americans having far more luxuries than in the 1950s, they are still unhappy, suggesting that happiness is not dependent on the materialistic aspect of life. Pertinently, Myers (2000) contended that people "are twice as rich and no happier. At the same time, the divorce rate has doubled, teen suicide tripled and depression rates have soared up, especially among teens and young adults." (p.61)

These words about the American society can also be applicable to the situation of the average society in the Gulf region, where people have an abundance of luxury, yet still lack this subtle feeling of happiness that cannot be bought with money.

Further, open satellite channels and modern information and communication technologies (ICT) have made it easier for youngsters to connect and influence each other, often negatively. Although this observation is not well documented in empirical research in Saudi Arabia as far as the researcher is aware, it is widely acknowledged that youngsters misuse the Internet and other communication technologies to engage in practices that are strictly prohibited by the rigid ethico-religious system in Saudi Arabia, such as accessing pornography, sex-chatting to members of the opposite sex, obtaining narcotics, etc. Such practices of Internet and other technologies' abuse, in one's view, can be conducive to ambivalent behaviour, which can be harmful to the self. While the

revolution in ICT has brought about virtual freedom, the strong ethical and religious restrictions can lead to internal conflict within the individual.

The 'self-enclosed' nature of Saudi society, which is deeply rooted in traditional social mores, often contrasts with the values spread and generated by interaction with the electronic media. In other words, young Saudi people experience conflict between openness to the diverse world cultures entering every home via the media and the strict traditions and behavioural mores imposed by tribalism and the religious institution, particularly the religious police that this institution keeps, whose repressive role is still prevalent in the kingdom. As a result, young men and women feel a need to behave like other young people in Egypt, Syria, the UK or the USA, but Saudi tradition and the social system preclude this. This conflict generates an environment for non-adapters to develop psychological disorders such as anxiety or social anxiety. This raises the need to discuss what makes Saudi Arabia's higher educational system a place where psychosocial problems are likely to be induced or generated.

In a study on the perceptions of and concerns about sociocultural changes and psychopathology in Saudi Arabia, with special reference to personality-related psychopathological disorders and symptoms, Ibrahim (1990) found that many young Saudis had high awareness of sociocultural transformations conducive to depressive and psychopathological symptoms. Ibrahim also indicated that the educational system is challenged by an array of factors that contribute to the mental health issues of college students. Prominent among such factors are the value systems disseminated by the media, which contrast with the old religious values and traditions maintained and imposed by the religious police. This ambivalence is conducive to psychological problems for those who cannot adapt to the requirements of the social environment. Fakhr El-Islam (1983) earlier intimated that too-rigid application and imposition of Sharia law could contribute to behavioural disturbances among Saudi youth and lead to restlessness, free-floating anxiety and phobias.

As a result, young people highly cherish privacy and confidentiality as a shield against the invasiveness and pervasiveness of the religious police. Youngsters are always afraid of carrying out any socially unacceptable conduct or indecent behaviour such as debauchery, alcohol-taking or drug use, etc. In public because if they are caught by religious police in Saudi Arabia, they are usually subjected to imprisonment and scandalising in the most bitter way. It has been suggested that fear of the religious police and the need to hide socially unacceptable behaviour contribute to the emergence of

social anxiety, depression, fear, panic, phobias and other psychological maladies among Saudi college students (Chaleby & Raslan, 1990).

College and University Counselling Centres

The presence of counselling centres in colleges and universities is very essential to their academic functioning as well as to the surrounding communities. Such centres are expanding both in numbers and functions. Ceyhan and Ceyhan (2011) indicate that university counselling centres play a significant role in higher educational institutions by providing psychological counselling to both college students and members of the community who seek counselling help with these educational institutions. In fact, the role of university counselling centres should not be limited to providing psychological counselling only as stipulated by the International Association of Counselling Services [IACS], the agency that provides accreditation to university counselling centres. In its publication that outlines the standards for university and college counselling services (2010), it declares that such centres should provide more services such as crisis intervention and emergency services, outreach interventions, consultation interventions and referral services. From the researcher's personal experience in both Saudi Arabia and the United Kingdom, career counselling, relationships, preventive counselling and programmes are also among the various functions that counselling centres feel compelled to provide in order to meet the demands and inquiries of their constituencies and to their surrounding communities as more universities are beginning to connect their scholarship to the needs of their communities.

In a very direct and specific way, these centres assist students to cope with psychosocial and developmental issues, knowing that this age represents a critical period upon which their future and entire lives could be determined (Sharkin, 1997; Sharkin & Coulter, 2005). University students are mostly adolescents who are undergoing both developmental and environmental changes. Such changes include the biological developments and the departure from likely restrictive homes to a more liberal university environment with the freedom to choose almost for every aspect in the student's life. In this new milieu, students are prone to developing psychopathologies due to societal constraints (Meleis, 1982), as will be discussed later.

In the researcher's opinion, providing psychological counselling to college students suffering from emotional or psychological disturbances that may have pathological manifestation can be both therapeutic and educational which means

producing more and better graduates and help in making better family and community members.

College students, especially new students, have to deal with multiple stressors, such as being away from home, adapting to university life, living with others in dormitories or private lodgings (independently or sharing with others), and the demands to manage their time, organize their studies, etc. Such stressors, if not well managed, can lead to psychosocial problems. In addition, college students may have to become involved in social activities with new people and establish new relationships, develop intimate friendships and seek to avoid isolation (Ceyhan & Ceyhan, 2011; Erikson, 1963; Sharkin, 1997). In Saudi Arabia, where intimate relations are forbidden, both religiously and culturally, outside the bond of marriage, Saudi students may not have to deal with that aspect, or in case they do develop intimacy, may not be able to reveal it to even counsellors or therapists.

These stressful conditions or situations have the potential to threaten students' well-being during their particular phase of socio-cognitive and psychological development. Such stressors may account for the increased prevalence of psychopathology among students.

Psychological workers and counsellors in university counselling centres believe, based on anecdotal evidence and personal experience, that the severity of students' psychological problems has increased in recent years (Ceyhan, Kızıltaş, Dönmezel & Yemenici, 2008; Sharkin, 1997; Sharkin & Coulter, 2005). It is also thought that most university students are at risk for psychopathology, including personality disorders and problems involved in psychosocial encounters, yet most do not seek adequate preventive mental health services (İnanç, Savaş, Tutkun, Herken & Savaş, 2004).

Researchers (e.g. Ceyhan et al., 2008; Ceyhan & Ceyhan, 2011; McWhirter, 1990; Yerin-Güneri, 2006) have also shown that college students only turn to counselling or medico-social centres available at universities when they experience severe communication problems, academic adjustment issues, troubled romantic relationships, depression, anxiety disorders, test anxiety, study skill difficulties, shyness and loneliness, low self-esteem or troubled relationships with parents or teachers.

The attention in counselling has shifted from focusing on the analysis of past actions as the main source of psychopathology to a focus on thinking, action and outcome. In other words, on the interaction between cognitive, emotional and

behavioural factors when examining a patient (Orlans & van Scoyo, 2009). Orlans & van Scoyo (2009) state:

"This shift is based on the principal assumption that human beings are inclined to be constructivists in their perceptions, which colours the meanings individuals assign to life situations and events. Accordingly, 'if a person's perceptions of a given situation or event could be changed, then emotional and behavioural consequences would follow" (p. 47).

Ellis (1976) sees that irrational thinking results from people becoming disturbed because of their failure to achieve happiness. In other words, irrational belief structures contribute significantly to the initiation of social phobias, particularly among the male population of college students (Chaleby & Raslan, 1990; Levin, 1996; O'Toole, 1997; Quest Consulting, 2004; Schultz & Moore, 1986). The Researcher contends that if not appropriately and thoroughly treated, social anxiety can be a disturbing emotional problem for college students, and may prevent them from pursuing academic endeavours and their personal life in a normal manner. The failure to achieve academically can lead to unemployment, and other problems in life.

Thorough treatment requires systematic investigation into its origins, ramifications and therapy at therapeutic and counselling level as well as at the social level. This study is, therefore, a seminal work in Saudi research, as it explores SAD in college students and endeavours for treatment from the perspective of rational therapy, using a combination of rational emotive behavioural therapy (REBT) and restricted environmental stimulation technique (REST).

While this study replicates previous research by O'Toole (1997), it focuses on subjects in a totally different environment and under different circumstances. O'Toole's study tested the effects of REBT combined with REST on reducing and treating social phobias and irrational beliefs among college students. Analysis of data obtained using pre-, post, and one-month follow-up administration of an Irrational Beliefs Test and an Interaction Anxiousness Scale together with a Shyness Scale, using ANOVA, indicated that a social anxiety counselling programme grounded in REBT and supported by REST is effective in treating irrationality in college students, and thereby, reducing social anxiety.

However, a literature review of Arab counselling psychology programmes and their effectiveness suggests that an amalgam of REBT and REST has never been undertaken in the Arab world. In addition, while some empirical research has been

conducted in the area and reported in Arab countries, especially Saudi Arabia, the literature on REBT is very sparse. This confirms the importance of replicating O'Toole's study on the Saudi population using the same hypotheses. In the countries of the Arabian Gulf, recent affluence from high oil revenues is evident on all members of the society. However and as Meleis, (1982) stated:

> "although the younger generation has grown up with free education and more health care, nearly free housing and freedom from undesirable work, which is done by foreign labour, young Arabian people continue to suffer from psychological disorders such as SAD" (p. 440).

College students beset with social anxiety and social withdrawal may often not be aware of their problems. Gonzalez et al. (2004) indicated that 'children and adolescents seldom perceive themselves as 'disturbed' or in need of therapeutic treatment' (p. 223). Thus, adolescent treatment referrals at college level are made by parents, teachers or other caretakers who often determine the desired goal of the therapy and provide the information required by the therapist (Weisz, Weiss, Han, Granger & Morton, 1995). This justifies interventions aimed at prevention or early treatment focused on youth to prevent nascent problems from developing into full-blown disorders (Schneider, Johnson, Hornig, Liebowitz and Weissman, 1992; Schneider, Blanco, Antia & Liebowitz, 2002).

The Problem Addressed in the Study

The problem addressed in this study has two main aspects. Firstly, there is a practical need to address this growing psychological problem in Saudi college communities which is SAD. Previous research in the Saudi environment (Al-Ashgar, 2004; Chaleby, 1987; Chaleby & Raslan, 1990; Ibrahim, 1987; Saleh, 1985), though scarce, indicates that social anxiety is pervasive in Saudi college populations among both genders, yet with a slight variation in prevalence. Secondly, the theoretical and conceptual foundation of this study relates to the examination of the effectiveness of combining two intervention modalities, namely REBT and REST, versus REBT only, which has been proven effective in a different environment by Patrick O'Toole (1997).

The present study, thus, addresses the following research question: *What is the effectiveness of a counselling programme using REBT and REST in relieving and treating social anxiety related to irrational thinking among Saudi college students?* Broadly speaking, this replication of O'Toole's (1997) study can be considered an important contribution to Arabian literature on the theme of social anxiety and irrational

beliefs as well as on the use of REBT for the treatment of these problems – an area that is under-researched in the Arab world.

As indicated earlier, O'Toole's research suggested that the use of REBT plus REST is more effective than using REBT alone. Further, although studies into the effectiveness of REBT or REST, separately or in combination, at that time were scarce, from 1997 to 2008 more research and theoretical synthesis studies were carried out on the effectiveness of REBT (Anderson, 2000; Aumann, 2004; Banks, 2006; Cornwall, 2008; Ford, 2009; Gonzalez et al, 2004; Gregas, 2009; Jensen, 2008; Jensen et al., 2008; Koffler, 2005; Moore, 2006; Pace, 2006; Sharp, 2003; Sias, 2006; Weisz, Weiss, Alicke, & Klotz, 1987).

REBT is a trend in psychotherapy that helps individuals to combat irrational thinking, a basic culprit behind psychopathology, both with and without the assistance of psychological counsellors or psychotherapists; as Orlans and van Scoyo (2009) proclaimed, Ellis's REBT framework does not necessarily need a therapeutic setting, but can help engender therapeutic change by offering a self-help approach initiated by the psychotherapist and completed at home and in the mind of the patient by self-search psychotherapy.

The present study includes a theoretical study to update the conceptual framework since O'Toole's study, and a thorough review of the literature on social anxiety, irrationality, REBT and REST. For the fieldwork, which entailed examining the effectiveness of the REBT/REST counselling programme, O'Toole's research instruments were Arabicised and standardised. The instruments were applied to a random sample of students to assess reliability and validity using statistically appropriate methods. The fieldwork was initiated to test the effectiveness of an amalgam of REBT and REST as an improvement over REBT therapy alone. This has helped, in part, to test the widely claimed benefits of REBT, enrich the REBT research literature and also fill the gap in Arabian literature on the subject.

Why This Study Was Conducted to Replicate Old Research

Some preliminary research evidence gleaned in the literature review of this study, and earlier surveyed by the present researcher, indicated that REBT theory of social anxiety and irrational beliefs was ambiguous, for two reasons. First, early irrational beliefs measures lacked discriminate validity, as will be demonstrated in the literature review and methodology chapters, being confounded with emotional distress and phobias or different types of anxiety. Hence, studies showing positive correlations

between social anxiety and/or shyness measures and irrational beliefs measures could be criticised as merely revealing a convergence of two indicators of the same variable, generalised negative affectivity (social phobia produced by a morbid state of irrationality, which is primarily generated by irrational thoughts – unobtrusive, morbid disruptive and dysfunctional beliefs) as affecting social maladaptation in social contexts (Smith, 1989). Second, some of these studies lacked control groups, soundly developed instruments or a thorough review of pertinent literature. In other words, prior research showed that socially anxious people differed from non-socially anxious people in the level of irrationality; that is, irrational thinking is proven culpable for producing or triggering social anxiety. However, there were few studies that could prove the efficacy of REBT treatments in alleviating social anxiety through reducing or eradicating irrational beliefs in SAD patients. Definitely put, there were very few empirical studies tapping into the effects of REBT-only counselling treatment, and REBT *plus* REST in intervention treatments to prove how effective each type of intervention could be. Prior research findings showed that the evidence in support of the effectiveness of both REBT plus REST treatment is only *statistical*, as claimed by O'Toole (1997). According to O'Toole (1997), the evidence being only *statistical* means that any significant reduction reported the the subjects' social anxiety and irrational belief test scores may have simply been due to a statistical regression towards the mean.The reason for this statistical regression is that "the participants were more sensitized to and aware of their feelings of social anxiety, and thus tended to express these feelings more in the pretest scales they filled out." (O'Toole, 1997, p. 91)

In some prior research, measures of irrational beliefs were criticised for such limitations as validity and reliability; in addition, prior research (e.g., McDermut, Haaga, & Bilek, 1997; Malouff & Schutte, 1986) further garnered favourable evidence of discriminate validity for some of these measures (e.g., the Belief Scale by Malouff & Schutte, 1986 and the Irrational Beliefs Test by Jones, 1969) to measure irrational beliefs. Results were consistent with the REBT model; only the clinically identified subjects as having SAD significantly exceeded controls on irrational beliefs at pre-testing. With REBT and REBT plus REST treatments, favourable results were gleaned to the good of the interventions on pre-test/post-test comparisons, but not on post-test and follow-up post-comparisons (e.g., O'Toole, 1997).

Thus, the REBT prediction that irrationality would characterise SAD was not empirically upheld, though statistically the results of O'Toole showed that 'the

significant reduction in the participants' social anxiety and irrational belief test scores may simply be evidence of a statistical regression towards the mean'(O'Toole, 1997, p. 91).

Findings of the original study of O'Toole (1997) are, in his own words, 'difficult to interpret'; he explains:

> 'On the one hand, since there was a significant reduction in the irrational belief and social anxiety test scores for all three treatment groups from pre-test to post-test and follow-up, they seem to support the theory that there is a link between a person's irrational beliefs … and their social anxiety. … However, there was no significant difference between the groups at post-test or follow-up. This fails to support the hypothesis that both REBT and REST treatments would enhance participants' receptivity to changing their irrational beliefs compared to control participants.' (O'Toole, 1997, p. 90)

Furthermore, prior research by McDermut et al. (1997) extends earlier work in supporting the REBT model but remains limited in at least two ways. First, positive validity data concerning irrationality scales in some studies were, however, collected despite methodologists' question whether irrational beliefs can be validly assessed with questionnaires or endorsement measures (Kendall & Southam-Gerow, 1996).

A few researchers think that irrational beliefs may be influencing patients' inclination towards psychopathology at the unconscious level. These beliefs can rightly and appropriately be detected and measured by inference from the informants' thoughts (Bernard, 1998); crudely put, patients need to have their irrational beliefs, which are sub-consciously triggered off, to be consciously detected by patients themselves through introspective tools, such as introspective questionnaires or thought logs. O'Toole (1997) explains that statistical regression towards the mean scores on pre-test/post-test scores was the potentially responsible factor for the more significant reduction in social anxiety and irrational thinking scores, given that the participants were aware of their social anxiety and irrationality before they were given any experimental treatment for the reduction and alleviation of irrational beliefs and social anxiety.

In order to circumvent earlier defects in the validation process of the Irrational Beliefs Test for the Arabic version, the researcher sought the advice and erudition of different Arab psychologists in Saudi Arabia and Egypt, who have had previous experience in the Arabian environment. Inter-rater validation was conducted using

multiple psychometric methods through (1) assessing the face validity of the scales; and (2) measuring the content validity. Content validity is based on the extent to which a measurement reflects the specific intended domain of content. Inter-rater validation using experts in the field made the Arabic version valid enough to measure irrational thinking in the Saudi context. Furthermore, internal consistency estimates of the Irrational Beliefs scale were based on a test/retest assessment of a pilot sample made up of 500 male students in the Department of Psychology Faculty of the Arts and Humanities at the University of King Abdu-Aziz, in Jeddah, Saudi Arabia. This scale yielded Cronbach's alpha coefficient of 0.77, a Spearman-Brown Coefficient of 0.71, and a Guttmann Split-Half Coefficient of 0.69, which indicate moderately high reliability coefficients.

One more concern was that the SAD participants in O'Toole's study were indeed currently socially phobic, even in the absence of irrational beliefs. Thus, it is possible that their social phobia is what caused irrational beliefs to be developed rather than the other way around.

The research presented in this doctoral work took a first step toward circumventing these limitations. The researcher measured irrational beliefs in two ways: with the Jones' Irrational Beliefs Test Arabicised and the translation was juryed by experts in the field. They were also assessed by inferential coding of participants' articulated thoughts in simulated situations as Educational messages in their diary entries, which have been quantified according to the procedures described in the Methodology chapter. Therefore, comparisons between people with social phobia in the two treatment conditions and their peers who also suffer from social phobias in the non-treatment control group, both on pre-testing and post-testing measures, could be potentially useful in determining whether irrational beliefs are a risk factor for social anxiety or a non-causal correlate of SAD. If, by the same token, irrational beliefs were a non-causal correlate, waxing and waning with the social anxiety levels determined on pre-and-post assessments, participants should have been equivalent on pre-testing scaling. On the other hand, if irrational beliefs are a risk factor, they should be eliminated in the treatment conditions, but not in the control condition, at least on average, among socially anxious people; if not, then the REBT theory would be hard-pressed to account for the increased risk of future SAD among those with a history of social phobia.

One aim of this study, then, was to compare the REBT only and REBT plus REST groups on irrational beliefs, shyness, and social anxiety. In the original study, one

group of comparison was added, the REST condition, which added to the complexity and sophistication of the interpretation of statistical analyses. In the present replicated investigation, these two groups (REBT only and REBT plus REST) showed statistically significant differences on posttesting, but it was not practical to equate the groups as the participants were already allocated to their respective groups.

One more difference between O'Toole's research and the present study is that the present researcher ignored the use of hypnosis – a cooperative interaction in which the participants respond to the suggestions of the hypnotist. This technique was used in the original study in order to reduce the incoming stimuli in the flotation environment to the barest minimum during a short period in order to prepare the participants for accepting suggestions and educational messages in the REBT and REST conditions and for moderating social anxiety in order for the treatment to be more effective. An example of educational messages is given below as was used in the counselling programme grounding this study:

> Day-by-day you will increasingly do what you enjoy doing rather than what other people think you ought to do in life. It would be nice if other people approved of what you do, but it is not necessary to your happiness for you to be loved and approved of by almost everyone for almost everything you do.
>
> You know what it is that makes you happy, that makes life enjoyable, and this is what you should do.

In fact, hypnosis or what Ellis (2004b) has termed as Couéism has been deeply used and investigated in O'Toole's study, though not elsewhere. As mentioned earlier, Koe and Oldridge (1987) were the first to experimentally investigate the interaction between hypnotic responsiveness or imaginative involvements and esteem-raising suggestions on self-concept. The rationale for using this technique in the original study as a support to REST has been to produce 'two beneficial effects' for ‘the enhancement of hypnotic susceptibility along with increased imaginative involvement.’ (p.37). In O’Toole's study, the hypnotisability of the participants was measured through the 12-point Stanford Hypnotic Susceptibility Scale, Form C (SHSS: C). Participants were blocked on hypnotisability level, and then distributed among treatment groups to ensure that each group was equivalent on hypnotisability levels of participants. A score of between 9 and 12 was used for inclusion in the high group; a score of between 4 and 8 for inclusion into the medium group; and a score of between 1 and 3 for inclusion into

the low group. The administration of hypnotic susceptibility measures was done by the primary experimenter or by research assistants. Research assistants had at least 60 hours of hypnosis training and had been cleared for participation in experimental procedures by Professor Arreed Barabasz. In both the REST condition and the REBT plus REST condition of O'Toole's study, hypnotisable participants were spontaneously dissociating into a hypnotic state while undergoing REST. (Barabasz, 1978a; b; Barabasz, 1980a; b; c; d; Barabasz, A. & Barabasz, M., 2006; 2010).

In this replicated study, hypnosis effects were alternatively replaced by the psychotherapists' use of a suggestive, relaxing, and desensitizing environment in the REBT plus REST condition only, where desensitisation tasks, involving self-directed in vivo exposure to educational messages in the treatment sessions were used at the beginning of the therapy sessions.

Need for the Study

The researcher decided to conduct this study as a result of the prevalence rate of SAD in Saudi Arabia. Moreover, this psycopathology has been under-diagnosed and neglected (Crittenden, 2004; Liebowitz, Gorman, Fyer & Klein, 1985) and consequently undertreated to the extent that it is oftentimes described to be 'the neglected anxiety disorder' (Albuquerque, J. & Deshauer, 2002; Liebowitz, et al., 1985). The practical purpose of this study was thus to devise a counselling programme that can help in the reduction and treatment of social anxiety among college students in the Saudi environment by repelling irrational thoughts.. The theoretical and conceptual purpose was to replicate and re-examine a seminal work by a Western psychotherapist which assessed the effectiveness of an intervention of REBT combined with REST versus REBT only – an investigation that has yet to be undertaken in the whole Arab world, according to an extensive database and bibliographic search conducted by the researcher prior to starting the investigation. The present study is expected to add to the body of knowledge which is related to counselling psychotherapy based on REBT, particularly in the Arab world, which is in dire need of such studies.

Aims of the Study

The main purpose of the present study was to explore the effectiveness of a counselling therapy programme applied to a sample of college students purposefully drawn using appropriate measures. The study also sought to explore the underlying perceptual organisation of the belief systems delineated in REBT. REBT distinguishes

between rational and irrational thoughts, and proposes that the latter lead to emotional distress.

Expected Outcomes

On the theoretical level, this study is expected to pool together the different writings and theoretical underpinnings of REBT and REST research, and update the conceptual framework of O'Toole's 1997 study. Accordingly, this study will add to the pertinent literature on REST and REBT in the Arab world, which suffers from a paucity of research on the application of REBT and REST to treat social anxiety.

On the practical level, this project will help in the development of a counselling programme deemed necessary by psychotherapists in the Counselling Unit of the Psychology Department, College of Arts and Humanities, King Abdul Aziz University (KAU), Jeddah, Saudi Arabia, to reduce and treat the social phobias of college students who attend the counselling centre of the university. Other college and community counselling centres and professionals may follow suit in using such a programme and develop it further to perhaps higher levels of effectiveness and efficiency.

Assumptions of the Study

This study sought to investigate the effects of a programme of rational-emotive learning/training on irrational thinking and anxiety in a group of college students reported to be suffering from high levels of anxiety and irrational thinking. Based on the objective of this study, the following assumptions underlie the research:

- Treatment requires an environment that promotes psychological health.
- Both REST and REBT have been proven to be successful treatments that effectively supplement other psychotherapies to help individuals suffering from social anxiety in making healthy lifestyle changes.
- Self-efficacy theory[1] (perceived social skills and perceived emotional control) hypothesises that cognition plays a role in relieving emotional problems.
- It is expected that the programme will succeed in relieving irrationality-related social anxiety in Saudi college students.

[1] Self-efficacy is the belief that one is able to perform in a certain manner to attain certain goals. It is a belief that one is capable of the course of action required to manage respective situations. For example, in the case of illness, a person with high self-efficacy may engage in more health-related activity compared (Omrod, 2006). S Bandura's social cognitive theory stresses the importance of observational learning and social experience in developing personality. With high self-efficacy – the person can view difficult tasks as things to be mastered rather than avoided.

Rationale for this Research

Social anxiety is the result of irrational beliefs about a situation and about one's ability to cope with it or with particular aspects of it. Training individuals to control their irrational thoughts through rational emotive behavioural training can help to relieve their social anxiety. Researchers have corroborated the relationship between people's cognitive structures, irrational beliefs and social anxiety (Davison & Zighelboim, 1987; Rohsenhow & Smith, 1982; Sutton-Simon & Goldfried, 1979). In this respect, several REBT researchers have also confirmed the effectiveness of cognitive therapies, especially REBT, in the treatment of social anxiety (DiGiuseppe, McGowan, & Gardner, 1990; Watson & Friend, 1969).

Rationale for Using REBT

It is widely believed that irrational beliefs are largely responsible for SAD and public speaking anxiety at social events. Given that this supposition is valid, it is necessary to find psychotherapy for this genre of psychopathological disorders. A review of relevant psychotherapy literature has shown that group-based REBT is a well-proven intervention for reducing and getting rid of irrational thoughts. This method is characteristically an active and direct psychotherapeutic technique, in which both patient and psychotherapist are actively involved in group-based psychotherapy. The psychotherapist using REBT typically shows patients the sources of their psychopathology, and how to effectively combat it and change their irrational beliefs. REBT has been described as the most important psychotherapy technique ever created to introduce logic and rational thinking into counselling psychology and psychotherapy (Patterson, 1980), as it involves accurate empathy, respect, non-possessive warmth and genuineness as common elements in all psychotherapy theories and counselling perspectives (Patterson, 2000). It is a method of treating the irrational with the rational. It uses the cognitive processing of information in a rational fashion to treat psychopathology, on the grounds that patients should be involved in rationally and cognitively gaining insights into the roots of their problems, namely irrational beliefs (Al-Ashgar, 2004). REBT not only helps with current psychopathologies and their manifestations and symptoms, but also helps patients to process future problems in a rational and practical way.

The current cognitive models that interpret and seek to treat social anxiety disorder assume that social anxiety is triggered and maintained by dysfunctional beliefs rooted in irrationality to a greater extent, and these dysfunctional irrational beliefs are

based on the individual applying biased information processing strategies (Clark and Wells 1995; Rapee and Heimberg 1997). Therefore, to fix these dysfunctional irrational beliefs, an effective treatment approach needs to address the modification of such cognitive problems. A fundamental aim of REBT is to challenge and alter these irrational beliefs through discussing and persuading individuals to change the fundamental irrational beliefs that lead to social anxiety.

Furthermore, there are many reasons why REBT was used in preference to other psychotherapy approaches, most importantly as cited in the literature (See for example (Ellis, 2001a; 2001b; Dryden, 1995; 2001) is that it has a logical, clear and focused practical application, in practice and everyday life. The researcher believed that the straightforward, direct and forceful use of logical, rational reasoning would overcome the 'illogical', 'irrational' and seemingly self-defeating thinking of the clients being interviewed. It was felt that the articles on REBT developed by Albert Ellis, like his therapy dialogue, were clear and specific. Ellis's writings are well referenced and seem particularly scholarly, yet lacking in over-use of sophisticated terminology which psychologists and other professionals seem predisposed to use. Ellis's approach appears to weave the ideas and empirical findings of a broad range of individuals into a comprehensive, 'common-sense' type of approach. In addition, rational thinking strategies of coping, like REBT, are common-sense solutions to life's problems, which would work perfectly with people in the researcher's Arabian environment. This supports the researcher's own notion of REBT's common-sense appeal and practicality and its non-mystical, non-magical and workable approach to life's often difficult challenges.

Rationale for Using REBT plus REST

In addition, the rationale for the present investigation into the effectiveness of combined REBT and REST versus REBT alone is the substantial prior research evidence indicating that both REBT and REST are successful psychotherapeutic techniques. Ellis (1998) identified 225 studies suggesting that REBT was effective, which explains why it is widely used by clinical psychologists and psychotherapists in controlled clinical experiments and in mental health hospitals. Ellis and Dryden (1997) identified more than 500 studies that found REBT more effective as a group-based approach than in individual therapy. This study has therefore taken a group-based approach. Moreover, REBT has been proven effective among youths (Albano, Causey & Carter, 2001; Heimberg, Acerra, & Holstein, 1985; Kendall & Southam-Gerow, 1996; Mattick, Peters & Clarke, 1989; Mersch, Emmelkamp, Bögels, & der Sleen, 1989).

In the Arab communities, REBT has seen little empirical investigation. Hisham (2000) applied REBT effectively to treat neurotic depression among students at an Egyptian university. Several other studies in various Arab countries have related irrational beliefs to the generation of psychopathology, especially depression and social phobia, and proposed REBT as an effective psychotherapy (Al-Ghamdi, 1998; Al-Madkhali, 1995; Al-Rihany, 1987; Al-Shabbanat, 1996; Al-Sheikh, 1986; Emara, 1985).

Furthermore, a significant number of cognitive-behavioural programmes are being conducted in clinics and schools as part of prevention studies for adolescents and young adults with symptoms such as shyness, social isolation and loneliness that are not acute enough to meet the social anxiety diagnosis. These studies generally take the form of group treatment, and are conducted in academic settings according to strict ethical codes and with parental approval (Ginsburg & Drake, 2002; Masia, Klein, Storch & Corda, 2001). The academic setting seems to be an ideal milieu for launching prevention studies, as it permits researchers to select and evaluate students using information from teachers, academic counsellors and counselling psychologists, which helps in generalising about the therapeutic skills gained by students as reflected in their normal environment. Also, conducting such studies in school settings reduces the fear of being 'labelled' and thus reduces resistance to participation (Garcia-Lopez et al., 2008; Masia-Warner, Fisher, Shrout, Rathor & Klein, 2007). Prior research on the use of reduced environmental stimulation therapy was established at Ohio State University where REST was utilised to enhance creativity in music, accuracy in rifle shooting and stimulating concentration prior to academic examinations and for stress relief (Fine, 1990). When combined with REBT, REST can induce a therapeutic effect on stress and pain and chronic stress-related ailments in experimental conditions (Bood, 2007; Kjellgren, 2003). The application of REST together with REBT can help reduce the hormonal parameters responsible for the increase of stress, such as ACTH, epinephrine, norepinephrine, cortisol and aldosterone, thus helping make more effective REBT (Turner & Fine, 1983; McGrady, Turner, Fine, & Higgins. 1987). These results led us to consider that REST in combination with REBT can help make the latter simply more powerful in effect.

Hypotheses

The hypotheses, drawn from the main research question, are as follows:

1. Participants exposed to the REBT/REST condition will show significantly lower Irrational Thinking scores on post-testing and at one-month follow-up than participants exposed to REBT group therapy treatment only and control participants.

2. Participants exposed to REBT/REST will show significantly lower Interaction Anxiousness scores on post-test and on the one-month follow-up retest than will control participants and those exposed to REBT group therapy only.
3. Participants exposed to REBT/REST will show significantly lower Shyness Scale scores on post-test and on the one-month follow-up retest than will control participants and those exposed to REBT group therapy only.

Summary

There is ample evidence from prior research and the present researcher's observations that SAD has become a prevalent psychopathology worldwide, including in Saudi Arabia. Social anxiety is not only a psychological problem, but also has social manifestations, as afflicted persons are not fully socially functional.

People with SAD exert strenuous efforts to cope with their social life, especially during social functions and events, and often tend to escape or avoid social functions to eschew others' monitoring of their behaviours. When they attend such functions, they may keep silent or demonstrate inappropriate verbal behaviours and other social awkwardness. However, the few existing studies undertaken in Saudi Arabia indicate a prevalence of SAD.

In addition, SAD is a major cause of dysfunctional social relations, psychological alienation, educational and social maladjustments. Constructive social relationships and a satisfactory level of educational attainment are of major importance for students' social adjustment, self-fulfilment and psychosocial security. Hence, the present study has examined a combination of REBT and REST compared with REBT only to treat and eradicate irrational beliefs in order to alleviate social anxiety in college students.

The present study replicates a previous study by O'Toole (1997) for a twofold purpose: to re-examine the combined effectiveness of REBT plus REST versus REBT only in an Arabian university, because prior research was done in foreign environments, but no research, to the best knowledge of the reseracher's was done in Saudi Arabia, and to enrich the Arab literature on the effects of REBT and REBT plus REST in treating psychopathologies in general and SAD in particular.

CHAPTER ONE - SOCIAL ANXIETY

1 Introduction

This chapter and the following chapter present the theoretical framework of the present study, provide an overview of the literature related to social anxiety theories, social anxiety research, shyness and irrational thought research, REBT and REST theories, and the effectiveness of REBT and REST in the relief and treatment of social anxiety.

2 The Construct of Anxiety

The terms fear and anxiety have been used interchangeably by many people as referring to one and the same concept. However, in other contexts, they are not synonymous though they share some mutual characteristics. For example, while fear refers to excessive distressing emotions in response to eminent danger whether the threat is real or imagined, anxiety refers to the feelings resulting from anticipated future danger (DSM-5, 2013, pp. 189–195). Furthermore, fear can be considered a symptom, cause or a stage of anxiety disorders while anxiety refers to multiple types of disorders. The DSM-5 further elucidates that fear is more often " associated with surges of autonomic arousal necessary for fight of flight, thoughts of immediate danger, and escape behaviours, and anxiety more often associated with muscle tension and vigilance in preparation for future" in a way that makes people follow an avoidance mechanisms (p. 189). To differentiate further between these two, it should be noted that fear is innate and may start at birth. As for the anxiety disorders, some tend to appear in early childhood or adolescence whereas others don't appear until adulthood (Dozois & Dobson, 2004). The average age of SAD's onset is around 15.5 years (Khalid-Khan, Santibanez, McMicken, & Rynn, 2007).

Furthermore, Hunt (1999, p.509) differentiates anxiety from fear by describing anxiety as 'a psychological condition of heightened sensitivity to some perceived threat, risk, peril or danger'. This distinction between anxiety and fear proposed by Hunt differentiates fear as a psychological problem and fear as a natural response to danger. Barlow and colleagues, in a related context, view anxiety as 'a future-oriented mood state in which one is ready or prepared to attempt to cope with upcoming negative events' (Barlow, Chorpita & Turovsky, 1996, p. 251). This suggests that it is the discrimination between present versus future dangers that distinguishes fear from anxiety. De Jongh, Groenink, van der Gugten & Olivier (2002, p. 1046) elaborated that both fear and anxiety can be adaptive and positive by helping one plan and prepare to face a challenge or threat, but that both can also become pathologic and negative. The

difference is that fear may be situation-dependent and lasts for seconds or minutes, whereas pathologic anxiety may continue for a period of at least six months (DSM-IV, American Psychiatric Association, 1994).

Fear and anxiety can be experienced at minimal levels and can be normal and adaptive in many situations. In its adaptive form, anxiety serves a protective function for the individual, alerting him or her to danger and motivating certain adaptive behaviours to avoid stress or negative experiences (Albano & Kendall, 2002). Certain fear and anxiety reactions have been well-documented as normal and expected processes at different developmental levels. For example, young children often fear the dark, separation and small animals, while adolescents often fear evaluations, such as tests, oral presentations and social situations (Albano et al., 2001; Castellanos & Hunter, 1999). There are several types of anxiety, which will be elaborated upon later in this chapter.

However, before discussing social anxiety as a disorder, it should be noted that social anxiety and social phobia are used interchangeably to describe a persistent, irrational fear of a specific object, activity or situation that leads to a compelling desire to avoid it, although such object, activity or situation does not provoke the same for most people, or at least, not at the same level of intensity or frequency in social environments (Nardone, 1996). Furthermore, the intensity of such fear is disproportionate to the peril involved in the object, activity or situation that triggers it. This is why social anxiety is an irrational phobia disorder and is perceived by its sufferers as such, although they cannot help it (Al-Rifa'i, 1987).

2.1 What is anxiety?

Anxiety disorder is an umbrella term that covers a wide range involving a type of common psychiatric disorder branded by excessive rumination, worrying, discomfort, agitation, trepidation and fear about future uncertainties. These characteristics or symptoms may be based on real or imagined events, eventually affecting both physical and psychological health. This section of the chapter provides an overview of the nature, definitions, categories and theories of anxiety disorder, and particularly social anxiety disorder.

2.1.1 General anxiety

Anxiety is a construct of paramount importance to the study of clinical problems and the study of personality. General anxiety is experienced to different degrees by

everyone. Anxiety is a psycho-physiological state marked by demonstrable changes in cognitive, somatic, emotional and behavioural components (Seligman, Walker & Rosenhan, 2001). Such pathological changes, psychologically and physiologically, may combine to create the sensations typically recognised as fear, apprehension or worry. Anxiety is also often accompanied by physical sensations such as heart palpitations, nausea, chest pain, shortness of breath, stomach-ache or headache (Herring, O'Connor & Dishman, 2010; Rosen & Schulkin, 1998).

Yet, there are individual variations in the intensity, frequency and eliciting factors of anxiety. Such variations can be measured by personality scales that tap into neuroticism. Neuroticism is considered one of three main personality factors (Eysenck, Eysenck & Barrett, 1985), and anxiety is a major component of neuroticism. In addition, individual variations in anxiety explain many of the theories of temperament (Rothbart & Derryberry, 1981; Thomas & Chess, 1977). Consequently, anxiety has been recognised as a common clinical problem. Ensuing problems resulting from anxiety can manifest in a variety of ways. Anxiety may be the output of a particular anxiety-eliciting stimulus, as in the case of a phobia, or of a wider range of situations, as in social phobia. It may also be non-specific, as in anxiety disorders like panic disorder or generalised anxiety disorder (Last, 1991; 1993).

2.1.2 General anxiety, neurotic anxiety and social anxiety

Anxiety has two basic types: general anxiety, which is a natural and healthy phenomenon, the absence of which may make one blunt and dull, and neurotic anxiety, which is unhealthy and negative. According to Sadek (1988), general anxiety is a factor of success and progress, whereas neurotic anxiety may be conducive to self-destruction and malfunction; it is considered detrimental to mental health as an irrational morbidity, given that "neurotic anxiety is fear of an unknown object, situation or activity" (Sadek, 1988, p. 59). Earlier, neurotic anxiety has been described by the DSM-IV-TR (American Psychiatric Association, 2000) as a diagnostic criterion for SAD, since the person perceives that their anxiety is unjustified and irrational, yet they cannot avoid it. This genre of anxiety is characterised by three traits. First, the individual cannot help demonstrating extreme symptoms of fear such as dry mouth, heartbeat, trepidation, perspiration, nausea, delirium and exhaustion. Second, if it persists, the individual may avoid ordinary life activities such as flying a plane, driving a car, travelling by ship, getting into a lift, etc. In these cases, individuals may be able to overcome their fears or

fail to do so and become chronically anxious. The third trait of neurotic anxiety has to do with one's perception that one's fears are unjustifiable or irrational, yet one cannot help them (Beck, Emery & Greenberg, 1985).

Social anxiety is triggered in social situations and events in which individuals experience an irrational and continued state of confusion and fear to the extent that they avoid these situations, such as public speaking, and falling into a state of shyness lest they should be a target of criticism, sarcasm or even rejection (Freud, 1936).

2.2 Anxiety as a personality construct

Many researchers and theorists regard anxiety as a personality construct. The relationship between personality and anxious moods has been studied in several models. (Beck, Epstein & Harrison, 1983; Clark, Watson & Mineka, 1994; Cloninger, 1986; Eysenck, 1957, 1967; Gray, 1981; Larsen & Ketelaar, 1991; Tellegen, 1985). According to some researchers (Claridge, 2009; Corr, 2010; Perkins, Kemp & Corr, 2007), people with a tendency to experience negative emotions are especially susceptible to psychiatric illness (Amin, Foa & Coles, 1998). This tendency is associated with neuroticism. Perkins et al. (2007) consider this "one of the most influential theories concerning the causal basis of neuroticism" (p. 252).

By the same token, Gray (1970, 1982) suggested that neuroticism is a surface trait generated by the interplay of two more central dimensions of personality – namely, sensitivity to reward (labelled *trait impulsivity*) and sensitivity to punishment (labelled *trait anxiety*). According to this theory, now known as the *Reinforcement Sensitivity Theory of Personality* (Pickering, Diaz & Gray, 1995), a high level of neuroticism represents a combination of both high trait impulsivity and high trait anxiety (i.e. high sensitivity to both reward and punishment). Of the many personality traits, neuroticism is strongly related to lifetime prevalence and severity of anxiety, and individuals with higher neuroticism and lower extroversion appear to exhibit higher anxiety (Gershuny & Sher, 1992; Gomez & Francis, 2003; Matsudaira & Kitamura, 2006).

Social anxiety as a personality construct can have a profound yet subtle effect on the daily life of the individual (Kelly, 1955). According to Vonture & Curlee (2007), Kelly in 1955 "described a constructivist take on anxiety, defining it as an awareness that a person's constructs are not relevant to the events she or he is experiencing" (p. 118). As such, a person cannot effectively predict the course of social events (Conture & Curlee, 2007). Therefore, it is crucial to differentiate between the construct of social

anxiety and other related concepts, using a conceptual framework that outlines the history and theory of social anxiety.

Ibn Hazm, an Arab philosopher in eleventh century Andalusia, claimed that anxiety is an eternal fact, a universal human condition that everyone experiences at times, but that our goal is to avoid anxiety or to heal from it. In his *Tazkiyah* (Dispelling Anxiety), Ibn Hazm states that the ultimate goal in life is 'to be free from anxiety' (Ibn Hazm al-Andalusi, 1990, p. 181).

In this context, social anxiety is characteristic of all people, including the great and the powerful, according to Rhazis (1950). This view is *not* unlike Freud's argument that anxiety is an outcome of unfulfilled desires and emotions, neurotically generated. Some recent authors maintain that social anxiety is the result of a genetic predisposition; for example, Greist et al. wrote that "The child of two shy parents may inherit a genetic code which amplifies shyness into social anxiety disorder" (Greist et al., 2002, p. 11).

In recent years, researchers and therapists have become interested in the possibility that students' interpersonal skills affect their quality of college life and handling of social anxiety (Davidson, Hughes, George & Blazer, 1993; Kessler et al., 1998; Lecrubier et al., 2000; O'Toole, 1997). The implications are far-reaching for educational policy, student counselling and therapy, and quality of life research. One aspect of interpersonal competence that has received substantial attention in the literature is the notion of social anxiety (Arkowitz, Perl & Himadi., 1978; Curran, 1977). Distress in social situations is assessed by specific scales, which are taken to indicate interpersonal competence/skills (Heiser, Turner & Beidel, 2003). To better understand the construct of social anxiety, it is worth discussing it in the context of the broader conception of anxiety per se. Afterwards, more elaboration will be devoted to social anxiety.

Generally, anxiety is a psychological and/or physiological condition with a broad spectrum of behavioural, cognitive, emotional and somatic manifestations that result in feelings such as nervousness, panic and discomfort (Seligman et al., 2001). Hall (1954, p. 43) describes anxiety as

> 'a painful emotional experience produced by excitations in the internal organs of the body. These excitations result from internal or external stimulation and are governed by the autonomic nervous system.'

According to Hall (1954), anxiety is of the utmost significance to psychoanalytic theory, as it plays an important role in personality development and 'the dynamics of personality functioning' (Hall, 1954, p. 61).

Freud (1926) distinguished three types of anxiety: *objective anxiety*, *moral anxiety* and *neurotic anxiety*. While all three are characterised by feelings of apprehension and physiological arousal, the difference in neurotic anxiety is that the true source of danger is internal rather than external, and not consciously perceived because it has been repressed (Freud, 1936). This is what characterises anxiety at large and distinguishes it from fear, where the source of danger is known and the threat perceived.

As Freud suggested, neurotic anxiety is essentially an output of antecedents where 'aversive conditioning' entailing 'instinctual impulses and repression' result from memories repressed in early childhood (Fry, 1969, pp. 399–400). Fry (1969) further explains that the diagnostic symptoms of neurotic anxiety may include the expression of excessive aggression or sexual impulses for which the individual was cruelly and continually punished in early childhood. It may also produce objective anxiety in the form of fear of punishment when prompts or clues during adolescence or adulthood evoke impulses that were punished and forbidden during early childhood (Fernald & Grantham-McGregor, 1998). Furthermore, these symptoms may reflect the individual's efforts to alleviate or reduce objective anxiety by repressing stimuli associated with the punished impulses that elicit unpleasant reactions. In addition, neurotic maladaptive responses may be recalled when a partial breakdown in repression results in 'derivatives of suppressed impulses erupting into awareness' (Fry, 1969, p. 400).

Moral anxiety, by contrast, is grounded in a feeling that one's internalised values are about to be compromised. There is a fear of self-punishment (e.g. guilt) for acting contrary to one's values or moral code, which is socially acquired. Thus social anxiety can be thought of as developing from an internal perception of inconsistency between the moral code acquired during socialisation and the development of the superego. Moral anxiety, therefore, is a function of the development of the superego. Whatever the anxiety, the ego seeks to reduce it. Operating at the unconscious level, it employs defence mechanisms to distort or deny reality (Boeree, 2001).

Today, Freud's 'objective anxiety' is usually termed fear, the kind of fear that is justified by perceivable threats in the immediate environment, and we use the term 'anxiety' to mean general neurotic anxiety, referring to nebulous fears of threats that are not actually present in the environment but lurk in the unconscious, and are aroused by a

perception of danger from the instincts. This view is supported by an article by Hall (1954, p. 44), which explains that Freud distinguished three subcategories of neurotic anxiety. The first type Free-floating apprehensiveness is associated with environmental circumstances and characterises 'the nervous person who is always expecting something dreadful to happen'. The second type is observed in 'panic or near-panic' reactions, which appear abruptly, yet apparently with no perceptible provocation. The third type is a phobia, an observable anxiety that is intense, unjustifiable, irrational and disproportionate to the consequences of the actual peril lurking in the unknown, such as an extreme fear of moths, mice, high places, water, rubber, old money, crossing a street, public speaking, light bulbs or any other thing that may pose no real danger. In such cases, the main cause or trigger lies in the *id* rather than in the objective world, and the object of the phobia epitomises a primary inducement to 'instinctual gratification or is associated in some way with an instinctual object-choice' (Hall, 1954, pp. 45–46).

As indicated earlier, moral anxiety results from incongruence between the socially acquired moral code and the superego; therefore, it is somewhat related to phobias, a form of neurotic anxiety, and both involve irrational thinking. Moral anxiety, neurotic anxiety and irrationality are all linked and well explained within the framework of psychoanalytic theory. As Hall (1954) suggests, "Phobias may … be augmented by moral anxiety when the desired but feared object is one that transgresses an ideal of the superego" (p.46). This is likely to occur when the id wishes for a desire that is not acceptable morally by the superego or by the external society. This kind of internal war between what man wishes and the constraints in the society as well as the internal constraints of the id can give a universal explanation for many strong fears as Hall (1954) claims.

Therefore, some psychiatrists and clinical psychologists who accept the principles of Freudian psychoanalysis view anxiety as a habit of repressing painful complexes into an unconscious region of the mind; "manifestations of maladaptive behaviour are thought to be due to discharges from the repressed complex and repressive forces" (Fry, 1969, p. 400).

From another perspective, state anxiety is identified as an unpleasant emotional stimulation when a person comes into contact with frightening stressors or dangers. Trait anxiety indicates an incessant tendency to react with state anxiety, as the person persistently expects bad circumstances. As such, anxiety differs from fear, which only transpires in the presence of an observed threat. One more discrimination is that fear

instigates specific behaviours of escape and avoidance, whereas anxiety is the result of threats that are perceived to be uncontrollable or unavoidable (Ohman, 2000).

Furthermore, anxiety is related to people's perceptions of their general health status and to their perceptions and reporting of specific symptoms (Gerdes & Guidi, 1987; Tessler & Mechanic, 1978). Therefore, by the time anxiety becomes excessive, it can be classified as a verifiable disorder (NIMH, 2006). Again, borrowing Freud's term 'neurotic anxiety', it can be maintained that in the case of being a disorder, anxiety can be experienced by everyone infrequently and to different degrees. But when anxiety is manifested in pathological amounts, 'it defines the clinical syndrome – anxiety neurosis' (Spielberger, 1966), or in modern terminology, 'the anxiety disorder'. The DSM-IV (American Psychiatric Association, 1994, p. 411) defines SAD as 'a marked and persistent fear of social or performance situations in which embarrassment may occur'. The DSM-IV notes that the anxiety response may take the form of a situationally bound or situationally predisposed panic attack.

The DSM-IV criteria that reflect anxiety if maintained over a four-week period are:

a) having excessive apprehension about a number of events or activities;
b) having difficulty controlling the worry;
c) having significant distress or impairment in social, occupational or other important areas of functioning; and
d) experiencing at least three of the following: feeling restless or keyed up, becoming easily fatigued, having difficulty concentrating, being irritable, having muscle tension, or experiencing disturbances in sleep (DSM-IV-APA, 1994, p. 411).

A broad spectrum of research spanning numerous domains has documented uniformly negative self-concepts of socially anxious individuals. For instance, people suffering from too much social avoidance and subjective distress (a state often conceptualised as akin to social anxiety) appraise themselves as less dominant, less sociable, lower in well-being, and having less social presence. People suffering from too much social avoidance and distress may possibly have poorer social support networks (Haemmerlie, Montgomery & Melchers, 1988).

Pertinent research has also demonstrated that social anxiety in females is negatively related to self-perceived sexual (Thomas & Freeman, 1990) and physical attractiveness (Cash, Cash & Butters, 1983). Furthermore, men who have high anxiety report more negative thoughts (Cacioppo, Glass & Merluzzi, 1979) and fewer positive

thoughts (Heimberg et al., 1985) when anticipating interaction with an unfamiliar woman than do men who are low in social anxiety.

In a similar vein, Schmitt and Kurdek (1984) found that social anxiety was positively related to trait anxiety and sensitisation, and negatively related to positive self-concept and internal locus of control. As such, it is clear that the self-images of socially anxious individuals are fraught with negative manifestations.

By their nature, these emotions are disruptive and likely to prevent people from reaching their goals and produce self-defeating behaviour. In addition, unhealthy negative emotions such as depression, anger, anxiety and guilt are usually coupled with irrational beliefs (Dryden & Neenan, 2006).

Anxiety disorders have been reported to be highly prevalent in sizeable sectors of human communities (Bijl, Zessen, van Ravelli, de Rijk & Langendoen, 1998; Davidson et al., 1993; Furmark, 2002; Grant et al., 2005; Kessler et al., 1994) and are associated with loss in quality of life (Stein, Jacobsen, P., Greenberg, H. & Lyman, 2000; Wittchen, Stein & Kessler, 1999), considerable economic costs (Patel, Knapp, Henderson & Baldwin, 2002; Smit et al., 2006), high levels of service use (Magee, Eaton, Wittchen, McGonagle & Kessler, 1996; Stein & Kean, 2000) and serious functional impairment in the educational, social and occupational domains (Davidson et al., 1993; Kessler et al., 1998). Lane (2007) aptly observes that anxiety 'is one of the few things that never deceive'. It can easily be seen in the patient, and thus easily recognised and diagnosed as it develops over time, 'tormenting its sufferers with persistent, sometimes grinding dread' (Lane, 2007, p. 11).

2.3 Development of the concept of anxiety

Anxiety disorders – a collection of chronic, debilitating conditions – are the most prevalent category of mental illness, according to recent epidemiological surveys (Kessler, Chiu, Demler, Merikangas & Walters, 2005; Kessler et al., 2007), including in some Arab countries (Fakhr El-Islam, 2000). The condition is persistent, disabling and common, with a lifetime prevalence of up to 8–10% in primary care samples (Lieb, Becker & Altamura, 2005; Wittchen et al., 2002).

The concept of generalised anxiety disorder (GAD) has evolved significantly over the last 30 years. The once all-encompassing category of anxiety symptoms, namely 'anxiety neurosis', is now broken down into separate anxiety syndromes (American Psychiatric Association, 1994). Within this classification, GAD started as a residual

category, but interest in it as an independent (albeit highly comorbid) condition gradually grew. This change of attitude was reflected in subsequent versions of classification systems. The earlier all-encompassing category of anxiety syndromes considered the presence of excessive, uncontrollable worries as the core symptom of the disorder, while the more recent view of anxiety as a separate, highly comorbid condition places equal emphasis on somatic features of anxiety. Below is a review of the development of conceptions of anxiety among the different schools of psychological thinking.

2.3.1 Behaviourist view of anxiety

Behaviourists consider that dread is a reflected reaction to fear-provoking events. Psychologists found that the simple assessment of information as threatening or unsafe can generate and support the feeling of apprehension.

Behaviourism interprets anxiety as a conditioned response to frustrating consequences of real life. Behaviourists believe that anxiety is learned when fears come about together with practically indifferent objects or events and are wrongly associated with them.

Behavioural therapy techniques emphasise symptoms of emotional distress. Emotional problems are considered to be consequences of faulty acquired behaviour patterns or the failure to learn effective responses to one's environment. The aim of behavioural therapy, also known as behaviour modification, is therefore to change behaviour patterns. One of the most prominent behaviour techniques, systematic desensitisation or counter-conditioning, was invented by the behaviourist Joseph Wolpe (1958), and has been used successfully to treat phobias and fears.

In systematic desensitisation, patients are asked to imagine anxiety-producing situations or are presented with actual feared objects. A person with a phobia of spiders, for example, would be asked to come up with ten scenarios involving spiders and increasing degrees of panic. The first scenario would be very mild, e.g. seeing a small spider at a great distance outdoors. The second would be a little more frightening, and the tenth would involve maximum terror, e.g. a tarantula climbing on one's face while one is driving a car at 100 miles an hour. The therapist then teaches muscle relaxation, which is incompatible with anxiety. After practising this for a few days, the patient and the therapist go through these suggested scenarios, one step at a time, making sure the patient stays relaxed, backing off if necessary, until the person can finally imagine the tarantula while remaining tension-free (Skinner, 1971).

Gradually, exposure to the feared object is increased and patients learn to control their reactions. Relaxation training is often employed simultaneously in order to reduce anxiety further. The theoretical basis of this type of therapy is that once appropriate overt expressions of emotions are learned, practised and reinforced, the correlated subjective feelings will be felt.

Early in his work on classical conditioning, Pavlov appreciated that conditioning is appetitive (relating to desire or satisfying desire) when the unconditioned stimulus is rewarding, but that the same procedure will produce defensive conditioning when the unconditioned stimulus is aversive. Later, Pavlov discovered that defensive conditioning provides a particularly good experimental model of signal anxiety, a form of learned fear that can be advantageous. Pavlov (1927) aptly observed that normal animals respond to any stimuli, including those that bring immediate benefit or harm to the animal, as well as to other physical, physiological or chemical stimulants that may trigger such stimuli. According to Pavlov, "it is not the sight or the sound of the beast of prey which is itself harmful to smaller animals, but its teeth and claws" (Pavlov 1927, p. 14).

A similar proposal was made independently by Freud. Because painful stimuli are often associated with neutral stimuli, symbolic or real, Freud postulated that repeated pairing of neutral and noxious stimuli can cause a neutral stimulus to be perceived as dangerous and thus to elicit anxiety. Placing this argument in a biological context, Freud (1926, p. 166) wrote:

> 'The individual will have made an important advance in his capacity for self-preservation if he can foresee and expect a traumatic situation of this kind which entails helplessness, instead of simply waiting for it to happen. … It is in this situation that the signal of anxiety is given.'

Thus, both Pavlov and Freud appreciated that it is biologically adaptive to respond defensively to danger signals before the real danger is present. Signals from the environment trigger anticipatory anxiety that prepares the individual for fight or flight. Freud suggested that in response to internal danger, mental defences substitute for actual flight or withdrawal. Signal anxiety, therefore, provides an opportunity for studying how mental defences are recruited: how psychic determinism gives rise to psychopathology.

Biologically, the amygdalae are important for emotionally charged memory, as in classical conditioning of fear where a neutral tone is paired with a shock (LeDoux, 1996). The amygdalae coordinate the flow of information between the areas of the brain that process the sensory cues, namely the thalamus and the cerebral cortex, and the areas

that process the expression of fear: the hypothalamus, which regulates the autonomic response to fear, and the limbic neocortical association areas, namely the cingulate and prefrontal cortex, which are thought to be involved in the conscious evaluation of emotion. LeDoux has argued that, in anxiety, the patient experiences the autonomic arousal mediated by the amygdala as something threatening happening.

LeDoux attributes the absence of awareness to a shutting down of the hippocampus by stress, a mechanism considered below. Psychologists now have excellent methods for imaging these structures in both experimental animals and humans in order to address the question of how these linkages are established and, once established, how they are maintained (Breiter et al., 1996; LeDoux, 1996; Whalen et al., 2001).

2.3.2 Psychoanalytical view of anxiety

The psychoanalytic view of anxiety has already been discussed. But, additionally, the component of the early environment considered most important for humans, as for all mammals, is the infant's major caretaker, usually the mother.

Therefore, anxiety remains a substantial component in the psychoanalytic theory of affect. In early schools of psychoanalytic thought, anxiety has been recognised as central to an understanding of mental conflicts.

In accordance with his early discharge model of mental function, Freud brought forth what is known as the toxic theory of anxiety, in which he hypothesised that anxiety was "uncharged sexual energy" or "transformed libido" (Jones, 1995, p. 118). This failure represented by the undischarged sexual energy constitutes the actual neuroses, whether they are physiologically realistic or unsatisfactorily incomplete. These neuroses, including anxiety neurosis and neurasthenia, can be thought of as neuroses 'without neurotic conflict or symbolic content' (Jones, 1995, p. 118). The eruption of 'actual neuroses' or 'anxiety neuroses' could, according to this theory, arise from repression as a symptom of continued unacceptable desires, which can lead to 'psychoneuroses', hysterias and obsessions.

Earlier, three types of anxiety that Freud recognised have been elaborated, namely objective, moral and neurotic anxiety. However, in 1926, Freud abandoned the distinction between neurotic and objective anxiety, and claimed that repression causes anxiety. In this new theory, Freud distinguished two types of anxiety: traumatic, reality-oriented 'automatic' anxiety, in which the system is overwhelmed, and a secondary,

'neurotic' anxiety, in which anticipated reprisals in these situations set off a defensive process. 'Automatic anxiety' is an affective reaction to the helplessness experienced during a traumatic experience. The prototype for this experience lies in the helplessness of the infant during and after birth, in which danger proceeds from outside and floods the psychic system, which is unmediated by the (as yet unformed) ego. Psychoanalysis argues that the manner in which a mother and her infant interact creates within the child's mind the first internal representation not only of another person but also of interaction, of relationship.

This initial representation of people and relationships is thought to be critical for the child's subsequent psychological development. The interaction goes both ways. The infant's behaviour toward the mother considerably influences the mother's behaviour. Secure attachment between mother and infant is thought to foster the infant's comfort with itself and trust in others, whereas insecure attachment is thought to foster anxiety.

The second form of anxiety that originates within the psychical system is mediated by the ego. This 'signal anxiety' presages the emergence of a new 'danger situation' that will repeat one of several earlier 'traumatic states.' These states, whose prototype lay in birth, correspond to the central preoccupations of different developmental levels, as the infant's needs become progressively abstracted from the original immediate sensory overload to a more sophisticated regulation of needs, capable of synthesising the many elements facing it (from the reality and pleasure principles and the object world). Traumatic moments that were experienced serially during the developmental process – such as loss of an object, loss of the object's love, the threat of castration and the fear of punishment by the internalised objects of the superego – can re-emerge at any time in a person's subsequent adult life, typically brought on by some conflation of reality and intra-psychic conflict, as a new edition of anxiety.

2.3.3 Phenomenological view of anxiety

Phenomenology refers to the exact study and precise description of psychic events, which are a primary requirement for understanding psychiatric disorders (Avasthi & Kumar, 2004). Diagnostic tools are used to delve deep into man's perceptions of his being versus annihilation, or being versus non-being and the doom of man. A phenomenological analysis of anxiety disorders can further enrich our understanding. The quality of diagnostic tools used to measure anxiety disorders in children and adolescents has improved enormously in the past few years. As a result, "prevalence

estimates are less erratic, understanding of comorbidity[2] is increasing, and the role of impairment as a criterion for "caseness" is considered more carefully" (Costello, Egger & Angold, 2005, p.631). As such, phenomenological analyses see anxiety as involving mortal vulnerability.

Epidemiological research places social anxiety as the most common anxiety disorder and the third most prevalent psychiatric condition in some countries, such as the United States (Kashdan & Herbert, 2001; Kashdan & Roberts, 2004) and Saudi Arabia (Chaleby & Raslan, 1990). According to Chaleby and Raslan (1990), "social phobia is a common disorder among Saudi Arabians, predominantly in young, unmarried males with a relatively high level of education and occupation" (p. 324). Kashdan and Herbert (2001) found that SAD had a mean onset age of 15.5 years, and could occur even in early childhood, unlike other anxiety and mood disorders. Retrospective investigations have confirmed this observation, with the majority of adults with SAD failing to recall any period in their lives when social anxiety was not present.

Several studies, both cross-sectional and longitudinal, have indicated that SAD is so prevalent that it can be considered a phenomenon, leading to the development of 'a chronic course of the disorder' (Kashdan & Herbert, 2001, p. 37). Some research has also suggested a genetic susceptibility to SAD.

The phenomenological view of anxiety sees it as a catastrophic response to centeredness and mental illness (May, 1961). May, like Kierkegaard, saw the essential connection between selfhood and anxiety as a sense of the possibility of non-being and even self-destruction. May (1961) called it the tragic nature of human existence, something he felt was prematurely denied by Carl Rogers' optimistic view of human nature and belief in the powers of the human self (Rogers, 1951; 1961).

Social anxiety is a significant comorbidity in first-episode psychosis. It is not simply an epiphenomenon of psychotic symptoms and clinical paranoia, and has more than one causal pathway (Michail & Birchwood, 2009).

2.3.4 Existentialist view of anxiety

Common existentialist questions (e.g., who am I? Who controls my destiny? What is the meaning of my existence?) present food for thought about the modern day conceptions of anxiety as archetypical evokers of existential neurosis which culminates

[2]Comorbidity is either the presence of one or more disorders (or diseases) in addition to a primary disease or disorder, or the effect of such additional disorders or diseases.

in the pain of death wrapped up in the existentialist's congenital and innate fear of the unknown related to the very fact of being human and alive, yet ambiguous of what is to become of one in the afterlife. Maddi (1967) observed that "social and psychological workers assertively claim that alienation and the problems of existence form the sickness of our times" (p. 311). According to Maddi (1967), alienation and problems of existence offer a model for understanding psychopathology, including such problems that he termed 'existential neurosis' (p. 311).

The German term for existentialist anxiety, *existentielle angst*, demonstrates its philosophical link, and may explain existential anxiety (Kierkegaard, 1843/2006). Before Kierkegaard, two philosophical systems that dealt with anxiety were Epicureanism (Epicurus from Samos, 341–270 BC) and existentialism. In the Epicurean view, that the purpose of life is to attain happiness and freedom from anxiety and fear, and the state of pleasure as the absence of fear is located in the human mind. In the existentialist view, by contrast, anxiety is not seen as opposite of happiness (Kierkegaard, 1843/2006), but rather as a profoundly spiritual condition of insecurity and fear in a free human being, creating possibilities for personal growth and salvation.

Kierkegaard (1843/2006) described anxiety or dread as associated with the 'dizziness of freedom' and suggested that anxiety could be positively resolved through the self-conscious exercise of responsibility and choosing.

The theologian Paul Tillich (1952) described existential anxiety as "a state of mind in which the individual is conscious of his potential 'nonbeing" (p. 71). Tillich proposed three categories of nonbeing that trigger anxiety: ontic (fate and death), moral (guilt and condemnation) and spiritual (emptiness and meaninglessness). The last of these, spiritual anxiety, predominates in modern times, according to Tillich, while the others were predominant in earlier periods. Tillich argues that spiritual anxiety can either be accepted as part of the human condition, or resisted with negative consequences. In its pathological form, spiritual anxiety may tend to drive the person toward the creation of certitude in systems of meaning which are supported by tradition and authority even though it is not based in reality.

2.3.5 Sociocultural view of anxiety

Current theoretical models of anxiety acknowledge the influence of culture on anxiety disorders. Significant work has provided support for the hierarchical structure of anxiety (see Kotov, Watson, Robles & Schmidt, 2007; McDonald, Hartman & Vrana,

2008; Norton, Sexton, Walker & Norton, 2005; Watson & Friend, 1969). In these models, anxiety disorders comprise a heterogeneous collection of syndromes, yet share an Aetiological diathesis via a broad genetic–temperamental factor (Barlow, 1991; Zinbarg, 1998; Zinbarg & Barlow, 1996). However, anxiety psychopathology is differentiated by the specific perceptions of threat, for example, fear of needles in the blood-injection-injury subtype of specific phobia, concerns about a handful of vague negative outcomes that cause chronic worry in GAD, or the so-called fear of fear (Goldstein & Chambless, 1978) in panic disorder (American Psychiatric Association, 1994). It is widely appreciated that an individual's beliefs and attitudes, including specific concerns or threats, may be influenced by a range of social and cultural elements (Draguns & Tanaka-Matsumi, 2003; Good & Kleinman, 1985; Kirmayer, 2001; Mineka & Zinbarg, 2006). However, contemporary learning theories of anxiety do not believe that the fundamental genetic predisposition to anxiety is affected by psychological processes, including beliefs and attitudes[3] (see Barlow, 1991; Mineka & Zinbarg, 2006). Instead, contextual factors influence what an individual learns to fear, how the distress is interpreted, and beliefs about how to go about getting help. By identifying salient socioculturally based beliefs and attitudes prominent in one group or another, researchers stand to gain a more sophisticated understanding of individual differences in anxiety.

Wolpe (1958) hypothesised that a patient's symptoms are learned or conditioned habits. In this case, if the therapist can determine an anxiety-inhibiting response that would offset the particular symptoms associated with anxiety, and counsel the patient to produce this response regularly enough, these symptoms should gradually dissipate.

This dissertation proposes that providing counselling directed towards helping anxiety sufferers overcome their associated symptoms can be very beneficial. The key focus of such psychotherapy is to correct their irrational ideas that result from misappropriations between their moral code and superego.

[3]This term is associated with the diathesis–stress model, which explains behaviour as a result of biological and genetic factors (nature) as well as life experiences (nurture). This theory assumes that a disposition towards a certain disorder may result from a combination of genetics and early learning. The term 'diathesis' refers to a genetic predisposition towards an abnormal or diseased condition, which, in combination with environmental stressors, may trigger abnormal behaviour (Monroe & Simons, 1991). This theory originated as a means to explain schizophrenia as the interaction of a vulnerable hereditary predisposition with precipitating environmental events (Zubin & Spring, 1977: 103)

2.3.6 Cognitive view of anxiety

Anxiety disorders arise from a recurrent perception of the world as a perilous place, in a way that induces habitual maladaptive interactions into cognitive, behavioural and physiological response systems. These habitual maladaptive interactions include a pre-attentive bias to threat cues (Mathews, 1990), which may be adversely perceived in the form of discomforting images and irritating irrational thinking (Borkovec & Inz, 1990), and can be conducive to cognitive avoidance of some specific aspects of anxious experience (Borkovec, Shadick & Hopkins, 1991).

Researchers, over a long period of time, have detected a clear relationship between psychopathology and cognitive processes from a cognitive-behavioural perspective (Silverman & DiGueseppe, 2001). This view takes a cognitive approach to the diagnosis and treatment of psychopathologies such as social phobia, and emphasises the effect of non-functional cognitions in the disorder. Individuals with social anxiety often focus on deficiencies in their social performance, which further increases their anxiety symptoms (Aydin, Tekinsav-Sütçü & Sorias, 2010). Given that anxiety is a manifestation of an inexplicable or irrational fear induced by negative cognitions or beliefs, social settings become menacing, and individuals thus irrationally fear being criticised by others (Rheingold, Herbert & Franklin, 2003).

In such a case, habitual maladaptive behavioural responses to anxiety-provoking events and situations include subtle behavioural avoidance (Butler, Fennel, Robson & Gelder, 1991) and slowed decision-making (Metzger, Miller, Cohen, Sofka & Borkovec, 1990). Yet, physiological responses may involve excessive muscle tension and an autonomous inflexibility derived from a deficiency in parasympathetic tone (Thayer, Friedman & Borkovec, 1996). The interaction of these maladaptive behavioural response systems can be conducive to a growth of intensified of anxiety.

3 The Construct of Social Anxiety

Although the concept of social anxiety has probably been recognised for centuries, it was only in 1970 that Marks first described the features and symptoms of this disorder (Lecrubier et al., 2000). Social anxiety, or social phobia as it was first termed, was described in the psychiatric taxonomy of the 1980 DSM-III. Later, in DSM-IIIR in 1987 and ICD-10 in 1992, it assumed a distinct diagnostic identity of its own, separate from other phobias such as agoraphobia and simple phobia. Of late, the descriptors social phobia and SAD have been ascribed to the same psychopathological condition, and are thus used interchangeably in DSM-IV.

3.1 Defining social anxiety

The difficulty in defining the term 'anxiety' arises from difficulty in measuring the construct. Like many psychological disturbances, anxiety is multifaceted with multiple symptoms, and 'definitions typically appear either overly simplistic or too detailed for measurement' (Dammeyer & Nunez, 1999, p. 57). The DSM-IV identifies a host of specific disorders under the general category of anxiety disorders, and provides a good illustration of these disorders, including specific phobias, obsessive-compulsive disorder, post-traumatic stress disorder, acute stress disorder and generalised anxiety disorders. According to the DSM-IV, adjustment disorders can also be considered manifestations of anxiety, and the broad range of manifestations and symptoms classified under anxiety makes it hard to give an overarching definition (Dammeyer & Nunez, 1999).

Social anxiety involves such symptoms as apprehensiveness, self-consciousness and emotional distress in anticipated or actual social-evaluative situations (Leitenberg, 1990). According to Lecrubier et al. (2000), the most significant manifestation of social anxiety is a noticeable and persistent fear of social performance, activities or events, especially in the presence of unfamiliar people or when critically observed by others in the surrounding community. Such situations and activities may trigger immediate anxiety, manifested mostly as avoidance behaviours. Lecrubier et al. (2000, p. 5–6) encapsulated the features and symptoms of SAD as 'poor social skills, hypersensitivity to criticism and negative evaluation, and difficulty being assertive, as well as low self-esteem and feelings of inferiority'.

The most distinct feature of SAD is that it is triggered and manifested in social situations – social interactions that entail conversation or participation in a social event, e.g. performing in public, eating or drinking in public or even using public toilets. According to Schlenker and Leary (1982), social anxiety involves a tendency to become apprehensive in a social setting where the person wishes to make a particular impression on others but seriously doubts being able to do so. According to Freud, 'the problem of anxiety is a nodal point, linking up all kinds of most important questions; a riddle, of which the solution must cast a flood of light upon our whole mental life' (1975, p. 401). Darwin (1872) ascribes anxiety to lack of control over the will. However, both Freud and Darwin assume that anxiety is a product of unfulfilled emotions that lead to 'reproductions of earlier events of vital importance, possibly pre-individual' (Freud,

1926, p. 75). Anxiety is seen as an adaptation to 'fulfil the biologically essential function of reacting to a state of danger' (Freud, 1926, p. 75).

Freud sought to define and identify social anxiety. Freud decided that the human unconscious was not the location of complex, evolved emotions, as these involve the working of the ego. The repression of emotions may therefore lead to emotional inhibition, resulting in damage to emotional development and functioning. Freud claimed that three types of factor lead to this state: biological, phylogenetic and psychological, and Freud maintained that the quantitative issue is of paramount importance to the genesis of the disorder. Freud wrote cautiously:

> 'We have once more come unawares upon the riddle which has so often confronted us – what is its ultimate, its own peculiar *raison d'être*? After tens of years of psycho-analytic labours, we are as much in the dark about this problem as we were at the start.' (Freud, 1926, pp. 148–149)

Freud drew links between social phobia, obsessional neurosis and the fears of the superego. The link between anxiety and neurosis meshes well with the structural theory of the mind and also, as Freud maintained, makes better sense of available psychoanalytical evidence that suggests anxiety is a transformation of unfulfilled desires and emotions. In this way, Freud believed, anxiety is concomitant to neurosis, and when the symptoms of a neurosis are suppressed, anxiety appears. There will be further consideration of the Freudian theory of neurosis later in this chapter.

Aetiological and epidemiological data from empirical research and surveys among the general population in primary care two decades ago indicated the prevalence and clinical severity of SAD, as well as its effects on quality of life and functioning of patients, especially among youth (Lecrubier et al., 2000). Antony and Rowa (2005) advocated targeting a wide range of symptom dimensions when assessing anxiety, and presented a long list of assessment domains based on the key features of anxiety described by the American Psychiatric Association (DSM-IV Criteria, 1994).

Prior research (e.g., Weissman, 1985) indicated a relationship between previous traumatic experiences and dissociation with pre-treatment psychopathology and rates of recovery, relapse and maintenance for patients receiving cognitive-behavioural treatments for certain phobias and disorders, such as panic disorder with agoraphobia.

Some researchers (e.g., Michelson, June, Vives, Testa & Marchione, 1998) indicated that a variety of trauma-related variables (e.g. history of traumatic experience, type of trauma, age at which the trauma first occurred, perceived responsibility, social

support, self-perceived severity, level of violence, and whether or not the traumatic event was followed by self-injurious or suicidal thoughts and/or behaviours) and dissociative symptomatology would be predictive of (1) greater psychopathology at pre-treatment, (2) poorer treatment response and (3) higher relapse rates and poorer maintenance over a one-year longitudinal follow-up.

Crudely put, previous research on psychopathology has revealed that targeting certain types of constructs and beliefs that patients may entertain before psychotherapy may greatly affect the psychopathology, its symptoms and the patients' responsiveness to psychotherapy (Shear & Maser, 1994). Other research on the comorbidity of anxiety and depression (Antony & Rowa, 2005) identified the following symptom dimensions: diagnostic features, anxiety cues and triggers (i.e. situational, interceptive and cognitive cues), avoidance behaviours, compulsions and overprotective behaviours, physical symptoms and responses, skill deficits, associated distress and impairment, and associated problems and comorbidity.

In addition, clinical symptoms of SAD identified in both adults and children include a wide range of somatic symptoms typical of anxiety, such as palpitations, trembling/shaking and blushing and sweating (Turner, Fine, Ewy & Sershon, 1989). Therefore, Antony and Rowa (2005) recommended that several related constructs be assessed, including treatment history, environmental and family factors, and medical and health issues.

However, social anxiety can become an overwhelming problem that interferes significantly with people's daily lives, leading to dread and avoidance of social interaction to the detriment of work, friendships, and their lives (Davidson, Hughes, George, & Blazer, 1994).

An overview of the literature to date suggests that social anxiety comprises several underlying symptom-specific dimensions. However, more research is needed to investigate the nature of social anxiety and its dimensional structure. More specifically, a broad model of social anxiety, including both disorder-specific as well as more general symptom dimensions, needs to be developed and tested in order to identify and validate the underlying structure of social anxiety.

3.2 Social anxiety versus social panic

Social anxiety and social panic are distinct anxiety disorders that are commonly confused, even by trained clinicians and therapists (Richards, 2012). Furthermore, some

clinicians misdiagnose these two types of anxiety disorder as depression when individuals with SAD show signs of panic disorder and social anxiety in their daily lives. As Richards (2012) explains,

> 'Technically, it may be more accurate to diagnose people with anxiety disorders as "dysthymic". The main point, however, is that it is the anxiety that causes the depression (dysthymia) and not the other way around. Once the anxiety shrinks and is overcome, the depression goes away with it.'

Panic disorder is triggered by a physical, objective stimulus, causing individuals to have rapid heart palpitations or feel they are about to lose control, or that they are going "crazy". These feelings are not real: they show that sufferers may wrongly believe they have physical health problems, a belief termed hypochondria.

On the other hand, people with SAD do not confuse their problem with physiological illness or disease. Rather, they find normal social activity or situations too demanding to cope with, especially when they feel they are at the centre of attention or required to perform. Richards (2012) explains that SAD people find it a terrifying experience to interact socially with unfamiliar people or to publicly speak or present in front of strangers.

3.3 Prevalence rates

Anxiety disorders in youth are common and disruptive, causing complex, chronic and severe complications, which indicate a need for effective treatments for this age group (Sauter, Heyne & Westenberg, 2009). There is some evidence that social anxiety may contribute to the onset of other major psychiatric disorders such as mood disorders, substance abuse disorders and other anxiety disorders (Hirschfeld, 1995). In the United States, SAD is the third most prevalent psychiatric disorder after depression and alcohol dependence (Kessler et al., 1994).

In Saudi Arabia, Bassiony (2005) found that social anxiety was very common, and also showed a high rate of comorbidity, with 59% of SAD patients in his study having another concurrent psychiatric disorder. Depression was common among patients with SAD, particularly those with the severe subtype, who were four times more likely to have depression than were those with mild or moderate SAD after controlling for sociodemographic and clinical factors.

The prevalence of anxiety disorders is higher during adolescence and later life than in childhood (Roberts, Roberts & Chan, 2009). Newman et al. (1996) found that anxiety disorders during adolescence increased among a birth cohort from 7.5% at 11 years of age to 20.3% at 21 years of age. Essau, Conradt and Petermann (2000) also reported an increase during adolescence from 14.7% at 12–13 years to 22.0% at 16–17 years of age.

In the UK, the Mental Health Foundation (2005) suggested that one in ten people experiences a 'disabling anxiety disorder' at some point in their lives. Social anxiety is deemed to impact 1–2% of the British population, with men and women demonstrating similar rates (SANE, 2004). In the US, however, the social anxiety rate is approximately 3.7% of the population aged 18–54 (NIMH [National Institute for Mental Health], 2005). This frequency of 1 in 27 is higher than the prevalence of 1 in 51 (1.95%), which suggests that there may have been a sudden increase in the rate of diagnosis in recent years. These statistics are based on officially recorded diagnoses of SAD.

Other reasons psychologists have proposed for this rise in prevalence rates are related to the rise of Internet-based communication, which is presumed to be a poor substitute for face-to-face interaction and to reduce opportunities to practise social skills (Shotton, 1988; Sussman, 1996).

In Saudi Arabia, use of the Internet is increasing rapidly and exponentially. Some psychologists have ascribed prevalent mental symptoms such as phobic anxiety, psychoticism, social anxiety, depression, paranoid ideation and interpersonal sensitivity and somatisation related to these symptoms and disorders to several socio-environmental reasons, one of which is the widespread use of the Internet, which is both a cause and an effect of these disorders (Lisak, Truong, Carroll & Bhidayasiri, 2009; Khoja & Farid, 2000). It is a cause in the sense that it reinforces the absence of face-to-face interactions in social milieus, and an effect because it provides escape and withdrawal from stressful social situations and activities that people with social phobia suffer from.

Some epidemiological research reports lifetime prevalence rates of SAD in different age strata in Western countries as ranging between 7% and 12% of the population (Furmark, 2002; Kessler et al., 2005). Research has further indicated that SAD is more common in adolescence, and continues to develop incrementally if untreated (Blote, Kint & Westenberg, 2007). Furthermore, community evaluation studies have indicated that the disorder affects men and women relatively equally (Hofmann & DiBartolo, 2010, p. 1041). Others report that anxiety disorders, including social phobias,

are more than twice as prevalent as affective disorders and four to seven times as prevalent as major depressive disorder (Regier et al., 1988; Weissman, Leckman, Merikangas, Gammon & Prusoff, 1984). Investigating data on the predominance of specific anxiety disorders, prior research indicates that social phobias characterise the most common anxiety disorders among the elderly (Stanley & Beck, 2000).

On the other hand, Beidel et al. (2007, p. 47) indicate that the 'prevalence of social phobia among adolescents is 5 to 16% of the general population'. Despite the observation that SAD can transpire in children, recent research indicates that SAD is more common among adolescents, with lifetime prevalence rates of 5 to 15% among adolescents in the USA and Europe (Heimberg, Stein, Hiripi & Kessler, 2000; Lewinsohn, Hops, Roberts, Seeley & Andrews, 1993; Wittchen et al., 1999). Social anxiety in adolescents and adults is associated with significantly lower levels of attainment in work, education, romantic relationships (Davidson et al., 1994; Schneider et al., 1994) and subjective well-being (Safren, Heimberg, Brown & Holle, 1997).

In the Arab world and particularly in Saudi Arabia, there are no comprehensive survey studies on the prevalence of SAD, but some studies have shown that social anxiety is more prevalent in Saudi Arabian men than women, especially among young, educated men (Al-Maleh & Al-Zarrad, 2005). Clinical data from a survey by Al-Maleh & Al-Zarrad (2005) indicated that 13–15% of psychotherapy seekers suffered from SAD. Similar results have been reported in Syria (Al-Subaie & Alhamad, 2000), Kuwait (Abdel-Khalek & El-Yahfoufi, 2004), Egypt (Al-Shirbini, 1999) and Jordan (Sarhan, Al-Khateeb & Habashna, 2001). In a recent comprehensive study by Al-Ansari (2007), which was conducted to tap into the prevalence rates of SAD in the Arab world (Kuwait, Saudi Arabia, the UAE, Oman, Egypt, Palestine, Jordan, Syria and Lebanon), the researcher sampled 2620 college students from seven universities. The results showed that college students in these countries suffer from general SADs, but prevalence rates are higher in Jordanian students, followed by Palestinians, then Egyptians, Syrians, Omanis, Kuwaitis, Saudis, Lebanese and finally UAE students.

Findings from these prevalence surveys indicate that the range in prevalence estimates that still remains can be accounted for by variations in sampling procedure and by the use of slightly different diagnostic criteria, e.g. DSM-IIIR versus DSM-IV criteria. Furthermore, most epidemiologic survey studies have a representative age range of 18–65 years. As the onset of SAD is known to occur most commonly in adolescence prior to the age of 20, it is not surprising that survey investigations conducted in samples

with a higher proportion of young adults and adolescents have reported significantly higher prevalence rates (the National Comorbidity Survey recruited subjects aged 15–54 years). In contrast, samples that include a sizeable proportion of people aged over 50 years have, in general, demonstrated lower prevalence rates (Eaton, Dryman & Weissman, 1991; Lecrubier et al., 2000).

Variables that may explain differences in prevalence rates include the fact that there are no clear cut-off points for establishing when social anxiety becomes pathological, and the threshold selected for a full diagnosis that varies across epidemiologic surveys: some researchers have adopted a high threshold level that accounts for the reported lifetime prevalence rate of 4.0% (Faravelli et al., 2000).

In addition, diagnostic criteria including the interference with social functioning can be a subjective measure heavily dependent on the individual's occupation or lifestyle. In this respect, Hofmann & DiBartolo (2010, p. 1041), relying on a survey of relevant research, adeptly noticed that prior research on SADs, both generalised and non-generalised subtypes, has indicated that 'approximately 52% to 80% of social phobia patients have a lifetime diagnosis of at least another concomitant psychiatric disorder'. Further, they added that around one third to three quarters of these patients with the generalised subtype of SAD are typically classifiable as having another concomitant lifetime disorder, such as depression, in accordance with the diagnostic criteria of DMS-IV.

Furthermore, the prevalence of SAD was explored in primary care populations, and lifetime prevalence appraisals were estimated using small-scale studies in some of the countries referred to, either in Europe (e.g. Bisserbe, Weiller, Boyer, Lepine & Lecrubier, 1996; Szadoczky, Rı´hmer, Papp & Furedi, 1997; Weiller, Bisserbe, Boyer, Lepine & Lecrubier, 1996, Tomás-Sabádo & Gomez-Bénito, 2004) or in the Arab world (e.g. Abdel-Khalek, Al-Maleh & Al-Zarrad, 2005; Al-Shirbini, 1999). Notwithstanding the variations in lifetime prevalence estimates, epidemiologic surveys conducted across Europe, and to a lesser degree in some Arab countries, given their paucity, present a less coherent picture; however, these surveys suggest that SADs are among the most frequently encountered anxiety disorders, with a conservative lifetime prevalence estimate in the general population of close to 7%.

In addition, Lecrubier et al. (2000, p. 9), comparing prevalence estimates determined in the studies from the United States and those done in some European studies, indicated that the latter 'employed more experienced survey staff, comprising

clinical interviewers and/or clinical supervisors, resulting in slightly more detailed findings'.

In this respect, Hidalgo, Barnett, and Davidson (2001) explicate that SAD has become excessively common amongst adolescents and adults for unrealistic purposes as it appears in social malfunctioning and observable stress demonstrated by people with social phobia. They also indicate that the case is different with the child populations, which may be less severe and more apt to be cured. In adolescents and teenagers, to be characteristically diagnosed as having social phobia, one must show the relevant symptoms for a period of more than six months.

It should also be noted, as Hidalgo et al. (2001) indicated, that SADs are not the result of other medical illnesses or the by-product of addiction to drugs and substances. These reasons cannot account for social phobia: 'the diagnosis of SAD is not better explained by another psychiatric disorder [e.g. panic disorder (PD)] with or without agoraphobia, separation anxiety disorder, etc.' (Hidalgo et al., 2001, p. 280). This means, in one's view, that typical manifestations as defined by the DSM-IV criteria vary by age. Researchers should, therefore, be cautious with findings from these studies, as some of them were conducted on small samples often described as 'shy', 'rejected' or 'socially withdrawn', but are not distinctly diagnosed as socially phobic.

Furthermore, some of the research was conducted on adolescents, and it would be naive to accept their findings outright uncritically; as we know, adolescence is a critical developmental phase in which individuals have already started developing their identity and social skills, paying attentive consideration to their self-image before others as well as peer-acceptance – processes in which adolescents may falsely report themselves as socially anxious on SAD scales. Some of the problems associated with identity formation and self-concept as well as body-image, which are, in essence, commensurate with or esoteric to the developmental stage of adolescence and the concomitant disorders of the phase, can be similar with SAD; this is specifically true if we know that social anxiety is frequently linked with two basic aspects of self-evaluation, or self-concept, that might tend to produce an abnormal investment in questions of self-worth: fear of disapproval (Arkin, 1981; Watson & Friend, 1969) and self-doubts about social competence (Schlenker & Leary, 1982).

In several relevant research projects, SAD patients were found to be inconsistently receptive to positive and/or negative evaluations from others (Ross & Sicoly, 1979); they may be affected by their own reactions to appraisals from others

(Jones, 1973), and the individual's self-evaluation or self-concept has been seen as a likely mediator of reactions to social evaluation (Shrauger, 1982). This, as mentioned earlier, can be similar to early adolescence self-concept problems. However, in a classical study by Izard (1972), it was found that high social-anxiety patients significantly accepted positive experiences less, and negative experiences more, than did their low social-anxiety counterparts. Implicit in this finding is the observation that SAD patients suffer from a self-esteem predicament: they can feel delighted with positive interpersonal evaluation, but they entertain suspicions about people who create this positive feedback. In this respect, some researchers indicated that SAD patients have already learned to use coping strategies appropriate to tackling their irrational beliefs related to the need for social approval or to fulfilment of high self-expectations, or even to deal with anxious over-concern which results in problem avoidance. Even though patients with SAD might realise that their beliefs are irrational and this may be the cause of their social incompetence, still 'their personal theories of their social competence might have less impact' (Lake & Arkin, 1985, p. 159).

Still, we have to be cautious with interpretations of research findings in which participants are not well defined as SAD patients. The researcher means by *well-defined* that participants in social anxiety studies should be really SAD patients, not those who might be shy, lonely or exhibiting social withdrawal syndromes rather than SAD. In this vein, the DSM-IV criteria for SAD diagnosis should be accurately applied and matched to sampling procedures with consideration of age factors.

3.4 Types and sub-types of social anxiety

According to Stein and Kean (2000), social anxiety or social phobia disorders are the most pervasive class of mental disorders. SAD has been described as a phobic (anxiety) disorder, along with agoraphobia and specific phobias, from which it was first distinguished only 40 years ago. SAD is an excessive, unwarranted fear of social situations, such as eating or speaking in public. Social anxiety is typically operationalised as a fear of being negatively evaluated or appraised in social situations. It is so common that many people experience social anxiety in many daily life situations; that is to say, they feel uncomfortable or even anxious in social situations, such as talking with strangers (or even friends) or speaking in front of a group of people. In the general population, levels of social anxiety exist on a continuum from mild to severe (Book & Randall, 2002).

A specific feature that characterises SAD is extreme and persistent fear of embarrassment and humiliation (American Psychiatric Association, 1994). Patients suffering from this disorder (also known as social phobia disorder) often shun social and public activities, such as public speaking or social meetings. While normative social anxiety serves to preclude inappropriate behaviour in social gatherings, the intense symptoms of SAD, by definition, interfere with social functioning, thereby causing manifest distress. Differentiation of SAD from other phobic disorders is validated by its characteristic age of onset in the mid-teens and among more men than women (Marks & Gelder, 1966).

3.5 Social anxiety/social phobia

In his book *Finding Serenity in an Age of Anxiety*, Robert Gerzon (1998) generalises that we are living in an unprecedented Age of Anxiety. Our individual lives, our families, our neighbourhoods – all float upon a vast, rolling sea of deep cultural anxiety. Victims of social anxiety develop a series of problematic assumptions about themselves and their social world (e.g. 'I must always sound intelligent and fluent'; 'I am unworthy'), which lead them to appraise social situations as dangerous, which in turn generates anxiety (Clark, 1999, 2000; Clark & Wells, 1995). Social anxiety as generated by negative appraisals and irrationalities can be 'maintained by a series of vicious circles.' (Vassilopoulos, 2004, p. 303). Anxiety in this case becomes impairment, ultimately tantamount to social phobia disorder (Vassilopoulos, 2009; Vertue, 2003). Therefore, it is not unexpected that SAD can potentially induce significant distress and impairment (Lecrubier et al., 2000).

In this vein, the DSM-IV has provided current definitions for mental disorders. Within each DSM definition, specific symptoms are described that have been found to be necessary to diagnose the specified disorder category. Four key symptoms are listed for social phobia disorder: fear, avoidance, functional impairment associated with one's anxiety, and avoidance and insight or recognition that one's fear and avoidance is excessive and unreasonable. According to the DSM-IV Criteria, social phobia disorder is 'a marked and persistent fear of one or more social or performance situations in which the person is exposed to unfamiliar people or to possible scrutiny by others. The individual fears that he or she will act in a way that will be humiliating or embarrassing' (APA, 2000, p. 456). Thus, distorted cognitions or maladaptive schemata have been a primary theoretical focus in the anxiety literature generally (Beck, Emery & Greenberg,

1985; Foa, Franklin & Kozak, 2001; Rapee & Heimberg, 1997; for a comprehensive review, see Hirsch & Clark, 2004).

SAD is also known as social phobia, being a common anxiety disorder branded by intense fear of embarrassment, humiliation and negative evaluation by others in social situations, cases which generate a predisposition to avoid social situations and events that are likely to create these psychopathological states, as mentioned earlier. The terms social phobia and SAD are both mentioned in the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders as synonymous (DSM-IV; American Psychiatric Association [APA], 1994), but there is a tendency to prefer the SAD designation (Liebowitz, Heimberg, Fresco, Travers & Stein, 2000). Furthermore, the term *social phobia* may implicitly categorise SAD as a form of specific phobia, thereby taking lightly 'the chronic course and severe impairment associated with SAD' (Kashdan & Herbert, 2001, p. 37).

In this context, Vertue (2003), however, aptly noticed that there is a state of vagueness and discordance among scholars as to the provision of a clear-cut definition of social anxiety and social phobia; there is no clear-cut distinction between social anxiety and social phobia disorder. Therefore, the two terms are often used interchangeably, though there are occasional references in the relevant literature to the fact that 'the difference between the two terms is quantitative rather than qualitative … and the terms social anxiety disorder and social phobia disorder are used interchangeably' in the DSMD-III of 1994 (Vertue, 2003, p. 170).

Despite the various attempts by scholars in the field to subtype SAD, such as the delineation of speaking fears from non-speaking fears (Stein & Chavira, 1998), there is only one form of sub-typing that has been universally acknowledged across almost all types of situations to be characteristic of the disorder: i.e. one is the generalised SAD in which the patient manifests several social fears, and the other is the non-generalised SAD in which only one or two social situations are the focus of and cause for the disorder. This latter sub-type covers patients with performance and test phobias, a subtype frequently diagnosed in adolescence and often termed stage-fright phobia (Wittchen et al., 1999), as noted elsewhere in this chapter. The foundation of both subtypes of the SAD already outlined is the fear of speaking in front of or with others, even in a small group or in a one-to-one situation.

Premature descriptions of SAD started early in history dating back to Greek scholars (e.g., Hippocrates), Arab and Muslim scholars (e.g., Ibn Hazm) and modern

scholars (e.g., Marks, 1970). The aetiology and pathogenesis of social phobia are very much sophisticated that they have caused a pervasive confusion in related literature, affecting the nosology and taxonomy of the disorder. Therefore, it was widely noted in relevant literature that a as many as 90% of subjects with SAD may manifest speaking fears (Faravelli et al., 2000; Faravelli, Guerrini Degl'Innocenti & Giardinelli, 1989; Marks, 1970; Weiller et al., 1996). Extra fears amass to this core feature in the more generalised form of the disorder, where patients fear a wide range of social and performance situations. Having revised the diagnostic criteria for SAD with reference to the DSM-IV and the ICD-10, Table 1 below sums up the comparison, which highlights the differences between such sub-types of the SAD as below:

Table 1: Differences between sub-types of social anxiety

DSM-IV	ICD-10
A marked and persistent fear of one or more social or performance situations in which the person is exposed to unfamiliar people or possible scrutiny by others.	Often starts in adolescence and centred around a fear of scrutiny by other people in comparatively small groups (as opposed to crowds), usually leading to avoidance of social situations.
The individual fears that he or she will act in a way (or show anxiety symptoms) that will be humiliating or embarrassing.	May be discrete (i.e., restricted to eating in public, to public speaking, or to encounters with the opposite sex) or diffuse, involving almost all social situations outside the family circle. A fear of vomiting in public may be important. Direct eye-to-eye confrontation may be particularly stressful in some cultures.
Exposure to the feared social situation almost invariably provokes anxiety, which may take the form of a situationally bound or situationally predisposed panic attack.	Usually associated with low self-esteem and fear of criticism.
The avoidance, anxious anticipation or distress in the feared social or performance situation(s) interferes significantly with the person's normal routine, occupational (academic) functioning, or social activities or relationships, or there is marked distress about having the phobia.	May present as a complaint of blushing, hand tremor, nausea or urgency of micturition the individual sometimes being convinced that one of these secondary manifestations of anxiety is the primary problem; symptoms may progress to panic attacks.
In individuals under the age of eighteen years, the duration is at least six months.	Avoidance is often marked, and in extreme cases may result in almost complete social isolation.
The fear or avoidance is not due to the direct physiological effects of a substance (e.g.,	The psychological, behavioural or autonomic symptoms must be primarily

a drug of abuse, a medication) or a general medical condition, and is not better accounted for by another mental disorder (e.g., panic disorder with or without agoraphobia, separation anxiety disorder, body dysmorphic disorder, a pervasive developmental disorder or schizoid personality disorder).	manifestations of anxiety and not secondary to other symptoms such as delusions or obsessional thoughts.
If a general medical condition or other mental disorder is present, the fear is unrelated to it, e.g., the fear is not of stuttering, trembling in Parkinson's disease, or exhibiting abnormal eating behaviour in anorexia nervosa or bulimia nervosa.	The anxiety must be restricted to or predominate in particular social situations, and the phobic situation is avoided whenever possible.
Generalised SAD: if the fears include most social situations	Agoraphobia and depressive disorders are often prominent, and may both contribute to sufferers becoming 'housebound'. If the distinction between social phobia and agoraphobia is very difficult, precedence should be given to agoraphobia; a depressive diagnosis should not be made unless a full depressive syndrome can be identified clearly.

In this thesis, the terms 'social anxiety disorder' and 'social phobia disorder' are used interchangeably on the assumption 'that social anxiety disorder, or social phobia disorder, is on that part of the continuum of social anxiety where the person's anxiety becomes clinically significant' (Vertue, 2003, p. 170).

As for social anxiety, it involves similar symptoms: feelings of apprehension, self-consciousness and emotional distress in anticipated or actual social-evaluative situations (Leitenberg, 1990). These negative symptoms of social anxiety, prominent amongst which are apprehension and consequent expectancies of one's inadequate

performance in social settings, can lead to the withdrawal of effort and to consequent poor performance (Burgio, Merluzzi & Pryor, 1986; Pozo, Carver, Wellens & Scheier, 1991), or to social withdrawal (loneliness). Such negative outcomes can potentially induce or even strengthen the expectation of future self-presentational failure. Pozo et al. (1991, p. 355) note that such negative consequences can 'lead socially anxious people to perceive an existing social reality as bleaker than it really is': hence the possibility of developing irrational thinking as an adjunct to social anxiety.

Students with high social anxiety may report feeling tense, physically distressed (Pilkonis, 1977), inhibited and awkward (Camacho & Paulus, 1995; Reno & Kenny, 1992; Zimbardo, 1977), acutely self-conscious and worried about receiving negative evaluations from others when in social situations (Winton, Clark & Edelmann, 1995), and generally reticent (Meleshko & Alden, 1993). Such symptoms of anxiety develop because of austere and severe self-censorship (Schlenker & Leary, 1985), low self-evaluations of one's ability, especially when anticipating a hostile audience (Schlenker, Weigold & Hallam, 1990), and underestimation of the positivity of impressions they convey to others in interactions (Campbell & Fehr, 1990).

In this line, Lane (2007) discussed that the clear biological manifestations of anxiety include such symptoms as increased heartbeat, breathlessness, perspiration of palms, and so on, while the individual is unaware why s/he cannot curb these symptoms, further being unaware of the causes of this condition or whether these causes are real or imagined. Freud and Darwin's explanations of these symptoms miss a necessary discussion of the 'contributory social factors (overweening parental expectations, class shame, sexual guilt, and so on)' (Lane, 2007, p.19).

Some researchers (Liebowitz et al., 1985; Liebowitz, Schneier, Gitow & Feerick, 1993) contend that there is an overlap between SAD and Avoidant Personality Disorder (APD) (Hofmann, Newman, Becker, Taylor & Roth, 1995). A varied and broad spectrum of social anxiety symptoms has also been identified and investigated in relevant literature, including shyness as a less severe dimension of the overall construct of social anxiety and loneliness (Lane, 2007; Heiser et al., 2003; Schneider et al., 2000; Trower & Gilbert, 1989; Van Velzen, Emmelkamp & Scholing, 2000).

By the same token, the psychological constructs of social anxiety, social phobia and shyness noticeably share much common ground, but the following definitions focus on the unique features of each of them, though in the present study 'social anxiety' and 'social phobia' have been used as interchangeable terms. First, social anxiety is defined

as a cognitive and affective experience that is triggered by the perception of possible negative evaluation by others (Schlenker & Leary, 1982). The term refers to unpleasant physiological arousal and fear of psychological harm (Leary & Kowalski, 1995). This definition stresses a feeling or state of arousal that is centred on interactions with others.

Social phobia has been generally defined as a 'marked and persistent fear of one or more situations in which the person is exposed to possible scrutiny by others and fears that he or she may do something or act in a way that will be humiliating or embarrassing' (American Psychological Association, 1994, p. 416). With some very few exceptions, the identification of social phobia usually involves marked behavioural avoidance in one or more social situations. As such, a phobic response is the behaviour of avoiding a feared stimulus or situation of a particular kind.

On the other hand, shyness has been defined as 'a heightened state of individuation characterised by excessive egocentric preoccupation and over concern with social evaluation … with the consequence that the shy person inhibits, withdraws, avoids, and escapes' (Zimbardo, 1982, pp. 467–468). In this regard, it is worth noting that William James has recognised shyness as a basic human instinct, warranting Darwin's opinion in this respect (Jessen, 1990). By definition, Izard (1972) described shyness as a discrete, fundamental emotion. Clearly put, an emotion profile of a shy person in a social event or situation may include interest and fear, which interacts with shyness (Izard, 1972; Mosher & White, 1981). Carver and Scheier (1986) have thus defined shyness, by borrowing self-regulation terms, as the outcome of an event or situation that bears unfavourable social outcome expectancies conducive to disengagement in task efforts.

The common ground in most definitions of these constructs, either the ones already cited or elsewhere, refers to a state of discomfort and the motivation to escape situations that contribute to this state. Therefore, researchers need to acknowledge that shyness proper does not necessarily involve problematic emotion or avoidance of goals important to the shy person. One peculiarity of the construct that needs to be stated is that shyness may include social anxiety as an emotional component, but social anxiety does not necessarily lead to shyness behaviourally. Shyness may possibly combine both emotion and behaviour, but this is not necessarily the case. According to some authors (Henderson & Zimbardo, 2009, p. 6), 'shy extroverts do not avoid and shy introverts may be phobic and not socially anxious. The avoidant behaviour has already been conditioned to external stimuli and is not triggered by feelings of anxiety'.

Despite the fact that social phobia patients have been described as more avoidant than shy individuals, comparisons and distinctions between these relevant terms, as noted above, were based on samples of normal college students; in fact, the researchers and authors who outlined these distinctions pointed to the dearth of empirical studies of shyness treatment samples (Turner, Beidel & Townsley, 1990).

In addition, these researchers have implicitly or explicitly noted that social phobia is defined in the literature according to specific criteria, while shyness is not thus defined. However, shyness is part of common language and is described both as an emotional state and as a trait; therefore, specific criteria for chronic problematic shyness have been described in relevant literature. In this respect, chronic shyness has been defined as 'a fear of negative evaluation that was sufficient to inhibit participation in desired activities and that significantly interfered with the pursuit of personal or professional goals' (Henderson, 1992, cited in Hofmann & Dibartolo, 2010, p. 68). Later in this chapter, more will be said about shyness.

Further, and more worryingly, as several researchers maintain, 'social anxiety disorder (SAD) is a common and disabling disorder that may occur in different cultural settings, yet is under-diagnosed by clinicians' (Kaminer & Stein, 2003, p.103). This requires that psychology counsellors and psychotherapists cooperate with parents and educational institutions to seek to recognise the problem, for the earlier it is diagnosed, the easier it will be to combat the disorder, simply because SAD 'usually follows a chronic course characterised by increasing impairment if left untreated' (Kashdan & Herbert, 2001, p. 37), especially if it 'starts in early childhood through adolescence' (Hidalgo et al., 2001, p. 279). The impairment is in social functioning and is marked by distress and irrationality caused by the disorder.

4 Social Anxiety Theories

SAD was first identified as an independently diagnosable psychopathology in its own right in the DSM-III of 1980 (Hidalgo et al., 2001). Previously, in the DSM-I and DSM-II, it had been grouped along with all other phobias (APA, 1968, p. 279).

Therefore, theories of SAD rely much on early psychoanalysis and psychotherapy theories grounded in Freudian psychology, behaviourism, social psychology and humanistic psychology. Some of the interpretations of the disorder are, as has been seen above, rooted in the Freudian classic conflict between the ego, the superego and the id; others relate the disorder to physiological and biological reasons deeply rooted in genetics, and some other interpretations have tackled an interplay

between genetico-physiological and environmental effects in the social milieu in which individuals with the disorder live.

Whatever the interpretations may be, they look plausible, as will be reviewed below, and what should attract attention is to develop a theoretical framework that can benefit psychoanalysts and psychotherapists in dealing with the disorder in effective ways that help patients to recover from the symptoms of the disorder and start their lives afresh. Before delving deep into underlying theories of SAD, it would be better for psychotherapists and counselling psychologists to utilise an eclectic approach to psycho-therapy, i.e., an approach that can combine more than one psycho-therapeutic method and one that can be grounded in varied psychological theories. The reason for adopting an eclectic approach to psychotherapy, or even an amalgam of psychotherapy with medication, is that the disorder itself falls into two broad categories of generalised and non-generalised subtypes. According to Hidalgo et al. (2001, p. 280), in one category, "most social institutions are causes of social phobia to SAD patients". In the other category, one situation or several social situations that require a specific social performance on the part of SAD patients could potentially trigger phobia in the individual. However, the relationship between these two types has not yet been totally understood.

In this context, it is better to devise a multi- dimensional approach to therapy: to this purpose, it is necessary to review the different underpinning theories that explicate the disorder. Vertue (2003, p. 171) has classified theories addressing social anxiety into three main categories: 'genetic and evolutionary theories, behavioural and cognitive theories, and interpersonal theories'.

Some researchers claim that social anxiety is a genetic predisposition (Chaleby, 1987, Chaleby & Raslan, 1990), while others contend that there is an interplay between genetics and the environment which engenders social anxiety (Vertue, 2003). Researchers have endeavoured to provide accounts of social anxiety that accommodate both genetic and environmental influences. Buss (1980) maintained that self-conscious shyness may develop as a result of a fearful temperament plus (a) excessive socialisation training by parents so that children become highly sensitive to social faux pas, or (b) underdeveloped social skills, or both. In such a case, high levels of SAD symptoms are characterised by 'a marked and persistent fear of social or performance situations' (DSM-IV), as exposure to them almost invariably provokes anxiety attacks. Such scrutiny by others and fear of acting in a way that will be embarrassing or humiliating

can be a source of anxiety. In this respect, Scott (2006, p. 97) captures an image of this social phobia associated with shyness from a sociological perspective:

> 'Shyness is motivated by great sociability (the wish to be with people and to belong to a group), but this is subsumed beneath anxieties about self-presentation. Shy [people] long to be recognised and included but doubt that they can make adequate, defensible contributions to the encounter.'

This quote of Scott's sums up 'the conflict between yearning and hesitation, showing how anxiety often intercedes between the desire to participate and the fear of doing so unsuccessfully' (Lane, 2007, p. 157). Scott argues that 'social dynamics' are challenged and perhaps impeded by shyness in social interaction situations and events. Scott (2006) further argues that if every social encounter has been viewed as a precarious balance of rules and assumptions, in this case, there would be an expectation that everyone will play a certain level of interactional competence.

However, if a person looks shy, their 'moves' are unexpected and uncoordinated with those around them. They always think that whatever they do, it will be misconstrued by others indignantly or aggressively, or they may even be accused of being haughty, aloof, boring or uninteresting. The real problem is that some people identify so strongly with the 'shy' label that they feel constantly anxious, lonely and frustrated, and understand shyness to be a chronic and debilitating condition that interferes with their everyday lives. Indeed, many people identify with episodic feelings of shyness that arise in certain types of situation.

Other researchers (Aron, Aron & Davies, 2005; Leary & Kowalski, 1995) have argued that social anxiety develops when reassurance signals from others are absent, rather than when threat signals are present, and suggested that psychological counselling interventions may be warranted to redress the problem. In such a case, according to Leary (2001a; 2001b; 2001c), social anxiety may serve as an early warning system that alerts people to potential threats to social acceptance (or, more precisely, relational devaluation) and motivates behaviours designed to correct the situation and eliminate the anxiety.

Social learning theories ascribe social phobia to one's acquisition of adult behaviour patterns when one observes on the spot how adults react to social events or other people's actions (see Bandura, 1997, 2008). For example, if a parent is anxious about appearing before others and talking to strangers in a loud voice, a child notices his/her parent's apprehensions and learns these apprehensions in the social setting just

like the parents (Al-Ahmadi, 1991). Theories of behaviour, cognition and attention further maintain that social anxiety is a learned response to social stimuli, either by classical or operant conditioning (see for instance, Mattick, Page & Lampe, 1995).

Some researchers (Bandura, 1982) maintain that social anxiety is a learnable behaviour vicariously experienced by people through contagion. By illustration, in classical conditioning, the development of social anxiety can be conceived as the result of pairing social stimuli (e.g. being watched by others) with aversive experiences (e.g. being berated, criticised, or otherwise devalued). It has been reported that as many as 60% of people with social phobia disorder can identify a specific point of embarrassment or humiliation prior to the onset of the disorder (Mattick et al., 1989, 2004). However, Vertue (2003, pp. 172–3) criticises this finding on the basis that '… these figures are based on retrospective studies that are marred by the questionable accuracy of recall … and prospective studies are needed to eliminate this criticism'.

Other researchers, who support the genetic theory of social anxiety, claim that social anxiety can be passed down genetically from one generation to another. Some family research appears to support a significantly elevated risk for social phobia disorder in relatives of participants with social phobias (Fyer, Mannuzza, Chapman, Liebowitz & Klein, 1993; Stein et al., 1998). Much earlier, researchers (Ohman & Dimberg, 1978; Seligman, 1971) contended that human and non-human primates have a natural propensity towards fear and phobias as a result of their evolutionary development and are therefore genetically inclined to developing anxiety vis-à-vis social threats.

According to the evolutionary theory of social anxiety, this disorder is basically 'an adaptive emotion, selected for its ability to maintain links between individuals and the other individuals or social groups on whom they depend for access to survival and reproductive resources' Vertue (2003, p. 172). This explains the observation that individuals with SAD autonomously use a variety of evolved strategies for coping with social anxiety provoking activities or competitive situations when they are less skilled or less competent than others. Vertue (2003, p. 172) further notes:

> 'The behaviours associated with social anxiety in such situations would signal submission to dominant individuals, letting the dominant know that no serious threat to resources or rank is present. Some submissive behaviours associated with anxiety can be seen as damage limitation strategies used by subordinate primates … those with low self-confidence … and those who feel inferior to others.'

Several researchers (e.g. Fones, Manfro & Pollack, 1998) have suggested that people with close biological relatives with anxiety are more likely to develop anxiety disorders than those with an anxiety-free family history. Since the 1970s, several researchers have focused on psychologists' attempts to treat SAD. Acarturk, Smit, de Graaf, van Straten, ten Have and Cuijpers (2009) made reference to the publication of four meta-analyses that examined the effects of psychological treatment. The first of these synthesis studies compared and contrasted the effects of cognitive behavioural therapy to exposure alone (Feske & Chambless, 1995). The second synthesis study by Taylor (1996) explored the effectiveness of cognitive behavioural treatments, including such procedures as exposure, cognitive restructuring without exposure, exposure with cognitive restructuring, and social skills training, in the alleviation and treatment of SAD. The third study was by Gould, Buckminster, Pollack, Otto & Yap (1997); the researchers included relevant pharmacological investigations in the study of cognitive behavioural treatments compared with these treatment approaches. The last meta-analysis was similar in design to the previous one (Federoff & Taylor, 2001) and examined the psychological and pharmacological treatments of SAD. According to the review by Acarturk et al. (2009), both psychological and pharmacological interventions have been found to be effective in the treatment of social phobia disorder.

4.1 Related psychological troubles: morbidity and comorbidity

Psychiatrists and psychotherapists have noted that SAD does not exist unaccompanied by other disorders; rather, '… comorbidity is common and it is possible that two or more disorders may also co-exist.' (Hidalgo et al., 2001, p. 284) By morbidity, the researcher means the patient's potentiality to ideate suicide, attempt it or execute it; it also means that the SAD patient is unable to earn a living or get involved in work or be reliable, and in this context be inclined to be financially and socially dependent on others; comorbidity, on the other hand, is the development of other psychiatric disorders during the patient's lifetime. Some researchers found that SAD patients suffer from comorbidity: in other words, 69% of SAD patients suffered from other lifetime psychiatric disorders (Davidson et al., 1993; Kessler et al., 1998; Schneider et al., 1992; Stein et al., 1998).

In fact, SAD patients considerably suffer from comorbidity, including such disorders and deviations as depression, agoraphobia, substance abuse, alcohol and other deviant lifestyles. Researchers noted that lifestyles, especially those involving negative

activities such as smoking, detrimental physical activities, overuse of alcohol and body mass index (BMI) are major risk factors that contribute towards the development of somatisation and comorbidity of other cardiovascular diseases and carcinoma in some cases (e.g., Wittchen & Fehm, 2003). Researchers also suggested that social network relationships or lack thereof, such as disrupted family, friends or colleagues' relationships, can be noted in SAD patients (Wittchen & Fehm, 2003). For college students, the costs can also extend to greater absenteeism, dropout or academic failure. Other related comorbidity disorders include major depressive syndromes, agoraphobia[4], APD[5], shyness, loneliness and irrationality as well as other problems related to self-concept and identity formation dynamics, such as 'body dysmorphic disorder'[6] (Hidalgo et al., 2001, p. 1367). In this context, the researcher will discuss in more detail loneliness, shyness and irrationality as comorbidities to SAD.

4.2 Loneliness and social anxiety

4.2.1 Roots and diagnosis

Loneliness is present in all age groups; however, it is an especially common problem among university students (Ponzetti, 1990). In this way, loneliness can be traditionally seen as a part or aspect of more encompassing issues of psychological distress rather than merely as a unique clinical problem – that is to say, it is a comorbidity (McWhirter, 1990).

[4]Similar to SAD, agoraphobia refers to a psychological disorder in which patients seek to avoid social situations in which they may be afraid of not being able to escape in case of having a panic attack. But it differs from SAD in that SAD patients avoid social events in which they fear they may be embarrassed or humiliated. Furthermore, agoraphobics may need one or two support people, but SAD patients scarcely show or feel such a need.

[5]Hidalgo et al. (2001) explicated that a 'symptomatic continuum is present between SAD and APD and both diagnoses can be made, especially in the context of generalised SAD. Patients with comorbid APD and SAD present with more severe anxiety, increased functional impairment, and a higher incidence of comorbidity compared with patients with social anxiety alone' (p. 1367). According to the authors, 'this combination represents a group of more severely affected patients, which may present a challenge regarding treatment' (op cit.).

[6]In this disorder, patients are obsessed with concerns over their body image: i.e., possible defects about their appearance or innate or acquired anomalies. In such cases, patients worry a lot about appearing in social events, which is conducive to social avoidance and withdrawal and functional impairment.

There is a close relationship between loneliness and shyness; by illustration, Zimbardo (1977) has categorised shy individuals into two groups: shy introverts and shy extroverts. Shy introverts habitually tend to be alone, often indulged in mulling over ideas and inanimate objects. They also tend to be less socially skilled than shy extroverts, as well as being reluctant to approach others and talk to strangers. In this respect, Turner et al. (1990) hypothesised that this group in the extreme resembles individuals suffering from schizoid personality disorder. These shy individuals do, however, report desiring at least some connection with others, though they may feel unable to initiate and further sustain it. The second group Zimbardo (1977) recognised is descriptive of those people who have been identified as socially skilled, but still suffer internally from the symptoms of shyness, which do not manifest themselves clearly in social interactions. They are often constrained by social expectations and concerned about social rules. Again, Turner et al. (1990) have posited that this category of shy individuals provides the most likely candidates for social phobia, being both sociable and shy. No wonder, then, that shy extroverts seem to function best in highly structured situations/social or professional events where people in the surroundings know and perform their roles as expected. Therefore, several celebrities, such as well-known talk show hosts, theatre actors, or teachers and university professors, report being shy.

With loneliness being empirically investigated in several studies, it has become clear the problem has been identified to be a unique construct (Cutrona, 1982; Riccardi, 2009; Weeks, Michela, Peplau & Bragg, 1980), thereby drawing more attention in the field of counselling psychology. Therefore, researchers have conducted more studies on loneliness as a separate personality construct and as a comorbidity to other serious disorders, such as social phobia. However, to develop empirical interventions for the investigation of loneliness, it is necessary to determine the variables related to loneliness and then to define those in the high-risk group. In the literature, correlational rather than causal relationships have been found (McWhirter, 1990). One reason for the existence of correlation between loneliness and anxiety is that it is not easy to establish the direction of causation between loneliness and many of the features commonly associated with social anxiety due to the existence of reciprocal relationships, especially such emotional disturbances as social anxiety or depression (Heinrich & Gullone, 2006), despite the fact that there is only one, described as the first known, longitudinal study that has documented an established relationship between loneliness, depressive symptoms and

suicide ideation in adolescence in a stratified sample of high school students (Lasgaard, Goossens & Elklit, 2011).

It has been revealed by established research so far that an array of negative mood states and destructive behaviour patterns are related to loneliness (Jackson, Soderlind & Weiss, 2000). As shown in prior empirical research conducted on loneliness, it appears that this problem is pertinent to psychosocial difficulties such as low self-esteem, low social competence, poorer social interactions and mental health problems (namely, social anxiety, depression, suicidal behaviours), and with physical health issues (e.g., poorer immune and cardiovascular functioning, sleep deficiencies). Deduced from the findings of such prior research on loneliness in this trend, it is revealed that a typical lonely person has several characteristics such as negative feelings like desperation, depression, impatient boredom and self-depreciation; negative attitudes about oneself, other people and the causes of events; and passive, self-absorbed and ineffective social behaviour (Heinrich & Gullone, 2006).

4.2.2 Definitional issues

Ponzetti (1990, p. 336) defines loneliness as 'a multifaceted phenomenon, often characterised by an unpleasant, painful, anxious yearning for another person or persons'. From this definition, loneliness would appear to be somehow connected with social anxiety. Brennan (1982) indicated that loneliness can be found within every age category and every class in society, but is likely to affect adolescents and adults more often.

According to Cheek and Busch (1981), causes of loneliness can be divided into two broad classes: situational (e.g. moving, changing jobs, divorce and the death of a spouse or other family member) and characterological (e.g. personality traits, such as shyness, timidity, etc.). Loneliness as an aspect of shyness is in some way related to social phobia disorder, and is a common problem among college students (Cutrona, 1982; Shaver, Furman & Buhrmester, 1985). However, loneliness is more likely to affect male college students than female ones, and males are also more likely to suffer greater negative self-evaluations and social consequences from admitting it (Bonetti, 2009; Borys & Perlman, 1985; Schultz & Moore, 1986). As regards external factors, research has shown that individuals are differentially receptive to positive and negative evaluations from others. Many people react favourably to positive evaluations and unfavourably to negative evaluations (O'Toole, 1997).

College students who are characteristically lonely exhibit constrained and unfriendly communication styles. Lonely students approach interpersonal encounters with cynicism and mistrust, and tend to be hyper-alert and overly vigilant to threat in social situations (Stokes, 1985). College students who are lonely often describe themselves as anxious, shy and/or depressed (Maroldo, 1981; Ouellet & Joshi, 1986).

4.3 Social anxiety in Saudi Arabia

Social anxiety exists in Saudi Arabia as pervasively as elsewhere. Lane (2007, pp. 17–18) cites an important study by Chaleby (1987), in which the researcher contends that social phobia disorder (social anxiety) is prevalent in Saudi Arabia, especially among the male population. Chaleby based his study on an experiment with 35 outpatients, and found that 22 (63%) actually presented with social phobia disorder. The study was, however, criticised by Lane (2007, p.17) as "lacking the potential of generalisability, given the limited sample". However, Lane was unaware that Chaleby and Raslan (1990) had developed their study further and had studied more patients. Eighty Saudi Arabian males with social phobia disorder, who met DSM-III criteria, were evaluated psychiatrically and socially according to the MMPI social withdrawal scale standardised to the Saudi population. They were empirically grouped as mild, moderate or severe cases. They were also evaluated symptomatically according to the Leeds anxiety-depression scale to give ratings of depression and anxiety, separately and in combination. Of the patients, 37.5% and 55% were found to be mild-moderately and severely anxious, respectively; 55% and 34% were found to be mild-moderately and significantly depressed, respectively. There was, however, no linear correlation between the level of anxiety or depression and the severity of the social phobia disorder. Social withdrawal ratings were matched with demographic variables, age of onset, perceived childhood adjustment, perceived parental behaviour, work adjustment, family history of psychiatric disorder and the presence of other phobias.

According to Bassiony (2005), social anxiety is pretty rampant in Saudi Arabia, also proclaiming a high rate of comorbidity where 59% of the population in his study, who were SAD patients, had another concomitant psychiatric disorder. Also revealed is that patients with severe SAD were four times more likely to have depression than the patients with mild or moderate SAD even after controlling for confounding socio-demographic and clinical factors. Recently, too, Al-Gelban (2007) conducted a study to determine the prevalence rates and severity of depression, social anxiety and stress

among Saudi adolescents; the researcher indicated that of 1723 male students recruited to his study, 59.4% had at least one of the three disorders, 40.7% had at least two and 22.6% had all the three disorders. Moreover, more than one third of the participants (38.2%) had depression, while 48.9% had anxiety and 35.5% had stress. Depression, anxiety and stress were strongly, positively, and significantly correlated.

The findings from these studies warrant Chaleby's query: 'Is there a genetic predisposition to social anxiety?' In his first study, Chaleby stated, 'The high incidence of social phobia disorder in Saudi Arabia is the first observation worthy of discussion'. (Chaleby, 1987, p. 58) Commenting on this remark, Lane (2007) stated that Chaleby appeared to swiftly pronounce social phobia disorder as more common in Saudi Arabia than in England.

A more extensive clinical study was conducted by Al-Maleh and Al-Zarrad (2005). They concluded that social anxiety is highly prevalent in the Arab world. They found that clinical patients beset by the disorder made up 13% of patients frequenting psychotherapy clinics and mental health hospitals. They also reported that the ratio of females to males with SAD in the Arab world was 2:1. Moreover, the disorder in Arabs was likely to lead to the excessive use of alcohol and narcotics, especially among people who mistakenly tried to relieve the symptoms of the disorder on their own.

Given this situation, the role of counselling centres, clinics and youth care centres in counselling and directing youth to achieve healthy psychological growth is obviously important. Also, a good environment with a suitable atmosphere for building a good citizen able to understand and accept himself/herself is essential (Zahran, 2000). Therefore, emotional education or training is important for young people to achieve good emotional adaptation and accommodation 'through developing self-confidence, overcoming phobias, and achieving appropriate, flexible emotional responsiveness, and finally achieving emotional maturity' (ibid: 421). Those who are vulnerable to social anxiety are also susceptible to irrational thinking. Psychologists and psychiatrists deduce that there is a nexus between social anxiety and irrationality.

4.4 Shyness and social anxiety

There is a relationship detectable between shyness and social anxiety, which can be recognised from assessing rates of social anxiety in highly shy versus normative samples (Chavira, Stein & Malcarne, 2002). Literature has established that social anxiety and shyness both share several common symptoms (Henderson & Zimbardo, 2001;

Turner, Beidel, & Townsley, 1990), but the two constructs are not completely synonymous (Chavira, et al., 2002).

Some researchers tend to surmise that shyness and social anxiety are interrelated, but this supposition lacks sufficient empirical evidence to describe the nature of this relationship in clea terms. However, according to St. Lorant, Henderson, and Zimbardo (2000), the distribution of social anxiety rates among highly shy individuals is high, with social anxiety reaching 97% of their sample in shy people. Furthermore, Chavira, et al. (2002) revealed that around 49% of highly shy people had a social phobia diagnosis compared to 18% in normatively shy groups.

Despite the affinity between both constructs, there are certain variables that help specialists distinguish shyness from social phobia; these include severity of avoidance, level of impairment in social and occupational functioning, and course (Turner et al., 1990). Therefore, shyness could be a function of social anxiety, and as such could be a trigger in sustained cases, especially in individuals diagnosed as shy introverts (Zimbardo, 1977)

4.4.1 On Shyness: Definition and Genesis

Shyness is an unhealthy condition that is difficult to label or classify, lying on the 'contested boundaries' between physical health, mental illness and social deviance' (Busfield, 1996, p. 20). The borderline between shyness and other mental illnesses, such as social phobia or APD, however, is not easy to discern, not least because the classification of mental disorders reflects as much about social judgements about 'appropriate' forms of behaviour as it does about objective clinical knowledge (Conrad, 2004). Researchers define shyness as a psychopathology almost entirely in terms of the person's self-report, in order to avoid an external performance standard according to which observers assign individuals to diagnostic categories (Henderson & Zimbardo, 2009). Of relevance, too, it is worth noting that research in personality psychology suggests that self-reports are more valid for personality traits than are observer ratings, particularly among those who openly report their traits (Lamiell, 1997; St. Lorant, Henderson & Zimbardo, 2000).

Over the past five decades or so, this more extreme form of shyness has come to be seen as a mental illness, but Social Phobia, SAD and APD are all relatively new diagnoses that are implicitly differentiated from 'normal shyness' (Cunningham, 2002; Chavira, et al., 2002). For that reason, Scott (2003, 2004a, 2004b, 2005) argued that

shyness can be construed as a socially lucid response to the dramaturgical dilemmas of interaction, thus revealing a commitment to self-presentation and teamwork, and yet, paradoxically, that it is often perceived as deviant behaviour.

Shyness can be dispositional, but socialisation and parenting styles play a role in engendering this disorder, too. Thus, some factors relevant to socialisation have been observed as principal in the initiation and development of shyness as a psychopathology, including parental and peer rejection and parental over-protection, leading to a lack of self-efficacy. For example, specific conditioning, socialisation and parenting styles can affect individuals early in their lives to develop shyness as a chronic disorder, for example when children are teased or shamed by teachers or other children in front of others or experience performance failures, traumatic events, and emotional or physical abuse or neglect (Zimbardo, 1982).

In this line, too, observing others in similar situations can have a similar detrimental effect in contributing to the development of shyness: for example, viewing siblings or classmates who are humiliated or harshly treated, and thus imagining similar negative consequences to oneself. Additionally, self-blame and shame may be exacerbated by private self-consciousness in shy adolescents and young adults (Henderson, 1992; Henderson & Zimbardo, 1993).

In addition, while some authors and researchers have recognised the psychological/psychopathological foundations of shyness as rising from a set of negative cognitive biases in some people's attitudes towards interaction, basically from irrational beliefs, Henderson and Zimbardo have pointed to a changing cultural climate in which shyness is socially produced at an accelerating rate. In this sense, they, boldly yet unprecedentedly, reveal the epidemiology of shyness as a 'new' social malady; they believe that current increases in shyness prevalence rates diagnostically indicate not only the concomitant increase in social anxiety rates, but also a diagnostic of societal psychopathology, which requires a public health model plus the traditional medical and psychiatric model of diagnosis and treatment. Shyness is thus 'a warning signal of a public health danger that appears to be heading toward epidemic proportions' (Henderson & Zimbardo 2005, p. 10).

4.4.2 Prevalence Rates and Comorbidity of Shyness and Social Phobia

It is interesting to recognise that prevalence rates of social phobia and shyness are similar in modern societies across the inhabited continents according to survey studies;

for instance, along the past three to four decades, estimates of the prevalence of social phobia in the general population have increased from 2% to over 12%, with 26% of women and 19% of men, reporting that they were 'very shy' while growing up (Cox, MacPherson & Enns, 2005; Kessler et al., 2005). Self-reported estimations of dispositional, chronic shyness also indicate that the morbidity has increased during this time frame, from 40% to 58% (Bruce & Saaed, 1999; Carducci, Stubbins & Bryant, 2007; Carducci & Zimbardo, 1995; Zimbardo, 1977). Interestingly, 64% of those who reported themselves as shy individuals also reported that they did not like themselves being shy, and 65% of them considered chronic shyness to be a personal hindrance for them in their social life. Some other research findings (Bruce & Saaed, 1999) indicated that 85% of the people with social anxiety disorder suffer from academic and/or occupational difficulties effected by their inability to cope with the demands of social life.

Shyness has been reported as a frequent comorbidity among individuals seeking psychological assistance for a variety of behavioural disorders. There is no doubt, then, that shyness has demonstrated high prevalence rates. In this respect, Henderson and Zimbardo (2005) have appraised the proportion of chronically shy people as having reached nearly 50% in the American population. The authors have indicated that the consequences of shyness are 'deeply troubling' in the sense that shy people may be excruciatingly self-conscious, fail to take advantage of social situations and see themselves as awkward, inhibited and lacking in 'basic social skills' – the very characteristics of shyness that raise it up to the level of social phobia (Henderson & Zimbardo, 2009).

Prior research indicated that the existence of a high degree of comorbidity in chronic shyness is congruent with comorbidity in social phobia meta-analyses and big-sample studies, according to a recent study of 114 patients between 1991 and 1997 (St. Lorant et al., 2000). According to Henderson and Zimbardo (2009, p. 11), 'the most common comorbid disorders associated with shyness were dysthymia (29%) and generalised anxiety disorder (27%)'.

SAD has been identified as having characteristics similar to or involving high levels of shyness characteristics, but shyness constitutes a less severe dimension of the overall construct of social anxiety (Gilbert & Trower, 1990; Van der Molen, 1990). The problem with the diagnosis of SAD and shyness as a comorbidity is that the two are very similar. This observation has been noted by Hidalgo et al. (2001); current empirical

findings indicate that there is no clear-cut distinction between shyness and SAD, according to Hidalgo et al. (2001, p. 284), given that 'there are cognitive, behavioural and physical similarities between the two', yet, shyness is much more prevalent, at 20-50%, compared with social anxiety, and it 'is a larger and more heterogeneous condition', though it may not cause impairment or distress as does SAD. In this regard, Lecrubier et al. (2000, p. 6) write that:

> 'Social anxiety disorder has been portrayed as the extreme of shyness, but there is no consistent evidence to support the continuum of shyness and social anxiety disorder.'

So, irrational thinking is held accountable for the initiation and rise of shyness, too. Henderson and Zimbardo (2009) have adeptly observed that children experiencing social or parental rejection or passing through cycles of negative emotions in response to these social rejections will introspectively focus inward more frequently, aptly attentive to the concomitant painful states. They begin to believe that they cause or contribute disproportionately to the negative or undesirable events occurring around them. This process generates further negative thinking, which in turn contributes to negative emotion in a dynamic, reciprocal downward spiral. Henderson and Zimbardo (2009) claim that 'Thinking patterns and maladaptive attributions of responsibility may be influenced by whatever emotion is present, whether fear, shyness, shame, or anger" (p. 13). The researchers further maintain that fear exposes the self to vulnerability. If one is shy, others look attractive, but potentially critical and rejecting; in their own words, "If one does not measure up in one's own eyes and is ashamed, others appear contemptuous and the self-abased" (Henderson and Zimbardo, 2009, p. 13).

4.4.3 Similarities and Discrepancies between Shyness and SAD

Researchers have observed that psychosomatic symptoms tend to be mostly similar and related for shy, socially anxious and socially phobic adult patients, as are frequent negative thoughts that are often irrational (Leary & Kowalski, 1995; Turner et al., 1990; Zimbardo, 1977). Adolescent and adult shy patients usually report frequent negative cognitions, including irrational self-blame for negative social outcomes. Fascinatingly, younger populations, such as children, do not report negative thoughts with the same frequency as do adolescents and adults (Beidel & Morris, 1995). Nevertheless, unprompted and unstructured thoughts related to self-presentational issues may occur in children by age eight, which suggests the presence of negative thoughts in

socially anxious children (Banerjee & Yuill, 1998). The reason why they are not reported by children younger than seven or eight may be ascribed to differences in expressive behaviour tendencies rather than to differences in the actual frequency of their occurrence in infants and early childhood.

In addition, social anxiety researchers have extrapolated that shyness may have started much earlier than social anxiety in recognition as a psychological problem during early childhood and infancy, as revealed in infant studies in which evidence of 'behavioural inhibition' was seen as early as 21 months (see, for example, Kagan & Reznick, 1986; Turner et al., 1990, 1992). Of these researchers, Kagan & Reznick (1986) and Kagan & Snidman (1991) have maintained that 10–15% of infants reveal some symptoms of shyness resulting from negative cognitions of their social surroundings, and a similar percentage demonstrates signs of boldness, while the majority fall between these extremes. However, some other researchers suggested that a significant percentage of inhibited infants cease to be shy when they reach the age of seven, but they distinguished shyness from behavioural inhibition, in the sense that shyness involves a cognitive concern about evaluation (Cheek & Briggs, 1982).

Research findings and empirical research results have suggested that social anxiety and shyness, which are characterised by a certain degree of phobic avoidance or social withdrawal, may start in early childhood; however, some research indicates that the pathological onset age of these psychopathologies appears to be the adolescence phase (Alden & Wallace, 1991; Henderson & Zimbardo, 2009; Rubin & Asendorpf, 1993). In this respect, Zimbardo and Radl (1981) and Henderson and Zimbardo (2009) have observed that the principal contributors to the rise of shyness in adolescence are the concern of individuals in this age group about their attractiveness to the opposite sex and the onset of libido (sexual urge), including sexual desire and sexual thoughts, which adolescents feel to be concealed, but which are suppressed in very subtle ways.

Social situations or events that pose a specific occasion of perceived social interaction deficits/difficulties are also similar in individuals suffering from social anxiety and shyness; for example, socially phobic individuals often report that the most common disturbing event for them is an 'unstructured peer encounter' (Morris & March, 2004, p. 145). The case also applied to adolescents and adults, who have reported retrospectively on chronic shyness scales that they are most frequently impacted upon by shyness in challenging, unstructured peer encounters, often as a legacy from early

childhood (Heimberg, Dodge & Becker, 1987; Henderson, 1992; Leary & Kowalski, 1995; Zimbardo, 1977).

There are discrepancies between SAD and shyness, however, otherwise we would not have the designations *shyness* and *social phobia* or SAD in the literature. The following paragraph from O'Toole (1997, pp. 5–6) differentiates between the two disorders in more accurate terminology:

> 'When exposed to the same social situation, such as talking with a stranger, high scorers on trait measures of shyness become more upset and feel more awkward and inhibited than do low scorers, and exhibit similar reactions. These include tension and physical distress … inhibition and awkwardness … acute self-consciousness and worry about receiving negative evaluations from others … and reticence.'

O'Toole further explains that the shy person's expectation to receive negative evaluation and anxious self-preoccupation during social interaction may have differential behavioural consequences; according to the author, research has shown that shy individuals place an irrational overemphasis on gaining acceptance from others. In addition, the author maintains, shy individuals hold unrealistically high expectations for themselves. This is not the case with SAD patients, though they demonstrate some levels of shyness. In other words, 'shyness appears to involve primarily strong fears of disapproval along with compelling desires for approval' (O'Toole, 1997, p.10).

In addition, shyness is possibly deemed to be an enduring trait of an individual's personality, whereas SAD is characterised by a group of coexisting symptoms that might be independent of shyness. Research testimony that shores up the distinction between shyness and SAD comes from developmental studies (Aspendorf, 1989; Lecrubier et al., 2000; Wittchen, Zhao, Kessler & Eaton, 1994; Wittchen et al., 2002; Wittchen & Fehm, 2003). According to Aspendorf (1989), shy children longitudinally studied from the first school years through to early adolescence were not at an increased risk for developing SAD. Shyness is usually present in all social situations, while social anxiety may be triggered off by very specific situations (Wittchen et al., 1999).

Some writers have assertively confirmed the importance of humans social interactions with his/her fellow humans, demonstrating the relationship between where a person stands in a social structure and how it affects him/her psychologically (see, for example, Robert Burton, 1621, reprinted 1977). Burton in this vein writes, 'This humour will imprint in melancholy men the objects most answerable to their condition of life' (p.

404). Therefore, psychiatrists and psychologists draw a link between shyness, social phobia disorder, anxiety and even stage fright (Lane, 2007).

However, prior research investigating the relationship between shyness and social phobia indicated that the onset of social phobia was characterised by negative conditioning experiences, while the onset of shyness was not (Turner et al., 1990; Turner, Beidel & Townsley, 1992). This suggestion was, however, defied by Zimbardo's findings, because many negative conditioning experiences, such as those experienced by people with social phobia, were also reported by shy individuals on the Stanford Shyness Survey (Zimbardo, 1977). In light of current research findings, too, it is essential to explore to what extent the negative stereotyping of shyness in Western versus Middle Eastern countries may be conducive to the rise in cases of SAD.

Al-Atawi (1998) aptly observed that human life could be prone to various mixtures of confused emotions of joy and sorrow, which can possibly evoke anxiety as manifested in such states of human sadness, fear and distress. Irrespective of the quantity or degree of the intensity of these emotions, human life is afflicted by cognitive, affective and behavioural stressors. Lane (2007) cites a significant anecdote from Burton's *Anatomy of Melancholy* describing how shyness is combined with anxiety:

> 'Through bashfulness, suspicion, and timorousness, [man] will not be seen abroad … he loves darkness as life, and cannot endure the light, or to sit in lightsome places; his hat still in his eyes, he will neither see nor will be seen by his goodwill. He dare not come in company, for fear, he should be misused, disgraced, overshoot himself in gesture or speeches, or be sick; he thinks everyman observes him, aims at him, derides him, owes him malice.' (p. 12)

According to Burton (1621, reprinted 1977), who related this story from Hippocrates, the allusion to being misused suggests that man's avoidance may emanate from a justified fear of possible mistreatment, probably due to potential prejudice, ostracism or a severe misunderstanding with other people in his vicinity.

As already mentioned, loneliness combined with shyness can be conducive to SADs (Wittenberg & Reis, 1986; Zimbardo, 1977). Shyness in this sense is synonymous with the general tendency to be inhibited and to feel awkward in social situations and to experience unpleasant effects in the presence of others.

Zimbardo (1977) stated that shyness can be expressed in various forms of action and that self-definition is the only valid means of establishing who is to be included in this group: 'You are shy if you think you are, regardless of how you act in public' (1977, p. 30). Buss (1980) describes the shy person as one who is inhibited, inexpressive, anxious and wary of new situations. In a survey conducted by Zimbardo (1977, p. 37), "shy students reported feeling particularly nervous around strangers (70%) and in new situations (55%)". Because shy people have difficulty in making new acquaintances, it seems likely that the trait of shyness contributes to the feeling or state of loneliness, especially in new situations.

Several researchers (see, for instance, Aron et al., 2005) have observed that shyness sometimes appears early, as if inherited, and sometimes appears later, as if learned. Studies of shyness have consistently shown that the family environment, peer influence and the overall social environment in which humans live, especially in their tender years, can generate shyness as an unhealthy, psychological problem that can potentially induce social anxiety. This is because 'negative affect and shyness can develop in a not highly sensitive person as well through repeated experiences of criticism and rejection in childhood or even adulthood' (Aron et al., 2005, p. 184).

Significant correlations between negative emotions and irrational ideation have been shown by Muran Kassinove, Ross & Muran, (1989), who investigated a mixed sample of adults taken from two mental health facilities and from a college campus. Further, cognitive therapists contend that social anxieties, including social phobias, may emanate from negative thinking and irrational beliefs. Self-generated negative thoughts and irrational ideas (e.g. I will humiliate myself in public; I have to be perfect; I must be loved) often precipitate social anxiety in the person with social phobia disorder (Valente, 2002a, 2002b). These therapists also argue that social anxieties resulting from loneliness, shyness, depression or social phobia disorder can be relieved and treated by cognitive therapy.

When such social interaction dynamics initiate a state of exposure to an anxiety-provoking situation under the effects of negative feedback, this disrupts the social information process of anxious individuals, resulting in impaired decoding of nonverbal information from the interaction partner (Schroeder, 1995). Relatedly, two studies by Jones and his colleagues (Goswick & Jones, 1981; Jones, Hobbs & Hockenbury, 1982) found that lonely university students attend more to their own reactions during social interactions than to those of the other person. Thus, it is not surprising that directing

attention to the interaction partner results in reductions in loneliness (Jones et al., 1982) and in the actor becoming more attractive to others (Kupke, Hobbs & Cheney, 1979). Cognitive therapy can work here.

5 Conclusion

This chapter has demonstrated the construct of anxiety, first as a general construct related to personality construct theory and developed to discuss the manifestations of the illness both as a generalised mood condition and as a social phobia. Towards the conceptualisation of anxiety, the term was distinguished from fear, which is an emotional response to a perceived threat in which behaviours of escape and avoidance in triggering situations seem to be uncontrollable or unavoidable (Ohman, 2000).

By the same token, the chapter has elaborated on the characteristics and manifestations of anxiety, both as a trait and a state, handling conscious and unconscious drives of anxiety as related to the personality trait of neuroticism. In this way, the theories underlying this construct and the theoretical orientations towards the study of anxiety were briefly presented. The chapter has further elaborated on social anxiety in terms of an explanation of the construct, its roots, discrepancies and ambiguities with other related concepts.

It appears from the review in this chapter that SAD patients are mostly lonely, shy, and would prefer to be with people with whom they are familiar, or would rather keep away from strangers, tending thus to be alienated in heightened anxiety cases. Having outlined the differences between general anxiety, fear, panic anxiety and social anxiety as well as the differences between such terms as shyness or social withdrawal compared with social anxiety, it can be deduced from these reviews that people with fears, phobias or panic disorders do not develop avoidant personality disorder.

However, some of these disorders are related together somehow; for instance, avoidant personality disorder results from social anxiety as people continue to cut themselves off from most of the world because of the fear of social interactions and other people, not from the fear and dread of having a panic attack. In addition, it is understood from this review that contrary to current psychiatric/psychological nomenclature, people with social anxiety do not demonstrate specific phobias or fears or panic attacks. Rather, they experience extreme anxiety in social settings where they fear they will have to perform or be on display when they are really too shy to speak publicly.

From this review, too, it appears that according to the latest epidemiological data, SAD is the most common of the anxiety disorders. Data from prior research reviewed in

this chapter also showed that anxiety disorders as a whole continue to be the most dominating type of psychological disorders that plague and afflict large numbers of people on the globe.

The chapter also highlighted the morbidity and comorbidity manifestations of social anxiety. It further elaborated on the relationships between social anxiety, loneliness, social withdrawal and social avoidance personality disorder as well as shyness, all dealt with in the holistic literature review of foreign and Arabic scholarship. The following chapter moves to discuss REBT and/or REST in the treatment of irrational beliefs, and consequently, in treating social anxiety. In this vein, it intends to elaborate on irrational thinking and irrational beliefs as related to or stimulant of social anxiety in the different schools of psychological thought. The chapter further provided a note on the justifications to use REBT as the underlying model for psychotherapy in this study, the origin of this theory and its development in the history of REBT psychotherapy. REST will also be discussed as an adjunct technique used with REBT in managing stress and related disturbances and an overview of research on the use of REST in combination with REBT for treating social anxiety will be discussed in prior research designs.

CHAPTER TWO - LITERATURE REVIEW

Part I: REBT and REST in the Treatment of Irrational Beliefs and Social Anxiety

1 Introduction

Individuals entertain different thoughts and beliefs that are reflective of their standpoints in different situations and events in life. These beliefs may differ individually or concur consensually, but 'thoughts and beliefs are essential to the building of the human intellectual system and can influence the human affective domain' (Addis & Bernard, 2002, p. 56).

The term 'belief' is tantamount to the term 'cognition' in cognitive psychology. In the field of cognitive therapy, the general term *cognition* may refer to a belief, inference, evaluation, assumption, attitude or schema. In this respect, too, REBT theorists (e.g., Beal, Kopec & DiGiuseppe, 1996; DiGiuseppe, 1996; Muran, 1991; Nielsen, 2003) have proposed that a schematic model would accurately represent the underlying organisational structure of beliefs. Immanuel Kant, a philosopher, (1929) suggested that humans do not experience materialistic sensory representations of the world. Kant suggested that the inherent categories of understanding exist as a faculty or character trait that characterises personality independent of experience or validated observation in the human mind. For Kant, schemata provided the link between innate categories of understanding and the empirical information derived though sensory perception.

In this vein, too, the term schema (pl. schemata) is of relevance here. Frederic Bartlett (1932) and Jean Piaget (1926) are usually credited with introducing the concept of a schema into the field of psychology. Their contributions heavily influenced modern psychologists' and cognitive scientists' understanding of what constitutes schemata. Within the field of cognitive therapy, a schema has been conceptualised as a type of mediating cognition that may lead to emotional disturbance. The term schema, however, is often confused with the many other terms for mediating cognitions, such as 'dysfunctional beliefs', 'automatic thoughts' and 'negative assumptions' (Kwon & Oei, 1994; Piaget & Inhelder, 1958).

However, Kwon and Oei (1994) have pointed out that schemata, attitudes, dysfunctional beliefs and core cognitions can all refer to a type of cognition that is basic, stable, which occurs across situations and takes place at a deeper level in linguistic space than other types of thoughts. Kwon and Oei (1994) differentiate these deep-level

cognitions from surface-level cognitions that are relatively unstable, temporary and situation specific. An example of a surface level cognition would be the automatic thought that is the focus in Beck's Cognitive Therapy (1976). A deep level cognition underlies or generates the surface level of cognition. Clinically, this might translate to a negative life event activating a depressogenic schema, which in turn activates a negative automatic thought and, then, depressive feelings.

Piaget (1968) has conceptualised the underlying structure of a schema as 'a mental system or totality whose principles of activity are different from those of the parts which make it up' (p. xxii). DiGiuseppe (1996) has proposed that irrational beliefs are core schemata that concern a relationship between an individual, his or her preferences, and the existence of these preferences in reality. Nielson (2003) suggested that there is a type of schema that is evaluative in nature and incorporates perceptions, inferences and evaluations. These schemata would lead to interpretations of what is perceived as being good or bad. An individual's schema may match reality or be discrepant from it. Viewing beliefs as evaluative schemata as opposed to separate undefined cognitive constructs would help clarify what therapists are attempting to change during the therapy session (Beal, et al.; DiGiuseppe, 1996; Nielsen, 2003).

REBT theorists have differentiated among cognitions that are observations, inferences and evaluations (Ellis & Dryden, 1997; Walen, DiGiuseppe & Dryden, 1992). A cognition may be an observation or perception that a person has about the world around them. 'Inferential cognitions refer to perceptions of reality and the inferences individuals draw from these perceptions' (Walen et al., 1992, p. 17). An individual may observe a co-worker frowning and infer that the co-worker does not like him. Inferences may be accurate or they may be erroneous and inconsistent with objective reality. Incorrect inferential thought processes have been associated with emotional disturbance (Walen et al., 1992). Several types of cognitive therapies target erroneous inferential thoughts, such as negative automatic thoughts and erroneous assumptions (e.g., Beck, 1976).

Ellis's (1962) conceptualisation of irrational and rational beliefs has engendered confusion, ambiguity and a great deal of philosophical and logical argument (Oei, Henley & Miller, 1993). It remains unclear whether a belief has to meet one, some or all of the criteria for it to be considered an irrational belief (Beal et al., 1996). The reason is that it still remains unclear what type of cognition an REBT belief refers to. REBT theory suggests that beliefs are evaluative cognitions and not inferences. The distinction

between a cognition that is an erroneous inference and a cognition that is a rigid evaluation is important because it distinguishes REBT from other systems of cognitive therapy. DiGiuseppe (1996) has questioned the clarity of the distinction between a belief as an exaggerated negative evaluation and an empirical distortion of reality. Demanding that something must be the way it is represents a cognitive distortion of reality, 'since the person continues to expect that reality to be the way they want it regardless of the amount or type of disconfirming evidence' (p. 8).

However, beliefs could be rational or irrational according to Ellis's (1996) theory of irrational beliefs, but "individuals still behave according to these beliefs be they rational or irrational" which consequently determine the way they are (Saleh, 1985, p.133). Aetiologically, some individuals often entertain irrational and invalid beliefs; therefore, 'they are potentially apt to suffer from anxiety and other psychological problems' (Saleh, 1985, p. 133). According to psychologists (for instance, see Dryden, 2006; Ellis, 1977a; 1977b), all affective problems are the outcome of irrationality. In this regard, Dryden (2006, p. 11) argues that 'people are disturbed not by adversities, but by their rigid and extreme views of adversities. But, these adversities or disturbing situations occur habitually in life. According to affective, cognitive processing theory, man cannot be blamed for irrationality, because 'any disruption in rational thinking occurs unconsciously' (Saleh, 1985, p. 133).

Rational beliefs or rationality constitutes a set of beliefs in the mind of an individual leading him/her to think logically and objectively in a clear-minded fashion; therefore, "a rationally thinking human being clearly understands the causes and effects of a situation or an event just as he/she does in solving a maths problem" (Abu Aita, 1997, p.127). Abu Aita reported that

> 'Humanity has passed through four different phases of intellectuality: mythological thinking, religious thinking, philosophical thinking and scientific thinking. However, the modern man, despite his scientific predilection, still relives these ancient periods of mythological and religious thinking despite the fact that s/he may oftentimes use the scientific method of thinking, but with varying degrees.' (p.112)

Abu Aita (1997) goes on to explain that no matter how one may think scientifically, they still entertain mythological beliefs and religious thoughts that one accepts gullibly and perhaps unquestioningly, in an intricate fashion. Mankind knew these distinct phases of thinking and consciousness, where mythological thinking was

the earliest fundamental basis for the later phases of religion, philosophy and modern science; yet all this comes from a single mythological source. People believe in 'good' or 'bad' luck, in totems and black magical spells; for instance, many educated Saudi people may believe that they fall under black magical spells in cases where psychosomatic symptoms disturb their psyches and bodies, and they may know this, but still irrationally believe in some 'genii' or 'supra-natural' power that conjures up these symptoms. Ordinary people in Saudi Arabia may prefer to live in mythological, irrational thinking sets such as believing in black magic or visiting religious gurus and sooth-sayers than accept to visit a psychiatrist. This could be paradoxical when we know that there is no difference between an educated man and a layman in this respect. Different categories of people in terms of of education status, social class or any other socio-economic variable would mix the religious with the mythological to the disadvantage of scientific facts because once a human being falls prone to suggestion, s/he would accept myths as facts and legends as history.

Indeed, Ellis (1988) argues that humans are genetically predisposed to think irrationally in several cases, and at different times for no good reason; that is why irrational thinking develops and consequently engenders behavioural and emotional disturbance and general life unhappiness. This indicates that there is some basic biological propensity for irrationality – in other words, people 'naturally tend to become aware of their irrationality', and they progressively and enduringly work towards achieving rationality (Dryden, 2009, p.57). Additionally, Ellis thinks of the human personality as constituted of 80% biology and 20% learned (Dryden, 1990), warranting the proposition that the genetic basis of irrationality is unavoidable in so many cases.

Ellis went on to refer to the term 'biological basis' as the 'organism's natural, easy predisposition toward developing and maintaining certain characteristics and traits' (Ibid.). Moreover, literature reviews have shown that anxiety disorders, and especially social anxiety, are rampant in modern society, particularly amongst youth. It is disruptively rife amongst young people, giving rise to a variety of complex, chronic and severe complications.

During therapy, a client is identified as thinking rationally or irrationally based upon an assessment of their emotions and behaviours. If a person appears to be experiencing appropriate emotional responses, therapists may assess that the client is thinking rationally. Ellis (1987) explained: 'people who admit to masturbatory beliefs and who subsequently do not become emotionally disturbed when they don't, are using

"must" loosely and do not literally and unconditionally mean it' (p. 137). There is a possibility, however, that some clients may adhere to a clearly illogical and anti-empirical belief system that helps them to achieve their goals (DiGiuseppe, 1996). Since the definition incorporates inappropriate emotional and behavioural consequences, this definition is 'circular and untestable' (Oei et al., 1993, p. 196).

If an individual usually entertains a variety of irrational, invalid beliefs; in this case, s/he is very likely to suffer from anxiety and other psychological problems (Saleh, 1985, p.133). People, in their thinking methods, are either rational or irrational; the way of thinking affects one's emotions, usually leading to negative sentiments such as guilt and anxiety. This is commensurate with Batte's (1996) definition of rational thoughts as true thoughts and irrational thoughts as the false thoughts a person may have about themselves, others and how things in general must function to suit their needs.

In this context, Jensen et al., (2008) elucidate that, according to REBT theory, beliefs can be categorised as either rational or irrational. The former refers to logical thinking supported by reality and are naturally conducive to healthy emotional responses associated with freedom from emotional disturbance and the ability to adapt and accommodate to reality, while the latter is associated with psychopathology and social malfunctioning. Yet, they further note that rational beliefs may also be conducive to negative emotions such as frustration. But negative as they may look, they 'can help one deal with the adversities' (Jensen et al., 2008, p. 4).

With time, REBT theorists began to view irrationality as a more complex construct with several major underlying dimensions (Ramanaiah, Conn & Schill, 1987). In the 1980s, the theory shifted its emphasis away from the content of irrational beliefs to focus on the underlying characteristics or processes of irrational thinking (Burgess, 1990). Irrational belief processes refer to the style of irrational thinking or how a person makes himself or herself upset (Lega & Ellis, 2001).

However, all affective problems can be argued to be the outcome of irrationality. In the first century B.C., Epictetus wrote, 'Men are disturbed not by things, but by the view they take of them,' (cited in Ellis, 1973, p. 166). Adler (1964) conveyed the same meaning when he acknowledged that events cannot cause failure or success in their own right, and people do not suffer the shock of an experience, called trauma, 'but we make out of it just what suits our purposes'; therefore, 'Meanings are not determined by situations, but we determine ourselves by the meanings we give to situations' (Adler, 1964, p.14).

In a classic, seminal study, Berger (1981) indicated that 'irrational beliefs attack a considerable proportion of college students', leading to psychological disturbances, including self-devaluation. In Berger's study, it was found that irrational beliefs are rife in college students surveyed as attending counselling clinics at their colleges; the study also revealed that they suffer from lowered self-esteem (Berger, 1981, p.25).

Research in some Arab countries had showed that irrational beliefs could be conducive to psychological disturbances; this research demonstrated that it is the perceptions of individuals that cause their irrationality; when individuals thought (irrationally) that the events or situations they passed through were awful or painful or saddening, then their emotional disturbances had been triggered (Al-Qaisi, 1998; Al-Tayyeb, 1990; Berger, 1983; Hussein & Hussein, 2006). When individuals indulge themselves in irrational thinking, and they believe that the events or situations they pass through are awful or painful or saddening, then their emotional disturbances are triggered off (Ahmed, 2004; Al-Akad, 1997; Al-Maleh & Al-zarrad, 2005; Al-Namlah, Fernyhough & Meins, 2006).

Some researchers, both Arabs and non-Arabs, ascribe social anxiety disorders to contradictory and disintegrated parenting styles and higher family disintegration and disconnectedness (Dwairy, 2004; Dwairy, Achoui, Abouserie & Farah, 2006). Other researchers have attributed psychosocial disorders such as phobias, stress, social withdrawal and other personality disorders to the Gulf war, the vicious wars in the region and the feeling of insecurity in the Gulf region (Jones, 1995).

Prior research has also showed that irrational beliefs are more rampant in college students (Al-Faisal, 1992; Al-Raihani, 1987a; Rateeb, 2000). This research has also demonstrated that there were statistically significant differences between irrationality and some disorders, such as social anxiety (Rateeb, 2000), psychological burnout (Ahmed, 2004), anxiety and locus of control (Abdul Rahman & Abdullah, 1994; Ibrahim, 1998), psychotic anxiety (Mohamed, 1992), psychological and social adjustment (Al-Ali, 2004), loneliness and isolation (Al-Dulaim & Amer, 2004), depression (Al-Raihani, Nazih & Saber, 1989), family problems between couples due to marriage maladjustment (Al-Qawasmi, 1995), lack of academic adaptation in college students (Al-Maghrabi, 1992), stress (Taher, 1995), religiosity and religious fundamentalism (Al-Shawi & Samoor, 2000). Some of this research has also found a correlation between irrationality and parenting style (authoritarianism versus democracy: Al-Rawi, 2003); other studies correlate it with gender, job burdens, job specialty and

term of service in a profession (Al-Saffar, 2002), while other research correlates it with gender, parental education and residence (Fatouhi, 1997), gender and culture (Al-Raihani, 1987a).

Dawes (2000), on the other hand, suggests that irrationality is consistently systematic, which implicitly suggests that irrationality is content-specific in that some people may think irrationally about certain topics or a specific content in relation to particular needs. This further implies that irrationality resists explanation and analysis without considering the topics and/or content that stimulates irrational thinking. Dawes (2000) further noted that irrationality can be detected in psychotic people, and even in ordinary neurotics, as Freud (1926) proposed.

As such, it appears from this review of research that "irrationality is accountable for the different psychological disturbances, which are, first and foremost, brought forth by one's perceptions of situations and events, not the effects of such situations or events"; the way one perceives situations is what really matters (Al-Qaisi, 1998, p.248).

2 Definition of Irrational Beliefs

To define irrational beliefs, it is logical to start with the antithesis: i.e., rational thinking. What are rational beliefs?

2.1 Rational beliefs

Ellis and Dryden (1997) define rational beliefs as evaluative cognitions that are preferential or non-absolutist in nature. Walen et al. (1992) and Dryden (2003) have identified specific characteristics that constitute a rational belief. A belief is rational if it is 'flexible and/or non-extreme' (Dryden, 2003, p.9). In language, a rational belief is verbally expressed as a 'desire,' 'preference,' 'wish,' or 'want.' The internal structure of a rational belief is logically consistent. Rational beliefs are also consistent with reality and, therefore, can be supported by empirical evidence. Thinking rationally results in feeling adaptive emotions, such as concern, sadness and annoyance. A rational belief is therefore constructive to the person who holds it and helps an individual to attain his or her goals.

Dryden (2001, 2003) has described four types of rational belief. The first type of rational belief is a 'full preference'. Dryden describes full preferences as 'flexible evaluations in the form of preferences, wishes, desires, wants, etc.' (Dryden, 2001, p. 6). In its full form, a full preference has two parts. The first part states what a person wants and the second part negates the idea that the person must get what they want. This can be

seen in the statement ‘I want to succeed at my job … but I don't have to succeed.’ Ellis (1994) has argued that a preference is the primary rational belief that is at the core of psychological health. The three other types of rational beliefs are derivatives of a full preference.

The second type of rational belief is referred to as a ‘Non-awfulizing belief’ (Dryden 2001, 2003). A non-awfulizing belief is the evaluation of a negative event as ‘bad’ or ‘unfortunate’, but not ‘awful’ or ‘terrible’. The first component of a non-awfulizing belief acknowledges that a negative event has taken place or may occur in the future. The second component negates the idea that the bad event is awful or the end of the world. An example of a non-awfulizing belief in its full form would be, ‘It would be bad if I don’t get the prize this year … but it would not be awful.’

A High Frustration Tolerance (HFT) belief is a third type of rational belief process. A person holding a HFT belief thinks that a negative situation or event is difficult to tolerate, but tolerable. The first part of a HFT belief acknowledges that it would be hard to tolerate a specific negative event. The second component indicates that, although the negative event is hard to bear, it is not intolerable.

Dryden (2003) has suggested that a HFT belief might have a third component: that it is worth the effort to try and tolerate the situation. An example of a HFT belief with all three components would be ‘Being fired from my job is hard to tolerate, but 1 can stand it …. and it would be worth it for me to tolerate this.’ REBT holds that developing a philosophy of HFT is important because it helps people to achieve their goals by helping them deal with the frustration of having their goals blocked. As a result, they experience adaptive negative emotions and are better able to problem solve.

Dryden (2001, 2003) refers to the fourth kind of rational belief as Acceptance Beliefs. There are three types of acceptance beliefs: self-acceptance, other acceptance, and life acceptance beliefs. In REBT, the term Unconditional Self-Acceptance (USA) is used to describe acceptance of oneself despite one's flaws. Acceptance of another person despite their shortcomings is known as Unconditional Other Acceptance (UOA). An individual's acceptance of life conditions and everything that might occur is referred to as Unconditional Life Acceptance (ULA).

Adopting a philosophy of USA or UOA involves the evaluation of an aspect of a person, one could say an aspect of a personality: if people evaluate the traits and behaviours of their personalities, it will be better for them than if they tend to evaluate their personalities per se. In this way, it is often surmised that if people have realistic

thoughts about their strengths and weaknesses and take pride in their accomplishments, they will feel happier and have more stability in their lives. Hence, CBT teaches people to assess their thoughts and behaviour, not themselves (Seligman et al., 2001). For example, a person's behaviour may be evaluated as good or bad.

However, acceptance beliefs also contain a component that negates the idea that the self or the other person can be globally rated. Acceptance beliefs incorporate the idea that the self and the other person are fallible human beings who are complex and unrateable. An example of a self-acceptance belief would be 'If I failed my final exam … it wouldn't prove that I was a failure … Rather it would indicate that I am a fallible human being who failed on this occasion.' By not rating one's whole self based upon one's behaviour, the individual experiences an adaptive emotion and is better able to focus on what needs to be done to correct his or her bad behaviour.

2.2 Irrational beliefs

Throughout history, the concepts of irrationality and irrational thinking have intrigued philosophers; they thought that the irrational is whatever aberrates from the logical and is inconsistent with rational thinking. Lexically, the term *irrationality* is used to depict emotion-driven thinking and actions that are, or appear to be, less useful or logical than the rational alternatives. As such, there is a clear tendency to view our own thoughts, words and actions as *rational* and to see those with which we disagree as *irrational*. In this category of meanings, Sutherland (1992) has summarised the spectrum of meanings, which have been explained by different theories of irrationality as including, but not restricted to the following (pp. 1-14):

- People's actual interests differ from what they believe to be their interests.
- Mechanisms that have evolved to give optimal behaviour in normal conditions lead to irrational behaviour in abnormal conditions.
- In situations outside one's ordinary circumstances, one may experience intense levels of fear, or may regress to a fight or flight mentality.
- People fail to realise the irrationality of their actions and believe they are acting perfectly rationally, possibly due to flaws in their reasoning.
- Apparently irrational decisions are actually optimal, but are made unconsciously on the basis of 'hidden' interests that are not known to the conscious mind
- An inability to comprehend the social consequences of one's own actions, possibly due in part to a lack of empathy.

- Some people find themselves in this condition by living ‘double’ lives. They try to put on one ‘mask’ for one group of people and another for a different group of people. Many will become confused as to which they really are or which they wish to become.

Sutherland (1992, p. 1) listed the factors that affect rational behaviour as including the following:

- Stress, which in turn may be emotional or physical;
- The introduction of a new or unique situation;
- Intoxication;
- Peers who convey irrational thoughts as necessary idiosyncrasy for social acceptance.

Be that as it may, Mele (1987) showed that many human acts can function as proofs that irrational behaviour is remarkably universally common; therefore, certain forms of irrationality – especially uncontrollable actions and self-deceptions,pose difficult theoretical issues which philosophers have rejected as logically or psychologically impossible to explain. The most common forms of these are akrasia and self-deception. The former term means acting against one’s intuitions, or acting against one’s better judgment, while the second refers to self-defence mechanisms, some of which have been described in the earlier chapter on anxiety within the theory of Freud.

However, Mele (1987), in a relevant vein, shows that incontinent action and self-deception are indeed possible. While drawing upon recent experimental work in the psychology of action and inference, Mele (1987) advanced some explanations of akratic action and self-deception to resolve the paradoxes that have been extensively dealt with in related philosophical literature. Here, Mele (1987) argues that human beings are capable of rational thinking only when they are capable of managing their self-control, arguing that rigid akratic ideas and notions, and their subsequent acts, can be an insurmountable obstacle for traditional belief-desire models of action-explanation.

In this respect, too, Freud's (1940) investigation of errors extends beyond the philosophical investigation of akrasia and self-deception, as has been referred to earlier in this chapter. However, Freud is more interested in exploring the culprit than in the precise nature of the victims of akrasia and self-deception. According to him, the culprit is, naturally, a wish or desire, but the victim is not always a rational requirement that is dramatically defied.

Pears (2009) clarified the Freudian view of irrationality by relating it to self-deception. Pears said that, philosophically, some people can think reasonably in good ways, yet they are tempted to act in ways contrary to their logical reasoning intentionally and without external pressures. As earlier explained, this is known as 'akrasia', which, by definition, is a state of mind in which one is not in full command of oneself. Usually, this state is explicated in terms of a 'weakness of the will' and lapses in moral thinking, as in response to social stressors (Holton, 1999, p. 241) However, there is another type of explanation for irrationality grounded in wishful thinking, with recourse to appetitive desires. Here, irrational thinking occurs as a result of misleading opinion 'under the influence of a wish' (Pears, 2009, p. 264). In other words, irrationality is explained by self-deception.

Ellis's theory of REBT has generated a discussion in the relevant literature of irrational and rational beliefs being responsible for an (UN) healthy emotional well-being; i.e., rigidly held irrational beliefs are positively associated with psychopathology. This theory has prompted perplexity, ambiguity and a great deal of philosophical and logical debate in pertinent literature (Oei et al., 1993). Lexically, rational is defined as logical and coherent, and irrational means the opposite, i.e., illogical and incoherent. In *Webster's Ninth New World Dictionary* (9th ed 1991), 'irrational' is defined as illogical or 'not endowed with reason or understanding' (p.639). Irrational beliefs pertain to evaluative cognitions that are associated with emotional disturbance (Walen et al., 1992). Typically, thinking irrationally leads to emotional disturbance such as depression, anger or anxiety.

Ellis's definition of 'irrational' differs from the word's denotative meaning. In REBT, a belief is considered to be irrational when it is unrealistic and illogical. However, there are also pragmatic criteria that constitute the REBT definition of irrational. An irrational belief is also one that results in inappropriate emotional consequences and dysfunctional behaviours, and interferes with a person's ability to achieve his or her goals (DiGiuseppe, 1996; Maultsby, 1984). It remains unclear if a belief has to meet one, some or all of the criteria for it to be considered an irrational belief (DiGiuseppe, 1996). DiGiuseppe has suggested that 'this lack of clarity about the definition could result in drastically different illogical thoughts, distortions of reality or self-defeating philosophies all labeled as irrational beliefs' (p.9).

2.3 Theory of REBT with regard to irrationality

Established theory and research in REBT addressed the organisation of irrational beliefs, mainly in terms of propositions (Dryden, 1995; Ellis, 1994; Wessler & Wessler, 1980) or in terms of schemata (DiGiuseppe, 1996; Nielsen, 2003; David, Szentagotai, Eva & Macavei, 2005). REBT focuses on maladaptive evaluative beliefs in the form of irrational beliefs as core cognitive vulnerabilities to emotional disturbance (e.g., Ellis, 1994). Corey (2009) describes REBT as a psychotherapy theory as, 'the active, directive, time-limited, present-centred, structural approach used to treat various disorders such as depression, anxiety and phobias' (Corey, 2009, p. 123). Mukangi (2010) further explains that REBT theory mainly focuses on how irrational thoughts affect people to the extent of causing detrimental effects and how these thoughts act as barriers to a happy self-fulfilling life (Dryden, 2003).

It can be argued that irrational thoughts held by a person can be congruent with his/her behaviour and reflect themselves in the person's attitude. REBT theory can explain and treat irrational thinking through cognitive and emotional and behavioural training. REBT argues that whatever the situations in the past that led to irrational beliefs, people are actively using these philosophies to disturb themselves (Ellis, 1962). For example, cognitive: *I am unable to do mathematics*, affective: *I feel bad just by thinking about mathematics*. Behavioural: the person puts in minimal effort towards mathematics and as a result, he/she fails the subject. According to Dryden (2003), it derives from this that negative predispositions towards any subject makes one likely to fail in that particular subject, and once they change their negative attitudes, they will cease to fail.

However, if man is innately inclined or predisposed to thinking in irrational ways, irrational beliefs are acquired from the culture and the context in which man lives. In this vein, Ellis (1987) hypothesised that individuals 'have an innate propensity towards irrational and illogical thinking, and that they have an innate tendency to magnify and convert aversive life situations into catastrophes' (Kassinove & Eckhardt, 1994, p. 134). But this 'supposedly innate' propensity hypothesised by Ellis needs to be verified in cultures other than the American culture in which Ellis' theory originated. In this way, Kassinove and Eckhardt (1994) observed that an 'analysis of the hypothesised cognition-emotion link in cultures other than America will provide data to test Ellis's controversial hypothesis' (p.134). Al-Ali (2004) notes that

> '… we normally learn irrational thinking from parents and adults in our surroundings since early childhood; then we further create these irrational beliefs by ourselves and for ourselves through mythological thinking, and then inculcate and cogitate these beliefs as if they were our guiding principles.' (p.4)

Ruminating on such irrational beliefs makes them actively live in us (Corey, 2009). Corey further notes that 'The basic assumption … is that people contribute to their own psychological problems, as well as specific symptoms, by the way in which they interpret events and situations in their life' (Corey, 2009, p.76). According to REBT theory, rational beliefs are those that are logical and supported by empirical data. Rational beliefs also lead to healthy emotional responses. Therefore, they are associated with freedom from emotional disturbance and with greater ability to adapt and adjust while problem solving (Ziegler, 2000).

Notwithstanding this, rational beliefs can also lead to negative but healthy emotions such as frustration, which can help the individual to deal with adversity. Rational beliefs are usually expressed in the form of preferences, with some tolerance to violating situations, or at least the acknowledgement that such situations can occur. A person holding such beliefs might think, 'I would prefer that I had not told my friend's secret to someone else, and I am sorry that I did.' In REBT theory, the resultant healthy negative emotion would be remorse rather than guilt (Dryden & DiGiuseppe, 1990).

2.4 Irrational beliefs and adjustment in Freudian psychoanalysis

Psychoanalysis theory explains that healthy personality is well-explained by the psychosexual theory of Freud, which proposes that children maintain a sexual life much earlier than the sexual maturity of their bodies. According to the psychosexual theory, a healthy personality cannot be reconstructed except in adolescence and adulthood only in individuals who could overcome their fixation in early childhood (Hjelle & Ziegler, 1976).

According to Freud, adjustment is quite rare, as socio-emotional adjustment really means that an individual has passed through the different phases of development, overcoming fixation in all these phases, as he/she has a strong ego. Adjustment, to Freud, means sexual maturity after the age of puberty, and 'one who is socio-emotively adjusted is one who is really sexually, socially and emotionally mature' (Al-Hanafi, 1978, p.22).

According to Freud, the *id*, the *ego* and the *superego* are the basic constituents that make up the human personality. The essential drive of the id is immediate gratification; the id is without values, ethics or logic, seeking to satiate the bodily instincts in a hedonistic fashion; that is, its main aim is indulging in pleasurable gratification without taking into account the context one is in and producing a state free from all tension or keeping the level of tension as low as possible. The ego is the executive of personality. It is the rational part that mediates between the immediate impulses of the id and the pressure from the superego. The ego operates according to the reality principle, which means that it delays immediate gratification until an appropriate time. The third component of the personality, the superego, represents the ideals and values of society as they are conveyed to the child by what the parents do and say (or socialisation). Within this structure, the conscience arises.

In general, the role of the superego is to block the unacceptable impulses of the id and to pressure the ego to serve the ends of morality. These three constituents of the human personality function according to the libido that drives or inhibits the function of each; for adjustment to occur, these parts have to function in collaboration and coordination; that is, "they have all to be self- and inter-adjusted" (Hesham, 1990, p.35). However, in reality, this is impossible to happen, and that is why adjustment according to this theory is quite rare (Al-Ali, 2004).

According to Freud, adjustment is the function of the ego; the ego is what makes one socially and emotionally adjusted only when it can control the id and the superego, striking equilibrium thereto. The weak ego thus succumbs to the lusts of the id, thereby allowing the latter to seize control over the personality; in this way, the individual becomes lusty, seeking gratification of the instincts without paying attention to reality, principles and the value system of the society. This, in effect, conducive to deviance and psychopathology (Lugo & LeMonda, 2008). By the same token, if the ego submits to the superego, the latter holds control of the personality, conducive to inhibition of desires, and consequently, to psycho-pathology and maladjustment (Ahmed, 2004; Al-Ali, 2004). For attaining adjustment and resolving the conflict between the id, the superego and reality, the ego develops defence mechanisms to lessen tension and stress and help induce adjustment (Al-Ali, 2004, p.32).

Psychological defence refers to the process of regulating painful emotions such as anxiety, depression and loss of self-esteem. Defence mechanisms are usually defined more narrowly as mental processes that operate unconsciously to reduce some painful

emotion. In the classical sense, the latter have been further restricted to threats aroused by the individual's thoughts and wishes: some of them are overcome by irrationality, leading consequently to psychological conflict over issues of sex and aggression. Defence mechanisms are, therefore, unconscious psychological processes that are activated in threatening and anxiety-provoking situations (Cooper, 1998). Perception of threat from inner sources or the inner world of the ego makes people determined to relieve themselves from this threat or at least lessen its severity (Freud, 1936). Defence mechanisms mediate between internal emotional struggles and external pressurizing factors. Some of these defence mechanisms (e.g., extroversion) are almost always unadjusted, while others (e.g., prevention and denial) can be adjusted or unadjusted according to the degree of flexibility and the context in which they occur (Adler, 1964).

Some irrational beliefs lie in self-deception, as earlier indicated by Pears (2009). Self-deception is a major term in psychoanalysis theory. This term has been used in at least three distinguishable ways (Paulhus, Fridhandler & Hayes, 1997). According to the authors, the term ‘self-deception’ is two-fold; it may refer to a ‘distinct form of defence in which the individual shows moral weakness in disavowing some unpleasant truth’ (Paulhus et al., 1997, p. 547), as it may also indicate a condition of a motivated unawareness of one of two conflicting or contradictory realisations of a belief or perception, which is not used as a type of defence mechanism, but is still concommitant to defence mechanisms.

Generally, considering self-conception and irrationality as synonymous or at least related, expressing the concept of false self-beliefs, the term ‘self-deception’ has been applied to human ethology as well as social, clinical, and personality psychology; for instance, in ethology, research evidence for the adaptive value of limited self-knowledge in lower organisms implies an evolutionary basis for human self-deception (Campbell, 1985; Tidd & Lockard, 1978; Trivers, 1985).

However, over-reliance on self-defence mechanisms, including self-deception that implies irrationality, to combat depression, stress, and anxiety, is considered an abnormal way of social and emotive adjustment (Dawood, 2001). According to Freud, normal adjustment occurs through gratification of instincts while lessening self-punishment and feelings of guilt. This helps in controlling internal conflicts between the three parts of the self (Al-Munaizel, 1999).

An adjusted personality, according to Freud, is the summation of pleasure attainment and pain-avoidance in reality. Again, maladaptation is rooted in early

childhood, especially during the first five years, where fixation gnaws at the personality, and the child's experiences during this stage harm the personality of the child, and continue to do so along later phases of development (Durkin, 1995). Preservation of the self and protection of the ego are also instrumental to understanding adjustment and maladaptation according to this theory. Findings of both potential protection and risk associated with high pro-social behaviours are consistent with research findings from investigations conducted by Caplan (1993) and Hay (1994), 'who suggested that pro-social behaviours may contribute positively to adjustment when optimally regulated, but may also increase the risk of psychopathology when overly low or high' (Nantel-Vivier, 2010, p. 58).

Furthermore, findings from prior research showed that the correlation between maladaptation or psychological dysfunctional states and irrational cognitions, beliefs and attitudes of college students is confirmed. In other words, the psychopathological state and general well-being of college students are very much affected by their belief systems, which if disrupted or disturbed, can potentiate psychological illnesses, such as social anxiety, depression, loneliness, etc. (Al-Ansari, 2007; Al-Maleh, & Al-zarrad, 2005; Bonner & Rich, 1991; Chaleby and Raslan, 1990; Halamandaris & Power, 1997; Lecrubier et al., 2000; Wittchen & Fehm, 2003; Wong & Whitaker, 1993).

From a critical point of view, Freud, like Plato, embraced the emotional disruption view of irrationality; thereby, Plato maintained that the soul of every individual has a three-part structure analogous to the three classes of a society. There is a rational part of the soul, which ferrets for the truth and is accountable for our philosophical inclinations; a spirited part which desires honour and is responsible for our feelings of anger and indignation; and an appetitive part, which lusts after all sorts of things, but money most of all (since money must be used to fulfil any other base desire). In a just individual ('just' here means balanced and psychologically healthy), the rational part of the soul rules, the spirited part supports this rule, and the appetitive part submits and follows wherever reason leads.

Put more plainly: in a just individual, the entire soul aims at fulfilling the desires of the rational part, much as in the just society the entire community aims at fulfilling whatever the ruler's will. Freud maintained that to be able to characterise in detail the 'logic' of disruptive forces reluctant in irrational thoughts, individuals are likely to apply 'defence mechanisms' employed to attempt to minimise such disruptions. However,

Freud differed from Plato in claiming that both the emotional forces and the barriers against them (‘defences’) are unconscious.

3 Biological Basis of Irrational Thinking

REBT researchers, prominently Ellis (1962, 1976, 1980, 1987), contend that (1) most humans have a strong tendency to think irrationally and to behave in self-defeating ways, and (2) this tendency derives in part from a genetic potential which transcends environmental and cultural differences. This refers to the biological or innate origins of irrational thinking in human beings. In this regard, Ellis (1987) maintains that we humans are genetically inclined to think irrationally in some cases, many times without good reason, in which case irrational thinking causes the eruption of behavioural and emotional disturbance and general life unhappiness. Further, and above all, Ellis (1987) claimed that humans also have another basic biological tendency – that is, they ‘naturally tend to become aware of their irrationality’, and “they steadily and permanently work towards achieving rationality” (Dryden, 2009, p.57).

Even so, it is pretty inconceivable to imagine how Ellis (1987) could have calculated these statistics. Still, the important point is that Ellis's characterisation of the biological is essential to his inspection of the way human beings act; crudely put, Ellis firmly contends that there is a biological predisposition towards both rationality and irrationality (Ellis, 1995). By the same token, Ruth (1992) elaborately explains this by stating that:

> ‘Basically stated, the postulate assumes that humans have a natural (i.e., genetic) tendency to think rationally and irrationally, and that irrational cognitions are quite easily learned and/or created throughout one's entire life span.’ (pp. 3-4)

In other clearer terms, Ellis has hypothetically proposed that human beings are genetically predisposed to think irrationally and to behave in self-defeating fashions. This early proposal has stressed the general observation that specific human traits and response styles seem to be universally innate and partially responsible for the development and maintenance of a wide range of emotional disturbances, to some extent. Likewise, Ellis has observed the contributing effects from the environment and learning, which heighten and deepen the effects of genetic disposition; Ellis, thus, has recognised a possibility for an alternate explanation of human irrationality grounded in adverse conditioning and harmful parental rearing.

However, Ellis claimed that this argument looked dubious, even with the availability of supportive empirical data, because such an explanation largely ignored the biological substratum on which environmental conditions operated. Therefore, Ellis strongly supported an explanation which accentuated the role of genetic predispositions over the impact of the environment and learning. To this end, Ellis (1962) writes that there are multiple external stimuli and events available which contribute to inducing emotional disturbance in individuals. Ellis (1962) further observed that emotional disturbance and resistance to treatment occurs in human beings partly for biological reasons and partly for psychosocial reasons.

By the same token, Ellis adeptly suggests that we need to support the psycho-social aspects of emotional disturbance in humans 'by looking for the biological roots as well' (Ellis, 1962, p.380). Ellis thus asserts that there appear to be 'inherent biological limitations of the human organism to think straight and especially to think clearly and logically about his own behaviour, for any consistent length of time', and that we are consequently induced to develop irrational thinking habits, probably in a psycho-pathological way (Ellis, 1962, p. 378).

Almost all human beings demonstrate evidence of major human irrationalities. Thus, practically all of us disturb ourselves about life's adversities. Of course, we do not disturb ourselves about the same adversities and the extent to which the disturbance will vary from person to person, but virtually all of us do this. Our disturbance does not interfere with the survival of the species and most of the time it does not interfere with our individual existence.

Relevantly, REBT theory maintains that when the human instincts or desires are weak, human beings consequently find it relatively easy to keep their beliefs flexible and non-extreme when their desires are not met. However, when these desires become stronger and particularly when they are very strong, then the human being finds it very much more difficult to retain flexibility and non-extremity in their beliefs. In other words, when human desires are strong, then they find it relatively easy to transform these desires into absolute necessities, and the fact that it is bad, yet tolerable, when they don't get what they want, into the idea that it is awful and unbearable to be thus thwarted.

In other words, the effortlessness and facility with which most humans turn their desires into absolute necessities may indicate the biological underpinnings of this common form of human irrationality. Dryden (2009) explains this proposition by assuming that if human beings could retain flexible and non-extreme beliefs with regard

to the very strong biological needs they have, then it is near impossible for them 'to think in rigid and extreme ways under these circumstances and would tend not to do so even if strongly encouraged to do so by our culture' (Dryden, 2009, pp. 58).

As Ellis often used to say, 'Mother nature is concerned with our survival, not with the emotional quality of our life.' (Ellis, 2004b, p. 12) The latter is firmly within our responsibility and the fact that many of us needlessly disturb ourselves shows that this tendency is rooted in our humanity. Ellis in this respect has finalised his genetic or biological theory of the explanation of human irrational thinking by distinguishing a number of biological causes of human neurosis and resistance to therapeutic interventions, be they medical or psychological. Ellis (2004b) noted that many of these originally biological determiners are interrelated somehow, representing an amalgam of cognitive, behavioural, emotional, and physiological factors: e.g., rashness and over-impulsivity, wishful thinking, extremism, over-vigilance and over-caution, difficulty of unlearning, oscillation and erraticness, unsustained effort, excitement seeking, stress proneness and discrimination difficulties.

Ellis also noted the presence of other determiners which are grounded in cognitive factors just like the core themes in the contemporary REBT model: over-emphasizing injustice, grandiosity and over-rebellion, pre-potency of desire, automaticity and unthinkingness, over-emphasizing guilt, and over-generalisation tendencies (See, Ellis, 1962, pp. 378-414). Later, Ellis (1976) formulated the term 'human irrationality', which Ellis defined as:

> 'Any thought, behaviour, or emotion that can eventually be conducive to self-defeating consequences and which significantly interfered with human happiness and survival in contemporary society.' (Ellis, 1976, p.172)

Ellis (1976) further defined the term 'biological basis' as an 'organism's natural, easy predisposition toward developing and maintaining certain characteristics and traits' (Ibid.).

Several notions, such as ease of acquisition and modification-elimination difficulty, have thus become essential to these major terms of human irrationality and biological basis. Simply worded, unhealthy (irrational) characteristics and traits seem to be quite easy to acquire and develop; however, they are the most difficult to modify or eliminate. Ellis has also identified that such predispositions are not solely instinctive; Ellis (1976) claimed that key changes that can possibly overwrite the genetic code may

potentially be possible, though in some cases not probable, through persistent awareness and continued vigorous therapeutic efforts.

3.1 Empirical Evidence for the Biological Basis of Irrational Thinking

In this later suggestion, having already put forward a list of key happiness-sabotaging tendencies (see Ellis, 1976), Ellis concluded by providing a series of opinions and testimonies bolstering up his theory that these tendencies were biologically rooted and not primarily learned or environmentally acquired. These empirical and theoretical arguments included the following key notions:

1. Virtually all humans, to one degree or another, tend to think, behave and emote in self-defeating ways despite intellectual, educational, ethnic, cultural and societal differences.
2. A cluster of certain irrationalities appears particularly universal due to its cross-cultural and cross-societal prevalence: demandingness, grandiosity, absolutism, dogmatism, prejudice, rigidity, low frustration tolerance, short range hedonism, gullibility, fallibility, overgeneralisation and self/other condemnation.
3. Worldwide contemporary irrationalities appear to have also existed, historically and anthropologically, across diverse cultures and societies from the past.
4. Despite specific counterattacks, corrective teachings and sanctions imposed by parents, educators and influential others, children (and adults) appear to indiscriminately invent and/or acquire irrationalities which contradict empirical knowledge and environmental feedback.
5. Attempts to modify or eliminate certain irrationalities, whether initiated and directed by oneself or an influential other, are often stubbornly resisted, both consciously and unconsciously, despite an expressed desire to change and an awareness that such change would be greatly beneficial.
6. When modifications and/or eliminations of certain irrationalities do occur, changes in the frequency, intensity and duration of these irrationalities are often short-lived, thus resulting in regression, relapse and/or newly acquired and invented irrationalities.

Consistent with the contemporary REBT model, in his most recent biological proposal, Ellis (1987) focuses on irrational demandingness and grandiosity in particular, as opposed to human irrationality in general. Specifically, REBT's core irrational constructs (demandingness/grandiosity, awfulisation, low frustration tolerance and self/other rating (Walen et al., 1992) are emphasised, and the subtle and blatant irrational

beliefs which flow from these constructs in the areas of competence and success, love and approval, safety and comfort, and fairness and consideration are distinguished. Clients may subtly cling to their irrational beliefs, as they do not realise the impact those irrational beliefs have on the range of their verbalisations and behaviours. Preliminarily, patients need to be alert to the existence of hidden irrationalities implicit in their emotions spilt out or their behaviours coming into being. The most characteristic aspect about core irrational beliefs is that 'they tend to be general rather than specific, and can best be identified after [the psychotherapist has] worked with clients on identifying their specific irrational thoughts' (Dryden & Neenan, 2006, p. 135). Within each of these life spheres, Ellis demonstrates how demanding and grandiose beliefs usually predominate most other irrational thought processes.

Human irrationality is ubiquitous, therefore, and the tendency for humans to transform their very strong desires into rigid dire necessities and extreme views if these instinctive desires are not achieved is universal, rendering irrational thinking as secondary to human instinctiveness. However, there seems to be a good deal of individual variation in the extent and ease with which human beings disturb themselves with irrational beliefs. By this token, Ellis reasserts that virtually all humans appear to be genetically predisposed towards irrational thinking:

> '… practically all humans have a strong biological tendency to needlessly and severely disturb themselves and that, to make matters much worse, they also are powerfully predisposed to unconsciously and habitually prolong their mental dysfunctioning and to fight like hell against giving it up.' (Ellis, 1987, p. 365)

Ellis concluded that although many humans may possess the power to change and perhaps self-actualise, many others, even with the help of psychotherapy and other interventions, will unfortunately never consistently achieve and maintain emotional stability and general life happiness. Some human beings seem to transform even the weakest desires into rigidities when they fail to meet these instinctive desires, being the most vulnerable to suffer from irrational beliefs. In this context, Ruth (1992) adeptly noted that "genetic predispositions to think irrationally in early childhood are what drive people to form rigid demandingness, grandiosity, and egocentricity during early childhood" (Ruth, 1992, p. 16).

3.2 The biological Tendency for Rational Thinking

Rationality is basically an exercise of reason whereby human beings come to conclusions when considering things most consciously. In the psychology of reasoning, rationality is a key term whether people can think rationally or not. In sociological psychology, Max Weber considered rationality in terms of four types: (1) *Zweckrational* or purposive/instrumental rationality: this relates to the expectations about the behaviour of other human beings or objects in the environment; such expectations are 'rationally pursued and calculated'. (2) *Wertrational* or value/belief-oriented: a human act is intrinsic to the actor, be it arising from ethical, aesthetic, religious or other motives. (3) *Affectual* rationality: determined by an actor's specific affect, feeling or emotion; this determines how acts can be 'meaningfully oriented'. (4) *Traditional* rationality: this type is determined by ingrained habituation.

However, in reasoning and cognitive psychology, the term has assumed different meanings: for instance, Johnson-Laird and Byrne have maintained that "humans are biologically rational in principle, but sometimes, they err in practice". In other words, humans have the competence to be rational but their performance is limited by various factors (Byrne & Johnson-Laird, 2009, p. 283).

According to Ellis (2001a, b), rationality is defined contextually as the constructive tendency and leaning that humans have to act, emote and think in ways that are alternative-seeking, realistic, flexible and, most importantly, self- and social-helping and functional in helping humans to achieve their personal and social goals and desires. Rationality, too, is of a biological basis. Some researchers (Dobson & Dobson, 2009; Dryden, 2009) also believe that humans 'have a biologically-based tendency to think rationally about life's adversities' (Dryden, 2009, p.63). Dryden further explains:

> 'As such, we have a choice: we can choose to construct rigid and extreme ideas from our desires or we can choose to construct and remain with flexible and non-extreme ideas in relation to our desires. I have argued that we find it very easy to transform our desires into absolute necessities when these desires are strong and have a tough time being flexible about the attainment of these desires. This point also applies about the ease with which we construct extreme ideas when our desires are thwarted and the difficulty we have in constructing and remaining with non-extreme ideas when our desires are unmet.' (Dryden, 2009, p.63)

The meaning of the passage above is that human beings can choose to think in rational ways even though they have a strong tendency to choose to construct and remain with irrational thinking, that is, with irrational, rigid and extreme ideas. Dryden names this last type of thinking, the irrational one, 'going against the grain' (Dryden, 2009, p.63). According to the author, this type of irrational thinking is difficult to sustain without commitment, vigour and vim – that is, irrational thinking occurs when people fail to be determined to align their behaviour patterns and inferential thinking with rational beliefs, inasmuch as they fail to bring forth 'a corresponding determination not to act and think in ways that may perpetuate our irrational beliefs' (Dryden, 2009, p.64).

4 Irrational Beliefs and Maladjustment

Ellis and Harper (1961) postulated that irrational beliefs are the prime causes of emotional maladjustment. Further, Beck (1976) and Ellis (1962) state that a person's faulty evaluation of possible negative outcomes can potentially bring about exaggerated emotional reactions. However, they differ as to the kinds of cognitions involved in these faulty evaluations. In this vein, Ellis (1962) contends that irrational beliefs, such as making personal worth contingent on another's response, can be conducive to irrational appraisals of social setbacks. However, Beck (1976) discriminates between real dangers (e.g., roaming in a jungle), which require realistic precautions, and inaccurate appraisals of risk (e.g. travelling by air), which lead to anxiety. In social situations, an anxious person evaluates a rejection or societal disapproval as much more risky than does a non-anxious person.

The theory of irrational beliefs postulates that our interpretations of environmental and social events shape our behavioural responses and these interpretations are determined by our own beliefs. Behaviour is thus a result of the individual's belief system. Ellis (1994) argued that this belief system is universally shaped both by internal drives toward rationality and irrationality (i.e., self-constructive and self-defeating motivations) and by social influences, which indoctrinate individuals in their early lives (Bernard, 1986; DeSilvestri, 1989). Typically, an individual's belief system will contain several of what Ellis labelled as 'irrational' elements (Ellis, 1962, 1993). Some of the most pervasive elements are referred to as 'core irrational beliefs,' which are usually implicit and activated automatically. Furthermore, they tend to be simplistic, absolutist and overdramatic (Ellis, 1993). Ellis identified five themes that underscore the irrational beliefs. Ellis (1993) suggested that irrational thoughts take the

form of demands (this must happen: Ellis & Dryden, 1987), absolute thinking (all or none, no in-between), catastrophising (exaggerating the negative consequences of an event), low frustration tolerance (demand for ease and comfort), and global evaluations of human worth (people can be rated, and some are less valuable than others) (Walen et al., 1992). Ellis posited that if people could be prevented from indulging in irrational thoughts and beliefs, they would improve their ability to direct their energy toward self-actualisation (the rational drive), which he believed could best be accomplished through reason (Ellis, 1994).

Irrational beliefs affect an individual in exactly the opposite manner. Irrational beliefs lead to unhealthy negative emotional responses, such as guilt and anxiety (Dryden & DiGiuseppe, 1990). Such beliefs lead the person to further emotional disturbance and in effect hold the person captive, not allowing them to escape the negative feelings. Irrational beliefs are usually expressed as demands, musts and shoulds, are illogical and do not stem from empirical data.

The formation of the irrational beliefs is not due to the subject's intellectual incompetence; that is to say, detecting the irrationality of the belief in question does not require intellectual abilities that exceed those of the subject's. Irrational thinking may be consciously sustained as a self-defence mechanism, as in self-deception or in other cognitive biases. Dryden and Neenan (2006) have suggested that 'irrational beliefs, which are deemed to be at the core of psychological disturbance, are rigid and extreme, inconsistent with reality, illogical and self-and-relationship-defeating' (p.2).

An essential factor in irrational beliefs is *demandingness*, i.e. everything must absolutely conform to a certain standard and any variation or deviation is unacceptable, or even more accurately, unbearable. In other words, *demandingness* encompasses a dogmatic and absolutistic philosophy that the world must comply with the individual's desires (Walen et al., 1992). Demands are placed on the self, another person or the conditions of life (Dryden, DiGiuseppe & Neenan, 2003). Ellis believes that this irrational belief serves as the premise from which the other three irrational beliefs derive; however, this assertion has not been empirically tested (Dryden et al., 2003).

There are three basic demands in irrational thinking. These are demands about self (self-directed shoulds), demands about others (other-directed shoulds), and demands about world or life conditions. When these demands are not fulfilled, each leads to a specific type of emotional response. When self-directed demands are not met, guilt and anxiety typically result. When other-directed demands are not met, anger is the most

common response. The failure to meet demands about the world and life conditions leads to self-pity and feelings of unfair treatment (Dryden & DiGiuseppe, 1990). Ellis's writings suggest that rigid demands regarding the self, others and the world are the major source of emotional disturbance (e.g., Ellis, 1994). Therefore, according to Ellis, demandingness is the primary irrational belief and the other three irrational belief processes are logical derivatives of demandingness (Lega & Ellis, 2001; Walen et al., 1992).

Most recently, Ellis (2003b) has described the relationship between demandingness and the other irrational belief processes; Ellis (2003b) proposes two parts that contribute to dysfunctional thinking that results in irrational beliefs, both working in collaboration to be conducive to irrationality. The first part, which is the most influential, relates to the individual's propensity to aggravate and intensify strong desires and preferences in the form of 'musts' or demanding necessities. The second part has to do with stressing the awful consequences that would follow from low performance or unfulfilled needs far beyond one's expectations. Dryden (2003), in this context, explicates the situation with this illustration:

> 'If I don't perform important tasks well at practically all times, as I must, (a) I'll be a worthless, undeserving individual who will not be able to succeed or be lovable; and (b) the results I will get will not merely be bad and inconvenient but be absolutely horrible and I will not be able to enjoy life at all' (Dryden, 2003, p. 29).

There are also other core irrational beliefs in addition to demandingness, such as awfulizing. Awfulizing entails believing that the situation is far worse than it actually is. Another core irrational belief is low self-worth judgement. Low frustration tolerance is another core irrational belief. It is the perception that the adversity is unbearable.

To reiterate, there are four types of irrational beliefs, tacitly summed up as follows:

1. Rigid demands (e.g. '*I must be approved of.*')
2. Awfulizing beliefs (e.g. '*If I'm disapproved of, it's the end of the world*.')
3. Low frustration tolerance beliefs (e.g. '*I can't tolerate being disapproved of.*')
4. Depreciation beliefs (e.g. self-depreciation: *I'm worthless if I'm disapproved of'; other-depreciation: You're horrible if you disapprove of me; life depreciation: Life is all bad if I am disapproved of.*) (Dryden and Neenan, 2006).

Internal irrationality, as implicated in irrational beliefs and irrational thinking, makes for more difficulties and psychological problems that need to be addressed

systematically in counselling psychology, since the subject not only violates canons of good reasoning but also standards of reasoning that s/he would, upon reflection, endorse.

5 Relationship between Irrational Beliefs and Social Anxiety

Irrational beliefs are thoughts and opinions that are not compatible with reality and most of them have been made on the basis of suspicion and personal opinions, often resulting in sentiments of obligation and determination (Ellis, 1979b; Hamidi & Motlagh, 2010; Shafi & Naseri, 1998). According to Ellis (1971), there is a relationship between irrational beliefs and social anxiety (and various other forms of emotional disturbances) as a result of the interaction of negative events or situations and negative emotions leading to certain irrational beliefs or any other irrational or other dysfunctional patterns of thought likely to cause emotional disorders (Lohr & Bonge, 1981; Malouff, Schutte & McClelland, 1992; Thyer, Parrish, Curtis, Nesse & Cameron, 1985).

A relationship between maladaptive cognitions and social anxiety has been confirmed in prior research (Gormally, Sipps, Raphael, Edwin & Varvil-Weld, 1981; Monti et al., 1984; Thyer et al., 1985). In a classical correlational study (Sutton-Simon & Goldfried, 1979), conducted on a clinical sample of anxious individuals, which examined the associations between irrationality and phobic anxiety, this relationship was also confirmed. As such, irrational beliefs do indeed play a significant role in the maintenance of irrational fears and phobias, including SADs (de Jong, Merckelbach, Bögels & Kindt, 1998).

As is clear throughout this chapter, cognitive-behaviourist therapists and cognitive psychologists investigating human reasoning concur on the occurrence of irrational thinking, and on its significance, but they widely vary in some of their conclusions about (1) the nature, frequency and causes of such irrationality, and (2) the means for correcting or avoiding ‘habits’ of irrational thinking. According to CBT and REBT therapists, it is disputably believed that irrational thinking, at least when it appears on any scale, is an indication of abnormality, or even of mental illness and psychopathology (Rachman, 1983).

However, there is consensus as to the effects of irrationality on thinking disorders such as psychotic delusions, in which the irrational thinking is the central problem, but this consensual concurrence fades away when construing problems related to irrationality and emotional disturbances as social anxiety – this being the case, more research is

warranted. According to Deffenbacher et al. (1986), most of these cognitive-behaviourist therapies or interventions …

> '[a]ppear to be based on hypothesised relationships between irrational beliefs and the presenting anxiety, rather than on empirically established relationships between beliefs and a given anxiety. (p. 282)

Deffenbacher et al. (1986) futher explained that there is a dire need to conduct research that investigates the linkage between irrational thinking and specific types of anxiety in order to understand these types of anxiety and how to treat them using appropriate intervention designs, and especially in the development of group therapy programmes.

Prior research and evaluations of research methods used to tap into the relationship between irrationality and some types of emotional distress or disturbance, such as social phobia, indicated that irrational beliefs are linked to some anxieties, but still some were affected by a variety of methodological defects (see below for a review of these studies under the section of measuring irrational beliefs). In brief, these studies (e.g., Smith, 1982; 1989) at most have 'expressed concern about correlating self-report indices of irrational beliefs with self-report indices of distress' (Deffenbacher, 1986, p. 282).

However, the tendency to hold irrational beliefs was positively associated with social anxiety and tended to correlate with negative self-statements on the Jones Irrational Beliefs Test (IBT) (Jones, 1969) emitted in social situations. In this line, Craighead, Kimball, and Rehak (1977) found that subjects high on the importance of social approval scale of the IBT made more negative self-statements while visualizing social rejection scenes than did subjects low on the scale. In addition, Davison and Zighelboim (1987) articulated that thoughts of greater irrationality when confronted with a stressful social-evaluative situation than with a neutral one resulted in higher levels of social anxiety, confirming the observation that individuals with a tendency to become anxious in social situations articulated more irrational thoughts than did control subjects, supporting the basic assumption of cognitive-behavioural approaches that certain patterns of unrealistic thinking are associated with psychological distress.

6 Irrational Beliefs and Socio-emotional and Educational Adjustment

Some researchers (Shafi & Naseri, 1998) have described irrational beliefs as attitudinal beliefs, being judgemental in the first place (Ellis, 1994), and thus

emphasising "a sense of obligation and compulsion, which can result in emotional and behavioural disorders" Al-Ali, 2004; DiLorenzo et al., 2007; Hamidi & Hosseini, 2010; (Hamidi & Hosseini, 2010, p. 1531) and can generate cognitive misconceptions (McDermut and Waga, 2003). Irrational beliefs, of all types and categories, negatively influence achievement, affiliation and comfort (DiGiuseppe, Leaf, Exner & Robin, 1988; Ellis, 1994; Walen et al, 1992). As such, they are considered paramount 'cognitive vulnerabilities' (Reardon & Williams, 2007, p. 626) in the sense that they affect specific automatic thoughts (e.g., David, Schnur & Belloiu, 2002), various emotional states, such as trait anxiety, trait depression, anger and guilt (Goldfried & Sobocinski, 1975; Jones, 1969), and general psychiatric symptoms, such as anxiety, depression, dysphoria etc. (Alden & Safran, 1978; Bernard, 1998; Jones, 1969; Malouff et al. , 1992; Solomon, Arnow, Gotlib & Wind, 2003).

Adjustment is the most important indication of psychological health. It is related to humans' affective, social, educational, marital and occupational domains. Social and emotional adjustment is of significance to human beings, especially college students, as it affects their social interactions and academic achievement (Al-Munaizel, 1998). Some claimed that social and emotional adjustment are essential to the preservation and sustenance of life in a series of adjustments of man to his own psychological well-being, interactions with other human beings and interactions within his/her immediate environment, including the academic environment. As such, prior research indicated that irrational beliefs affect psychosocial and educational adjustment (Al-Ali, 2004; DiLorenzo et al., 2007; Hamidi & Hosseini, 2010). Researchers believe that adjustment level and psychological well-being are the result of association between our ego and our experiences: that is, between our belief systems and behaviours (Rogers, 1961). Prior research revealed that irrationality is a significant predictor of emotional adjustment and the more one is socially and emotionally adjusted by showing unconditional and high levels of self-acceptance, the lower irrationality is (David et al., 2003). In this vein, DeBoard, Romans & Krieshok (1996) indicated that irrational beliefs and adjustment levels are inversely related. By the same token, if "there is a mismatch between reality and individual schemes (individuals' patterns to encounter special events in the environment), there is likelihood that emotional breakdowns occur" (Hamidi & Hosseini, 2010, p. 1532). Hamidi & Hosseini (2010) aptly observe that

'The core element of emotional disorders is the feeling of isolation and loneliness. Human beings need the support and sense of security that are

provided by others. Many experts consider positive self-respect as the major factor in social-emotional adjustment. It has been proposed that there is a reciprocal relationship between social-emotional adjustment and self-confidence in a way that enhancement of one of them can affect the strength of the other one.' (p.1532)

Inasmuch as beliefs are important to socio-emotive adjustment, so are they to educational adjustment, which is described as the interest in study and school (Karami, 1998). Irrational beliefs can be detrimental to educational adjustment, too. Since educational adjustment may be impacted by variables such as motivation, mental capabilities, family condition, educational system, personal skills, social and cultural factors, and psychological factors, it is patently clear that educational adjustment is related to social and psychological adjustment; this correlation was detected in prior research, indicating that students' adjustment at school and social and personal adjustment are interrelated (Hartos & Power, 2000). Furthermore, some educational problems such as under-achievement, dropout, absenteeismcould be be related to emotional maladjustment resulting from irrational beliefs. In addition, creativity and innovation originate from healthy rational beliefs; in the absence of rational thinking, there could be a chance to develop different forms of anxiety that impede learning (Al-Ali, 2004; Hamidi & Hosseini, 2010). In this context, Hamidi and Hosseini (2010) conclude that

'… some parts of students' educational problems can be related to their beliefs. Those students that are hardly aroused to reach a goal are coming from unhealthy families or from cultures in which belief systems are developed in an unhealthy manner. Combination of school experiences and unhealthy society would lead to enhancement of alienation and isolation from normal counterparts and normal life styles.' (p.1532)

These observations are commensurate with findings from empirical research that documented the detrimental effects of marital and family conflict scenarios within disintegrated families (O'Brien et al., 1991, 1995). Findings from other studies (Al-Dulaim & Amer, 2004) indicate that irrational beliefs bolster up feelings of loneliness and isolation as well as consolidating the individual's feelings of disapproval and maladaptation.

7 Criteria for Judging Irrational Beliefs

Dryden and Neenan (2006) defined irrational beliefs as ‘evaluative cognitions couched in the form of dogmatic and absolute musts, shoulds, have to's, got to's and ought's’ (p.77). Walen et al. (1992) described five characteristics of an irrational belief.

An irrational belief is logically inconsistent, meaning that it may deduce an erroneous conclusion from an accurate premise. Irrational beliefs, therefore, tend to be extreme evaluative exaggerations of a situation, for example, ‘I failed a test and that's awful’ or ‘I failed a test and I'm a failure’.

Irrational beliefs tend to be rigidly held and dogmatic in nature. Irrational beliefs are also inconsistent with reality and cannot be supported by empirical evidence. For example, a belief of ‘My wife must do what I say’ will not be supported by empirical evidence, as the individual holding the belief encounters situations in which his wife does not do what he says. The fourth criterion of an irrational belief is that it leads to disturbed emotions such as anger, depression, anxiety and guilt. An individual who rigidly adheres to a negative evaluation is likely to experience psychological disturbance when they encounter circumstances that disconfirm their belief (Sutton-Simon, 1981). For example, someone who believes ‘I must be approved of by people’ is likely to encounter many people who do not approve of him or her.

The imperative and absolute features of these beliefs would lead the individual to respond with strong disruptive emotions. Thinking irrational thoughts and experiencing corresponding dysfunctional emotions is largely detrimental to people (Dryden, 2003) and does not allow them to achieve their goals. Ellis (1976) claimed that irrational beliefs are absolutistic, demanding and rigid anti-empirical evaluative cognitions related to the most important of therapeutic problems – human worth. Based upon a definition of an irrational belief being an absolutistic, rigid and illogical evaluation of activating experiences, one might assume that there are hundreds of specific irrational beliefs.

However, extensive clinical observation in his practice with thousands of clients led Ellis to note a high degree of similarity among clients' maladaptive belief systems (Simon-Sutton, 1981). According to Ellis, the issue of human worth is intimately tied to the very core of what is usually called ‘emotional disturbance.’ Ellis (1976) believed that it is impossible for people to have valid self-images and that it is enormously harmful if they attempt to construct one. Ellis (1976, p.283) wrote:

> ‘If you finally arrive, by some devious means, at a global rating of your being (or of your “self”), you thereby invent a magical heaven (your “worth,”

> your "value," your "goodness") and a mystical hell (your "badness"). This deification and devilification of the individual is arrived at tautologically, by definition. It has no real relation to objective reality. It is based on a false assumption that you should or must be a certain way and that the universe truly cares if you are not what you ought to be. It refuses to acknowledge the fact that all humans are, and probably always will be, incredibly fallible. And it almost always results in your harshly condemning and punishing yourself or defensively pretending that you are "worthy" and "good" in order to minimise your anxiety and self-deprecation.' (p.283)

Ellis formulated his ABC model to describe how adherence to such beliefs results in emotional distress. Ellis (1976) further explains how undesirable emotional consequences (e.g. anxiety, anger) are not due directly to activating events, but are the result of an individual's irrational beliefs. These beliefs lead the individual to view the event as catastrophic in some way.

Ellis (1962) identified 11 irrational beliefs commonly associated with emotional distress. These included irrational beliefs related to ego and discomfort disturbance and health, life-related and other-related disturbance, ego disturbance, awfulizing beliefs, low frustration tolerance, depreciation of self, others, and life conditions, demanding beliefs, and others. For more detail, see Ellis's books *Reason and Emotion in Psychotherapy* (1994), and *Feeling Better, Getting Better, Staying Better* (2001, pp. 88-94). However, subsequent research has identified four categories of irrational cognitive processes: (1) demandingness, (2) awfulizing/catastrophizing, (3) low frustration tolerance, and (4) global evaluation and self-downing. These four types of irrational beliefs cover various content areas (e.g., performance, comfort, and affiliation) and can refer to ourselves, to others or to life in general (David et al., 2005).

Irrational beliefs are typically described as evaluative beliefs (i.e., hot cognitions or appraisal) rather than distorted descriptions or inferences (i.e., cold cognitions: Szentagotai et al., 2005). Table 2 below presents this listing as it is worded in Ellis, 1994. Although the specific wording of each of the 11 beliefs varies from text to text, the content of each belief remains the same.

Table 2: Ellis' List of Irrational Beliefs

Ellis's 11 Irrational Beliefs
1. It is a dire necessity for adult humans to be loved or approved by virtually every significant other person in their community.
2. One absolutely must be competent, adequate, and achieving in all important respects or else one is an inadequate, worthless person.
3. People absolutely must act considerately and fairly and they are damnable villains if they do not. They are their bad acts.
4. It is awful and terrible when things are not the way one would very much like them to be.
5. Emotional disturbance is mainly externally caused and people have little or no ability to increase or decrease their dysfunctional feelings and behaviours.
6. If something is or may be dangerous or fearsome one should be constantly and excessively concerned about it and should keep dwelling on the possibility of its occurring.
7. One cannot and must not face life's responsibilities and difficulties and it is easier to avoid them.
8. You must be quite dependent on others and need them and cannot mainly run your own life.
9. One's past history is an all-important determiner of one's present behaviour and because something once strongly affected one's life, it should indefinitely have a similar effect.
10. Other people's disturbances are horrible and one must feel very upset about them.
11. There is invariably a right, precise, and perfect solution to human problems and it is catastrophic if this perfect solution is not found.

Adapted from 'Reason and emotion in psychotherapy: A comprehensive method of treating human disturbances,' by A. Ellis, 1994, New York: Carol Publishing Group

These categories have been found to apply to different types of irrational beliefs (e.g., achievement, affiliation, comfort) (e.g., DiGiuseppe et al., 1988; Ellis, 1994; Walen et al., 1992) and may refer to one's own performance, other people and/or life conditions. While these categories are generally defined in terms of the associated irrational beliefs, rational beliefs within each category also exist. For example, beliefs associated with self-worth regarding the necessity to secure others' approval or the necessity to be entirely competent will mediate between activating events and emotional consequences. These consequences are generally evidenced in physiological, cognitive and behavioural indexes of emotional distress.

Demandingness is viewed as a core belief involved in primary appraisal. It refers to absolutistic requirements expressed in the form of 'musts', 'shoulds' and 'oughts' (e.g., 'I must pass the exam'). The rational correspondents of demands are full preferences, which are flexible assertions of what the person wants. Alternatively, the rational counterpart stresses desires rather than demands. In therapy, individuals are taught to express their beliefs in the form of wishes, wants and preferences rather than escalating into dogmatic 'musts', 'shoulds' and 'oughts' (e.g., 'I really want to pass the exam, though I am aware that this may not happen').

In this regard, Dryden (2003, p. 29) has described the relationship between demandingness and the other irrational belief processes that of cause and effect; there are two parts to dysfunctional or irrational beliefs, but that they usually seem to be integrated and go together.

> The first and perhaps the most important part is people's tendency to escalate their strong desires and preferences into musts. The second part emphasises what kind of dire results will follow from people's doing more poorly than they supposedly must do (p. 29).

Awfulizing/catastrophising refers to an individual's belief that a situation is worse than it absolutely could be (e.g., 'It is awful that I did not pass the exam'). More precisely, awfulizing beliefs refer to the extreme evaluation of a [negative] event as worse than it absolutely should or could be, while a rational, non-awfulizing belief refers to a more moderate evaluation of badness (i.e., bad rather than awful). For example, a rational belief would be a more moderate evaluation of badness. In REBT individuals learn to evaluate negative events as bad rather than awful (e.g., 'It is very bad that I did not pass the exam, but this is not the end of the world').

Low frustration tolerance (LFT) refers to an individual's belief that he/she will not be able to endure situations or have any happiness if what he/she wants does not exist (e.g., 'I could not stand failing the exam'). Low frustration tolerance is the belief that one cannot bear certain circumstances, making a situation intolerable. HFT beliefs, on the other hand, assert that although a certain situation is hard to bear, it is not intolerable.

The rational counterpart is statements of tolerance. Therapists teach individuals that they can tolerate discomfort (e.g., 'Failing the exam would not make me feel good, but I could stand it').

Global evaluation beliefs refer to global negative ratings about oneself (i.e., self-downing), others and the world. The rational counterpart of global evaluation is unconditional self, other and world acceptance, while only rating specific behaviours. These beliefs appear when individuals over-generalise about others, themselves and the world. It is typically expressed in excessively critical (e.g., self-downing), global evaluations (e.g., 'I am stupid and worthless because I did not pass the exam'). Acceptance of fallibility comprises the rational belief in this category. In treatment, individuals learn that no person can be evaluated based on a single global rating, and that life conditions are composed of good, bad, and neutral elements (e.g., 'I did not pass the exam. It was dumb not to prepare enough, but this does not mean that I am stupid and worthless').

Irrational beliefs are considered important psychological constructs (i.e., cognitive vulnerability constructs). Evidence shows that irrational beliefs impact specific automatic thoughts, various emotional states (Goldfried & Sobocinski, 1975; Jones, 1969) and general psychiatric symptoms (Alden & Safran, 1978; Jones, 1969).

There have been extensive reviews of Ellis's beliefs, which have been explored both theoretically and practically. Most of these reviews suggested that the proposition that irrational beliefs are responsible for a great variety of psychological and mood disorders, such as social anxiety, depression, etc. was met with unprecedented acceptance from scholars and practitioners of psychotherapy from different schools of thought. Ellis proposed that adherence to certain irrational ideas and the corollaries to which they normally lead is the primary cause of emotional disturbances via the process of internal re-indoctrination or autosuggestion. When at its inception, Meehl (1962) observed that there was considerable data obtained on the theoretical and tactical opinions of over 150 psychotherapists of a great variety of orientations, this made it quite clear that there are very few statements about the theory of psychopathology or the techniques of treatment that can command even near-universal assent among practitioners. Consequent research on the utility of the irrational beliefs theory was further conducted, and findings concluded that there is a wide consensus on the validity of the theory endorsed by psychoanalytically oriented psychiatrists, psychologists and social workers (Goldfried & Sobocinski, 1975).

8 Measurement of Irrational Thinking

Ellis developed a psychotherapy approach grounded in cognitive behaviouristic theory. Later on, researchers tapped into the effectiveness of such cognitive therapies, especially the more developed form of Rational Emotive Behavioural Therapy (REBT), harnessed for the treatment of emotional disturbances, such as social anxiety (DiGiuseppe, McGowan, Sutton-Simon & Gardner, 1990; Watson & Friend, 1969). Cognitive behaviouristic therapy covers a variety of techniques in which children and adolescents are taught to use cognitive meditational strategies as a means of guiding their behaviour, with the ultimate goal of positive behavioural and mental adjustment (Durlak Fuhrman & Lampman, 1991). According to DiGiuseppe et al. (1990), cognitive therapies and behavioural treatment conditions induce a significant reduction of anxiety specific to interpersonal and social behaviour. This warrants Rational-Emotive Behavioural Therapy (REBT) as an important treatment for anxiety, phobias and other related psychological problems.

As said, this comprehensive form of psychotherapy, known as REBT, seeks to alter irrational beliefs in patients suffering from psychopathology and especially from emotional disturbances. As will be discussed in the next chapter, REBT has been widely investigated as an effective therapy for changing irrational beliefs to rationalised ones, which eventually lead to significantly less emotional distress. However, there needs to be a more valid and reliable inventory or measure for detecting and recognising irrational belief systems or structures that individuals entertain (Osman et al., 1996). There have been several instruments theorised and developed based on REBT theory in order to produce just such a measure of irrational ideation as entertained by some patients.

8.1 Psychometric studies of Ellis's beliefs

Ellis's theory of belief systems is basically grounded in clinical observations and empirical evidence, which generally support the theory, but concrete follow-up empirical testimony is still lacking (DiGiuseppe, 1996). Factor analytic studies have investigated whether or not Ellis's conceptualisation of beliefs systems is truly represented as four separate belief processes, as he claimed.

In this regard, Muran, Kassinove and Dill (1992) launched a confirmatory factor analysis with four variations of a questionnaire. The questionnaires were administered to clinical and non-clinical participants. Each version of the questionnaire included a fixed sentence stem with four linguistic variations of each belief process. For instance,

demandingness was represented by the words ‘should’, ‘ought’, ‘need’ and ‘have to’, and awfulizing was represented by the words ‘awful’, ‘horrible’, ‘terrible’, ‘catastrophic’. Confirmatory factor analysis, however, failed to support the four-factor model. The responses of clinical and non-clinical participants implied that these groups had different conceptualisations of irrationality. When each factor was isolated with its manifest variable and when the model was assessed with a single variation of the questionnaire at a time, there was some verification for a four-factor model among non-clinical participants. Then, the exploratory factor analysis indicated that a general factor of irrationality might exist in clinical populations. These results suggested that there are fewer irrational beliefs among clinical subjects and that a general state of irrationality may be more accurately represented as a single construct.

By the same token, factor analytic studies conducted with current measures of irrational beliefs also question the breakdown of irrational thinking into four separate belief styles or processes. DiGiuseppe, Leaf, Exner, and Robin (1988) and DiGiuseppe, Robin, Leaf, and Gorman (1989) attempted to develop an irrational beliefs measure with items reflecting the different subscales of demandingness (DEM), awfulizing (AWF), frustration intolerance (FI), and self-downing (SD). However, exploratory factor analysis failed to find DEM as a factor separate from the other irrational belief processes. A confirmatory factor analysis of the same data yielded two main factors, with DEM, AWF and FI loading on one factor and SD on another.

The General Attitudes and Beliefs Scale (GABS: DiGiuseppe, Leaf, Exner & Robin, 1988) is a more frequently used measure of irrational beliefs that was developed in order to overcome the shortcomings of older measures. The GABS includes items that pertain to both rational and irrational beliefs and all items are cognitively worded (Bernard, 1990). Items were constructed to be consistent with current REBT theory and assess the four irrational cognitive processes of Demandingness, Awfulizing, Global Self Rating and Low Frustration Tolerance, as well as the three content domains of achievement, approval and comfort. A factor analysis conducted with the original version of the GABS revealed a four-factor solution that reflected the content of items (Bernard, 1998).

These findings suggest that irrationality was structured around content areas such as the need for approval, achievement, and comfort rather than irrational processes such as demandingness and awfulizing. Bernard then added items to the GABS in order to develop an eighth subscale: a content domain subscale of fairness. Bernard (1998)

conducted a principal factors analysis that yielded seven factors and referred to them as ‘Self-Downing’, ‘Other Downing’, ‘Need for Achievement’, ‘Need for Approval’, ‘Need for Comfort’, ‘Demands for Fairness’ and ‘Rational’. Fifty-five of the original 96 items loaded .40 or higher on one of the seven factors.

One important finding from Bernard's factor analysis is that rationality emerged as a factor separate from irrationality. This supports REBT theory that irrational beliefs are a construct separate from rational beliefs. Furthermore, the underlying structure of irrational thinking was comprised of different factors (e.g. Self-Downing, Need for Approval), supporting Ellis's conception of irrationality as a multidimensional construct.

However, while irrationality appears to consist of a number of distinct beliefs, beliefs characterised as rational all loaded on a ‘rational’ factor. These results suggest that the underlying structure of rationality is unitary and imply that if someone is rational in one area of his or her life, then that individual is rational across all areas (Bernard, 1990, 1998; DiGiuseppe & Bernard, 1990, 2006).

In Bernard's (1998) study, the construct of irrationality was divided among six factors, four of which reflected the content domains of achievement, approval, fairness and comfort. The processes of demandingness, awfulizing, and frustration intolerance were all subsumed within these content domains. These results suggest that the different dimensions of irrationality pertain to separate content areas as opposed to different processes. This is consistent with the results of other psychometric studies that have raised doubts as to whether the underlying structure of irrationality is accurately represented as four separate belief processes.

The consistent findings in recent psychometric studies (e.g., Bernard, 1998; DiGiuseppe et al., 1988) of self-downing appearing as a factor separate from demandingness provide support against Ellis's argument that the process of self-downing is a derivative of demandingness. Furthermore, ‘the fact that DEM, AWF, and FI factor together suggests that these three constructs may be psychologically equivalent’ (DiGiuseppe, 1996, p. 14). DiGiuseppe also concluded that DEM, AWF and FI have a different psychological meaning from statements of self-worth. DiGiuseppe (1996) suggested that people might distinguish between irrational beliefs that involve the self and self-evaluation (i.e., self-downing) and those that refer to the outside world (DEM, AWF, FI).

DiGiuseppe (1996) supported these assumptions with observations from his own clinical experiences. During the supervision sessions with REBT therapists, DiGiuseppe

(1996) observed that therapists and clients tended to use the terms *demandingness* (DEM), *awfulizing* (AWF) and *frustration intolerance* (FI) interchangeably without confusion. For example, if a client adhered to a belief of AWF (e.g., 'It would be awful if my husband did not love me!') they usually would respond to the therapist's disputation of FI (e.g., 'would you really not stand it if your husband did not love you?'). Clients, however, often perceived DEM, AWF and FI to hold different meanings from statements of self-worth. The same client appeared confused when the therapist disputed a belief of SD (e.g., 'why would you be a worthless person if he stopped loving you?'). The client, therefore, appeared to endorse irrational beliefs of demandingness, awfulizing and frustration intolerance but not self-downing.

DiGiuseppe spoke of another client who revealed thoughts of worthlessness after his wife left him. DiGiuseppe explains that the psychotherapist in charge of this case wrongly equated self-downing (SD) with demandingness (DEM) as equivalent terms, so he invidiously reprimanded the client with the retort, 'Why must you be loved by your wife or anyone else?' DiGiuseppe (1996, p. 14). The patient replied he had another interpretation to his own case; he quizzically answered that he did not have to be loved by anyone, but he felt shy.

That is what a REBT therapist should do: deconstruct an irrational belief, and reconstruct it in a rational fashion to help the client get rid of this rigid belief, and replace it with a constructive one.

8.2 Assessing irrational beliefs

An assessment of beliefs traditionally occurs during the course of an REBT session (Ellis & Dryden, 1997). During the session, assessment and treatment of irrationality occur almost simultaneously (Sutton-Simon & Goldfried, 1979). Both Socratic and didactic methods are utilised in REBT therapy in order to uncover beliefs. Therapists direct clients to focus on their thinking processes by asking questions such as 'What was going through your head at that time?' or 'What were you thinking?' Cognitions come out as vocalised speech during the therapy session. As the clients verbalise their thoughts, therapists look for irrational expressions. A therapist will then direct the client's attention to the irrational processes of his or her thoughts using disputation methods. If the client does not directly express the irrational thoughts, the therapist hypothesises irrational thoughts that may be leading to the client's symptoms and shares this information with the client. The therapist may suggest an IB such as

‘Many people say to themselves, if my boss thinks I'm stupid that would be terrible. Are you thinking anything like that?’ Although the therapist's active role in the identification process may facilitate identification and treatment of irrationality, several negative outcomes may result from this direct assessment method. Sutton-Simon has suggested that the interviewer exerts a strong influence on the direction of the assessment ‘and thus may, in part, determine the picture of the clients' irrational beliefs’ (1981, p. 72).

Despite this bias, the therapeutic session is the method generally used to assess for beliefs in clinical situations. By obtaining and discussing this information during the therapeutic session, clients are able to understand the irrational qualities that underlie their thoughts and change them accordingly.

Several scales have been developed grounded in the 11 original irrational beliefs proposed by Ellis (1962) as the root of emotional distress as shown in the previous Table 2. The most famous of these scales are the Jones Irrational Belief Test (as cited in Smith, 1982), the Rational Behaviour Inventory (Shorkey & Whiteman, 1977), the Self-Inventory (Plutchik, 1976) and the Idea Inventory (Kassinove, Crisci & Tiegerman, 1977).

Over 50 irrational belief measures have been developed since 1962 in order to assess irrational thinking processes (Ellis, 1994). Measures of beliefs have generally been used for research purposes. The use of accurate irrational belief measures is important for REBT studies, so support may be provided for Ellis's assertion that irrational thinking is the crucial element underlying emotional disturbance. The two scales that have been most commonly used in REBT research are the Irrational Beliefs Test (IBT: Jones, 1969) and the Rational Beliefs Inventory (RBI: Shorkey & Whiteman, 1977).

Preliminary scales and inventories for assessing irrational beliefs were initially based on a pragmatic definition, with regard to the list of 11 irrational beliefs commonly encountered in clinical practice (Ellis, 1962) and cited in Table 2. The first generation of irrational beliefs measures was grounded in Ellis’s (1962) original list of these specific, content-oriented irrational ideas in the table. For example, Davison, Feldman and Osbom (1984) constructed a reliable design for coding indices of these beliefs in thoughts expressed while testees visualised themselves being in stressful or neutral situations.

However, such lists are not ideal for guiding the theoretical and empirical development of REBT theory and its maxims, now that they provide less ground for deciding whether or how specific beliefs could be considered irrational. In reality, lists of

specific irrational belief sets grew to include hundreds of specific irrational ideas, but that was too broad to fit within an empirically verifiable theory.

Psychometrically, validation and reliability assessment of scales is a necessary step towards buttressing REBT as a rigid theory as well as providing researchers with solid measures of change for clinical outcome studies (Terjesen, Salhany & Sciutto, 2009). Reviewers of irrationality measures (e.g. Bessai and Lane 1976; Ramanaiah et al. 1987; Smith 1982, 1989) have assessed the psychometric characteristics of such measures of irrational beliefs, concluding that most of these scales are flawed for two reasons.

Firstly, assuming later developments and amendments in the theory of RET, the inventories were not deemed as a valid representation of the present theory of rational-emotive behavioural therapy, which clearly addresses the content validity of the scales. Secondly, these scales include items which measure the criteria (i.e., emotional upset) that irrational belief inventories are supposed to predict and consequently possibly inflate the predictive ability of the scales, by generating a biased impression of evidence to bolster up the theory of REBT.

These inventories were used in small-scale and large-scale research studies, giving testimony to a positive correlation between irrational thinking and negative emotionality; however, there were many problems with these inventories. For instance, Sutton-Simon, DiGiuseppe & Miller, (1978) raised doubts as to the reliability and validity of these scales, given that they lack ample normative data.

In addition, Smith (1982) indicated that irrational beliefs were not assessed by these inventories per se, irrespective of the emotional consequences that they were believed to bring forth. Smith also showed that some of the items in such inventories impinge on concepts as well as irrational ideation. For example, 'When awful things happen, I get angry.' Such items in their present phraseology clearly mystify irrational ideation and negative emotionality. In this way, the assessment of beliefs is 'typically intended to evaluate more static, stable cognitive structures' (Smith, 1982, p. 508).

In other words, Smith (1982; 1989) indicated that one of the problems with measures of irrational beliefs like the IBT and the RBI is that some of the items have emotional content that overlaps with the item content in common measures of psychological symptoms [for example, 'I get angry when terrible things happen at work' (Demaria, Kassinove & Dill, 1989, p. 330)]. Such overlap may artificially inflate the correlations between measures of irrational beliefs and symptoms (Chang & D'Zurilla,

1996; Smith, 1982, 1989). In addition, Robb and Warren (1990) further analysed the content of the measures and concluded that they contained beliefs or cognitions that are not irrational beliefs but rather inferences or automatic thoughts. Yet, conceptual problems in the development, manipulation and use of many of the existing scales of irrational beliefs still exist.

Possibly, these instruments might have been measuring the broad-band disposition of negative affectivity (Watson & Clark, 1984) rather than irrationality per se. Furthermore, given participants' lack of awareness of their own irrational beliefs, such self-report/questionnaire methods may be inappropriate for assessing irrationality (Brady & Kendall, 1992; Kendall & Korgeski, 1979).

Given these defects about these inventories, some REBT researchers attempted to construct a measure that overcomes the problems of such scales, e.g., by separating irrational ideation from negative emotionality. Many measures of irrational thinking were constructed in an attempt to alleviate previous problems.

In this vein, several such scales and tests of irrational thinking were developed in an attempt to clear with these problems. One such test was the Personal Beliefs Test (PBT), which consisted of 60 items answered on a three-point Likert scale (DiGiuseppe & Kassinove, 1976; Kassinove, 1986). This scale sought to measure irrational ideation based on four core beliefs that had been reduced from Ellis' original 11: namely, awfulizing, low frustration tolerance, self-worth judgments and demandingness (Kassinove, 1986). Demandingness was further divided into self-directed shoulds and other-directed shoulds. As such, these sub-scales of the PBT formed the measure of the basic tenets of REBT theory.

However, the PBT was further revised in the light of REBT theory maxims. This eventually resulted in a new inventory, the Survey of Personal Beliefs (SPB), which somewhat varied from its previous version (PBT), being comprised of 50 items rateable on a six-point Likert scale and designed for adults above the age of 16, thus corresponding to overall irrational ideation criteria outlined in REBT theory (Demaria et al., 1989). In this way, too, superfluous phraseology related to affect or emotional consequences was removed in order for irrational thinking to be possibly measured independently from the emotional antecedents of the ideation.

Further, Smith (1989) has reported a movement towards hypothesizing fewer, more abstract, core irrational beliefs in the rational-emotive literature (Bernard and DiGiuseppe, 1989; Campbell, 1985; Ellis, 1984, 1985, 1987; Kendall et al., 1995; Ellis

& Blau, 1997; Walen et al. 1992; Warren, Zgourides & Jones, 1989). Ellis and Dryden (1987) modified the initial list of 11 irrational beliefs to three. Current tests should be developed on this theory and contain no more factors than are necessary.

Bridges and Harnish (2010) further noted that 'Despite the importance of irrational beliefs assessment, there have been no comprehensive reviews of the tests based on both the theories of Albert Ellis and Aaron Beck currently available to clinicians and investigators' (p. 862). The two authors have critically reviewed and assessed the empirical work on irrational beliefs assessment and identified 25 scales and techniques, which they have studied with regard to their psychometric properties. Notably, Bridges and Harnish (2010) criticised early measures of irrational beliefs, including the Irrational Beliefs Test, the Rational Behaviour Inventory and the Idea Inventory currently in use today, on the basis that their psychometric properties are still in doubt. They thought that large portions of these scales lack internal consistency, validity and reliability, as some of the items in these scales assess both rational and irrational beliefs as well as emotional and behavioural responses associated with these beliefs. However, one cannot take these observations for granted.

The claims of Bridges and Harnish (2010) are refutable on the grounds of the findings from the pilot study upon which the present investigation is based. The researcher piloted the IBI on a large number of participants (n = 500), which bore out a high reliability coefficient, inasmuch as it was adjudicated by a jury of professors from different countries in the Middle East, the Arabic version of it having proven valid enough to be run for collecting reliable data on irrational beliefs in targeted populations.

The researchers commended highly the use of newly developed measures which 'possess better psychometric properties compared to the earlier, more frequently used, scales' (Bridges & Harnish, 2010, p., 873). They suggested that 'our recommendation for clinicians and researchers interested in assessing irrational beliefs are to use the newer and more specialised measures of irrationality' (p. 873). Yet, they explain that older, flawed irrationality tests are still in use more commonly and frequently than the newer, more valid, more reliable scales, for their popularity and convenience, as well as for their ease of use.

8.3 Jones Irrational Beliefs Test (IBT)

The Jones Irrational Beliefs Test (IBT) was first developed by Jones (1969), becoming the most used irrationality test since then. A thorough search by Woods (1992)

tapping into the first 20 years since the IBT came into use, recognised 81 journal articles and 25 unpublished doctoral dissertations in which the IBT was used as a tool for data collection or as the focus of validation and reliability assessment. Contrary to the observations raised by Bridges and Harnish (2010) and refuted by the present researcher in his pilot study, one would concur with Woods (1992) on the usefulness of the IBT in assessing irrational beliefs. Woods, in his synthesis study, also observed that numerous authors and researchers have systematically used the Jones Irrational Beliefs Test (IBT) over four decades with over 2,000 clients, students, workshop participants and people in RET training, concluding that the scale was good enough to be used for collecting information on irrational thinking patterns in these targeted populations of patients with 'a variety of problems including headaches and other psychosomatic disorders, Type A Behaviour, anxiety, anger, and suicidal contemplation … as well as its value in therapy' (Woods, 1992, p.12).

However, this measure of irrational thinking was prone to criticism in some evaluation research for some of the content of its items (Muran, 1991; Smith, 1982, 1989; Smith & Allred, 1986). Smith's (1982) major criticism was that there is a clear lack of discriminant validity for the Irrational Belief Test (Jones, 1969).

Nonetheless, this measure is still a valid and reliable method of collecting data about irrational belief systems in individuals, especially if another effective instrument were to be used in gleaning information about beliefs and the psychological construct being investigated, e.g., attitudes, or any other psychological dispositions (Woods, 1992). The reason is that it has been suggested by Sutton-Simon & Goldfried (1979) that social anxiety has a larger cognitive component than other types of trait and state anxieties, because social anxiety involves implicit cognitive concerns with the evaluation of others, while other anxieties, such as acrophobia (extreme or irrational fear of heights), may be related to conditioned anxiety responses accompanied by minimal cognitive distortion. Given this testimony and explanation by Sutton-Simon and Goldfried (1979), several researchers and reviewers have suggested that further replications of the nature of irrational beliefs among clinical samples should be conducted in different milieus and cultures, that the validity of the irrational beliefs scales needs to be established for specific classes of anxiety disorders, and that research is lacking into the specific irrational beliefs among people with social phobia, which warrants extensive and expansive research efforts in different culture (Himle, Himle & Thyer, 1989).

Part II: Rational Emotive Behavioural Therapy (REBT) in the Treatment of Social Anxiety Disorder

1 Introduction

There are three psychological factors hypothesised in the maintenance of SAD: these are cognitive biases, deficits in social skills and operant conditioning (Kashdan & Herbert, 2001).

The factors hypothesised to generate and maintain SADs address three types of models or theories, namely, cognitive theories, the deficit in social skills theory and operant conditioning theory. According to cognitive models, SAD is triggered through the maintenance of maladaptive beliefs and the subsequent somatic arousal induced by the resultant negative thoughts (Clark & Wells, 1995; Musa & Lepine, 2000).

As explained earlier, young people who suffer from social anxiety hold beliefs that lead them to behave in ways that will elicit rejection or negative evaluation of others. These beliefs, in turn, manifest in physiological and behavioural symptoms of anxiety (Musa & Lepine, 2000). Any accompanying physiological reactions such as blushing, sweating and heart palpitations are then interpreted as evidence of negative performance, thereby increasing the rate of social anxiety in youths (Kashdan & Herbert, 2001).

Another theory, the deficits in social skills theory, has been suggested to explain the maintenance of SAD. Studies examining social performance in adolescents with and without SAD revealed that young adults with SAD are significantly more anxious and exhibit poorer social performance on behavioural assessment tasks compared to non-anxious cohorts in controlled treatments (Beidel, Turner & Morris, 1999; Spence, Donovan & Brechman-Toussaint, 2000).

A third theory of operant conditioning explains that negative reinforcement of avoidance behaviours is assumed to bear its negative effect in collaboration with parent-child interaction styles, peer relations and perceived and imagined social threat or trauma in the maintenance of social anxiety (Kashdan & Herbert, 2001). Negative reinforcement may occur when the anxiety-stricken person seeks to avert social phobia-provoking situations or experiences a sense of relief upon avoiding anticipatory social anxiety situations (Kashdan & Herbert, 2001). The unhappy consequences of these operant factors is that avoidance coping patterns can have detrimental effects on social life developmental tasks and can become more difficult to modify or reform by lapse of time (Vasey & Ollendick, as cited in Kashdan & Herbert, 2001).

No matter how rapid the growth in research on the phenomenology of social anxiety is, the cause(s) of this disorder are identified only vaguely in the pertinent literature. Yet, some theories have been suggested to explain the aetiology of SAD. According to these theories, social anxiety can be caused by genetic factors, temperament, prior family antecedents, learning and environmental experiences, parenting styles, poor interpersonal skills and biases in pre- and post-attentive cognitive processing (Kendall & Suveg, 2006; Spence et al., 2000).

Therefore, several approaches to the treatment of social anxiety have emerged in the light of these hypothesised factors, such as the traditional psychodynamic therapy, *in vivo* and exposure therapy, dialectical behavioural therapy, acceptance and commitment therapy and other social skills developing programmes. Different approaches to the treatment of SAD can be succinctly overviewed as below.

1.1 Psycho-education

This approach to treatment proposes that once an individual recognises negative thoughts and maladaptive beliefs, corrections in information processing can be made (Beck & Weishaar, 2005). The treatment for SAD usually begins with a psycho-educational component in which information is provided about SAD and anxiety is discussed as a normal response (Ginsburg & Grover, 2005; Khalid-Khan et al., 2007).

1.2 Systematic desensitisation

This treatment approach usually combines exposure principles with cognitive restructuring techniques, although some forms of CBT rely more heavily on cognitive techniques and behavioural experiments than on exposure (Clark et al., 2003). The most widely taught cognitive behavioural skills that target the physiological symptoms of social anxiety involve training in relaxation strategies (Ginsburg & Grover, 2005; Khalid-Khan et al., 2007) and systematic desensitisation, a complex but very practical intervention strategy that has been used for several decades (Antony & Swinson, 2000). The use of exposure is based on models of fear development that implicate the learned nature of particular fears and the instrumental role that avoidance plays in maintaining anxiety (Clark et al., 2003).

1.3 Relaxation training

Applied relaxation techniques can be employed in therapy to combat the physiological effects of social anxiety. Individuals are provided with instruction on

progressive muscle relaxation, cue-controlled relaxation and skill generalisation in social situations (Rowa & Antony, 2005). Deep relaxation can help to reduce anxiety (Antony & Swinson, 2000). Regular practice of deep relaxation of 20 to 30 minutes on a daily basis can produce, over time, a generalisation of relaxation; that is, after several weeks of practising deep relaxation once per day, individuals will tend to feel more relaxed all the time (Antony & Swinson, 2000).

1.4 Social skills training

Social skills training has long been used as an intervention for socially withdrawn and anxious adolescents (Ginsburg & Grover, 2005; Merrell, 2001; Reinecke, Dattilio & Freeman, 2006; Velting & Albano, 2001). Most socially withdrawn youths tend to experience significant anxiety regarding their social experiences (Ginsburg & Grover, 2005). They may feel a great deal of fear in tackling common school situations, such as answering a teacher's questions in front of the whole class, speaking in public, asking questions of teachers or other students, or initiating conversations with peers (Merrell, 2001).

In addition to exhibiting shyness and withdrawal, and not interacting with their peers, socially withdrawn or anxious young people often have poor social problem-solving skills (Ginsburg & Grover, 2005; Reinecke et al., 2006; Velting & Albano, 2001) and are less likely than their peers to engage in social problem solving after they have experienced a failure in trying to deal with a social situation (Merrell, 2001). They are likely to give up and withdraw from social situations rather than experience the discomfort and embarrassment they perceive will occur if they fail in these situations (Merrell, 2001). For socially anxious and withdrawn adolescents, social skills training offers a practical intervention tool to increase their ability to deal with social situations (Ginsburg & Grover, 2005; Merrell, 2001; Reinecke et al., 2006; Velting & Albano, 2001).

1.5 Rational emotive therapy

This intervention approach, later referred to as rational emotive behavioural therapy (REBT), is based on the assumption that many emotional problems such as depression and anxiety are caused by irrational thinking and mistaken assumptions (Merrell, 2001). These maladaptive beliefs or irrational thoughts are conducive to low self-esteem, unnecessary guilt and shame, psychological stress and maladaptive problem-solving.

From this literature, two treatments have gained the most empirical support: cognitive behavioural therapy (CBT) and pharmacotherapy (Ginsburg & Grover, 2005; Rowa & Antony, 2005). However, due to the fact that this research was designed to present REBT as a treatment modality for SAD, pharmacotherapy and social skills programmes have not been addressed.

2 Rationale for Choosing REBT as the Underlying Model for this Study

In reviewing the status of research in the area of SADs, the literature pointed to the paucity of research on the treatment of socially-phobic patients using cognitive therapy models. However, a number of studies have investigated the effectiveness of cognitive therapy on social anxiety. Most studies involved a comparison of social-skills training and cognitive restructuring in non-clinical populations.

However, results of these studies are equivocal and treatments based on dysfunctional cognitions have generally not added to the effectiveness of social-skills training. Proponents of the social skills-deficit model of social anxiety maintain that this disorder can emanate from a lack of social skills within the patients' behavioural repertoire and that the anxiety may be overcome through social skills training.

In a different vein, a number of clinical studies (e.g. Falloon, Lindley, McDonald & Marks, 1977; Hall & Goldberg, 1977; Jerremalm & Johansson, 1981; Marzillier, Lambert & Kellett, 1976; Trower, Yardley, Bryant & Shaw, 1978) have shown social-skills training to be of value in the treatment of social anxiety, but it is unclear whether the effects of treatment are the results of social-skills training per se. Exposure *in vivo* may account for at least part of the effects achieved with such skills-training approaches (Emmelkamp, 1982).

Recently, cognitive models proposing for the explanation and treatment of social anxiety emphasise the role of information processing in human responses and adaptation (Beck & Weishaar, 2005). Thus, when one perceives that the situation requires a response, for instance, cognitive, emotional, motivational and behavioural schemas get ready to work out their effect on human social behaviour (Beck & Weishaar, 2005).

As such, cognitive theory proposes that humans have cognitive schemas that are comprised of perceptions of themselves and others, aims and beliefs, memories, imaginations and prior experiences. These are believed to greatly affect, if not gear, the processing of information (Beck & Weishaar, 2005). Cognitive theorists, therefore, believe that well-adjusted functioning is present when an individual is making reasonable and adaptive interpretations of events (Beck & Weishaar, 2005). Therefore, it

is assumed that it is not life events that determine well-adjusted functioning but a realistic view of self and others (Beck & Weishaar, 2005).

On the other hand, cognitive theory assumes that maladaptive responses sometimes occur because 'of misperceptions, misinterpretations, or dysfunctional, idiosyncratic interpretations of situations' (Beck & Weishaar, 2005, p. 238). It is assumed that one's negative internal soliloquies can lead to maladaptive responses (Corey, 2009). According to Corey, the ways in which one 'monitors and instructs themselves, gives themselves praise or criticism, interprets events, and makes predictions shed considerable light on the dynamics of emotional disorders' (p. 345).

In light of these considerations, it seemed worthwhile to investigate the relative contribution of REBT in the treatment of SAD.

3 Origin of REBT

Rational Emotive Behavioural Therapy (REBT) was founded in 1955 by Albert Ellis, an American clinical psychologist, as a result of his early training in psychoanalysis. Albert Ellis found that greater benefits were achieved in less time if therapy was focused on current thought processes, as opposed to past relationships, the then chosen method of psychoanalysis (Ellis, 1994).

Based on his response to the inefficiency of psychoanalysis, Ellis is considered the founder of REBT, although its foundations had been established centuries before. Epictetus, a stoic philosopher, stated, 'People are disturbed not by events, but by the views they have of those events.'[7] (Cited in Ellis, 1973, p. 166) Ellis developed a formula based on such observations showing the manner in which people respond emotionally and behaviourally to most life events. The theory of REBT, according to Ellis (1975), suggests that 'humans rarely change and keep disbelieving a profound self-defeating belief unless they often act against it' (Ellis, 1975, p.20).

Dryden and Neenan (2006) mentioned that the development of the REBT approach started originally as Rational Therapy (RT), for Ellis wanted to emphasise its rational and cognitive features. By this name, Ellis demonstrated the philosophical influences, largely drawn from stoicism that had influenced his creation of this psychotherapy approach. In 1961, Ellis changed the name to Rational Emotive Therapy to avoid criticisms levelled at the negligence of emotions; in 1993, about three decades

[7] This saying can be traced in Epictetus, Hastings Crossley (trans.) (1914). *The Golden Sayings of Epictetus*. The Harvard Classics. Harvard University Press.

later, Ellis renamed the approach yet again, 'calling it Rational Emotive Behaviour Therapy to show critics that it did not neglect behaviour' (Dryden and Neenan, 2006, p.1).

Ellis changed the name from Rational Emotive Therapy to Rational Emotive Behavioural Therapy in an article titled 'Why rational-emotive therapy to rational emotive behaviour therapy?' published in the Psychotherapy Journal in 1999; in fact, Ellis stated that Rational Emotive Behavioural Therapy (REBT) was wrongly named Rational Therapy (RT) in 1955 and then Rational Emotive Therapy (RET) in 1961.

Ellis (1999) explicates that rational therapy addresses both cognition and emotion, and is uniquely behavioural, as it emphasises *in vivo* desensitisation. Thus, it views thinking, feeling and behaving as integrated and holistic processes, thereby incorporating cognitive, emotional and behavioural procedures in the treatment of psychopathology. According to Ellis (1999, p.154), 'Rational emotive behaviour therapy is a preferable and more accurate term than RT or RET.'

The inclusion of the descriptor 'behavioural' refers to the fact that REBT 'is, at one and the same time, highly rational-persuasive-interpretive-philosophical and distinctly emotive-directive-active-work-centred' (Ellis, 1990, p. 330), and yet, it is 'one of the relatively few techniques which include large amounts of actions, work, and "homework" assignments of a so-called nonverbal nature' (Ibid., p. 334).

Therefore, Ellis (1999, p. 155) elaborates that "REBT is one of the most behaviourally oriented of the cognitive behaviour therapies". This therapy approach allows psychotherapists to systematically use imaginal desensitisation methods as well as *in vivo* exposure techniques to control anxiety-provoking situations in social phobia (Mersch, Jansen & Arntz , 1994; Wolpe, 1958). This approach also provides therapy to clients while they are in situations that are possibly conducive to psychological disease, and it purposefully does so until a person will change their disturbed feelings and irrational beliefs, leaving them the opportunity to continue in their anxiety-provoking situations or to abandon these situations of their free volition. REBT therapists, for this goal, can employ emotive-dramatic exercises, such as the shame-attacking exercise, and employ more behaviour-modification procedures than other behavioural or cognitive therapeutic procedures (Ellis, 1969, 1973).

In point of fact, in his manifesto of *Rational Psychotherapy*, the first article on the topic, which he presented at the American Psychological Association Convention in Chicago on August 31, 1956, Ellis declared from the very beginning that rational

psychotherapy is in fact rational emotive behavioural psychotherapy, and it started like this in practice, but the designation was short of naming the other factors emphasised in this kind of psychotherapy. Ellis (1958) stated that people possibly possess four basic processes – perception, movement, thinking and emotion – all of which are integrally interrelated. Ellis (1958) thus explained the linkage between emotion, cognition and behaviour as follows:

> '[T]hinking, aside from consisting of bioelectric changes in brain cells, and in addition to comprising remembering, learning, problem solving, and similar psychological processes, also is, and to some extent has to be, sensory, motor, and emotional behaviour. Emotion, like thinking and the sensory-motor processes, we may define as an exceptionally complex state of human reaction which is integrally related to all the other perception and response processes. It is not one thing, but a combination and holistic integration of several seemingly diverse, yet actually closely related phenomena.' (Ellis, 1958, p.35)

Ellis's book *Reason and Emotion in Psychotherapy* (1962) is considered his developed, mature manifesto for this kind of rational emotive therapy approach, and is viewed as a seminal work in the field, since it initiated several books and guides to REBT psychotherapy, such as *Reason to Change: A REBT Workbook* by Windy Dryden (2001), and *Getting Started with REBT: A Concise Guide for Clients* by Windy Dryden (2006). Ellis himself published two important books in which he revised and refined his theoretical and practical considerations about the approach, namely: *Feeling Better, Getting Better, Staying Better: Profound Self-help Therapy for Your Emotions* (2001) and *The Road to Tolerance: The Philosophy of REBT* (2004b). In actuality, there have been more than 75 books written or edited by Ellis himself on REBT.

4 Cognitive Behavioural Therapy: The Mother Theory

Cognitive behavioural therapy (CBT) is being used increasingly in psychotherapy, with some researchers considering it as one of the 'most effective and scientific therapies for use with people with psychological problems' (MacInnes, 2004, p.685). But, CBT is a generic approach, including more than 20 different psycho-therapeutic theories. Mahoney and Arnkoff (1978) proposed three central themes for cognitive-behaviour therapies: (1) human behaviour and affective patterns (adaptive or maladaptive) develop through cognitive processes such as selective attention or symbolic

coding; (2) these processes are activated by procedures similar to those in the human learning laboratory; and (3) the therapist functions as a diagnostician-educator who, after assessing maladaptive cognitive processes, arranges for learning experiences which will alter cognition and, in turn, behaviour-affect patterns. MacInnes (2004) contends that the effectiveness of CBT is widely supported by the fact that 'practitioners have reported changes in beliefs and consequent emotional responses' (MacInnes, 2004, p. 685).

Furthermore, Ellis and Grieger (1977, p.22) suggest that 'it is what individuals tell themselves about external circumstances and events that cause emotional disturbance, and not the events themselves.' As previously indicated, researchers have found a relationship between people's cognitive structures, irrational beliefs, and social anxiety (Davison & Zighelboim, 1987; Rohsenhow & Smith, 1982; Sutton-Simon & Goldfried, 1979).

There is a nexus between social anxiety and the frequency, degree and duration of self-focused thoughts and negative self-referent thinking, known as anxious self-preoccupation (Hope, Gansler & Heimberg, 1989), irrational thinking (Ellis & Grieger, 1977) or self-absorption (Ingram, 1990). Social interaction dynamics that shift or redirect the attention of the individual from unhealthy internal monologues to sociable interactions with people rely heavily on the feedback system with what it provides of negative or positive evaluations and which can trigger anxiety in social situations (Hope, Rapee, Heimberg & Dombeck, 1990).

Previous research has identified the roles of self-focused attention (e.g. Vassilopoulos, 2004), irrational beliefs (e.g. Gormally et al., 1981) and rumination and post-event processing (e.g. Fehm, Schneider & Hoyer, 2007; Kocovski & Rector, 2007) in developing or nurturing social anxiety. Findings from such research indicate that cognitive therapy is often a vital component in the treatment of social anxiety (Rodebaugh et al., 2004), including variations of Cognitive-Behavioural Theory (CBT), REBT, REST and other related therapies.

In criticising RET as the master or mother theory of REBT, by analysing Ellis's performance in regard with RET-specific skills, one has to take into consideration that 'RET was both a counselling theory and a philosophy of life' (Weinrach et al., 2001, p., 45). In this context, Weinrach et al. (2001) in another study conducted a content analysis in which the authors categorised Ellis's statements according to Ivey and Ivey's (2003) micro-counselling skills model. They concluded that the core of RET is to carve out emotional changes in the personality of the client, and these emotional changes affect

their belief systems, their feelings and behaviours, and perhaps their philosophy of life; it is these changes that bring forth solutions to psychological disturbances. Weinrach concluded that therapy must include deep changes in the belief systems of patients as well as in their feelings and behaviours, which requires, in turn, 'profound changes in the client's philosophy' (Weinrach et al., 2001, p., 45).

As an emergent theory spawned by CBT, REBT has as central tenets two principles that set it apart from other cognitive therapies. It considers that at the core of emotional disturbance lies a set of four irrational beliefs that people hold about themselves, other people and the world, whilst there are four corresponding rational beliefs that are at the core of psychological health. One of the central tenets of REBT is that these evaluative beliefs mediate the view that people have about events and produce the emotional, behavioural and inferential reactions to these events.

Ellis, in 1986, self-critiquing his psychotherapy theory and its tenets as launching from RET wrote that despite the fact that RET was the pioneering school of cognitive-behavioural therapy and here including *in vivo* desensitisation and homework assignments, this approach has witnessed huge developments since it was introduced in 1965. This approach, as currently practised, involves several other methods, including but not restricted to 'cognitive distraction, modelling, semantic analysis, problem solving, psycho-educational materials, rational humorous songs, rational-emotive imagery, shame attacking exercises, behavioural reinforcement, skill training', etc. (Ellis, 1986, p. 648).

The theoretical and practical underpinnings of REBT have emphasised a special type of beliefs, namely irrational beliefs, sometimes described as evaluative or hot beliefs. These build up the main constructs in Ellis' cognitive theory of emotion (Ellis, 1994). Ellis (1956) at first suggested that 12 irrational beliefs cause psycho-emotional disturbance. Rational emotive theory now focuses on the single, abstract category of absolutistic evaluative beliefs prone to categorisation into four types of irrational beliefs (Ellis, 1994; Walen et al., 1992). These four irrational beliefs are: demands, awfulizing, low frustration tolerance, and self or other downing, whilst the four rational beliefs are: preferences, anti-awfulizing, HFT, and self/other acceptance.

These inferential reactions can be considered as the cognitive consequences that accompany the emotional reaction to an event (Dryden, 1995). Such beliefs are usually expressed by clients in statements such as 'the world, circumstances, you, and I should be different!' or 'the world, circumstances, you, or I are utterly, completely

unacceptable' (Ellis, 1994; Walen et al., 1992). Furthermore, such thoughts/beliefs are believed to be particularly associated with feeling/sensations, such as anger, anxiety, depression, and guilt, and behaviours, as well as behavioural tendencies, such as procrastination or hostile aggression (Bernard, 1998).

A more contemporary paradigm of irrational beliefs (Walen et al., 1992) makes a clear distinction between evaluative processes and the content of these processes (i.e., affiliation, approval, achievement, comfort, fairness and control). Therefore, when someone experiences a negative emotion, such as anxiety, the accompanying inference would be a perception of threat or danger. All negative emotional reactions have accompanying inferential reactions. (Dryden, 2001)

5 Ego Health and Irrational Thinking

Irrational beliefs, whatever they are, are generated and cogitated in two basic ways that defeat or disturb the human being: in one way, the self is cause and victim of irrationality through what is termed 'ego disturbance', and in another way, irrationality brings forth clients' emotional or physical comfort in what is termed 'discomfort disturbance'.

Ellis first made this distinction between ego disturbance and discomfort disturbance clear in 1979–80, when he published an important two-part article on discomfort anxiety and contrasted this with ego anxiety (Dryden, 1999; Ellis, 1979b; 1979c, 1980;). Dryden (2009) defines ego disturbances as 'self-depreciation'. This act of self-depreciation occurs when individuals make demands on themselves, and consequently, fail to meet these demands. It involves: (a) the process of giving my 'self' a global negative rating; and (b) 'devilifying myself' as being bad or less worthy. This second process rests on a theological concept, and implies either that I am undeserving of pleasure on earth or that I should rot in hell as a subhuman (devil) (Dryden, 2009, p. 43).

Ego disturbance is also found in demands on others (e.g. 'You must treat me well or I am no good') and in demands on life conditions (e.g.'I must be promoted and if I am not I am useless'). Froggatt (2005) further explains that ego disturbance implies an upset to the self-image. This upset emanates from holding demands about oneself: e.g. 'I must … do well/not fail/get approval from others' followed by negative self-evaluations such as: 'When I fail / get disapproval / etc.' These beliefs create 'ego anxiety', which is an emotional tension induced by irrational self-perceptions that threaten the worth of the

ego, thus being conducive to other problems such as avoidance of anxiety-provoking situations. These situations result in discomfort disturbances.

Dryden (2009) defines discomfort disturbances as emanating from the irrational belief that one must feel comfortable and have comfortable life conditions. Conclusions that stem from this premise are (a) its awful when these life conditions do not exist; and (b) I can't stand the discomfort when these life conditions do not exist. On the other hand, discomfort disturbance occurs in different forms and is crucial to a full understanding of a variety of emotional and behavioural disturbances such as unhealthy anger, agoraphobia, depression, procrastination and alcoholism. Drydan (2009) further observed that discomfort disturbance is a persistent impediment to cause "productive psychological change and is thus a major form of resistance to change in psychotherapy" (p. 44).

It is useful to note that, according to REBT theory, demands made on other people either involve ego disturbance (for example 'You must approve of me and if you don't it proves that I am less worthy') or discomfort disturbance ('You must approve of me and give me what I must have and if you don't I can't bear it and you are no good for giving me such discomfort'), and thus do not represent a (third) fundamental human disturbance, since they include one or other of the two fundamental disturbances.

By the same token, Froggatt (2005) further explains discomfort disturbances as ones that result from demands about others (e.g. 'People must treat me right') and about the world (e.g. 'the circumstances under which I live must be the way I want'). As such, discomfort disturbance are potentially generated by low frustration-tolerance (LFT) which results from frustrating demands, followed by catastrophising.

In his first paper (1956) on the topic, describing REBT, Albert Ellis wrote, 'Once you believe the kind of nonsense included in illogical ideas, you will tend to become inhibited, defensive, guilty, anxious, ineffective, inert, uncontrolled, or depressed' (p.112).

6 REBT and Ego Health

According to REBT theory there are two types of psychological health: ego health and discomfort tolerance.

6.1 Ego health

The most common form of ego health is unconditional self-acceptance. This occurs when one holds preferences about oneself, but does not demand that one must

achieve these preferences. When one accepts oneself, one acknowledges that one is a fallible human being who is constantly in flux and too complex to be given a single legitimate rating. REBT theory advocates that it is legitimate, and often helpful, to rate one's traits, behaviours, etc., but that it is not legitimate to rate one's self at all, even in a global positive manner, since positive self-rating tends to be conditional on doing good things, being loved and approved, and so on.

Ego health is also found in non-dogmatic preferences about others (e.g. 'I want you to treat me well, but you do not have to do so. If you don't, I am the same fallible human being as I would be if you did treat me well') and in non-dogmatic preferences about life conditions (e.g. 'I want to be promoted, but it isn't essential that I am. If I am not, I am not useless. I am acceptable as a human being with good, bad and neutral points').

6.2 Discomfort tolerance

This stems from the rational belief, 'I want to feel comfortable and have comfortable life conditions, but I don't need to have such comfort in my life'. Conclusions that stem from this premise are (a) it's bad, but not awful when these life conditions do not exist; and (b) 'I can stand the discomfort when these life conditions do not exist'. Discomfort tolerance is central to dealing with a range of psychological problems and is a hallmark of what is known as psychological resilience in that it encourages people to face up to life adversities and cope with them head on, with difficulty to be sure, particularly in the short term, but ultimately to good effect in the longer term. Discomfort tolerance also encourages people to work hard and to be persistent in effecting productive psychological change and its presence augurs well for change in psychotherapy. Finally, discomfort tolerance forms the basis of a philosophy of long-range hedonism: the pursuit of meaningful long-term goals while tolerating the deprivation of attractive short-term goals, which are self-defeating in the longer term.

According to REBT theory, non-dogmatic preferences about people either involve ego health (for example, 'I would like you to approve of me but you don't have to do so and if you don't I can still accept myself') or discomfort tolerance ('I want you to approve of me and give me what I must have, but you don't have to do so. If you don't I can bear it'), and thus do not represent a distinct form of psychological health, since they include one or other of the two fundamental types of psychological health.

The reader has to pay close attention to the description of disturbance, brought on by irrational beliefs, spreading across one's ideas, emotions and behaviours. This sounds very much like the associative network of a schema, one in which certain powerful ideas, such as irrational ideas, play a central organizing role.

Considering that these irrational beliefs are evaluative beliefs, it is conceptualised that these beliefs function as 'the glue that binds a schema's perceptual, ideational, behavioural, and emotional elements together in a functioning cognitive structure' (Nielsen, 2003, p. 35).

Though Ellis stressing the observation that thinking was conceivably the best focus for understanding and intervening in a client's experience, Ellis (1956) assumed that behavioural, emotive and cognitive experiences are intrinsically interconnected. Nielsen further explains that evaluative beliefs are motivational judgments that individuals pass on an experience, which mobilises related schemata. These evaluative beliefs that define good and bad, desirable and undesirable, acceptable and unacceptable constitute abstract categorisation and become specific enough to seem quite personal to a client. REBT theory proposes, consequently, that by assessing and disputing core, absolutistic, evaluative beliefs, REBT can quickly outride other therapies in modifying 'the core of any client's schema' (Nielsen, 2003, p. 35).

6.3 Criteria for resolving irrational thinking

REBT theorists have set three criteria whereby to distinguish this typically disturbance-related, 'irrational' or 'nonsensical' thinking from typically non-disturbance-related, 'rational' or 'sensible' thinking.

The first of these criteria is logical consistency; this criterion states that it is illogical to draw a conclusion from only one premise or other logical errors (e.g., because I don't like it, it must not exist).

The second one has to do with empirical factual uniformity or consistency with empirical fact; that is, the best theories for living are those that are consistent with empirical facts, and those that are inconsistent should be either reinterpreted or abandoned (e.g., when I think that wrong acts absolutely must not go unpunished but then observe that wrong acts sometimes do go unpunished, I either reinterpret my view to something like 'Though wrong acts go unpunished in this life they will be punished in another life', or change my view to 'Wrong acts sometimes go unpunished'). This gives

rise to supra-natural interpretations of the acts of life, and induces an unobtrusive belief in helpless fatalism that utterly abolishes the human will.

The third criterion lurks in the consistency with long-term personal fulfilment: e.g., it is better to forego that which is desired in the short run if it proves incompatible with what is desired in the long run as well as to accept, and even seek, unpleasantness in the short run if it produces what is desired in the long run (e.g., 'If I want to learn material, pass tests, and get degrees, then even though it is unpleasant to study in the short run, as a practical or functional matter it is best to study anyway because doing so is associated with getting what I more deeply desire'). This category of irrational beliefs integrates the reduction or avoidance of dysfunctional emotions and behaviour, such as anger and hostile aggression, because they have no practical advantage over more functional emotions and behaviour, such as annoyance and assertiveness, and they often have several disadvantages (e.g., association with heart problems in the case of chronic anger and destruction of personal relations in the case of hostile aggression).

Besides identifying the irrationality of thoughts and beliefs in clientele, and the sources of these irrational beliefs, REBT therapists usually need to induce from these clients more sensible and self-helping beliefs that they can feel, cognitise more vividly, and adopt as guiding maxims in their life (e.g., 'Even though the world should not go my way, I can still work hard to try to get the things I want').

Based on these criteria, REBT, one may think, is both individually humanistic and secular in its character. As such, REBT views people as 'holistic, goal-directed individuals who have importance in the world just because they are human and alive; it unconditionally accepts them with their limitations; and it particularly focuses upon their experiences and values, including their self-actualising potentialities' (Ellis, 1980, p.327).

The humanistic features of REBT spring from the fact that this category of psychotherapy aspires to help clients fulfil their individual human desires. But it is deemed secular, as it does not base or justify its practices on any form of supernaturalism or any other irrationality; rather, REBT seeks to root out irrational beliefs. REBT further surmises that whenever individuals respond to an event or the constraints of a situation, they do so while they actually care about it, and they promptly respond with two systems: the first includes 'irrational' thoughts/beliefs, which strongly tend to have associated with them both dysfunctional feelings/sensations/images and consequently dysfunctional behaviours/behavioural tendencies. The second includes 'rational'

thoughts/beliefs, which strongly tend to have associated with them functional feelings/sensations/images and consequently functional behaviours/behavioural tendencies.

7 Models of REBT with Regard to Fixing Irrational Thinking

REBT resulted from Ellis's objective to better understand which specific features of personality cause people to maintain dysfunctional behavioural patterns (Ellis, 1994). Drawing on both Stoic and Adlerian philosophy, Ellis posited that personality was best defined by how people interpret and respond to their environment. Ellis (1994) further contended that an individual's emotional and behavioural reactions are determined solely by his or her interpretations of events, not by the events themselves (Dryden & Neenan, 2006). These interpretations are, in turn, determined by the individual's core belief system.

The basic premise underlying REBT is that emotional disturbances emerge from faulty thinking about events rather than the events themselves. Dryden (2006, p.6) has tersely described REBT as 'one of the cognitive-behavioural approaches to counselling and psychotherapy'. Dryden further described how it helps in psychotherapy by getting the client to focus on thinking as linked to acting in order to understand the emotional problems of the client and how s/he can look for healthy alternatives – an approach based on Epictetus's oft-cited saying that 'people are disturbed not by adversities, but by the views that they take of these adversities'. As Dryden further develops this saying, people are indeed 'disturbed not by adversities, but by the rigid and extreme views that they take of these adversities' (Dryden, 2006, p.6).

According to REBT, at the core of faulty thinking are rigid and absolute beliefs (e.g. 'musts,' 'oughts') and their derivatives (e.g. 'awfulizing'). The faulty thinking is thought to be irrational because it is anti-empirical, illogical, self-defeating, and ultimately promotes emotional disturbances (Dryden and Neenan, 2006; Neenan & Dryden, 1999).

The REBT model as proposed by Ellis and colleagues (Ellis, 1994; Ellis & Dryden, 1997) argues that demandingness leads to the other evaluative irrational beliefs (i.e., awfulizing/catastrophizing, low frustration tolerance, and global evaluation/self-downing), which, in turn, lead to emotional disturbances and associated automatic thoughts. In this case, awfulizing/catastrophizing, low frustration tolerance and global evaluation/self-downing function as mediators in the relationship between

demandingness and distress. If demands exert extreme pressures on the self, irrationality is generated.

A critical review of the REBT model, as initiated by Ellis and colleagues, suggests that this is the preliminary phase of experimenting with the model in psychotherapy; in other words, the first phase of REBT theory holds demandingness as accountable for the gushing out of irrational beliefs that is conducive to emotional disturbances such as social anxiety. This model can be drawn diagrammatically (see Figure 1 below) in its first phase as follows:

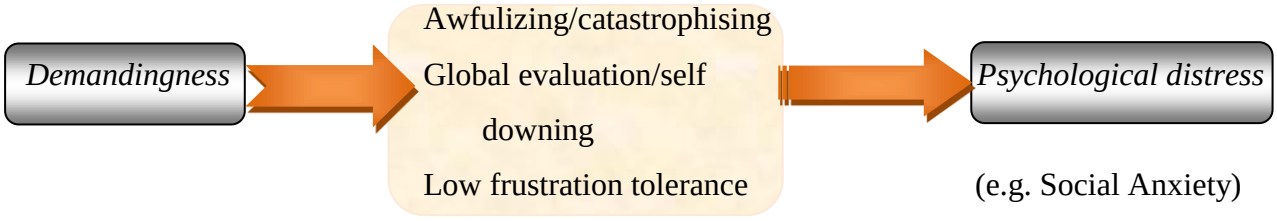

Figure 1: *REBT – I Phase*

Research done during REBT-I theory development suggested that the effect of demandingness on emotional outcomes may be mediated by awfulizing/catastrophising, low frustration tolerance, and/or global evaluation/self-downing.

The second phase of the REBT model development has been described by DiGiuseppe (1996) as REBT-II. This second phase of REBT theorises that demandingness, awfulizing/catastrophising, low frustration tolerance, and global evaluation/self-downing can independently lead to automatic thoughts and related emotional disturbances. In REBT-II, there is no place for mediation, but each type of irrational belief makes its own impact on and unique contribution to the type of emotional distress it instigates and develops. This second phase of the development of REBT can diagrammatically be shown as in Figure 2 below:

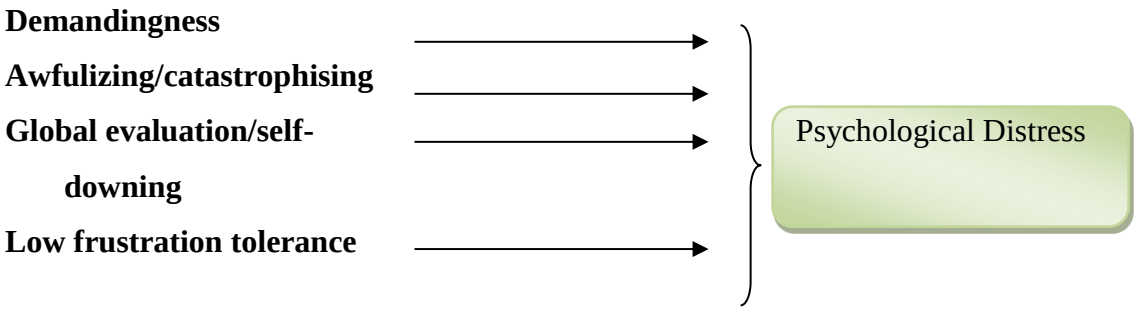

Figure 2: *REBT – II Phase*

Research conducted after the REBT-II development phase demonstrates that awfulizing/catastrophising, low frustration tolerance, and global evaluation/self-downing are associated with one another, and that all three are associated with demandingness (Bernard, 1998; David et al., 2002; Mohamed, 1992).

According to Dryden (2006, p.6), "all approaches to counselling and psychotherapy have their own framework for making sense of people's emotional problems and the healthy alternatives to these problems". Several psychotherapists, foremost amongst whom is Ellis himself, have consistently shown that REBT's highly directive, educative and preventative nature can be used with children and adolescents.

REBT has been applied to children and adolescents exhibiting conduct disorders (Morris, 1993), aggression (Raynor, 1992), test anxiety (Warren, Deffenbacher & Brading, 1976), disruptive classroom behaviours (Zelie, Stone & Lehr, 1980), attention-deficit/hyperactive disorder (Morris, 1993), low self-esteem (Weaver & Matthews, 1993), low self-concept (Cangelosi, Gressard & Mines, 1980), irrationality (Rosenbaum, McMurray & Campbell, 1991), general anxiety (Knaus, 1974; Knaus & Boker, 1975), and low academic achievement (Block, 1978).

Consistenc with this conceptual framework, it appears that exposing social phobia to cognitive restructuring as a means of modifying the schemata of patients and reducing their social anxiety has been a common procedure in REBT protocols.

The fundamental distress of patients with social anxiety lies with their fear that they might be negatively evaluated by others. Therefore, people with social phobia are concerned that they may do or say something liable to provoke negative evaluation from others or that they may show physical symptoms in their social situations that will make them appear excessively anxious to others. These negative emotional states are caused and sustained by these irrational beliefs of social failure in social interaction situations. People with social phobia cling to these irrational beliefs in the wrong belief that they should be impeccably competent and adequate in order for them to be worthwhile people. The purpose of REBT is to challenge and modify these irrational beliefs through discussion and persuasion to change the patient's fundamental ideology. REBT has been associated with significant treatment improvements among people with social phobia in several studies; such improvements in therapy were maintained long after the cessation

of treatment (e.g., DiGiuseppe et al. 1990; Emmelkamp et al. 1985; Mattick and Peters 1988; Mattick et al. 1989; Mersch et al. 1989).

7.1 Cognition, irrational beliefs and emotions

One of the major interesting threads of discussion within the cognitive psychology literature addresses the relationship between cognitive and emotional processes. Prior research tackling emotion as related to cognition has shifted away from an emphasis on arousal and physiological processes (Cannon, 1927; Ekman, 1992) to an emphasis on cognitive processes (Fiske & Taylor, 1991).

There have been several cognitivist theories of emotion that have accumulated over time to focus on the interruption of schema and goals, or on the relationship between emotions and cognitions or schema, attributions, and goals (Denoff, 1991; Fiske, 1982; Mandler, 1975; 1990); other theories have existed to invigorate the appraisal of stimuli with regard to personal significance and emotional consequences in behavioural terms (Lazarus, 1991a).

In this vein, according to recent research findings (Lazarus, 1991b; 1982; Smith & Lazarus, 1990), it was revealed that *cold cognitions* are relevant to emotion because they contribute to the data that individuals appraise with regard to adaptation significance; cold cognitions include attributions and inferences, which are usually groundless in the factual world. While cold cognitions (e.g., attributions, inferences) remain unevaluated (that is, they have not become irrational beliefs that push emotions and behaviours into action), they are not sufficient to generate emotions in effect (Lazarus, 1991c; Smith & Lazarus, 1990). This trend of cognitive research on emotion as related to cold cognitions focuses on those cognitive factors that are conscious or potentially consciously conspicuous (Denoff, 1991; DiGiuseppe, 1996).

The other trend of cognitive research relevant to cold cognitions and emotions has emphasised the unconscious information processing involving cortical and sub-cortical structures (e.g., David, 2000; LeDoux, 1996). Both trends of research are utilised in contemporary approaches of cognitive psychology to the study of emotion, thus providing a comprehensive portrait of human emotions.

In this trend, Ellis's cognitive theory of emotion formation (Ellis, 1994; Ellis & Harper, 1961) pertains to the first line of research, as it guides the practice of Rational Emotive Behavioural Therapy (REBT). In accordance with Ellis's ABC model patients who engage in REBT are encouraged to actively dispute (D) their irrational beliefs and

to assimilate more efficient (E), adaptive, and rational beliefs, which should in turn have a positive impact on their emotional, cognitive, and behavioural responses to external situations and events they pass through in their life.

In this regard, meta-analytic research and synthesis studies have supported the conclusion that REBT is an empirically validated form of cognitive-behavioural psychotherapy (e.g., Engles, Garnefsky & Diekstra, 1993). This will be dealt with in more elaborate detail later in this chapter.

However, while many of REBT's principles and pro-research findings have been assimilated by the psychological mainstream (Still, 2001), it still remains noticeably less visible in the mainstream of emotion research. This is because many of REBT's hypotheses about emotion formation were not empirically investigated in adequate measure.

Ellis (1962, 1994) has hypothesised his cognitive theory of emotion mainly on the basis of a large clinical practice, with insights from previous attempts at rational emotive therapy (RET). However, despite the significance of clinical data to REBT theories, the effectiveness of REBT, as borne out by several research testimonials, has indirectly been supportive of Ellis' cognitive theory of emotion. Further, REBT research used to be implemented in its own terms, rather than using the framework of the mainstream cognitive theories of emotions, therefore becoming less visible. More importantly, REBT's potential has not been fully explored in prior research conducted to explore Ellis' cognitive theory of emotion formation within the conceptual framework of appraisal theory (Lazarus, 1991a; Smith & Lazarus, 1990; Weisz, Weiss, Alicke & Klotz, 1987).

The concept of emotional appraisal is an explicit feature of Ellis' theory (Ziegler, 2000); by the same token, the relationship between the construct of emotional appraisal and irrational beliefs has been deliberated by many authors (David et al., 2005; Ellis, 1994; Ziegler, 2000). But very few researchers have undertaken empirical research based on this relationship between irrational beliefs and emotional appraisal (David et al., 2002; David, Kirby & Smith, 2003)

Assumedly, there are certain qualitative differences between specific similar emotions; this assumption is esoteric to Ellis' cognitive theory of emotion. Emotions that ensue from irrationality of negative events/situations are called dysfunctional/maladaptive negative emotions (e.g., social anxiety), and those that proceed from irrational beliefs about positive events are called

dysfunctional/maladaptive positive emotions; e.g., elation after learning that your work was praised by all the graders of the exam, which is related to the belief that "Everyone MUST only say positive things about me and they did" (Dryden, 2003, p. 141). Emotions arising from rational beliefs about negative events are called functional/adaptive negative emotions (e.g., concern), while emotions resulting from rational beliefs about positive events are called functional/adaptive positive emotions (e.g., happiness).

According to REBT maxims, dysfunctional emotions are qualitatively rather than quantitatively different from functional emotions, thus differing in their cognitive content, not in their intensity (Ellis, 1994; Ellis & Harper, 1961). Therefore, the hypothesis that emotions that result from rational beliefs are distinct from those mediated by irrational ones remains crucial to the REBT theory of emotion formation has not been verified (Ellis, 1994); thus, the quality of the emotions, and not their intensity, is what differentiates rational beliefs from irrational ones.

In this way, an elaborate examination of this theory reveals that Ellis's hypothesis of emotion formation has two major components: the first one tackles the difference between functional emotions and dysfunctional emotions, indicating that the difference is in their quality rather than their intensity. While both functional and dysfunctional emotions range in intensity from mild to severe, they differ in their quality. This idea has some indirect experimental support in prior related research. For instance, Schachter and Singer's (1962) bi-factorial theory of emotion has indicated that diverse emotional states differ little physiologically, and that emotional experience is a consequence of the interaction between two factors: physiological arousal and cognitions. Because of these cognitive factors, the same arousal can lead to different emotional states (e.g., anger versus excitement).

In this way, while arousal is a factor of relevance to the intensity of one's emotional experience, still cognitions are related to the quality of emotional experience (Schachter & Singer, 1962). This conclusion has been later deliberated upon and supported by more research evidence in this trend (Lazarus, 1991b; 1991c; Sinclair, Hoffman, Mark, Martin & Pickering, 1994) when the arousal level is low or mild. Nonetheless, if arousal is too intense, it tends to produce a negative emotional state, irrespective of cognitive factors (Leventhal & Scherer, 1987).

The second element of Ellis's cognitive theory of emotion suggest that rational beliefs and irrational beliefs mediate the formation of emotion, and that rational beliefs

are associated with functional emotions, while irrational ones are associated with dysfunctional emotions. However, as earlier indicated, there is less experimental evidence in support of the notion that irrational beliefs and rational beliefs mediate emotion formation (Bond & Dryden, 2000).

One can briefly examine the various lines and trends of research that have investigated this hypothesis in the coming paragraphs. The first argument underlying Ellis's REBT theory, which indicates that the core of emotional experience is irrational belief sets versus rational beliefs, is mainly derived from indirect evidence.

Prior research in the arena of cognitive psychology has demonstrated that both 'hot' cognitions (i.e., appraisal) and 'cold' cognitions (e.g., attributions) mediate emotions (Lazarus, 1991b; Schachter & Singer, 1962). As a result of this mediation, one may presume that irrational belief sets versus rational beliefs, as specific types of 'hot'/evaluative cognitions (e.g., Ellis, 1962; 1994) may also mediate emotion.

The second underlying argument which assumes a significant role of irrational beliefs and rational beliefs in the formation of emotions is direct research investigating Ellis' cognitive theory of emotion formation. Some of these studies addressed emotional disturbances, such as anxiety, depression (Malouff, 1992; Malouff, Schutte & McClelland, 1992; Tobacyk & Downs, 1986) rather than the more general theory of emotion formation.

Other research is related to the more general theory of emotion formation (i.e., Cash, Rimm & MacKinnon, 1986; Cramer & Fong, 1991; Kassinove, Eckhardt & Endes, 1993). For instance, Master and Gershman (1983) have revealed a greater galvanic skin response to the stimulus situation and to irrational beliefs than to rational and control statements, which is often referred to as sensitisation. However, this experiment was somewhat limited, as it operationalised emotional experience largely by its physiological concomitants, whereas REBT theory requires both quantitative and qualitative differences between functional and dysfunctional emotions (Ellis & Dryden, 1997).

In a similar mode, Kassinove et al. (1977) found that participants in their study, which specifically investigated how college students perceived differences in emotional words rather than in their own emotional experiences, recognised a certain level of emotional intensity but they were quite ignorant of any variations in the quality of emotions as hypothesised by Ellis. However, their procedure used an artificial condition rather than an ecological one.

In addition, most of these researchers have not manipulated independent scales for arousal and affect. And it is difficult to state that they carefully tested Ellis's hypothesis that dysfunctional emotions are qualitatively rather than quantitatively different from functional emotions, and that they differ in their cognitive content and not in their intensity. However, a more methodical research project investigating Ellis's cognitive theory of emotion was conducted by Cramer and several others of his colleagues (see, for instance, Cramer & Fong, 1991). They tested the hypothesis that greater dysfunctional emotional distress is caused by irrational rather than rational beliefs about negative events or situations. Commensurate with the principles and maxims of Ellis's cognitive theory of emotion, these researchers found that irrational beliefs and rational beliefs can both potentially contribute to the generation of emotion.

Nevertheless, the research done by Cramer and collaborators revealed that both dysfunctional and functional negative emotions were greater in the irrational condition than in the neutral or rational conditions, a finding that runs counter to the hypotheses of REBT. Findings of these studies indicate that the qualitative distinction between functional and dysfunctional negative emotions as hypothetically suggested by Ellis and Harper (1975) should be replaced with a quantitative one; that is, functional negative emotions refer to milder feelings in comparison with dysfunctional negative emotions, but they do not refer to qualitatively different feelings, as the researchers suggest.

In this vein, it is worth indicating that much of the prior research on Ellis's cognitive theory of emotion formation is constrained by a variety of limitations: first, several of the studies have investigated the effectiveness of REBT under stressful situations, rendering these experiments at most more appropriate to testing the REBT theory and its hypotheses as a 'vulnerability model' whose effectiveness has been checked in stressful situations (Ellis, 1994) than to testing the REBT theory as a more general theory of emotion formation; second, the procedures used for testing are artificial, having been grounded in the idea that an imagined situation can induce an emotion much or identically akin to real life situation emotions, or that these experiments assumed that irrational beliefs and rational beliefs which have been induced experimentally in these studies are similar to those endorsed by participants in real life. Third, it seems that these studies have not utilised different scales for arousal and emotion to rigorously verify Ellis's hypothesis that dysfunctional emotions are qualitatively rather than quantitatively different from functional emotions and that they differ in their cognitive content not in their intensity.

7.2 Utility of REBT with regard to irrational thinking

REBT theory is structured around the concepts of rational versus irrational beliefs, which are considered to play a crucial part in all psychological disorders. While rational beliefs, as described earlier, are pragmatic, non-absolutistic, consistent with reality, and flexible, irrational beliefs are non-pragmatic, absolutistic, inconsistent with reality, and rigid (David, Montgomery, Macavei & Bovbjerg, 2005).

DiGiuseppe et al. (1990) compared four separate cognitive behavioural and one behavioural treatment for reducing social anxiety with a waiting list control group. The results showed that participants in all cognitive therapies and behavioural treatment conditions experienced significant reduction of anxiety specific to interpersonal and social behaviour relative to both their pre-treatment levels and to participants in the waiting list control group. In addition, participants in all cognitive therapies and behavioural treatment conditions experienced significantly less general anxiety as well as less depression, and demonstrated a significant reduction in anxiety-related behaviour. Further, there were no significant differences between the behavioural treatment mean and the means of the cognitive therapies on any of the assessment measures used.

7.2.1 Research evidence

Research evidence in support of cognitive behavioural treatments in general and REBT in particular indicates that such treatments are credible interventions and superior to waiting-list controls. Such empirical evidence also suggests that group therapy providing a combination of social skills training, cognitive restructuring and graded exposure can be effective treatment procedures in cognitive behavioural therapies. Furthermore, group therapy for adolescents can potentially integrate the normal developmental tasks, thus providing a place where participants can safely share similarities and take risks with others (Baer & Garland, 2005; Hayward et al., 2000; Spence et al., 2000).

Several studies examining the efficacy of cognitive behavioural group therapy as in REBT which utilized treatment protocols specifically designed for social anxiety disorder (Heimberg & Becker, 2002) proved effective after the termination of the treatment and in follow-up tests. Usually, the structuring of REBT of treatments consists of 12 weekly 3 hour group sessions, the preliminary of which are designed to introduce the rationale and mechanisms for treatment, have been proven to develop group cohesion, and impart cognitive restructuring concepts (DiGiuseppe et al. 1990;

Emmelkamp et al. 1985; Heimberg & Becker, 2002; Butler et al. 1984; Clark et al. 2006). Subsequent sessions focus on integrating REBT restructuring skills in order for the patients to recognize, inspect, and challenge their negative irrational beliefs before, during, and after participating in role-plays of feared social situations in the group context.

REBT, as the culmination of cognitive behavioural therapy theories, has been proven to be effective for those of school and college years. Further, cumulative research indicates that almost 70% of youths receiving mental health services do so only at school, making the education system the de facto system of service delivery for children and youth with mental health concerns (Farmer, Burns, Phillips, Angold & Costello, 2003; Gonzalez et al., 2004).

In an early study of self-help use of REBT with college students, Schelver and Gutsch (1983) examined the effects of self-administered REBT on high and chronic social anxiety. Forty-five college students were administered the Social Avoidance and Distress Scale (SADS) and the Fear of Negative Evaluation Scale (FNE), then randomly assigned to three groups: self-administered REBT, self-administered attention placebo condition (Logotherapy or LOGO), and no-treatment control. The self-administered treatments consisted of participants utilising widely read self-help books written by professional therapists describing the basic tenets of each psychotherapeutic approach. After a five-week treatment period, SADS and FNE results indicated that while differences between the REBT and LOGO groups and between the LOGO and no-treatment control groups were not significant, the REBT treatment was significantly more effective than the no-treatment control in reducing feelings of social avoidance and distress ($t=-.27$, $p<.0116$), and fear of negative evaluation ($t=2.57$, $p<.02$). Moreover, results indicated that REBT participants were less anxious than either the LOGO participants or the no-treatment participants while they were participating in the post-test session. Findings also suggested that self-administered cognitive therapy when treating social anxiety has the potential to generalise and decrease trait anxiety as well.

Vestre and Judge (1989) sought to determine the effects of varied therapist contact with self-administered REBT on interpersonal and social anxiety. Sixty-eight introductory psychology class students were evaluated utilising the Hopkins Symptom Checklist (HSCL), the Fear of Negative Evaluation (FNE) scale, the Social Avoidance and Distress (SAD) scale, the Beliefs Test and the Katz Adjustment Scale (KAS). They were then randomly assigned to one of three treatment groups, or a no-treatment control

group. Each treatment group employed a five-week reading outline of *The New Guide to Rational Living* (Ellis & Harper, 1961). The therapist administered (TA) group was structured as a discussion group with the leader assuming the role of a teacher rather than a therapist. Minimal contact (MC) group participants were contacted once a week by telephone to encourage reading and to answer questions. Self-administered (SA) group participants had no contact with the researchers until the study was over. The study results indicated that the three treatment groups improved significantly when compared to the NT group on five of the seven self-report measures (FNE, $F=3.66$, $p<.05$; HSCL SOM, $F=5.41$, $p<.01$; HSCL ac, $F=5.90$, $p<.001$; HSCL DEP, $F=6.45$, $p<.001$, HSCL IS, $F=3.28$, $p<.05$), which support the findings of Schelver and Gutsch (1983).

DiGiuseppe et al. (1990) subsequently compared four separate cognitive behavioural treatments and one behavioural treatment for reducing social anxiety with a waiting list control group. Participants consisted of 57 adults who responded to advertisements for the study. Self-report measures of social anxiety included the Fear of Negative Evaluation (FNE) scale, the Social Avoidance and Distress Scale (SADS), the S-R Inventory of Anxiousness (S-RIA), and the Multiple Affect Adjective Checklist (MAACL). The physiological assessment of social anxiety consisted of recording pulse rates for one minute, five minutes before and again during a social interaction with a person of the opposite sex. Behavioural components of social anxiety were assessed during the interaction by two trained raters using the Time Behavioural Checklist (TBC). Treatment for all therapy conditions was conducted in groups that met weekly for ten weeks for 1.5 hour sessions. Groups included REBT, Cognitive Therapy, Interpersonal Cognitive Problem-Solving Skills Training, Self-Instructional Training and a Behavioural Assertion Training group. Three advanced graduate students in clinical psychology, with training in each therapy, served as therapists. Each held a different hypothesis as to which therapy would be more effective, thus counterbalancing any demand characteristics. Each therapist conducted a different treatment. All therapy sessions were tape recorded, with the second, fifth and eighth tapes reviewed. Overall, statistical analyses of the findings showed that participants in all cognitive therapies and the behavioural treatment conditions experienced significant reduction of anxiety specific to interpersonal and social behaviour relative to both their pre-treatment levels and to participants in the waiting list control group. In addition, participants in all cognitive therapies and the behavioural treatment experienced significantly less general

anxiety as well as less depression, and demonstrated a significant reduction in anxiety-related behaviour.

Considerable qualitative research has been generated investigating the effectiveness of REBT with adolescents and adults. In a qualitative review, Silverman, McCarthy and McGovern (1992) found that 49 of 89 studies reported positive findings for REBT. Other alternative psychotherapies were not as effective as REBT, which produced significantly better outcomes. The aforementioned findings were commensurate with those reported in previous research in this respect (e.g. DiGiuseppe & Miller, 1977; McGovern & Silverman, 1984; Weisz, Weiss, Alicke & Klotz, 1987), which had examined the effects of REBT with adolescents and adults. Studies employing meta-analyses of previous REBT research with adolescents and adults had also confirmed its effectiveness. In a meta-analysis of 28 controlled experiments using REBT with adolescents and adults and yielding 31 comparisons, Engles et al. (1993) found a grand effect size of 1.62 for REBT. REBT yielded the highest overall effect size when compared to systematic desensitisation, combination treatments and placebo conditions (Taylor, 1996). In a meta-analysis of 70 REBT outcome studies yielding 236 comparisons, Lyons and Woods (1991) addressed the efficacy of REBT in comparison to no treatment controls, attention control placebos and cognitive behaviour modification. The overall effect size of REBT was .95.

In another synthesis study by Hajzler and Bernard (1991), findings from 21 studies include the effectiveness of REBT in (a) decreasing irrationality in over 88% of the studies using a measure of irrationality, (b) increasing the internal locus of control of subjects in 71% of the studies using such a measure, particularly with learning disabled students, and (c) decreasing the anxiety of subjects in 80% of studies using measures of anxiety. Support was also found in over 50% of the studies in the areas of self-esteem and of behavioural problems. Significant, from a theoretical perspective, was the consistent finding that when changes in irrationality occurred there were concomitant changes with other dependent measures. These results were consistent with those of a previous qualitative review of REBT research conducted with children and adolescents (i.e. DiGiuseppe & Bernard, 1990). These meta-analytic results demonstrate that REBT is an effective form of therapy with adolescents and adults, thus warranting the use of this approach with college students who require psychotherapy.

Gonzalez et al. (2004) mention several meta-analyses of the effectiveness of REBT interventions, especially for children and adolescents enrolled in schools and

university, confirming the effectiveness of REBT. According to the researchers, a convergent and cumulative evidence base of empirical findings with regard to psychotherapy suggests that these effects are significantly positive with a reasonable magnitude in the case of children and adolescents in comparison with the effects of these psychotherapies employing REBT in the case of adults. Gonzalez et al. (2004) concluded:

> 'Four broad-based meta-analyses with diverse child and adolescent populations covering a range of problems have shown the effects of psychotherapy to be positive, with mean effect sizes ranging from .54 (Weisz, Weiss, Han, Granger & Morton, 1995) to .88 (Kazdin, Bass, Ayers & Rogers, 1990). More focused meta-analyses (i.e., specific subsets of treatment studies) have shown positive treatment effects as well.' (p. 223)

Generally, treatment interventions combining exposure and cognitive restructuring of irrational beliefs have resulted in 'changes of around 0.9 standard deviations at the end of treatment and these changes have been maintained over follow-up periods from 3 to 12 months' (Rapee, Gaston & Abbott, 2009, p. 317).

The above cited researchers have concluded that in the context of child and adolescent psychotherapy, REBT is a popular form of therapy, with many applications for both psychological and mental health problems, including phobias, social anxiety, shyness, and social withdrawal. With the increasing popularity and support for cognitive therapies among health professionals, a number of clinicians have used REBT theory as the basis for developing new patterns of working. This warrants applying REBT treatment to college students in need of psychotherapy for such disorders. Al-Akad (1997) used REBT on a sample of Egyptian outpatients to verify the approach's effectiveness in reducing aggression and hostility in college students. Results showed significant enhancements in social behaviour and relieved hostility in participants.

However, several REBT researchers have indicated a preference for cognitively centred therapy over affectively centred therapy in REBT. This is because the former relies on systematic changes over short and long periods of time of the central belief system, or what psychoanalysts call 'the core beliefs' (Rokeach, 1986). Cognitive therapy can help initiate and scaffold one's intellectual insight, hence the importance of thinking and acting in consistent ways is stressed if the core unhealthy beliefs are to be changed (Dryden, 2001). The type of insight that promotes change is known by REBT

therapists as emotional insight, which 'initiates healthy emotions and leads to constructive behaviour and realistic thinking' (Dryden, 2001, p. 184). A meta-analysis undertaken by Hattie (1992) demonstrated that cognitively oriented programmes are likely to produce more positive effects in self-concept enhancement than affectively oriented programmes.

Critically, one can deduce from the synthesis reviews and from reviews of individual studies that there is some indication of a significant relationship between irrational beliefs and dysfunctional emotions, such as depression, social anxiety and other mood disorders. Nevertheless, it is difficult to infer specific relationships between the discharge and treatment of irrationality and the dysfunctional emotions investigated, as there does not seem to be an agreed cut-off point within the belief measures that would indicate whether these beliefs were rational or irrational and what their degree of severity was. Although cut-off points were not present in the belief measures in some of these studies, these have been developed in measures of emotion and well-being.

Furthermore, the theoretical model described by Ellis states that in addition to life events affecting the development of psychological disturbance, human beings also have a biological tendency to think irrationally, which has a notable impact on such disturbance.

There is a biological basis of human irrationality; Ellis (1976) has argued that humans have two basic biological tendencies. First, we have a tendency towards irrationality; we naturally tend to make ourselves disturbed. Second, we have a tendency towards becoming aware of our irrationality and towards working steadily towards rationality. Ellis (1976) noted that this second tendency requires more effort than the first. Ellis (1976) made a number of points in support of this 'biological hypothesis'. These included the following:

- Human irrationality is ubiquitous.

Nearly all human beings demonstrate some evidence of irrational thinking. People disturb themselves about the adversities of life, variably from one person to another and from one situation to another. These disturbances about life adversities do not, however, interfere with the survival of the human species, yet most of the time, they do not interfere with the individual human existence, either. The latter is firmly within one's responsibility and the fact that many of us, humans, needlessly disturb ourselves shows that this tendency is rooted in our humanity and pops up unjustifiably from time to time.

People cannot lead an ideally rational life all of the time and, consequently, do not worry about life's adversities, for if they do so, they would rarely procrastinate and

would persist at striving towards their goals. As ideal as such, they would be very self-disciplined and would live longer because they would rarely smoke and would tend to keep to healthy eating regimes. This is obviously not the case and although we have the ability to think and act rationally, the fact that we find it hard to sustain doing so is evidence for Ellis's (1976) view that there is a strong biological basis to human irrationality.

- Ease in thinking in rigid and extreme ways

Earlier in this chapter, the researcher distinguished between flexible beliefs and non-extreme beliefs on the one hand and rigid and extreme beliefs on the other. Based on an exhaustive review of the literature, it can be deduced that REBT theory posited that rigid and extreme beliefs are at the core of psychological disturbance and that flexible and non-extreme beliefs are at the core of psychological health. It is showed, in particular, that both rigid and flexible beliefs are very frequently based on our desires, but what distinguishes them is that when people hold rigid beliefs, they transform these desires into rigid, absolute necessities, but when they hold flexible beliefs, they keep their desires flexible and acknowledge to themselves that it is not necessary to have their desires met. It was also showed that extreme and non-extreme beliefs stem from rigid and flexible beliefs respectively.

Now, REBT theory holds that, when human desires are weak, people find it relatively easy to keep their beliefs flexible and non-extreme when their desires are not met. However, when these desires become stronger, people particularly tend to find it very much more difficult to retain flexibility and non-extremity in their (irrational) beliefs. To explain further, when desires are urgently compelling or impatiently strong, people tend to transform them into absolute necessities or 'musts'. If they do not achieve these desires, they tend to idealise these absolute necessities as awful and unbearable beliefs, consequently thwarted as 'inhibitions'.

Again, the ease with which most humans do this indicates the biological underpinnings of this common form of human irrationality. If humans were strongly biologically prone to retaining flexible and non-extreme beliefs in the face of the very strong desires not being met, then they would find it very difficult to think in rigid and extreme ways under these circumstances and would tend not to do so even if strongly encouraged to do so by their respective culture. Ellis (2003c) further explicates this as below:

> ‘People not only learn or take over unrealistic expectations, absolutistic ideas, illogical conclusions, and irrational beliefs from their parents and their culture, but they also have a positive genius for inventing and exacerbating these self-defeating cognitions themselves. They don’t have to think exaggeratedly, perfectionistically, dogmatically, and unscientifically, but they sooner or later do; and they thereby make themselves –yes, creatively make themselves –emotionally disturbed and behaviorally dysfunctional. Their parents, teachers, and peers appreciably help them in this respect.’ (Ellis, 2003c, pp. 205-206)

However, strong wishes, desires and preferences, as it is hypothesised in REBT theories, may hardly ever induce serious emotional trouble, still absolutistic necessities and demands can frequently do that. Therefore, while human irrationality is ubiquitous and the tendency for humans to transform their very strong desires into rigid dire necessities, it can still be controlled by exercise.

Within the field of mental health, however, there is general agreement that emotional distress is caused by a combination of environmental and physiological causes. No specific physiological research has isolated the causes of any mental health problems. Ellis’s REBT theory and applications to psychotherapy proposed that the beliefs that an individual has about themselves, or the world, can increase or decrease the environmental distress perceived by the individual and effectiveness research explored relevant hypotheses without controlling for these potential physiological effects.

7.2.2 How effective is REBT? Evidence from practice

Ellis and his disciples in the literature devoted to the promotion of REBT theory and its applications assert the idea of an outstanding efficacy assigned to this category of psychotherapy. In this regard, Ellis (1977b, p. 2) argued that its practice had ‘immense, indeed almost awesome, research backing,’ and as late as 1985, Ellis claimed that ‘over 300 controlled studies’ supported the use of cognitive-behavioural therapy in the form of REBT as hypothesised by Ellis (Ellis, 1985). But careful consideration of the content of these studies shows that few of them actually tested the distinctive features of REBT; rather, many of them involved testing a variety of heterogeneous treatments described collectively as cognitive behavioural therapy. Due to the unique phenomenological character of the REBT model, demonstrations of the efficiency of conventional cognitive

behavioural treatments do not readily build up to the enhancement of the theoretical and empirical considerations of this theory.

There has been a variety of research aiming to evaluate the effectiveness of REBT therapy for different psychological or psychosocial problems. For instance, the study by Jensen (2008) evaluated the ABC Model of Rational Emotive Behavioural Therapy Theory, which asserts that emotional consequences (C) are not directly caused by adversities (A) but rather are mediated by an individual's beliefs regarding those adversities (B) (Ellis 1991) and its association with the unhealthy negative emotion of guilt. A total of 195 Villanova University students (68 male, 127 female, M age = 19.48 years, SD = 2.08 years) volunteered to participate in the study. Participants were asked to complete two questionnaires, the Survey of Personal Beliefs (SPB) (Demaria et al., 1989), with scales measuring Overall Irrational Ideation, Self-Directed Shoulds, Other-Directed Shoulds, Awfulizing, Low-Frustration Tolerance, and Self-Worth Judgements, and the Guilt Inventory (GI) (Kugler & Jones, 1992), measuring the guilt experienced by the individual. It was predicted that significant associations would be found between Overall Irrational Ideation, Self-Directed Shoulds, Awfulizing, and Self-Worth Judgements and Guilt scores, whereas no significant association would be found between Other-Directed Shoulds and Low-Frustration Tolerance and Guilt scores. These predictions received mixed support. Significant associations were found between Guilt scores and Overall Irrational Ideation (r = -.27), Self-Directed Shoulds (r = -.21), Self-Worth Judgements (r = -.21), and Low-Frustration Tolerance (r = -.40). No significant association was found between Guilt Scores and Other-Directed Shoulds (r = .02) and Awfulizing (r = -.12). The data suggested that Overall Irrational Thinking, Self-Directed Shoulds, Low-Frustration Tolerance and Self-Worth Judgements are associated with guilt reactions and that a tendency towards Other-Directed Shoulds and Awfulizing is not associated with guilt reactions.

In a study by Eisner (2007), the researcher proved the effectiveness of REBT in changing destructive negative thoughts to constructive healthy thoughts among adults with Attention Deficit Disorder (ADD). Further, to evaluate the REBT programme designed to treat female clients at the DuPage County Health Department who met the criteria for Major Depressive Disorder, Moore (2006) used a step-by-step model new to the field of psychology. The REBT programme was assessed as effective in changing the way individuals with depression felt and thought, but further development of the process and scope of adaptation to other groups was suggested. REBT programmes combined

with other enhancements like strengthening religiosity (Sias, 2006), confidence (Pelusi, 2007), the use of Articulated Thought Disputation (Cornwall, 2008), Gestalt Awareness Training (Aumann, 2004), the use of cognitive disputation strategies (Kpec, Beal, & DGiuseppe, 2002) and unconditional self-acceptance (Chamberlain & Haaga, 2001) have all been shown to be effective cognitive therapy adaptations.

All in all, hundreds of studies have provided empirical evidence in support of the basic tenets of the REBT model. Reviews of these studies indicate that the majority of findings are consistent with the tenets (DiGiuseppe & Miller, 1977; Ellis, 1977b; Sutton-Simon et al., 1978). Numerous studies have attempted to investigate the association between measures of irrational beliefs and a variety of measures of emotional distress and behavioural maladjustment. Although this type of research does not address issues of causality, general findings have indicated that measures of irrational beliefs reliably correlate with measures of emotional distress. For example, the construct of anxiety has been frequently used as a measure of emotional distress in this type of research and several studies have found significant correlations between irrational beliefs and general anxiety (Hajzler & Bernard, 1991; Jones, 1969; Kassinove et al., 1977; Lyons & Woods, 1991; Silverman et al., 1992) and with specific types of anxiety, such as social anxiety (Goldfried & Sobocinski, 1975; Sutton-Simon & Goldfried, 1979), test anxiety (Goldfried & Sobocinski, 1975; Trexler & Karst, 1973) and fear of heights (Sutton-Simon & Goldfried, 1979).

7.2.3 REBT for resolving psychosocial problems: an evaluation

Dryden and Neenan (2006) contend that 'REBT has a more elaborate view of how disturbance is maintained' (p. 4). According to the authors, this theory of psychotherapy asserts that people perpetuate their disturbance for a number of reasons, including the following (Dryden & Neenan, 2006, pp. 4-5):

- They lack the insight that their disturbance is underpinned by their irrational beliefs and think instead that it is caused by events.
- They think that once they understand that their problems are underpinned by irrational beliefs, this understanding alone will lead to change.
- They do not work persistently to change their irrational beliefs and to integrate the rational alternatives to these beliefs into their belief system.
- They continue to act in ways that are consistent with their irrational beliefs.

- They lack or are deficient in important social skills, communication skills, problem-solving skills and other life skills.
- They think that their disturbance has pay-offs that outweigh the advantages of the healthy alternatives to their disturbed feelings and/or behaviour.
- They live in environments which support the irrational beliefs that underpin their problems.

The authors, major proponents and theorists of REBT, view that the core facilitative conditions of empathy, unconditional acceptance and genuineness are often desirable, but are neither necessary nor sufficient for initiating and sustaining constructive therapeutic change in psychotherapy sessions.

However, given the proven effectiveness of REBT treatments, both in individual studies and in synthesis reviews of sets of studies, especially those giving favourable results in treating anxiety disorders, these studies have some limitations. For instance, there was a wide range in the ages of participants as well as in other demographic variables. Most psychosocial treatments need to be modified for a particular developmental age for comparisons to be valid enough for generalisation. In addition to these limitations, there are inconsistencies in the literature in identifying the effective and necessary components of treatment packages, such as cognitive therapy versus cognitive behavioural therapy. It would be beneficial if future research focused on controlled trials of combined treatments (i.e., comparisons of medication, REBT, and the combination of pharmacotherapy and REBT). Studies examining the long-term benefits of REBT and the use of relapse prevention sessions to reduce relapse rates may also be useful. In addition, studies that have diverse populations and a wide age range are needed to evaluate whether these protocols can be generalised to other populations.

As demonstrated in these studies, group therapy is an effective modality to deliver REBT treatment packages to especially intensify the benefits of group therapy for adolescents, as well as to address some of the factors required to be taken in to consideration when forming a group therapy program for socially anxious young college people.

7.3 Using REBT for treating social anxiety

Velting, Setzer and Albano (2004) maintain that cognitive behavioural therapy models consist of six essential components in the treatment of social anxiety: psycho-education, somatic management, cognitive restructuring, and problem solving, exposure

and relapse prevention. The following is a concise description of these six components as provided by Velting et al. (2004):

7.3.1 Psycho-education

Psycho-education refers to family training on understanding the nature of social anxiety, the manner in which excessive levels of this disorder are learned and maintained and the rationale for various treatment techniques, especially in children and early adolescents. Therefore, because much of social anxiety is maintained by avoidance/escape and unhelpful thinking, CBT will assist the people with social phobia with learning new ways to approach social anxiety provoking situations with greater ease and confidence. However, CBT does not teach 'happy thoughts' and promise a carefree life; rather, it is focused on assisting the young people with being proactive in coping with everyday hassles and negative life events (See Brady & Kendall, 1992).

7.3.2 Somatic management

Somatic management techniques may involve teaching deep, diaphragmatic breathing and/or some form of relaxation training. The procedures are applied differentially across the anxiety disorders and depend on the severity of the child's impairment and comorbidity patterns. Therapists teach the child or adolescent and parents to view social anxiety as a tripartite construct consisting of physiological components (physical sensations and autonomic nervous system functions), cognitive elements (beliefs, assumptions, thoughts, and images) and behavioural reactions (typically in the form of escape or avoidance of feared situations or stimuli).

7.3.3 Cognitive restructuring

Cognitive restructuring involves the identification of unhelpful, social anxiety-provoking thoughts and the subsequent challenging of these thoughts with proactive, coping-focused thinking and action plans based in reality. Clients are taught to treat their thoughts as 'guesses' to be tested and challenged. In the case of children or early adolescents, parents are often taught to serve as 'sideline coaches'. Rather than provide excessive reassurance and answers to their clients' anxious thoughts, parents are taught to coach their children in questioning the evidence for their thoughts and arriving at coping solutions. Several models for conducting cognitive restructuring with young people of various ages have been developed (see Kearney & Albano, 2000a, 2000b; Kendall, 1990; Silverman & Kurtines, 1996).

7.3.4 Problem solving

Problem solving is a step-by-step process in which the child generates and tests a variety of active methods for coping with specific problem situations. Problem-solving skills are usually most effectively taught by first working through a problem that is concrete, real and completely unrelated to the client's anxiety.

7.3.5 Exposure

This is considered the key element in the treatment of any anxiety-based disorder (Albano et al., 2001; Barrios & O'Dell, 1998). The process and related tasks involve systematic, graduated and controlled exposure of the client to his or her feared situation or stimulus. Exposure takes many forms, such as imaginal (e.g., through guided imagery), symbolic (e.g., through the use of pictures or props), simulated (e.g., through role-playing), and *in vivo* exposure (e.g., contact with the real situation/stimulus). The *in vivo* method is preferred and is the ultimate goal of any exposure programme. Exposures can involve anxiety-provoking situations or stimuli.

In general, young people are encouraged to engage in exposure situations in a graduated manner both within sessions and as between-sessions homework assignments. Cognitive restructuring, problem-solving and somatic management skills are practised and applied during exposures. The process of exposure provides the client with new information about the social anxiety provoking situation and his or her ability to cope with the associated anxiety.

7.3.6 Relapse prevention

Finally, all CBT programs involve a relapse prevention component geared toward consolidating the child's anxiety management skills and promoting generalisation and maintenance of treatment gains. Some methods of relapse prevention involve having the client keep a notebook or diary of ongoing progress, spacing the final sessions out to bi-weekly or monthly visits, videotaping therapy sessions in which the client illustrates the techniques he or she has learned to overcome the anxiety, and 'trading places' with the therapist in a role-reversal exercise.

There are other researchers who point to the effectiveness of cognitive therapies, especially REBT, in the treatment of social anxiety (DiGiuseppe, McGowan, Sutton-Simon & Gardner, 1990; Watson & Friend, 1969). These therapies cover a variety of techniques in which children and adolescents are taught to use cognitive meditational strategies as a means of guiding clients' behaviour, with the ultimate goal of inducing

positive behavioural and mental adjustment (Durlak et al., 1991). According to DiGiuseppe, Terjesen, Goodman, Rose, Doyle & Vidalikis (1998), cognitive therapies and behavioural treatment conditions can generate a significant reduction of anxiety specific to interpersonal and social behaviour. REBT is one type of CBT with an extensive history of use with children and adolescents (Bernard, 1990; Bernard, Ellis & Terjesen, 2006; DiGiuseppe & Bernard, 1990). Researchers have generally been supportive of this approach with effect size estimates from a number of meta-analyses ranging from 0.35 (Dush, Rirt & Schroeder, 1989) to 1.27 (Lewinsohn & Clarke, 1999). The research on outcomes using REBT has been somewhat contradictory, especially as it pertains to working with children. Authors of recent meta-analytic reviews on REBT with young people and Rational Emotive Education (REE), prevention based psycho-educational approach based on REBT theory, have reported promising results (Gonzalez et al., 2004).

Ellis (1962, 1980) and Ellis and Grieger (1977) support both the necessity for a problem solving set of treatment therapies, rooted in rational therapy theory, and combating irrational beliefs in the social problem solving process, especially for reducing situation anxiety or social phobia disorder. They claim that the adoption of an accepting, problem-solving-oriented approach to the problems in living is an essential ingredient in successful problem solving performance to reduce social anxiety. They maintain that the negative consequences of poor problem solving often result from a tendency to view the original problem or its adversities (events or situations in the environment or the social milieu) as highly threatening and cataclysmic. This tendency, in turn, results from the adherence to irrational beliefs.

REBT attempts to change irrational beliefs for those clients who suffer from emotional disturbance. It is held that REBT is effective in altering irrational beliefs to rational beliefs, resulting in significantly less emotional distress (Jacofsky, 2006; Jensen, 2008; Moore, 2006).

8 REBT: Theory of Change

To initiate effective changes in the emotions and behaviours of consultees, REBT therapists need to assist their clients to cognitively process their emotions and approach their behaviours in ways amenable to effectuate the principles of REBT as follows:

1. Realise that they largely create their own psychological problems and that while situations contribute to these problems, they are generally of lesser importance in the change process.
2. Fully recognise that they are able to address and overcome these problems.
3. Understand that their problems stem largely from irrational beliefs.
4. Detect their irrational beliefs and discriminate between them and their rational beliefs.
5. Examine their irrational beliefs and their rational beliefs until they see clearly that their irrational beliefs are false, illogical and unconstructive while their rational beliefs are true, sensible and constructive.
6. Work towards the internalisation of their new rational beliefs by using a variety of cognitive (including imaginal), emotive and behavioural change methods. In particular, act in ways that are consistent with the rational beliefs that they wish to develop and refrain from acting in ways that are consistent with their old irrational beliefs.
7. Extend this process of examining beliefs and using multimodal methods of change into other areas of their lives and committing to doing so for as long as necessary (Dryden & Neenan, 2006, p.5).

As such, REBT therapists see themselves as 'good psychological educators', thereby seeking to inculcate into their clients the ABC model of understanding and dealing with their psychological and social problems, and further, to resolve them. The most instrumental point about REBT is that it emphasises a variety of alternative ways to tackle the psychosocial problems from which the consultees suffer throughout the counselling process. In addition, as instrumental to therapy as this adoption of a variety of alternatives, REBT therapists believe in the possibility of using an inter-disciplinary approach to psychotherapy; meaning that when they consider that a consultee is better suited to a different approach to therapy, they do not mind referring to another school of psychotherapy; that is why REBT has been applied with different methods and approaches of therapy such as REST.

As such, REBT is deemed as an example of theoretically consistent eclecticism in that its practitioners draw upon procedures that originate from other counselling approaches, but do so for purposes that are consistent with REBT theory. REBT therapists are judiciously selective in their eclecticism and avoid the use of methods that are inefficient, mystical, or of dubious validity.

REBT therapists have their preferred therapeutic goals for their clients, namely to help them to change their core irrational beliefs and to develop and internalise a set of core irrational beliefs. However, they are ready to make compromises with their clients on these objectives when it becomes clear that they are unable or unwilling to change their core irrational beliefs. In such cases, REBT therapists help their clients by encouraging them to change their distorted inferences, to effect behavioural changes without necessarily changing their irrational beliefs or to remove themselves from negative activating events.

Dryden and Neenan (2006, pp. 5–6) contend that REBT therapists normally utilise an 'active-directive counselling style' which involves Socratic and didactic teaching methods, and is often referred to as 'REBT with an educational message' (O'Toole, 1997, p. 117). But therapists need to vary their therapeutic style from client to client. Initially, REBT therapists start their therapeutic sessions with specific examples of identified client problems by guiding their clients to set healthy goals at the inception of therapy. They employ a sequence of steps in working on these examples, which involves using the ABC framework, challenging beliefs and negotiating suitable homework assignments with their clients (Dryden, 2001). Froggatt (2005) explains:

> 'For a person to go beyond feeling better to actually get better – that is, to achieve fundamental and lasting change – involves modifying the underlying core beliefs that create difficulties for them in a range of situations. Using our example above, rather than convince yourself that disapproval isn't going to happen, you accept that it might, but deal with your underlying core belief that you need approval and must not ever receive disapproval.' (p. 2)

In this way, REBT therapists are guiding their clients to generalise their learning from one situation to another by explicitly building their cognitions and redirecting their beliefs throughout the counselling process in order to help them identify, challenge and change core irrational beliefs which are seen as accounting for disturbance across a broad range of relevant situations.

The best thing about REBT as a major therapeutic strategy branching off RET is that it guides and helps clients to become their own therapists. In order for this change to occur, REBT therapists teach their clients how to use a particular skill such as challenging irrational beliefs, model the use of this skill, and sometimes give the clients written instructions on how to use the skill on their own (Dryden, 2001). Indeed, REBT

palpably posits that people, in addition to disturbing themselves, also are innately constructivists. In this regard, Ellis (1994) has argued that REBT is best seen as one of the constructivist cognitive therapies. In REBT, the psychotherapist places emphasis on the active role that humans play in constructing their irrational beliefs and the distorted inferences that they frequently bring to emotional episodes. As they mostly upset themselves with their (irrational) beliefs, and consequently disturbing, illogically based emotions and behaviours, they can be helped, in a multimodal manner, to dispute and question these irrational beliefs and develop a more workable, more self-helping set of constructs. In this fashion, REBT generally teaches and promotes:

- That the concepts and philosophies of life of unconditional self-acceptance, other-acceptance and life-acceptance are effective philosophies of life in achieving mental wellness and mental health.
- That human beings are inherently fallible and imperfect and that they had better accept their and other human beings' totality and humanity, while at the same time they might not like some of their behaviours and characteristics.
- That they are better off not measuring their entire self or their 'being' and should give up the narrow, grandiose and ultimately destructive notion to give themselves any global rating or report card. This is partly because all humans are continually evolving and are far too complex to accurately rate; all humans do both self- and social-defeating and self- and social-helping deeds, and have both beneficial and un-beneficial attributes and traits at certain times and in certain conditions. REBT holds that ideas and feelings about self-worth are largely definitional and are not empirically confirmable or falsifiable.
- That people had better accept life with its hassles and difficulties not always in accordance with their wants, while trying to change what they can change and live as elegantly as possible with what they cannot change.

In this way, constructive feedback is provided to help foster this clientele's ability to improve their skills to be their own therapists. As clients learn how to use the skills of REBT for themselves, their therapists adopt a less 'active-directive', more prompting therapeutic style in order to support them to build up a growing dependability for their own therapeutic change cognitively, emotionally, and finally behaviourally.

9 REBT: Relationship to Post-Modern Relativism

REBT is basically grounded on the major principles of post-modernism and relativism. Implicit in these tenets is the key notion that there is no absolute truth and that what is purported to be ‘reality’ has to be viewed and understood within the context in which this reality manifests itself or is manifested. However, this does not mean that all manifestations or concepts of reality may be deemed to be equal. What it does mean is that people need to be doubtful of the manifestations of natural phenomena since the account may say as much or in some cases more about the account giver than about the account given; in other words, people may over-emphasise or under-emphasise their interpretations of the happenings and situations of their life, which distorts the reality.

This understanding looks an important point for REBT therapists, for consultees will often give an account of an experience and may invite therapists to validate the accuracy of their way of viewing the relevant event or situation that they have related as well as how they felt about that situation or event. In this way, REBT therapists should not primarily become occupied in discussions of the accuracy or preciseness or even truthfulness of their clients' perceptions and interpretations of the problematic situations they pass through to the advantage of supporting their clients to believe momentarily that their interpretations are correct so that they may be able to identify their beliefs about the related event.

The beliefs are deemed to be more influential in determining their emotional responses to the events than their interpretations; as such interpretations are rationalisations of the irrational. What REBT therapists consequently suggest here is that there may be different ways of viewing and interpreting the events/situations that caused the problem to their clients and it may not be possible or even relevant to discover the truth of what happened to them.

Therefore, REBT therapists advise their patients not to get stuck in the pursuit of absolute truth, and instead assume, at least temporarily, that their clients were correct in their views so they can help them to identify and deal with the beliefs about what they think happened to them since these beliefs are of prime importance in explaining the clients’ response to such events.

As soon as REBT therapists seek to address the issues of the truthfulness or otherwise of their clients' interpretations of ‘reality’ (as they tend to do this after they have helped them to identify and deal with the rigid and extreme beliefs that lie, according to REBT, at the core of their responses), they persuade them to test their

interpretations against verifiably available data (exactly like cognitive therapists from Beck's cognitive therapy theory do). By so doing, REBT theorists additionally encourage their clients to accept as 'true' the interpretation that has most supportive data. In relevant literature, this is known as the 'probabilistic approach' because therapists encourage their clients to accept the interpretation or hunch that which is 'true' on probabilistic grounds.

Thus, while REBT therapists encourage clients to accept as 'probably true' the interpretation of an experience that has the most supportive evidence, they should recognise and teach their clients to recognise that they may well be wrong and that a more fanciful hunch may better explain what happened. This is not only true of REBT therapists, but holds true of all psycho-therapy schools; for instance, Freud, in his defence of the criticism levelled at psychoanalysis, gives an example of a 'middle-aged lady … complaining of anxiety states' who, around 1910, 'had consulted a young physician' in her suburb. The doctor had promptly told her that 'the cause of her anxiety was her lack of sexual satisfaction', owing to her divorce, and suggested she would seek a fresh outlet by masturbating, starting an affair or reuniting with her husband (Freud, 1953, p. 73, cited in Lane, 2007, p. 154).

In this respect, Lane (2007) further relates that when Freud heard of this incident, he felt indignantly appalled by the physician's misinterpretation of psychoanalysis, for the lady's main complaint was a state of anxiety, but the young, inexperienced doctor diagnosed it mistakenly as a case of neurotic anxiety, thereby recommending a somatic therapy to her out of ignorance. Having reached a wrong psychoanalysis of the case of the lady, and prescribed a wrong treatment, the doctor did the lady great damage, as Freud claimed,

> '… by failing to heed the cause of her anxiety; by assuming that it constituted a neurosis; by presuming that sexual release would ease her mind; by telling her what to do; and by confusing a practical act with its psychological significance.' (Freud, 1953, p. 73)

In this regard, Lane (2007, p. 154) further explains:

> 'Besides his questionable – even unethical – advice, the doctor broke a series of technical rules, due in part to his ignorance of the scientific theories of psycho-analysis. The irony could not be plainer – not just because of the scorn heaped on Freud today, but because he insisted that there are scientifically correct and incorrect ways of conducting analysis.' (Ibid.)

This rings true simply because as Freud (cited in Lane, 2007, p. 154) reiterated ‘A person suffering from anxiety is not for that reason suffering from anxiety neurosis’ – a restatement worth of pondering owing to its relevance and magnitude, because in this example of Freud's, the young physician's emphasis on finding a practical solution to the woman's anxiety completely overlooked the mental significance she had given her drives and the suffering that ensued from this internal judgement.

However, it is not always possible to tell what route to take in psychotherapy. Freud explains that the rush of doctors to suggest treatments at first consultation by brusquely telling the patient the secrets that have been discovered by the psychoanalyst is not a professional act, as this can possibly cut off any attachment that may possibly develop between the psychotherapist and the patient. For these reasons, one may believe that REBT therapists are not as interested in what happened to their clients as they are in their clients' beliefs about what they think happened to them or what they think causes them the emotional disturbances they suffer from.

In addition, REBT theory maintains a relativistic position about itself and its own propositions. Accordingly, it holds that its positions and tenets may have validity, but not in any absolutistic terms, and that these tenets and positions should strictly be viewed within the context in which situations occur and thereto must be interpreted. Its ideas may prove false in the years to come, so think REBT adherents. It is interesting to note, however, that REBT therapists seek to encourage their clients to take themselves and their lives seriously, but not too seriously, as they adopt the same attitude to REBT itself.

Ziegler (2000) has explained in brief the basic assumptions concerning human nature that underlie REBT's personality theory.

Ziegler's views are relevant here, now that he is both an REBT practitioner and a leading personality theorist (Hjelle & Ziegler, 1976). However, one cannot claim consensus among REBT therapists as to Ziegler's views, but given his status as an internationally respected personality theorist, these views are worth putting forward as an authority in the field. Therefore, Hjelle and Ziegler's (1992) nine basic assumptions concerning human nature that underpin all personality theories can be summarised as follows by way of elucidating Ziegler's views in this respect:

1. **Freedom – Determinism**

How much internal freedom do people have and how much are they determined by external and internal (e.g. biological) factors?

2. **Rationality – Irrationality**

To what extent are people primarily rational, directing themselves through reason, or to what extent are they guided by irrational factors?

3. **Holism – Elementalism**

To what extent are people best comprehended as a whole or to what extent by being broken down into their constituent parts?

4. **Constitutionalism – Environmentalism**

To what extent are people the result of constitutional factors and to what extent are they products of environmental influences?

5. **Changeability – Unchangeablity**

To what extent are people capable of fundamental change over time?

6. **Subjectivity – Objectivity**

To what extent are people influenced by subjective factors and to what extent by external, objective factors?

7. **Proactivity–Reactivity**

To what extent do people generate their behaviour internally (proactivity) and to what extent do they respond to external stimuli (reactivity)?

8. **Homeostasis–Heterostasis**

To what extent are humans motivated primarily to reduce tensions and maintain an inner homeostasis and to what extent are they motivated to actualise themselves?

9. **Knowability–Unknowability**

To what extent is human nature fully knowable?

These basic assumptions are translatable into the following characteristics of REBT:

1. *Phenomenological and stoic emphases*

REBT agrees, in large part, with the phenomenologists that we respond to events not as they are but more by how we see them. It also agrees, in large part, with the Stoic philosopher, Epictetus, who said that 'Men are disturbed not by things but by their views of things' or as Shakespeare said, 'there is nothing either good or bad, but thinking makes it so.' (Shakespeare, Hamlet, II, ii, 249, in Thompson & Taylor, 2006). These two emphases show how much REBT stresses cognition in human disturbance and health. However, REBT emphasises in particular the role of rigid and extreme beliefs in human disturbance, which the phenomenologists and the Stoics do not. In this respect, it is worth citing Epictetus again advising against entertaining irrational beliefs:

> ‘Practise then from the start to say to every harsh impression, “You are an impression, and not at all the thing you appear to be.” Then examine it and test it by these rules you have, and firstly, and chiefly, by this: whether the impression has to do with the things that are up to us, or those that are not; and if it has to do with the things that are not up to us, be ready to reply, “It is nothing to me”.’ (Epictetus, translated by George Long, 1955, p. 1)

Although REBT has changed its name twice its establishment as Rational Therapy in 1955 (it became Rational-Emotive Therapy in 1962 and Rational Emotive Behavioural Therapy in 1993), it has always maintained the cognitive (Rational) dimension in its name.

2. Affective-experiential emphasis

While it agrees with Epictetus in the above respect, REBT does not go along with another Stoic view that we should strive to develop non-emotional responses to life adversities. In this regard, REBT is highly affective in emphasis and encourages people to have passionate positive and negative responses to things that are important to them, as long as these responses are healthy. This even includes strong negative responses to significant life adversities like loss. For example, to feel very sad when one loses a loved one is healthy. Rational therapy was renamed Rational Emotive Therapy because many authors believed erroneously that the therapy neglected emotion. This was not the case then, and it is not the case now. REBT has an experiential element in that it advocates that people do fully experience their feelings. However, REBT holds that fully experiencing unhealthy negative feelings is not curative in itself, but is useful in that it helps the person to identify irrational beliefs that underpin these feelings.

3. Behavioural emphasis

When Rational Emotive Therapy (RET) became Rational Emotive Behavioural Therapy (REBT) in 1993, it was because Ellis considered that people thought, again erroneously, that RET neglected behaviour. This was again incorrect. REBT argues that people are at their happiest when they are actively pursuing their personally meaningful goals and when they disturb themselves they often act in ways that deepen their disturbance.

4. Psychological interactionism

REBT strongly addresses the principle of psychological interactionism, which argues that cognition, emotion and behaviour are not separate psychological systems –

rather, they are overlapping processes, and when we think in terms of cognition for example, we should also think of the affective (emotional) and behavioural (actual behaviours or action tendencies) components of these cognitions (Ellis, 1994). Indeed, REBT theory has emphasised this principle of psychological interactionism from its very inception (Ellis, 1962). Ellis has always urged REBT therapists to target all three systems in the change process and in particular has always advocated that without corresponding behavioural change, affective and cognitive change is transitory (Ellis, 1962). The misconception that REBT neglects behavioural change prompted Ellis to rebrand Rational Emotive Therapy as Rational Emotive Behavioural Therapy (REBT) in 1993.

5. *Psychodynamic features*

Although REBT was created, in part, out of Ellis's disaffection with psychoanalysis, it is easy to assume that as a result REBT has dispensed with all psychodynamic insights. This is not the case. Thus, REBT therapists do agree with their psychodynamic colleagues that humans are influenced by unconscious ideas.

However, in the main, these ideas can be relatively easily discovered and brought to the client's conscious mind and are not deeply buried within the client's psyche requiring a long period of exploration to be made conscious.

Also, REBT theorists agree with diverse psychodynamic colleagues that humans erect defences to protect themselves from threats to their ego (Freud, 1936). Actually, could be argued that humans also erect defensive manoeuvres to protect themselves from threats to non-ego aspects of their personal domain.

6. *Constructivistic emphasis*

In this regard, Ellis (1994) has argued that REBT is best seen as one of the constructivist cognitive therapies. Humans are constructivists and have a considerable degree of choice or free will. However, free will is constrained by the fact the individuals are also limited by strong innate or biological tendencies and by their community living and social learning, to think, feel and behave. Therefore, a REBT psychotherapist is advised to place emphasis on the active role that humans assume in constructing their irrational beliefs and the distorted inferences that they frequently bring to emotional episodes.

7. *Existential-humanistic emphasis*

REBT has an existential-humanistic outlook, which is intrinsic to it and which is omitted by most other approaches to CBT. Thus, it sees people ‘as holistic, goal-directed

individuals who have importance in the world just because they are human and alive; it unconditionally accepts them with their limitations; and it particularly focuses upon their experiences and values, including their self-actualising potentialities' (Ellis, 1980, p.327). It also shares the views of ethical humanism by encouraging people to emphasise human interest (self and social) over the interests of deities, material objects and lower animals.

8. General semantics emphasis

General semantics theory (GST) holds that people are influenced by the language that they employ to others and to themselves and that when we use imprecise language we are influenced for the worse (Korzybski, 1933). Thus, general semantics theory and REBT share a common goal in identifying such imprecise language forms as over-generalisations, always/never thinking and the 'is' of predication and of identity and helping people to change them. As noted earlier, because of its interactional or multifaceted view of mental events, REBT does not neglect emotion and behaviour. However, as Nielsen (2003, in personal communication with Dryden, (2008) has observed:

> 'Examination of language offers the advantages of representing rigid irrational beliefs in the symbolic form of language where the belief is more easily examined and manipulated. While "should" is not always an indicator of a rigid belief (e.g. "It should rain by April 30th"), if it is used as a synonym for "must" it is an indicator for a rigid belief. The words and phrases "should", "ought", "must", "have to", "got to", "need to", and "supposed to"; "awful", "horrible", "unbearable", "terrible"; and "better person", "bad person", "jerk", "saint"; all can become useful foci for intervention, depending on the client's particular beliefs.' (Dryden, 2008, p. 13)

Thus, it is deduced that such language can aptly suggest that the presence of irrational beliefs is inevitable and that when clients use such seemingly irrational language, they are by necessity inducing themselves to think irrationally, being conscious or unconscious of that. As general semanticists observed, the map is not the territory and thus the meaning underpinning words is of more interest to REBT therapists than the words themselves; i.e., the suggestiveness of words and the educational message are what matters to a REBT therapist. Having said that, there may be some therapeutic

benefit in encouraging clients to change their language in a comprehensive approach to helping them to think rationally.

REBT differs from GST in that it helps people to see that their imprecise language (e.g. 'he is a jerk') frequently stems from their rigid beliefs and that it is easier to think in more precise ways when one has first changed one's rigid beliefs to flexible beliefs (see Point 21). In addition, REBT places more emphasis on the role of behaviour in helping people to think more precisely than does GST.

9. Systemic emphasis

REBT agrees with systems approaches to psychotherapy that people need to be understood within context. Thus, REBT holds that people are both influenced by and influence the interpersonal systems in which they live. However, REBT also states that ultimately such systems and the interpersonal interactions that occur within them only contribute to clients' disturbances and do not determine them. The basic REBT point is: 'people are disturbed not by the systems in which they live, but by the rigid and extreme views that they take of these systems'.

10. REBT is against religiosity not religion

Albert Ellis regarded himself as a probabilistic atheist, but held that religious belief is not an obstacle to the effective practice of REBT. The only time religious belief is an obstacle in REBT is when the REBT therapist brings his or her devout religious beliefs to the therapy. However, what is damaging here is the devoutness of the belief, not the religious content, and the intrusion of any devout therapist belief in the therapeutic process is counter-therapeutic even when the content of the devout belief is REBT theory. Thus it is not religion that is the problem here; it is religiosity (Ellis, 1983).

11. REBT theory does have echoes in certain religious thought.

For example, the principle of other-acceptance in REBT (see Points 7 and 10) is similar to the Christian doctrine of accepting the sinner, but not the sin, although the idea that a person can be a sinner is problematic in REBT, since this involves labelling a person with his behaviour.

10 Restricted Environmental Stimulation Technique (REST)

The Restricted Environmental Stimulation Technique, commonly known as 'Flotation-REST', is a cost-effective and secure method, with little or no adverse effects. In this method, an individual in a horizontally floating posture is placed and immersed in

highly concentrated salt water. In such an environment (the floating tank), all incoming stimuli are reduced to the barest minimum during a short period in order to prepare the participants for a process of hypnosis – a cooperative interaction in which the participants respond to the suggestions of the hypnotist. This technique has also been clinically proven to provide medical and therapeutic benefits, most notably in the reduction of pain and anxiety (Klein & Kilhstrom, 1998; Barrett Gross, Christensen & Benvenuto, 2001). The salt water in the floating tank is kept at skin temperature, ear plugs are used to minimise sounds, and when the tank is closed, complete darkness prevails (Borrie, 1993; Suedfeld, 1983).

Positive effects of Flotila REST have been reported by many studies. Mahoney (1990) reports increased well-being; Schultz and Kasper (1994) report euphoria of a mild nature and Forgays and Forgays, (1992); Norlander, Bergman, and Archer, (1998); Norlander, Kjellgren, and Archer, (2003); Sandlund, Linnarud, and Norlander, (2001); Suedfeld, Metcalfe, and Bluck (1987) suggest increased originality. In addition, some studies have also reported reduced tension and anxiety (Fine & Turner, 1983; Schulz & Kaspar, 1994; Suedfeld, 1983), reduced blood pressure (Fine & Turner, 1983; Turner, Fine, Ewy & Sershon, 1989) and reduced muscle tension (Norlander, Bergman & Archer, 1999) beside it being a suitable complement to psychotherapy (Jessen, 1990; Mahoney, 1990).

The first research papers on the effects of severe stimulus monotony on human beings were published in the early 1950s (Bexton, Heron & Scott, 1954; Heron, Bexton & Hebb, 1953). Reports that extended both the experimental work and previous medical/psychiatric practice (Gutheil, 1978) followed. Later techniques favoured administering profound environmental restriction to mental patients as a therapeutic agent (e.g., Azima & Cramer-Azima, 1956). As a result, by the end of the 1960s, well over a thousand books, articles, chapters, technical reports, and conference presentations had been published in which the use of some form of sensory deprivation played a major part (Zubek, 1969).

An array of techniques has been used to cause stimulus reduction and/or monotony. Present use, however, focuses on two procedures. The first is secluded bed rest in a completely dark and soundproof room, with minimal physical restraints and the time of study reduced to 24 hours or even less. This technique has been used to generate quantified and objective data. In the second method, the individual is made to float for almost an hour in a shallow bathtub-like tank. This tank is filled with a warm solution of

water and Epson salts (Lilly, 1977). Both of these techniques are covered by REST (Restricted Environmental Stimulation Therapy or Technique), which Suedfeld (1980) considers to be a less offensive and more accurate term than 'sensory deprivation'.

REST should be particularly appropriate in two types of clinical situations, according to both empirical research and theoretical analysis. The first involves using the known cognitive effects of REST for habit change. This is achievable by decreased distraction, increased stimulus hunger and greater openness to new information associated with the stimulus reduction experience. Smoking cessation and weight reduction are the two psychological issues that can be addressed. Stress diseases and dysfunctions of information processing, problems directly associated with chronic or acute stimulus overload, represent the second category of health psychology addressed by REST.

REST in the health psychology context has been most often applied for inducing habit modification. REST in combination with other control treatments has shown generally good results, especially when the REST condition involved both darkness and silence. Two such reports found REST to be as effective as standard treatment procedures requiring considerably more time and effort (Barnes, 1976; Best & Suedfeld, 1981); three others established REST to be considerably more favourable than placebo or untreated control procedures (Ovadia, 1979; Suedfeld, Landon, Pargament & Epstein, 1972; Suedfeld & Ikard, 1974).

10.1 REST for managing stress and related disturbances

REST has been tacitly applied in various stress and related disturbances in such treatment modes as psychoanalysis, autogenic training, meditation and relaxation procedures, biofeedback training and various Oriental techniques (see Suedfeld, 1980). Although some theorists, practitioners and patients are unaware of the similarity, some researchers (Bernstein & Borkovec, 1973; Carrington, 1978) have explicitly drawn the parallel between the procedures used in meditation, relaxation and biofeedback on the one hand and REST on the other.

However, there has been little systematic work on REST as a stress management system. A peculiar example of its application in this context is the parameters recommended by Leboyer (1974) for delivery rooms, which should be quiet, relatively dark, with slow and gentle movement and a stable temperature. Although it is difficult to appraise effects of this process, there have been some positive publications (e.g.,

Guichard, 1976). Wilcox (1957), working with babies a little past birth, has treated colic by reducing visual, auditory and tactile stimulation, inducing tight pressure around most of the body and confining the infant in the foetal position. These effects are obtained by binding the newborn in a foetal position. Without using drugs or changing feeding techniques, a cure rate of 80% was attained. This stimulus restriction method is increasingly used to treat stress symptoms in infants who are born addicted to heroin or methadone (Barrett, 1981). Similarly, reduced stimulation along with social isolation has been identified as the treatment of choice in the management of the acute, violent phase of phencyclidine (PCP) and LSD overdose (Adams, 1980; Luisada & Brown, 1976).

Autistic symptoms, hyperactivity and antisocial behaviour in children and adolescents have been successfully treated using REST. This involved both prolonged isolation coupled with fairly intensive REST and the short periods of stimulus reduction usually labelled 'time out'. These positive results are inclined to support the hypotheses that for some children the 'normal' range of stimulus bombardment is in fact excessive. Such children react to this excess through maladaptive behaviour. Both stress and symptomatology are reduced if the bombardment is reduced to a level that is more appropriate for that particular child (Schechter, Shurley, Toussieng & Maier, 1969; Suedfeld, Schwartz & Arnold, 1980).

Use of REST in stress management through the phenomenon of 'tanking' – spending time floating for purposes of relaxation – is perhaps the most publicised approach, and yet one of the least well studied. The change in technology from total immersion in a water tank – a rather frightening aspect of this variant of REST – to floating in a thick Epsom salt solution has led to the establishment of dozens of commercial facilities in which people all over North America can follow the lead of Lilly (1956; 1977), the inventor of the water immersion procedure.

Lilly (1956; 1977) has focused on feelings of serenity, deep relaxation, self-insight, transcendental experiences, flashes of creativity and improved concentration in his autobiographical writings and his descriptions of the experiences of others. Hundreds of people have used this floating technique in varying degrees. The commercial manufacturers emphasising the feelings of security and relative calmness have named their products 'Float to Relax', 'Tranquillity', 'Samadhi' and so on.

Despite its popularity, the owners of these commercial ventures have no or little interest in collecting systematic data on the effects. All the evidence, therefore, is anecdotal. Objective investigation of the actual effects of REST would be essentially an

important input. If flotation REST turns out to be therapeutically effective, the technique could become an important alternative to the chamber procedure, if only because of the time reduction from 24-hour to 1-hour sessions.

In addition, REST can enhance other, more standard, stress management procedures. It may facilitate the effectiveness of biofeedback, as Plotkin (1978) reported that biofeedback sessions realised in relatively profound REST conditions were conducive to more positive feelings about the training than sessions that were conducted in a more stimulating environment. Lloyd and Shurley's (1976) research is one of the most creative demonstrations of the potential of REST in combination with biofeedback.

10.2 REST combined with REBT for treating anxiety

REST was applied in earlier studies as an intervention to enhance personal functioning. Azima and Cramer-Azima (1956) employed REST as a treatment invention with two different groups of psychiatric in-patients along with a non-patient group. Subjects of a psychiatric in-patients group were five patients suffering from anxiety states, two obsessive compulsives, five depressed patients and two hebephrenics. They were kept in dark and isolated hospital rooms with earplugs to reduce auditory stimulation for a period of two to six days. Two sets of change occurred. Firstly there was a 'disorganisation of psychological structure'. Secondly a process of reorganisation was traced, which in most cases involved 'constructive aggression', with an increasing tendency to 'socialisation and relationship-undertaking' (p.122). The second group of four obsessional neurotics were treated with the same procedure. Although the participants showed no changes in symptomatology, they displayed an increased willingness to communicate and socialise.

Gibby, Adams & Carrera (1960) conducted a study on 12 psychiatric in-patients at Richmond Veterans Administration hospital, Virginia. Six hours of reduced environmental stimulation was provided to the patients. The patients were diagnosed with various disorders, including schizophrenia, psycho-neurotic disorders, personality disorders and a psycho-physiologic autonomic and visceral disorder. Generalised qualitative changes in the behaviour of these patients were reported. Patients displayed an increased desire for social contacts and therapeutic relationships with the staff. In addition, all suggested an increase in ego strength through verbalisation of internal conflicts, new insights into personal difficulties and recognition of their own role in the maladaptive behaviour patterns that had led to their hospitalisations.

Reporting on study conducted on 54 female university students who were kept in a REST environment, Suedfeld (1980) found that the treatment led to an increase in self-acceptance. Earlier Jones (1969) found that reducing environmental stimuli created a state of stimulus hunger in participants, which caused them to crave informational stimuli.

In another study, Wathney (1978) examined the effects of REST on the self-actualisation of college students. Forty-five volunteers were randomly divided into three equal groups, and administered the Personal Orientation Inventory (POI) (Shostrom, 1963) immediately before and after treatments. Participants of Group 1 spent three sessions of 1.5 hour in a REST tank. Group 2 participants also spent the same time but with each session preceded by a taped guided imagery message to encourage inner awareness and receptivity to whatever they might experience. Group 3, the control group, received a normal amount of stimulation and was administered the second POI after Groups I & II underwent their treatments. The result showed that neither Group 1 nor Group 2 was greater than the control group on post-treatment POI scores. The author attributed this to several problems that might have biased the results. First, the tank's effectiveness was reduced, as it was placed without caring for reduction of outside distraction. Second, the negative results on the written measure may have been due to an abnormally high mean pre-test score. Further, the author admitted that the POI might not have been sensitive enough to report changes that had actually taken place.

O'Toole (1997) summed up the philosophy of REST and how it works for psychotherapy as follows:

> 'Suedfeld (1980) has noted that individuals are able to ignore unwanted thoughts concerning behaviour because of the impact of environmental stimuli. Barabasz (1982) found that REST, by eliminating distracting environmental stimuli, sets up a situation in which persons must turn to internal stimulation. They are forced to focus on internal stimuli and reduced external stimuli. The combination of focusing on internal material and craving external input may leave individuals less critical of the meaning of the input.' (p. 18)

Participants undergoing REST combined with other treatments successfully achieve and maintain trichotillomania control (Barabasz, 1979; Barabasz, 1987), hypertension management (Fine & Turner, 1983), relaxation of chronic pain (Fine & Turner, 1985), blood pressure, plasma renin, cortisol, and aldosterone levels in

hypertension (McGrady, Turner, Fine & Higgins, 1987), muscle contraction and headaches, (Rzewnicki, Alistair, Wallbaum, Steel & Suedfeld, 1990), and enhancement of hypnotisability (Barabasz, 1977a, b; Barabaszet al., 1997). Suedfeld (1980; 1987) confirmed that REST can potentially and effectively increase participants' willingness to receive psychotherapy by increasing their susceptibility to the influence of external sources.

However, it may be hard to draw any firm conclusions about the effectiveness of a REST environment in altering a person's social anxiety from these studies due to the variety of problems arising from them, including the fact that what the experimenters attempted to effect and measure in these studies ranged from self-esteem to self-actualisation to primary process thinking (O'Toole, 1997). Further, both REBT and self-efficacy theory hypothesise that cognition plays an important role in emotional as well as physical problems, but each stresses a particular type of belief as the leading cause of psychopathology (see Barabasz, 2004, 2005; Barabasz & Barabasz, 2000, 2005).

Barabasz and Barabasz (1981, 1986) used REBT, hypnosis and REST for moderating performance anxiety in a case study with a professional pianist and the treatment was proven effective. In REBT, beliefs that contain imperatives (e.g. 'I should or must be accepted by others') are viewed as the cause of dysfunctional emotional and/or behavioural reactions. Self-efficacy theory emphasises beliefs related to an individual's level of confidence in producing certain behaviours. For example, a lack of confidence in making a particular impression around a valued group of people is seen as an important cause in social anxiety (Steven, 1995).

Imaginative involvements, referred to as hypnosis, have been stressed by Ellis as an adjunct method for treatment in conjunction with REBT and REST. According to Hilgard (1973), imaginative involvements are experiences where individuals become deeply involved in absorptive activities that can induce temporary forgetting of the reality around them. Such involvements might induce the aesthetic enjoyment of nature, reading, drama and daydreaming (see Barabasz, 1976, 1977a, b; Barabasz, Barabasz & Mullin, 1983). Ellis (2004b, p.19) considered hypnosis as a kind of 'mental healing' and endorsed it as 'a significantly useful mental healing method'.

Hypnosis as an aid in REST treatment has not been studied in depth, except in O'Toole's (1997) study. Notwithstanding, Koe and Oldridge (1987) were the first to experimentally investigate the interaction between hypnotic responsiveness or imaginative involvements and esteem-raising suggestions on self-concept. Their

experiment showed that susceptible participants demonstrated higher self-concept scores in terms of self-satisfaction or adequacy than unsusceptible participants ($F=7.15$; $p<.05$). This tendency was even more pronounced when extremely susceptible participants (scoring 11 or 12 on the Harvard Group Scale of Hypnotic Susceptibility (HGSHS)) were compared to extremely unsusceptible participants (scoring 0 or 1 on the HGSHS).

O'Toole (1997) has suggested that 'two beneficial effects of REST include the enhancement of hypnotic susceptibility along with increased imaginative involvement' (p.37).

Earlier, Barabasz and Barabasz (1989) conducted a study on the effects of hypnosis on relieving chronic pain in patients in a clinical setting. Participants consisted of 20 patients in regular outpatient treatment for conditions in which pain was prominent. Results utilising the Stanford Hypnotic Susceptibility Scale, Form C, showed significantly higher levels of hypnotisability for both high-demand ($F = 29.6$; $p < .005$) and low-demand ($F = 32.8$; $P < .004$) experimental groups following six hours of chamber REST than for the groups undergoing normal stimulation. The ischemic pain ratings also showed significantly lower pain scores for both high-demand ($F = 7.9$: $p < .05$) and low-demand ($F = 8.24$; $p < .04$) experimental groups following six hours of chamber REST than for the groups undergoing normal stimulation.

11 Concluding Remarks

For the purpose of providing a solid theoretical background to the present dissertation, this chapter has dealt with irrational thinking and REBT in the treatment of SAD. The chapter has been set out in two parts. Part I introduces irrational beliefs as inevitable occurrences in the human mind, but it describes how and when irrationality can become a morbidity or co-morbidity to other psychological disorders, most commonly social anxiety. An elucidation of the terms 'belief' and 'belief system' was presented at the inception of the chapter, then a definition of irrationality, irrational thinking and irrational beliefs was discussed against the definition of what is rational.

There has been further discussion of irrationality with regard to REBT, adjustment problems and Freudian Psychoanalysis. The term 'irrationality' was then traced to its biological basis, citing empirical evidence that supports this genetic predisposition to irrational thinking under certain circumstances, but explaining that rational thinking is also genetically predisposed, and there is a biological basis for rationality according to pertinent research cited and dicussed in detail in this chapter.

Discussion also followed to explain how irrational thinking is related to or stimulant of maladjustment problems, based on a review of the relationship between irrational beliefs and finally, in this respect, the relationship between social anxiety, irrational beliefs and socio-affective adjustment was highlighted. Then, this discussion moved to the criteria for judging irrational beliefs, which consequently led to the measurement of irrational thinking, with special emphasis on the Jones Irrational Beliefs Test (IBT) (Jones, 1969).

Part II examined REBT as a treatment for irrational thinking and social anxiety. These two parts, together making up the theoretical framework and literature review, have focused on the theoretical and conceptual underpinnings of the present study; they have presented the interrelationships between social anxiety, irrational beliefs and emotive therapy theories in a discussion of relevant SAD theory and SAD treatment theory.

The review of theory and research in Chapter One shows that SAD is one of the most common of all psychiatric disorders. Two major subtypes of SAD – generalised and non-generalised – have been recognised. This disorder and concomitant syndrome as described in the DSM-IV may appear in childhood and adolescence, but the symptoms are more severe in adolescence (Wakefield, Pottick & Kirk, 2002).

The literature review also shows that under-recognition and/or under-treatment of SAD is responsible for considerable consequences of the disorder. Different theories have been postulated to explain the origin of SAD (i.e. ethological, traumatic, parental, genetic, neurobiological, etc.); however, as at the date of this research, there are no definitive data to endorse one theory as the exclusive initiator for the disorder. In this way, SAD may be the outcome of different and complex mechanisms interacting together (Wakefield et al., 2002).

SAD was reported in varied research to be responsive to both cognitive/behavioural and pharmacological treatments. As well, cognitive-behavioural therapy (CBT) has become a valid and effective treatment option for SAD, especially when the disorder is accompanied with other comorbidities, such as shyness or irrationality.

Upon reflection and examination of SAD and current treatment options, it is adduced that some of the theories of anxiety and proposed treatments for SAD are available in the literature, but are presented as separate and distinct; it is not one theory or the other that makes a difference in intervention alone. It is appreciated that

amalgamating the elements of all theories is necessary in order to be responsible and responsive to the client's needs.

Therefore, based on an extensive review of the literature, it was felt that there is a benefit in using an eclectic approach to therapy, in which more than one psychotherapeutic method could be used for reducing and treating social anxiety.

CHAPTER THREE – METHODOLOGY

1 Introduction

This chapter presents an overview of the research methodology employed in this study. The purpose of the present study, a replication of that of O'Toole (1997), is to investigate and evaluate the effectiveness of REBT and the REST on a sample of Saudi college students. Such examination will extend and confirm existing knowledge and expand research on REBT – purposes that are consistent with the definition of research (Bernard & DiGiuseppe, 1994). It is worth mentioning here that Nunnally (1982, p.1589) emphasised the importance of replicating previous research; he assumes that re-experimentation and confirmatory research by replication play a significant role in the scientific community through establishing reliability of the findings obtained in replicated research:

> 'Science is concerned with repeatable experiments. If data obtained from experiments are influenced by random errors of measurement, the results are not exactly repeatable. Thus, science is limited by the reliability of measuring instruments and by the reliability with which scientists use them.'

Thompson (1990) further supports this point by referring to the fact that measurement integrity as suggested in re-experimentation or replication using new participants is critical to the derivation of sound research conclusions (p. 585).

Replication, therefore, is important for a number of reasons, including (1) assurance that results are valid and reliable; (2) determination of generalisability of the role of extraneous variables; (3) application of results to real world situations; and (4) inspiration of new research combining previous findings from related studies.

1.1 A detailed critique of O'Toole's Study

The study by O'Toole (1997) was launched on the basis that REBT theory proved effective in managing social anxiety as supported by prior empirical evidence. Therefore, the researcher wanted to show that using REBT in combination with the REST could be more effective in treating social anxiety in college students. The researcher also noted that irrational beliefs were the main culprit for the initiation of social anxiety, so these were also measured in his investigation using the Irrational Beliefs Test (IBT). Social

anxiety was measured using the Interaction Anxiousness Scale, the Shyness Scale and a behavioural measure of the individual participant's personal sense of anxiety.

Given that hypnotisability was thought to be enhanced following six hours of chamber REST (A. F. Barabasz, 1982), it was controlled for as a moderator variable for both REST and REBT in O'Toole's research. The hypnotisability of participants was determined using the Stanford Hypnotic Susceptibility Scale: Form C (SHSS:C) (Weitzenhoffer & Hilgard, 1962). Participants were blocked on hypnotisability level (low, medium and high), and assigned to treatment groups balanced for hypnotisability.

Participants in O'Toole's study were assigned to three groups, balanced for hypnotisability. These were: (1) REST plus REBT-derived message; (2) REBT therapy; or (3) a no-treatment control group. Following pre-testing, participants spent six hours in their assigned experimental condition. A between-within split-plot analysis of variance (SPANOVA) was conducted using pre-, post-, and one-month follow-up test scores. An independent post-experimental inquiry confirmed adherence to treatment protocols. Findings indicated that the three research groups bore out a significant decrease in scores on the Irrational Beliefs Test and the Interaction Anxiousness Scale from pre-test to post-test and one-month follow-up. There were no significant differences among groups at post-test or follow-up. However, post-experimental inquiry of the REST participants group revealed that these participants fell into slumber before and/or after hearing the educational message, and sleeping was thus shown to attenuate REST effects when using shorter REST sessions such as six or twelve hours.

The study of O'Toole (1997) failed to support the hypothesis that both REST and REBT treatments would enhance participants' receptivity to changing their irrational beliefs compared to control participants, despite the fact that this hypothesis had been confirmed in some prior research findings (e.g., Dyer, Barabasz & Barabasz, 1993). This critically called for replication of this study in order to clear doubts concerning this hypothesis and to validate the hypothesis that an amalgam of REBT and REST treatments is more efficient than other types of psychotherapies in reducing social anxiety in college-age students as reported in O'Toole (1997).

Additionally, in the study by O'Toole, the length of time spent on the sessions was relatively short – a matter of a few months does not give reliable proof that significant changes in the sets of irrational beliefs have occurred over this period of time. In his study, the time participants spent in the REST group therapy was limited to a total of six hours, which appears to be an insufficient amount of time for this treatment to be

effective in helping participants to significantly change their irrational beliefs. Therefore, O'Toole suggested that future studies might need to increase the length and number of sessions employed in an REST group. Prior research suggested that a period of 12 to 24 hours of exposure to a REST environment would be much more effective in changing participants' attitudes and behaviours (Barabasz & Barabasz, 1993). Therefore, O'Toole (1997) strongly recommended a further replication of his investigation with prospective researchers utilising longer treatment periods for both the REST and REBT treatment groups in order to maximise the impact of each treatment.

Furthermore, O'Toole (1997) originally contrived a research design that included a fourth treatment group (REST with no educational message), and a sample of 20 participants per treatment group. Inopportunely, due to the limited number of college students willing to participate in his study over the assumed period of three years expected for the data collection process, the original research design in O'Toole (1997) was limited to three treatment groups with ten participants per group (one REST group member dropped out after undergoing treatment). Therefore, O'Toole (1997) suggested that in future research replications, potential researchers are advised to benefit from conducting their investigations on a larger number of participants in a research design utilizing a REST-only group (receiving no educational message). O'Toole (1997) also suggested the use of the lighted REST procedure (A. F. Barabasz, 1982; Barabasz et al., 1997) to help increase the potentiation of effects.

1.2 Rationale for replication

The present study replicates O'Toole's (1997) study, referred to above, in order to validate the hypotheses that both REBT and REST are more efficient than REBT alone in producing improved psychotherapy for reducing social anxiety in college-age students and to determine whether this hypotheses are generalisable to new environments. The reason for checking the generalisability of results in this regard has been tacitly summarised by Fromm & Nash (1992) in the following:

> 'The findings of laboratory settings using primarily college student populations are of little value unless the results can be generalised to a wide range of different settings, populations, and clinical situations.' (p. 181)

According to these authors, there was doubt concerning whether or not college student research populations provide valid inference. Furthermore, the replication of a study in a totally different environment with the application of the research methods and

tools to a demographically different population of participants and using different experimenters creates a stronger rationale for re-examination of the research hypotheses of the present study as follows:

1. To assure that results obtained by O'Toole (1997) are reliable and valid;
2. To determine the efficacy of the model with Saudi university students;
3. To be able to apply the previously obtained results in O'Toole and the present research to new situations; and
4. To inspire new research combining previous findings from related studies.

In the Arabian environment, no similar study has been conducted, and it has been observed that SAD is on the increase. So experimentation with new methods of counselling psychology involving REBT scaffolded by other methods of psychotherapy is needed, thus justifying this replication both methodologically and aetiologically.

This chapter seeks to provide a detailed overview of the methods and procedures of research employed in this study and then elaborate on the reliability and validation assessments of the instruments used in this study as below.

2 Method

This study utilised the experimental method to explore the main research question: how effective is a counselling programme grounded in REBT/REST theories in relieving and treating college-level students' social anxiety and irrationality?

By employing this experimental method and a qualitative approach involving content analysis to collect anecdotal and observational data, this study sought to build upon previous research in the same vein, and to check the effectiveness of counselling programmes grounded in REBT and REST therapies applied to the Saudi environment – research not previously undertaken in this environment as far as the researcher is aware based on a review of the existing Saudi and Arabian literature. Thus, answering the study question will or will not confirm previous empirical evidence supporting the effectiveness of REBT in relieving and treating social anxiety and irrational thinking, and also indicate its efficacy in a context in which it has not been previously been investigated.

2.1 Rationale for the methodology

The research methodology combining both quantitative and qualitative research was chosen as appropriate for the present study's objectives. Quantitative research is based on a positivist philosophy, which assumes that there are social facts with an

objective reality apart from the beliefs of individuals. Qualitative research is rooted in a phenomenological paradigm, which holds that reality is socially constructed through individual or collective definitions of the situation (Taylor & Bogdan, 1984). Experimental analysis can circumvent problems of spuriousness (false conclusions that seem plausibly acceptable) and fallibility.

Moreover, randomly assigning participants to treatment groups (levels of X) controlled for internal validity, together with the pre-test, and also served to control for regression and selection factors. The pre-test also controlled for history, testing and instrumentation (see Gay, 1996, p.365-368), making it highly unlikely that some third variable would be correlated with X. If a relationship was observed between X and Y, the researcher could confidently proffer a causal interpretation of the findings.

Experimental research has been described as the scientific method *par excellence* when it is feasible (Kish cited in Howarth, 1996, p. 5; Creswell, 2013). Further, and most importantly, the quantitative researcher typically employs experimental or correlational designs to reduce error, bias and other noise that keeps one from clearly perceiving social facts (Cozby & Bates, 2011). In addition, the quantitative paradigm is controlled, objective and product-oriented. That is to say, when one proceeds in a quantitative paradigm to test hypotheses and estimate the magnitude of variables, one may have derived the hypothetical relations and variables from qualitative and conceptual considerations.

Moreover, one's determination of a level of significance is partly dependent on what sort of qualitative effect is expected. Since the quantitative research approach employs quantitative measurement and the use of statistical analysis (Sarantakos, 1993, p. 6), this methodology involves finding answers whenever there is a need to determine what, how many, where and when (Gay & Airasian, 2003).

2.2 Design

The present study was an experimental design involving two experimental groups and one control group, all comprised of 75 students to which all participants were randomly assigned, and three time measures. The following diagram, Figure 3, shows this experimental design:

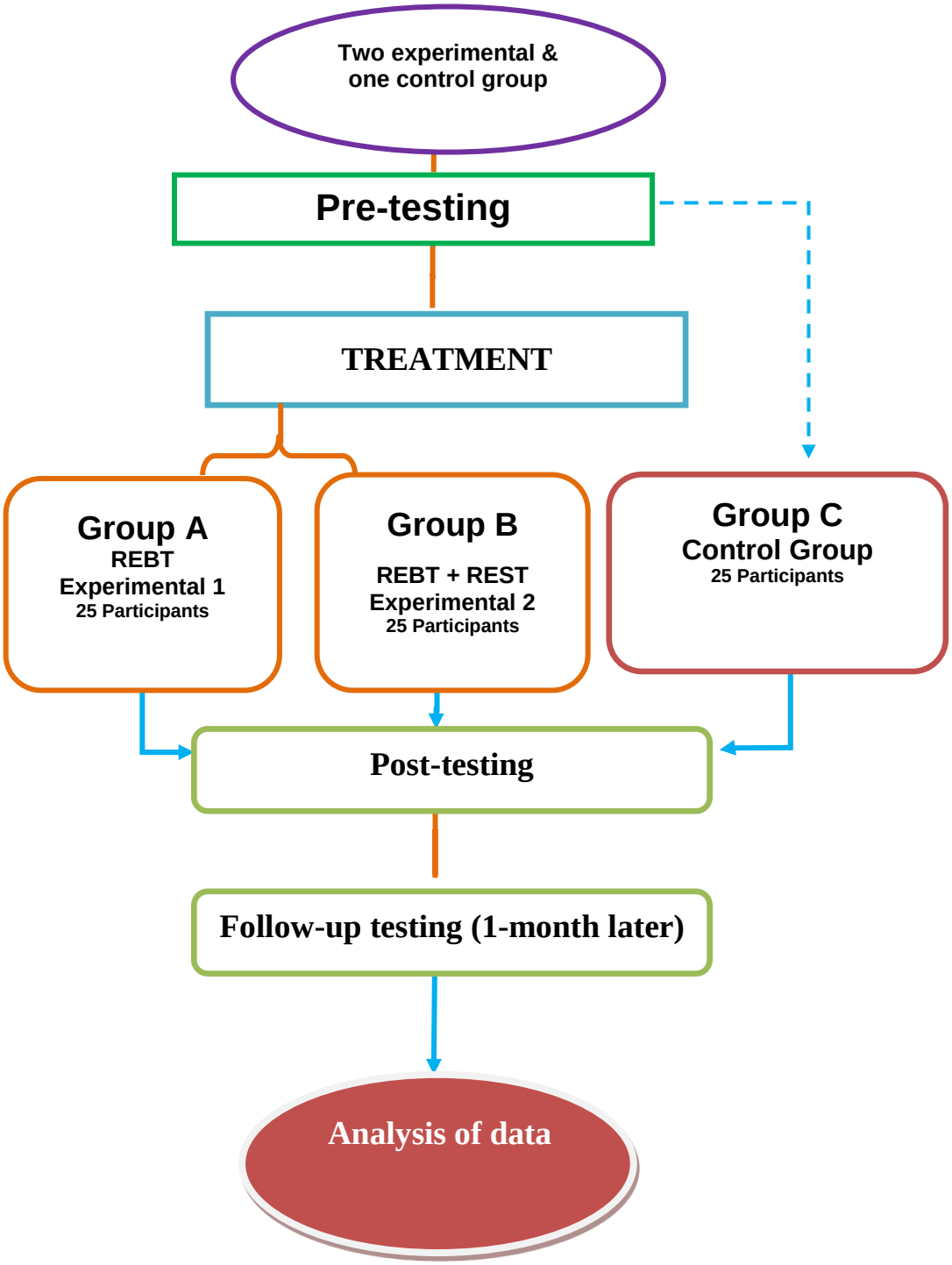

Figure 3: *Experimental Design*

The dependent measures were self-reports of irrational thinking as determined by the scores on the Irrational Beliefs Test and social anxiety levels as determined by the scores on the relevant scales, and an irrational thoughts log that each participant

maintained for one week prior to the counselling programme, one week after the counselling programme, and for one week one after the counselling programme had been stopped. These measures will be quantitatively assessed using the Validation of Cognition scale by Shapiro (1989).

The participants in this study were asked in each counselling programme session to record in their diaries their thoughts, feelings and/or behaviours they had on the day of the treatment. After that, the participants were further asked to evaluate their thoughts for the degree of the inaccuracy of each statement they recorded down. They did so using Shapiro's (1989) VoC scale, which is a 7-point (1 = completely untrue to 7 = completely true) scale (See appendix D).

2.3 Methodological considerations

In a study in which two experimental groups and a control group are followed over time to assess group differences in the average rate of change, rate of improvement or enhanced psychological/psycho-social performance or effects of a psychotherapeutic intervention, one must decide on the duration of the study, frequency of observation, and number of participants. The researcher may consider how these choices affect statistical power and show that this power depends on a standardised effect size, the sample size and a person-specific reliability coefficient. This reliability, in turn, depends on study duration and frequency (Overall & Doyle, 1994). These relations enable researchers to weigh alternative designs with respect to feasibility and power.

In planning repeated measures studies, decisions about the number of subjects and number of repeated measures per subject depend on the pattern of treatment effects and the covariance structure of the repeated measures. An overview of the literature with guidelines on sample size and power calculations for repeated measures designs can be found in Raudenbush and Liu (2001). Because the present study relied on volunteers and two different interventions that required specific labs, the participants who volunteered to participate in this study were equally distributed to the research and control groups totalling up to 75 college students.

Further, parametric statistics such as ANOVA were used in this study. Parametric statistics rely heavily on the assumptions of the study, which are grounded in previous research and an in-depth review of the literature. Usually, if these hypotheses are correct, parametric methods can produce more accurate and precise estimates. They are said to have more statistical power.

Self-report measures were also used in the present study: the Interaction Anxiousness Scale (Leary, 1983a) and the Shyness Scale (Cheek and Buss, 1981) were used for measuring social anxiety; the Irrational Beliefs Test developed by Jones (1969) was used for measuring the irrational beliefs of participants in the study. These were the instruments employed by O'Toole (1997) to tap into the effects of utilising REBT plus REST in reducing social anxiety and irrationality. There are several other scales for measuring social phobia or social anxiety, but the researcher preferred to use the same scales originally used in the study by O'Toole for two reasons, though close attention was paid to validation and reliability assessment. First, the present study is a replication, and in this regard, the researcher should compare the findings from this study with findings from O'Toole's research in order to check for the effectiveness of REBT/REST counselling programmes; if a different scale were to be used, there is no guarantee that the comparison would be controlled because there may be experimentation errors due to instrumentation (Refer to Gay and Airasian, 2003). Second, the kind of social phobia tested is related to social interaction, an appropriate scale for which is the Interaction Anxiousness Scale by Leary (1983a), buttressed by another measure for shyness in social situations appropriately deemed to be the Shyness Scale of Cheek and Buss (1981). The other scale of irrational beliefs developed by Jones (1969) is, to the best of the researcher's knowledge, the classical scale of rationality-irrationality dimensions and has been used repeatedly in relevant research; Jones's (1969) Irrational Beliefs Test (IBT) is also a prominent self-report instrument that assesses dispositional rationality-irrationality with adults which is fittingly appropriate for college students. Problems reported against the validation of this instrument were addressed in the Arabic version by using both an inter-rater adjudication (using a group of Saudi and Egyptian psychologists and psychometricians) and test-retest piloting.

Since these self-report measures were originally in the English language, they were translated into Arabic and submitted to a jury of seven Saudi and Egyptian professors of social psychology, counselling psychology and psychiatry to provide their dictum on the wording and appropriateness of the scales.

The researcher translated the scales used in the present study from English into Arabic. The researcher further attempted to find words in Arabic that could capture the abstract notions and terms involved in measuring the constructs of the present study, such as social anxiousness, shyness and irrational beliefs which required extreme care so

that the terms and wording in Arabic can semantically and conceptually relay the meanings of the original statements in the original scales.

The translated versions of the scales were rendered to satisfy two sets of requirements.

1. The translated versions ought to meet the basic standards set for all measures, translated or not (that is Validity, Reliability)
2. These also must meet the requirements for semantic and conceptual equivalence relative to the source English measures.

The following methods were used by the researcher to prepare Arabic versions of the English instruments:

1. Direct Translation
2. Translation/back-translation
3. The parallel blind technique

The researcher as a bilingual individual translated all the source language (in English) instruments into Arabic through direct translation. Then, a second bilingual lecturer in general translation in KAU with no knowledge of the wording of the original source language measures was hired to translate the draft Arabic language documents back into the source language. Then the original and back-translated source language versions were compared. No substantial differences between the two source language documents were detected.

The translated versions were sent to seven associate and full professors of counselling psychology and social psychology in KAU in Saudi Arabia, Cairo University and Assiut University in Egypt. Those professors had experience ranging between 15 and 20 years in practicing clinical psychology, and some of them translated other psychometric instruments with validation studies in Arabic journals. There was an approximately total consensus over the translated Arabic versions in terms of the following points:

The translated versions show semantic equivalence between the English and Arabic versions of the scales with regard to the choice of terms and sentence structures that ensure the meanings of the source language statements are preserved in the Arabic translation.

The translated versions show conceptual equivalence between Arabic and English versions of the scales indicating an adequate quality in the comprehensibility of the Arabic documents, independent of the words used to operationalize the psychological

terms in these scales, and regardless of any cultural differences between Arabic and English.

Validation data are given under the *Psychometric Properties of the Scales* section. For more controlled measurement of irrational beliefs, and as part of the initiation of the counselling programme, participants were asked to participate in a thought-listing activity using an Irrational Beliefs Log for one week prior to, one week after, and for one month following their treatment. Before or after their participation in a social situation in which they felt anxiety, they were asked to list any/all thoughts, feelings and/or behaviours they had associated with the situation (or, if assessed beforehand, while waiting to interact). They were instructed to jot down in the diary they were asked to keep, the first thought, feeling, and/or behaviour they had on one line, the next on the second line, and so on, as a free-writing activity (ignoring grammar, spelling and punctuation, but maintaining conciseness, accuracy and honesty as far as possible). Participants were asked to later rate their thoughts for the degree of inaccuracy expressed in each statement after they had completed the psychotherapeutic intervention. A specific scale, the VoC Scale by Shapiro (1989), was used for evaluating the irrational beliefs collected from the qualitative data in participants' entries/logs of irrational beliefs. This is a statistical procedure developed by Shapiro (1989) for quantifying qualitative or anecdotal data gathered from the reported logs of the participants so that their responses or (ir) rational thoughts can be tabulated, statistically processed, and quantitatively interpreted.

3 Hypotheses

1. Participants exposed to the REBT/REST condition will show significantly lower Irrational Thinking scores on post-testing and at one-month follow-up than participants exposed to REBT group therapy treatment and control participants.
2. Participants exposed to the REBT/REST condition will show significantly lower Interaction Anxiousness Scale test scores on post-testing and on the one-month follow-up re-testing than will participants exposed to REBT-only group counselling treatment and control participants.
3. Participants exposed to the REBT/REST condition will show significantly lower Shyness Scale test scores on post-testing and on the one-month follow-up re-testing than will participants exposed to REBT-only group counselling treatment and control participants.

4 Participation and Sampling

Volunteer participants were recruited from one Saudi college's student population. Participants were drawn from undergraduate courses through a call for participation in the study made by the Psychology Department of the College of Arts. One may deduce that this way of recruiting volunteers for the present study is more plausible than recruiting a purposeful sample only from the university counselling clinics for the following reasons:

- Volunteers will show a desire to share their psycho-social experiences with their respective groups;
- Volunteers will demonstrate a desire to accept psychological counselling in a group-based environment;
- Volunteers will have and accept the opportunity to meet new people suffering from the same psychopathology and be personally challenged to react to psychological counselling; and
- They will demonstrate a desire to give feedback to their psychotherapists.

However, participants from this population were males only, as there is no co-education in the Kingdom of Saudi Arabia (KSA) educational system. Volunteers were assessed for social anxiety using appropriate scales in order to purposefully select the sample.

5 Research Ethics

According to the British Psychological Society (BPS), ethics is related to the control of power. Since some clients are powerless or are disadvantaged by lack of knowledge and certainty compared to the psychologist whose judgement they require or under whose counselling they are treated, a code of ethics must be established and practised in attempts to encapsulate the wisdom and experience of the BPS to support its members in their professional activities, reassure the public that it is worthy of their trust, and to clarify the expectations of clients. Accordingly, informed consent, which is an acknowledgement of the willingness of the client to participate in research or in a research-based counselling programme, must be sought before an experiment is, incepted (Francis, 1999).

Prior consent in written form was required before launching this study. This is because free and informed consent lies at the heart of ethical research involving human

participants. Informed consent mandates that participants will be given a brief overview of the general focus of the study and will be asked to read and sign an informed consent form (Beauchamp, Faden, Wallace and Walters, 1982). Due to the nature of the study, and the fact that the participants to be selected were, psychologically speaking, patients in need of counselling treatment, personal information and their participation was kept confidential.

In line with this, too, the researcher applied and obtained ethical approval from Brunel Psychology Research Ethics Committee on Monday, 17 November, 2008 (Email communication with David Bunce, See the end of Appendices).

6 Procedures

This section will detail the procedures of recruiting the participants and conducting the field study.

1.1 Recruitment of the participants

The participants were also asked to complate to an Interaction Anxiousness Scale and a Shyness Scale, the results of which were used as a criterion for selecting the sample of participants so that they were chosen as college students typically suffering from social anxiety disorder. They were volunteer participants, however, as they were recruited from the student population at King Abdul Aziz University in Jeddah by nominations of academic advisors and counselling psychologists in the university with a preliminary pool of 500 potential candidates there were only 75 typically social anxiety patients who volunteered to complete the field study.

There are no formal research ethics committees in King Abdul Aziz University. However, for ethical reasons, as earlier indicated, formal approval from the university administration was obtained for the study to take place and students signed a consent form (See appendices) indicating their willingness to undergo the treatment and an approval from the Brunel Psychology Research Ethics Committee was sought and obtained as said. Consent was also sought from students' parents because in the Arabian culture, parental consent is essential before exposing school students of any age to any experimental treatment, even if they were teenagers or adults in the university.

1.2 Preliminary procedures

Participants were given a brief overview of the general focus of the study and asked to read and sign an informed consent form. The Interaction Anxiousness Scale

(IAS: Leary, 1983a) and the Shyness Scale (Cheek and Buss, 1981) were administered to select those participants who exhibited high social anxiety. An Irrational Beliefs Test developed by Jones (1969) was administered to measure irrational thinking patterns. All such measures were Arabicised for study purposes and the validity and reliability coefficients of the scales were calculated to ensure their eligibility for use with the study sample. To stick to the ethical standards, volunteers were notified before they underwent any psychological assessments and only participants scoring 49 or above on the Interaction Anxiousness Scale and 43 or above on the Shyness Scale (one standard deviation above the mean for each measure) were considered eligible to participate in the study. Potential participants were informed that they had the right to withdraw at any time before, during or after the experiment and follow-up stages.

1.3 The programme

The counselling programme used in this study depicts the core of the field study used in the present research. It was designed based on a theory of collective REBT to control social anxiety in college students in Saudi Arabia according to the following steps:

Step 1: Preparing the first version of the programme

The researcher used the well-established theoretical frameworks and research-inspired perspective of psychotherapy used in O'Toole's study (1997). For this purpose, too, the researcher used materials developed by other authors (Dryden, 1990, 1995; Ellis, 1984, 1985, 1997, 1998) to help in developing the programme, which was written in Arabic, for the psychotherapists (see Appendix F: a synopsis of the programme for the research groups is also given in English in the appendices).

Step 2: Validating the programme

The programme was sent to 7 psychotherapists and professors to validate it for use with the participants in this study. The jurors presented their suggestions to modify the programme and its sessions for the respective groups according to their perspectives and experience in the field and in accordance with the objectives of the present study.

Step 3: Development of the programme

The counselling programme is made up of two versions: one is based on REBT only, and the other is a combination of REBT and REST. A description of each is provided later.

The programme is formed of 24 sessions of psychotherapy: 12 sessions for REBT and 12 sessions for REBT plus REST. That is, treatment continued for two months, with three sessions a week, and each session lasting two hours, totalling 48 hours of psychotherapy according to this treatment protocol. Several researchers suggested that effective REBT treatments should consist of 12 weekly 2 to 3 hour group sessions, the first two hours of which should be to introduce the rationale for treatment in order to develop group cohesion, and communicate cognitive restructuring concepts (DiGiuseppe et al. 1990; Emmelkamp et al. 1985; Heimberg & Becker, 2002; Butler et al. 1984; Clark et al. 2006).

The programme also included participant diaries and self-evaluation forms for each participant to appreciate psychotherapy protocols in each session. Following is a timetable and brief description of the sessions delivered to the REBT experimental group and the REST plus REBT sessions; the same topics were given to the REST therapy group which met for 6-hour sessions approximately one week apart. The initial session was primarily educational, and the second session primarily involved discussion of the results of homework assignments and supportive therapy for maintaining and improving progress made in the homework assignments. The REST procedures followed in this study made use of the first type of procedures described on earlier. The purpose of this REST technique was to reduce or restrict sensory stimuli by secluding participants in a quiet room, completely dark and sound-proof, with the least physical restraints.

Table 3: Description of the Therapy Sessions(REBT alone and REBT + REST)

Sessions	Dates	Topics	Description of Sessions
0	14/12/2008	Introduction	Psychotherapists and participants get introduced; pre-testing participants on the tools of the study; session's educational message; home assignments
1	16/12/2008	Learn how to relax!	Introducing relaxation techniques and exercises to confront emotional stress and reduce anxiety; think of situations that trigger off social anxiety, identify themes of problems, identify major unhealthy emotions and relevant behaviours, Identify the rational alternatives to participants' irrational beliefs, allocate certain home assignments
2-3-4	18/12/2008 20/12/2008 22/12/2008	How unhealthy negative emotions crop up!	Proceedings of the previous sessions are summarised as an introduction to each next session. Identify major unhealthy negative emotion in this episode; train participants on how to relate their thinking/beliefs to their emotions/behaviours; train them on how to defy and alter negative unhealthy emotions; give in-session tasks and Dryden REBT Forms; Allocate home assignments .
5-6-7	25/12/2008 27/12/2008 29/12/2008	Relating thoughts, emotions and behaviours together	Proceedings of the previous sessions are summarised as an introduction to each next session. Introducing how irrational beliefs originate, how to notice them, how to curb and/or alter them, and present the A.B.C.D.E model in detail.
8-9-10	1/1/2009 3/1/2009 5/1/2009	Introducing therapy through the A.B.C.D.E. Model	Proceedings of the previous sessions are summarised as an introduction to each next session. Introduce REBT theory in psychotherapy; introduce the tenets of REBT according to Ellis; Illustrate how irrational thoughts are associated with psychopathology; explain what normality or abnormality is according to REBT theory in Ellis; give tasks and forms; ask participants to write their diaries; allocate home-work assignments.
11-12-13	8/1/2009 10/1/2009 12/1/2009	How people deny that they are socially anxious!	Proceedings of the previous sessions are summarised as an introduction to each next session. Introduce conceptualisations about social anxiety, symptoms of social anxiety, the characteristics of people with social anxiety; introduce thoughts logs to record one's beliefs, give REBT tasks to correct irrational beliefs, give in-session tasks grounded in REBT to combat social anxiety; give home tasks and assignments in consistence with session goals
14-15-16	15/1/2009 17/1/2009 19/1/2009	Improving self-image, enhancing self-esteem to defy social anxiety	Proceedings of the previous sessions are summarised as an introduction to each next session. Train participants on methods to improve self-image and raise self-esteem; give home assignments in consistence with goals of the session.
17-18-19	22/1/2009 23/1/2009 25/1/2009	Combatting and defying irrational beliefs	Proceedings of the previous sessions are summarised as an introduction to each next session. Brainstorm the major reasons for irrational thinking; make a record of different categories of irrational thoughts that cause social anxiety in participants; apply some REBT techniques to combat and defy irrational thoughts; Questioning healthy, rational beliefs and your unhealthy irrational beliefs as the core of REBT. introduce Socrates didactics and client-centred dialogues as methods of REBT; identify type of situations that trigger off social anxiety, categorise in themes, identify relevant unhealthy emotions, recognise types of behaviours to cope with unhealthy negative emotions; change your unhealthy negative emotion to a healthy negative emotion; change your unconstructive behaviour to constructive behaviour.

20-21	28/1/2009 30/1/2009	Dealing with your doubts, suspicions, reservations and objections: Learn how to reduce and alleviate your social anxiety	Proceedings of the previous sessions are summarised as an introduction to each next session. Deal with doubts, reservations and objections to adopting one's healthy belief and / or giving up one's unhealthy belief; help participants how to defy doubts, suspicions, reservations and overcome problems/difficulties; demonstrate the concept of positive thinking; give in-sessions tasks on defying doubts, suspicions, reservations as a way to overcome problems that cause social anxiety; demonstrate situations; give homework assignments in line with session goals
22-23	3/2/2009 5/2/2009	Taking Action: Training on required social skills	Proceedings of the previous sessions are summarised as an introduction to each next session. Plan to face the critical A; Avoid safety-seeking strategies; Take appropriate risks in facing the critical A; Review healthy beliefs at appropriate points; Review healthy beliefs in different ways; Use imagery to rehearse taking action; Use role-play to rehearse taking action; Identify and overcome blocks to taking action; explain how to build constructive adaptive behaviours in social situations; role-play actions to model appropriate social skills in model situations; list homework assignments that they can do to strengthen their conviction in their healthy beliefs. Ask participants to self-assess their progress in the treatment; ask them to assess their positive new behaviours to defy social anxiety; ask participants to list their core unhealthy belief in a demand form and one of the following irrational beliefs: awfulizing belief; low frustration tolerance belief or depreciation belief, list next to it alternative core healthy beliefs in the form of a full preference and one of the following rational beliefs: antiawfulizing beliefs; HFT beliefs or acceptance beliefs.
24	7/2/2009	Dealing with your core unhealthy beliefs: training on assertive behaviour	Proceedings of the previous sessions are summarised as an introduction to each next session; show how to identify and deal with core unhealthy beliefs; demonstrate how to identify participants' core unhealthy beliefs, identify disturbance-related themes in a stepwise series of REBT procedures; demonstrate how participants can monitor their preoccupations; distribute and demonstrate how to fill in the Dryden Core Belief Form (DCBF); train on group assertive behaviour in group cognitive therapy; show how collective assertive behaviour training can result in effective alleviation of social anxiety
Evaluation of the effectiveness of REBT			Administer post-tests of all scales.

1.4 Initiation of the programme

The counselling programme, grounded in REBT plus REST psychotherapy theories, was implemented by only two psychotherapists selected by the researcher in collaboration with the chairman of the Department of Psychology in the College of Arts & Humanities of King Abdul-Aziz University (KAU) due to considerations of workloads (teaching, researching and counselling) in the department. They were selected on the basis that they had experience with REBT.

1.4.1 Therapy credentials of the Professors

Two associate professors of clinical psychology were hired by the Department of Psychology in KAU to carry out the therapeutic REBT and REBT/REST therapies for the research groups. The psychotherapists are trained in counselling psychology, especially rational emotive behavioural therapy. They had been practicing REBT in the Counselling Centre, which is a service facility for helping students with psychological problems attached to the College of Arts & Humanities and the Deanship of Student Affairs in KAU. Biographical data about the psychotherapists follow below:

Dr. Esam Abdul Latif Akkad

He is an associate professor of clinical psychology in the Department of Psychology in the College of Arts & Humanities of King Abdul-Aziz University (KAU). He also works as a psychotherapist in the Counselling Facility. His doctoral work and clinical experience started with his training on REBT as a doctoral student receiving training on REBT under supervision of Albert Ellis in a channel supervision programme for doctoral candidates sent from Egypt to the USA. His doctoral work was on the use of REBT in psychotherapy of depression.

Dr. Assayed Khalid Mat-hana

He is an associate professor of psychotherapy in the Department of Psychology in the College of Arts & Humanities of King Abdul-Aziz University (KAU), Jeddah, KSA. He is also a psychological counsellor in the Counselling Psychology Facility.

Both psychotherapists have a certified diploma in psychotherapy from Egyptian and Saudi universities. They also had received ample training on REBT psychotherapy from different counselling psychology departments in Egyptian and Saudi universities. They had an experience of 20 years or more working in psychotherapy, and they have written copiously on psychotherapy using REBT.

1.4.2 Researcher's role and background

The researcher has read the basic books written by Albert Ellis and Dryden on REBT, especially their writings related to the theoretical assumptions underlying personality traits and treatment and the ABC theory that highlights an interpretation of the relationship between thinking and emotions.

The researcher also read extensively prior research conducted in the field of rational emotive behavior therapy in order to make use of the techniques and procedures used in REBT psychotherapy treatments.

The researcher corresponded with the Albert Ellis Institute in New York to obtain REBT manuals, books and guides to REBT therapies. In this way, the researcher collected sufficient material to use for understanding and applying REBT therapy to his study, using two professionals who were capable of following the protocols of REBT in treating personality disorders.

The researcher's role during the sessions was restricted to reviewing the sessions' protocols with the psychotherapists, recognising the techniques of REBT and REBT/REST sessions, and distributing and collecting the evaluation forms and diaries and other assignments for the experimental participants. The researcher also helped in managing the psychotherapy sessions without any biased intervention in the therapy protocols.

At the beginning of the study, the researcher requested the psychotherapists to ask the participating students to use irrational thought logs, or to keep a journal, and to write anecdotal reports in each case. The researcher assigned the instruments and the programme in their final versions and provided a guide to accompany the programme.

1.5 Placebo effects

A placebo[8] is defined as a substance without a pharmacological effect or a sham treatment or an inactive procedure. The so-called 'placebo effect' is a non-specific effect related to the credibility of the intervention, patients' expectations and the therapeutic setting. Placebos are often used as controls when there is no active or standard beneficial treatment (Bausewein, 2008). Although no treatment or comparable placebo was designed for the research groups, this study utilised an appropriate control condition for inter-group comparisons.

1.6 Procedures of the study (detailed description)

Participants in the study were administered the IAS and the Shyness Scale to decide whether the criterion for inclusion in the study had been met. All participants who scored one standard deviation above the mean for each measure (The scores of the scales

[8] A placebo is an inactive medical intervention intended to lead the recipient to believe that the intervention may improve their condition. In one common placebo treatment, a patient is given an inert 'sugar pill' and told that the pill may improve their condition. The fact that the pill is inert is withheld from the patient. The intervention may cause the patient to believe that the treatment will change his condition; this belief sometimes causes the patient's condition to change, a phenomenon known as the placebo effect.

are as follows: IAS=49, Shyness Scale=43) were included in the study. All participants were then administered the IBT to obtain baseline amounts of irrational thinking.

The participants were assigned to three groups: a REBT/REST group, a REBT-only group and a control group. No REST-only group was contrived in the research design, as in the original study by O'Toole, because of the rarity of volunteers in this study who are eligible according to the sampling criteria. Also, the researcher wanted to discriminate the effects of REBT plus REST treatment vis-à-vis REBT-only treatment, with no intention to research the effectiveness of REST, which is already well-documented in prior research.

Prior to the start of the counselling programme, the researcher and the psychotherapists conducted a preliminary collective meeting with the participants in the study, for both experimental groups:

- To assure that each and every participant had joined the counselling sessions of his own volition, quite convinced of the need to receive psychotherapy for social anxiety.
- To assure the participants that psychotherapy is important in its own right as a solution for their social phobia disorder.
- To introduce the participants to the importance of collective therapy for achieving the counselling purposes of the programme.
- To introduce the techniques of participating in the programme sessions.
- To assure participants that confidentiality was absolutely guaranteed.
- To give the participants instructions as to how to participate and what role they will assume in the programme sessions.

In addition to these, they were also requested to do the following:

- Partake in social introductions within the group with other individuals in their respective groups.
- Consolidate social relations with the group and ensure that the objectives of collective psychotherapy can be achieved on mutual understanding in a collaborative spirit.
- Introduce the objectives and activities of psychotherapy sessions.
- Introduce the nature of sessions, the protocol of psychotherapy and the number and dates of the programme schedule in each group.

These procedures could lead the participants to empathise with the counsellors, which could interfere with the results of the study. However, maintaining a good relationship with the participants was deemed instrumental for getting the best of the programme in terms of its effects. In addition, a good relationship with the participants was important to get them to develop rational thinking and get rid of irrational beliefs.

1.6.1 REST/REBT condition protocol

Consistent with O'Toole's study, REBT and REST participants in their relevant experimental conditions were given an intensive orientation to the REST and REBT procedures, having then received all psychotherapeutic information concerning their treatment condition in a peaceful, serene and comforting manner.

A REST chamber was used to provide the REBT plus REST treatment in the counselling clinic of the college at Jeddah. This chamber is sound-proof, and is equipped with an intercommunications system, a silent positive pressure ventilation system and a dim lighting system. The room was also equipped with cosy and comfortable sofas. In addition, participants in the REBT/REST treatment accommodated in this chamber were provided with wax earplugs to increase sound attenuation. The lab was wide enough to seat 25 participants in cosy and comfortable sofas. It is worth mentioning that the sessions for each group were collective counselling sessions.

Floatation tanks were not used in this study as it was the case in O'Toole's experiment. However, a quiet room was used instead, as the counselling facility of King Abdulaziz University did not have these float tanks, and it was not possible to provide them soon within the timeline of the field study.

Since participants need to enter the floatation tanks nude (Hutchison, 2003), it was culturally very sensitive to get this to happen in Saudi Arabia, even in a health care facility. The participants would persistently have refused to get nude into these tanks once they were introduced to the idea.

In addition, the psychotherapists hired for this study suggested using a lab to imitate the effects of restricted environment stimulation procedures, especially in group cognitive therapy where floatation tanks could not be possible anyway.

In practice, floatation tanks were reported to have some practical problems (Seudfeld, 2013). Some float users maintained that the complicated head-masks and tight apparel used to help the clients breathe in the salty water tanks could constrict blood circulation and create uncomfortable physical conditions. The tightness of the mask on

the face and the retention strips wrapping around the back of the head were uncomfortable in long sessions as well. The continuous hissing of the air valves and bubbling of exhaust air out of the mask also could prevent the possibility of silence. The mask faceplate is also normally hard and can possibly impede visual isolation; in this case, the tank user will seek out help entering and leaving the float tank since the mask obviously blinds them. The tight neoprene clothing is awfully uncomfortable particularly for the sensitive regions of the body. Even in modern tanks using Epsom salt, ears of the clients are still submerged in salty water when the participant is in a relaxed position, thereby leading to greatly reduced hearing even with the use of ear-plugs to protect against saline. In short, float tanks may not have been ideal for REST sessions in the case of the present study.

The protocol used in the REST chamber followed the following series of procedures:

- Participants were re-oriented to the chamber, after which the experimenter answered any questions they might have. Immediately after entering the chamber, the REBT/REST participants were given brief relaxation training. They were also encouraged to practice relaxation exercises while they were in the chamber.
- They were thus reassured in a tranquil and serene lab environment concerning any fears or apprehensions about the REST procedures. The psychotherapist assigned to this group of participants conducted a brief pre-experimental interview in an attempt to assess whether the participants had been prone to any stress, anxieties, or other events which could make the REST sessions uncomfortable for them, This was done each time a session was conducted.
- The psychotherapist responsible for this group addressed all participants undergoing REST in Arabic as follows, seeking answers to a set of questions at the start of the sessions:

I would like to ask you the following questions to ensure that you have not experienced anything either recently or in the past that would make your time in the REST environment uncomfortable for you:

1. Have you experienced any unusual types and/or amounts of stress, anxieties and/or other events that may be having an effect on your daily functioning recently?
2. Have you experienced any unusual types and/or amounts of stress, anxieties and/or other events in the past that may be having an effect on your daily functioning recently?

If participants answered affirmatively to either question, the psychotherapist would continue the rest of the questions as follows:

3. How have they been affecting you?
4. How have you been dealing with them?
5. Do you think you will be able to focus on other things while in the REST/REBT condition?

On the basis of their responses to these questions, no participant was excluded from participating in the present study. This brief pre-experiment interview was conducted to assess whether the participant had been subjected to any stress, anxieties, or other events which could make the REST session uncomfortable. After the participants were comfortably situated in the REST/REBT condition, the following message was read over the intercommunication system:

Please feel free to tell me whatever you want about your reactions to this session. Your experiences will be helpful in understanding the results of the study. Whatever you choose to talk about will, of course, be kept confidential. Since it is contrary to the purpose of the REST/REBT condition sessions, I will not engage in conversation with you in response to your remarks over the intercommunication system. At different times, you may feel relaxed, anxious, bored or quite comfortable and you may at times engage in problem-solving, intense fantasies, reminiscing, daydreaming or wondering about the purpose of the REST/REBT condition sessions. You may at times feel uncomfortable, but the desire to leave is usually quite temporary. During the sessions, educational messages relevant to session topics will be read out for you; these messages have been designed to help you achieve your desired goal of decreasing your feelings of social anxiety. Try not to sleep during the session, but if you should fall into slumber unawares, don't feel guilty. Do you have any questions?

After two hours, a recorded adaptation of the basic tenets of REST was played twice for participants over the REST lab sound system. Participants could request to hear this message again as many additional times as they wished. All REST/REBT participants were continuously monitored throughout the bi-weekly 6-hour sessions by the counsellor and the researcher in the counselling lab. When it was necessary, Sanders and Reyher's (1972) criteria for terminating REST were followed. Examples of session materials for this experimental group are appended to this study. This REBT/REST treatment continued for a period of two months, three sessions in weekly, with each session amounting to two hours: that is, the overall length of this treatment.

There was no need to include a REST-only group for this experiment, given that the purpose of the present study was to compare REBT versus REBT plus REST. Further, REST is a concomitant procedure used to consolidate approaches to psychotherapy.

1.6.2 REBT therapy condition protocol

Participants in this condition were exposed two-hour REBT therapy group sessions. In these sessions, participants were introduced to the main concepts of REBT, and given the chance to put these concepts into practice in their daily lives, and reassured that they should adhere to these tenets on a regular and conscious basis. This included learning the ABC theory of how irrational beliefs about daily events can lead to emotional disturbance; assessing how their personal irrational beliefs are resulting in social anxiety; setting therapeutic goals that are specific, realistic, achievable and measurable: making a commitment to invest the time and energy necessary to achieve these goals; and, with the support of the group, challenging their irrational beliefs and deciding on more appropriate and rational beliefs to substitute in their place. At the end of a session and at the beginning of the next session, participants heard the same recorded adaptation of the basic tenets of REBT. In between sessions, participants were given homework assignments designed to help them maintain their focus on, and work at, changing their irrational beliefs. Examples of session materials for this experimental group are appended to this study.

As is the case in the first experimental group, the REBT treatment continued for one month, also with three sessions a week, and each session lasted two hours, with a total of 24 hours of psychotherapy according to this treatment protocol.

1.6.3 No treatment control protocol

Participants in this condition spent bi-weekly 6-hour sessions in a non-REST/REBT or REBT only environment located in the college psychological laboratories, where normal levels of stimulation were assured. Participants brought personal materials to help maintain normal levels of stimulation; e.g., textbooks, class notes, study materials, magazines, etc. However, the control group participants were not isolated from the other experimental participants as they were interacting with each other before the sessions or after the sessions since the sessions for the research groups were consecutively held on the three days of the week the lab was reserved or this study. To exactly model the study of O'Toole (1997), extra materials were provided as needed. Social contact was maintained through intermittent interruptions by the experimenter approximately every hour to help ensure that the participants were experiencing normal amounts of stimulation. They did not receive any training in the basic tenets of REBT or REST plus REBT.

1.6.4 Follow-up

Directly after their treatments, or no treatment in the control case, and again after a one-month interval, participants in the three groups were asked to report their irrational thinking patterns by completing the IBT, report their experiences of social anxiety by completing the IAS and Shyness scale and complete an Irrational Thoughts log for the one week just before taking the research scales.

2 Limitations

Several limitations of this study should be noted.

1. This study employed purposeful sampling so that the study findings could aid in providing appropriate educational and counselling assistance for students suffering from social anxiety, social phobias. In other words, the findings of the study are limited to the sample recruited for this study; i.e., a section of male, college Saudi population in the Western region of KSA.
2. The study was conducted during the academic year 2008–2009. This is a time limitation.
3. This study was restricted to the College of Arts and Humanities in Jeddah city in Saudi Arabia and its available facilities.
4. The findings were delimited by the scales and measures utilised for assessing and diagnosing social anxiety, irrational beliefs and shyness as well as by the

REBT/REST counselling programme developed for this study and used within the cited limitations.

5. Personal information about participants was not revealed to any authority due to the consent agreement reached between the researcher and psychotherapists on the one hand and the students participating in the treatment programmes on the other hand.

3 Instruments

The Interaction Anxiousness Scale (Leary, 1983a) and The Shyness Scale of Cheek and Buss (1981) were administered to select participants who exhibited high social anxiety.

An Irrational Beliefs Test developed by Jones (1969) was also administered to measure irrational thinking patterns. These are classical tests that were used in the original study of O'Toole (1997).

All such measures were Arabicised and proven for their reliability and validity for the region where they were to be used, with appropriate validation and reliability coefficients attained. The English forms of these scales and instruments were translated into Arabic using appropriate terminology in a comprehensible fashion for the Saudi subjects participating in the study. Afterwards, the instruments were adjudicated for validation by a jury of experts in Saudi Arabia and Egypt. Further methods of validation were used as outlined below in this chapter.

Validation was conducted using multiple psychometric methods: (1) through assessing the face validity of the scales; the test is said to have face validity if it 'looks like' it is going to measure what it is supposed to measure (Anastasi, 1988); and (2) through measuring the content validity where content validity is based on the extent to which a measurement reflects the specific intended domain of content (Carmines & Zeller, 1991, p.20). According to Crocker and Algina (1986), reliability can be defined as the 'desired consistency (or reproducibility) of test scores' (p. 105). There are various models with which score reliability can be estimated (Carmines & Zeller, 1991; Cohen, Manion & Morrison, 2000). Reliability was checked to ensure the internal consistency of the scales to be employed, especially as being English scales, they had to be translated and standardised to match the Saudi Arabian environment.

3.1 Psychometric properties of the scales

This section presents the standard statistical methods used for establishing the validity and reliability of the scales used in the study, including the reliability coefficients for all the scales.

3.1.1 Validity

3.1.1.1 Irrational Beliefs Scale (Translated and and proven for reliability and validity by the Researcher):

The Irrational Beliefs Test (IBT, Jones, 1969) consists of 100 Likert items arrayed on ten subscales corresponding to each of Ellis's (1962) ten irrational beliefs. Sample items include 'It is important to me that others approve of me' and 'I hate to fail at anything'. Jones (1969.) labelled the ten subscales as follows: Demand for Approval, High Self-Expectations, Blame Proneness, Frustration Reactivity, Emotional Irresponsibility, Anxious Over-concern, Problem Avoidance, Dependency, Helplessness and Perfectionism. Jones reported internal consistency estimates for the individual scales as ranging from .45 to .72, a test-retest coefficient of .92, and a concurrent validity *r* of .61 that involved relationships with psychiatric problems (Lohr & Bonge, 1981). Lohr and Bonge (1982) essentially replicated the factor structure reported by Jones, supporting the latter's validation procedure.

Logical validity of the Irrational Beliefs Test (IBT) (Jones, 1969) was assessed to recognise the rational relationship between the scale's statements and the purpose it is used for; in other words, this procedure was taken to calculate an estimate of how much a measure represents every single element of the construct of irrational thinking. The scale was sent to seven professors of social psychology, counselling psychology and psychiatry working in Saudi and Egyptian universities and attached psycho-clinics to judge whether the statements that form the scale are commensurate with the content and purpose of the scale – that is, whether they denote social anxiety. An estimate of 86% of agreement over the validity of the 100 items of the scale was accepted as a criterion for validating the statements of the scale. The agreement percentage over the validity of the scale's items ranged between 86% and 100 %. Therefore, all items of the original questionnaire were included in the final translated scale (Appendix C).

3.1.1.2 The Shyness Scale of Cheek and Buss (1981)

The Revised Cheek and Buss Shyness Scale (RCBS: Cheek, 1983, translated and proven for reliability and validity by the researcher), was used to assess shyness. The RCBS is a 13-item self-report survey that has a scale range of 13 to 65. The RCBS, which has been characterised as 'the measure of choice' in shyness studies, assesses both affective and behavioural aspects of shyness. Studies of the RCBS have reported a Cronbach alpha score of 0.90, suggesting internal consistency, an average inter-item correlation of 0.39, and a 45-day test retest reliability of 0.88. Further, the RCBS has suitable convergent validity, since it correlates highly with many other measures of shyness, including other self-report measures and aggregated ratings of shyness by friends and family (Leary, 1991).

Logical validity of the RCBS (Cheek, 1983) was assessed to estimate how much a measure represents every single element of the construct of shyness. The scale was sent to seven professors of social psychology, counselling psychology and psychiatry working in Saudi and Egyptian universities and attached psycho-clinics to judge whether the statements that form the scale are commensurate with the content and purpose of the scale – that is, whether they denote shyness. An estimate of 86% of agreement over the validity of the 13 items of the scale was accepted as a criterion for validating the statements of the scale. The agreement percentage over the validity of the scale's items ranged between 86% and 100%. Therefore, all items of the original questionnaire were included in the final translated scale (Appendix B).

3.1.1.3 The Interaction Anxiousness Scale (Translated and Standardised by the Researcher):

The Interaction Anxiousness Scale (Leary, 1983a) assesses social anxiety. The IAS has demonstrated high test-retest and internal reliability (Leary & Kowalski, 1995). The IAS consists of 15 items that span a broad range of anxiety-evoking situations, including interactions with strangers, parties, dating, and dealing with authority figures. This measure was designed to measure the tendency to feel nervous in social encounters independent of patterns of inhibited, introverted or avoidant behaviour (Leary, 1983b).

The logical validity of the Interaction Anxiousness Scale (Leary, 1983a) was assessed to estimate how much a measure represents every single element of the construct of social anxiety. The scale was sent to seven professors of social psychology, counselling psychology and psychiatry working in Saudi and Egyptian universities and

attached psycho-clinics to judge whether the statements that form the scale are commensurate with the content and purpose of the scale – that is, whether they denote social anxiety. An estimate of 86% of agreement over the validity of the 15 items of the scale was accepted as a criterion of validating the statements of the scale. The agreement percentage over the validity of the scale's items ranged between 86% and 100%. Therefore, all items of the original questionnaire were included in the final translated scale (Appendix A).

3.1.2 Reliability

Reliability usually refers to the extent to which a measurement instrument produces the same results, with the same participants or different participants, under the same conditions, each time it is used – that is on repeated trials (Anastasi, 1988). As such, it refers to the stability, accuracy and precision of measurement. An exemplary case study design ensures that the procedures used are well documented and can be consistently repeated with the same results. Yet, researchers should strive for reliability values of .70 or higher (Nunnally and Bernstein, 1994). That is to say, the measurement instrument is usually considered reliable if a participant's internal consistency score is broadly similar. Reliability in this study was checked to ensure the internal consistency of the scales to be employed, especially as being English scales they had to be translated and proven for reliability and validity to match the Saudi Arabian environment. The Alpha can vary from 0 to 1, indicating that the test is perfectly reliable.

Towards this end, the Split Half Method (The Co-efficient of Stability and Equivalence) is administered once on a sample of subjects. Each individual score is obtained in two parts (odd numbers and even numbers). The scoring is done separately of these two parts – even numbers and odd numbers of items. The co-efficient of correlation is calculated from two halves of scores. The co-efficient of correlation indicates the reliability of the test as determined by the split-half method. The self-correlation co-efficient of the whole test is then estimated by using the Spearman-Brown Prophecy formula alpha coefficient ranges in value from 0 to 1 and may be used to describe the reliability of factors extracted from dichotomous (that is, questions with two possible answers) and/or multi-point formatted questionnaires or scales (i.e., rating scale: 1 = poor, 5 = excellent). The higher the score, the more reliable the generated scale is. Nunnaly (1978) has indicated 0.7 to be an acceptable reliability coefficient but lower thresholds are sometimes used as acceptable levels of reliability as is reported in the

literature. In the present study, assessment of reliability coefficients was conducted as follows:

In summary, for the Irrational Beliefs Test, internal consistency estimates of irrational beliefs, based on a sample of 500 male students from the Department of Psychology in Faculty of Arts and Humanities at the University of King Abdu-Aziz, in Jeddah, Saudi Arabia, were moderately high, since they yielded a Cronbach's alpha of 0.77, indicating acceptable scale reliability for Irrational Beliefs, a Spearman-Brown coefficient of 0.71 and a Guttman split-half coefficient of 0.69, again showing acceptable scale reliability.

For the Shyness Scale, Cronbach $\alpha = 0.75$, a Spearman-Brown coefficient of 0.67 and a Guttman split-half coefficient of 0.68, thus demonstrating an acceptable scale reliability.

Finally, for the Interaction Anxiousness Scale, Cronbach's alpha scores reached 0.61, while Spearman-Brown = 0.69, and a Guttman split-half coefficient of 0.69, also pointing to acceptable scale reliability. The reliability coefficients for all three scales are shown in Table 4 below.

Table 4: Reliability coefficients for all scales

Scales	Cronbach's Alpha	Spearman-Brown Coefficient	Guttmann Split-Half Coefficient
Irrational Beliefs	0.77	0.71	0.69
The Shyness Scale	0.75	0.67	0.68
The Interaction Anxiousness Scale	0.61	0.69	0.69

4 Validity of the Instruments

In order to evaluate the validity of the measures, statistics are presented in Table 5 below and the three correlations between Irrational Beliefs, the Shyness Scale and the Interaction Anxiousness Scale are compared. As shown in Table 5, the correlations along the validity diagonal are significantly high, ranging from 0.601 to 0.910, with a mean of 0.673. All other significant correlations were in the expected direction.

Table 5: Validation of the Three Instruments

		Irrational Beliefs	Shyness Scale	Interaction Anxiousness	
Irrational Beliefs	Pearson Correlation	1	.345(**)	.287(**)	.910(**)
	Sig. (2-tailed)	.	.000	.000	.000
	N	500	500	500	500
the Shyness Scale	Pearson Correlation	.345(**)	1	.631(**)	.673(**)
	Sig. (2-tailed)	.000	.	.000	.000
	N	500	500	500	500
Interaction Anxiousness Scale	Pearson Correlation	.287(**)	.631(**)	1	.601(**)
	Sig. (2-tailed)	.000	.000	.	.000
	N	500	500	500	500

** Correlation is significant at the 0.01 level (2-tailed).

4.1 Factor Analysis

Factor analysis is an advanced correlational statistical procedure, which is used to identify unobserved or latent variables called factors that are predicted by a theory.

Factor analysis is most commonly used in the development of measuring devices in which the goal of the researchers is either to confirm (confirmatory factor analysis) or identify (exploratory factor analysis) factors included within a measure which is said to operationally define a theory (Nunnally & Berstein , 1994, p. 220)

Factor Analysis is a statistical method commonly used during instrument development to cluster items into common factors, interpret each factor according to the items having a high loading on it, and summarise the items into a small number of factors (Bryman & Cramer 1999). Loading refers to the measure of association between an item and a factor (Bryman & Cramer 2005). A factor is a list of items that belong together. Related items define the part of the construct that can be grouped together. Unrelated items, those that do not belong together, do not define the construct and should be deleted (Munro 2005).

Exploratory Factor Analysis (EFA) is a particular factor analysis method used to examine the relationships among variables without determining a particular hypothetical model (Bryman & Cramer 2005). EFA helps researchers define the construct based on the theoretical framework, which indicates the direction of the measure (DeVon et al.

2007) and identifies the greatest variance in scores with the smallest number of factors (Delaney 2005; Munro 2005).

One frequently used criterion for the number of factors to rotate is the eigenvalues-greater-than-one rule proposed by Kaiser (1960). According to this rule, there are as many reliable factors as there are eigenvalues greater than one. The reasoning is that an eigenvalue less than one implies that the scores on the component would have negative reliability.

4.2 Factor Analysis in the Present Study

The use of factor analysis in the current study for three times has been to check the credibility and validation of the study tools. It was clear through this advanced technique in statistics that the Irrational Thinking Scale has produced 35 factors. The Anxiousness Scale produced three factors. The Shyness Scale produced 4 factors. This served to identify a set of latent constructs underlying the battery of measured variables. There were some procedures designed to determine the optimal number of factors to retain in EFA, including Kaiser's (1960) eigenvalue-greater-than-one rule (or K1 rule), or Cattell's (1966) scree plot to help in selecting the appropriate number of factors. It is worth noting that exploratory factor analysis (EFA) is often used by researchers when developing a scale and serves to identify a set of latent constructs underlying some related measures of scales to test the measured variables as is the case in the present study. Though the researcher used pre-made scales borrowed from the replicated study of O'Toole (1997), the translation into Arabic required additional validation methods; the use of EFA procedures in this study helped collect more accurate data when each factor has been represented by multiple measured variables in the analysis of the battery of tests measuring irrational beliefes, social anxiety and shyness.

4.2.1 The Irrational Beliefs Scale

In Irrational Beliefs, 35 factors with eigenvalues greater than 1.00 have been identified (see Table 26 in Appendix G).

The scree plot in Figure 4 below graphs the eigenvalue against the factor number.

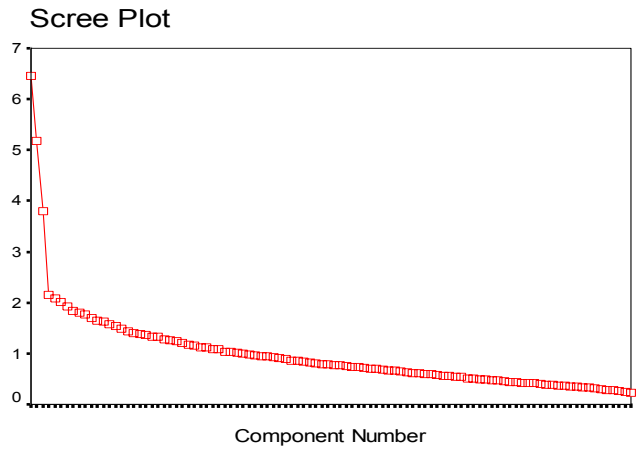

Figure 4: *Scree plot showing the eigenvalue against the factor number in Factor Analysis of the Validity of the Irrational Beliefs*

A. Factors:

The initial number of factors is the same as the number of variables used in the factor analysis. However, not all 100 factors have been retained; only the first thirty five factors were retained.

B. Initial Eigenvalues:

Eigenvalues are the variances of the factors. Because the researcher conducted a factor analysis on the correlation matrix, the variables were standardized, which means that the each variable has a variance of 1, and the total variance is equal to the number of variables used in the analysis.

C. Total:

This column contains the eigenvalues. The first factor will always account for the most variance (and hence has the highest eigenvalue), and the next factor will account for as much of the left over variance as it can, and so on. Hence, each successive factor will account for less and less variance.

D. % of Variance:

This column contains the percent of total variance accounted for by each factor.

E. Cumulative %:

This column contains the cumulative percentage of variance accounted for by the current and all preceding factors. For example, the third row shows a value of 61.643.

This means that the first thirty five factors together account for 68.313% of the total variance.

F. Extraction Sums of Squared Loadings:

The number of rows in this panel of the table correspond to the number of factors retained. So there are thirty five rows, one for each retained factor. The values in this panel of the table are calculated in the same way as the values in the left panel, except that here the values are based on the common variance. The values in this panel of the table will always be lower than the values in the left panel of the table, because they are based on the common variance, which is always smaller than the total variance.

G. Rotation Sums of Squared Loadings:

The values in this panel of the table represent the distribution of the variance after the varimax rotation. Varimax rotation tries to maximize the variance of each of the factors, so the total amount of variance accounted for is redistributed over the thirty five extracted factors.

4.2.2 The Shyness Scale

Furthermore, in the Shyness Scale, four factors with eigenvalues greater than 1.00 were determined (see Table 6 below).

Table 6: Comparison of Extraction and Rotation Methods (N = 500) for the Shyness Scale

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.757	25.048	25.048	3.757	25.048	25.048	3.299	21.991	21.991
2	1.339	8.926	33.974	1.339	8.926	33.974	1.493	9.951	31.941
3	1.124	7.494	41.468	1.124	7.494	41.468	1.254	8.358	40.300
4	1.026	6.838	48.306	1.026	6.838	48.306	1.201	8.006	48.306

The scree plot in Figure 5 below graphs the eigenvalue against the factor number.

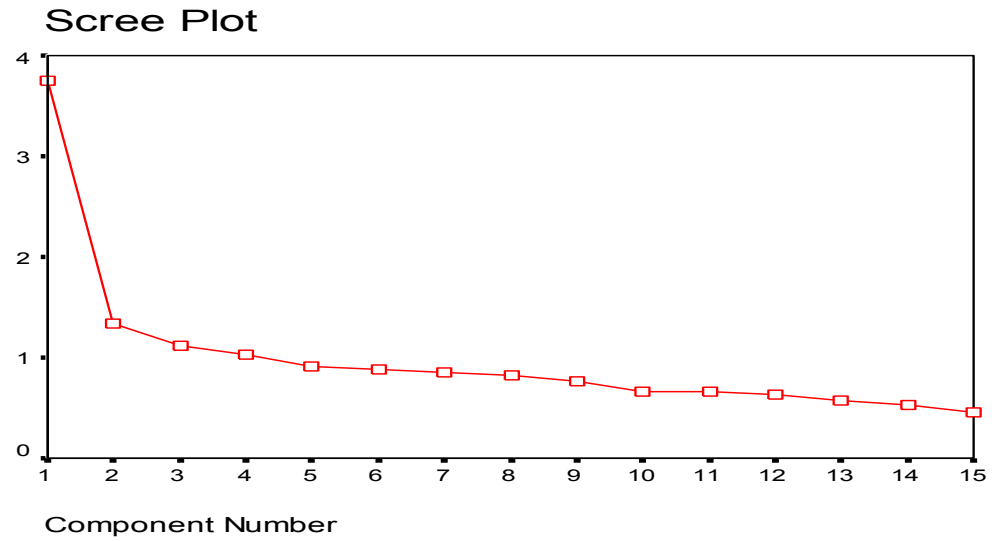

Figure 5: *Scree plot showing the eigenvalue against the factor number in the Comparison of Extraction and Rotation Methods for the Shyness Scale*

4.2.3 Interaction Anxiousness Scale

Additionally, in the Interaction Anxiousness Scale, three factors with eigenvalues greater than 1.00 were determined (see Table 7 below).

Table 7: Comparison of Extraction and Rotation Methods (N = 500) for the Interaction Anxiousness Scale

Cmponent	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.224	26.864	26.864	3.224	26.864	26.864	2.513	20.938	20.938
2	1.633	13.612	40.476	1.633	13.612	40.476	1.822	15.187	36.124
3	1.181	9.839	50.315	1.181	9.839	50.315	1.703	14.191	50.315

The scree plot in Figure 6 below graphs the eigenvalue against the factor number.

Figure 6: *Scree plot showing the eigenvalue against the factor number in the Comparison of Extraction and Rotation Methods for the Interaction Anxiousness Scale*

5 Concluding Remark

This chapter was set in two parts. Part I has dealt with the methods and procedures applied in this study and elaborated on the rationale for replicating this study, the design used, and the description of the research groups, the counselling programme and the procedures of administering the programme as well as on the measurements used. Further, the chapter has dealt with the methods and results of checking the reliability and validity of the scales used in the study. Statistical analyses indicated that the instruments were reliable and valid enough in their Arabic forms for administration to the participants in the study.

CHAPTER FOUR - RESULTS OF THE STUDY

Part I: Quantitative analysis results

1 Introduction

This chapter presents the findings from the experimental study. The results are presented in terms of the hypotheses set for the study at the very inception – hypotheses that have been formulated based on a thorough review of the literature and on the findings from the replicated original study by O'Toole (1997). Therefore, the research findings for the main research question are presented in this chapter accordingly.

The three outcome variables of this study were: irrational thinking scores, shyness scores, and interaction anxiousness scores. Each outcome was measured at three time points: pre-test, post-test, and one-month follow-up. Participants were exposed to three treatments: REBT only, REBT/REST, and the control group. Each treatment consisted of 25 participants. All participants had completed the study with no absence. Repeated-measures analysis of variances (ANOVA) were conducted to determine whether performance differed across groups and conditions to (dis)confirm the following hypotheses:

1. Participants exposed to the REBT/REST condition will show significantly lower Irrational Thinking scores on post-testing and at one-month follow-up than participants exposed to REBT group therapy treatment and control participants.
2. Participants exposed to the REBT/REST condition will show significantly lower Interaction Anxiousness Scale test scores on post-testing and on the one month follow-up re-testing than participants exposed to REBT group therapy treatment and control participants.
3. Participants exposed to the REBT/REST condition will show significantly lower Shyness Scale test scores on post-testing and on the one month follow-up re-testing than participants exposed to REBT group therapy treatment and control participants.

The analyses of the data were conducted using SPSS version 22 (IBM Corp, 2013). The results pertaining to the analysis done and the graphical representation of relevant results are presented in this chapter.

2 Results

This section presents the findings from the experimental study. The results are presented in terms of the hypotheses set for the study at the very inception – hypotheses that have been formulated based on a thorough review of the literature and on the

findings from the replicated original study by O'Toole (1997). Therefore, the research findings for the main research question are presented in this chapter accordingly.

2.1 Irrational Thinking

A repeated-measures ANOVA was conducted determine if irrational thinking scores were statistically significantly different between the three treatment conditions (REBT, REBT/REST, and control) at pre-test, post-test, and one-month follow up. Mauchly's test of sphericity suggested that the variances of the differences between all combinations of the independent variables were equal (p = 0.719). Hence, the assumption of homogeneous variances for repeated-measures ANOVA was satisfied. The multivariate normality assumption for repeated-measures ANOVA was examined via the chi-square quantile –quantile plot (Figure 7). As most points lie very nearly along the 45 degree line, we concluded that the multivariate normality assumption was satisfied for the repeated-measures ANOVA.

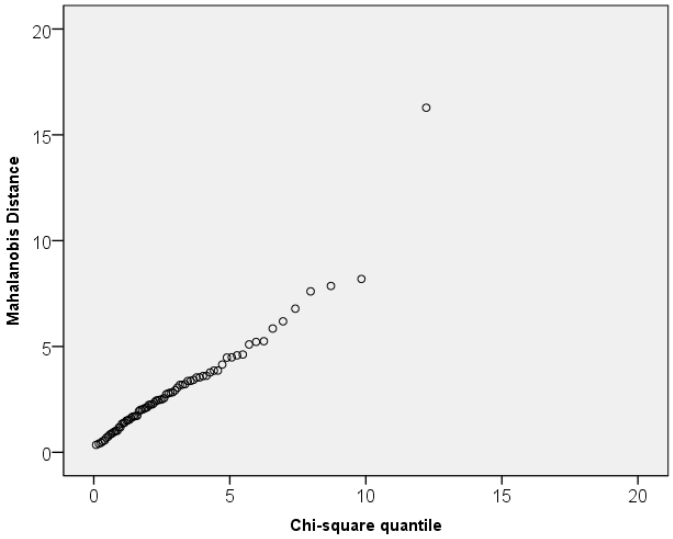

Figure 7: *Chi-square QQ plot, outcome variable = irrational thinking scores*

Table 8 shows the descriptive statistics (mean and standard deviation) of irrational thinking scores by treatment group at each time point. Recall that higher irrational thinking scores indicate more irrational thinking. Figure 8 is the visualization of Table 8. It appears that there was a decreasing trend of irrational thinking in both REBT and REBT/REST treatment groups though out the study period.

The analysis results suggested that there was a statistically significant interaction effect of time and treatment (p = 0.000) (Table 9), indicating the treatment effects on

irrational thinking scores varied at each time point. Table 10 shows the test results of the treatment effects at each time point. The results suggest that there was a statistically significant difference in irrational thinking scores among the three treatment groups at post-test (p = 0.000) and one-month follow up (p = 0.000). However, there was no statistically significant difference in irrational thinking scores among the three treatment groups at pre-test (p = 0.560).

The results of pairwise comparisons between treatment groups at each time point are presented in Table 11. It appears that at post-test, there was a statistically significant difference in irrational thinking scores between REBT and REBT/REST (p = 0.000), between REBT and control (p = 0.000), and between REBT/REST and control (p = 0.000) (M = 40.64, SD = 4.98 for REBT; M = 33.64, SD = 4.98 for REBT/REST; M = 60.38, SD = 3.40 for control). At one-month follow up, there was a statistically significant difference in irrational thinking scores between REBT and REBT/REST (p = 0.000), between REBT and control (p = 0.000), and between REBT/REST and control (p = 0.000) (M = 38.88, SD = 5.18 for REBT; M = 32.24, SD = 5.08 for REBT/REST; M = 51.96, SD = 5.33 for control).

According to the analysis results, hypothesis 1 was supported. In other words, participants exposed to the REBT/REST condition would show significantly lower Irrational Thinking scores on post-testing and at one-month follow-up than participants exposed to REBT group therapy treatment and control participants.

Table 8: Mean *(SD)* of the irrational thinking scores

	Pre-test	Post-test	One-month follow up
REBT	51.92 (6.77)	40.64 (4.98)	38.88 (5.18)
REBT/REST	51.84 (4.84)	33.64 (4.98)	32.24 (5.08)
Control	50.44 (4.42)	50.48 (3.40)	51.96 (5.33)

Note: SD = standard deviation.

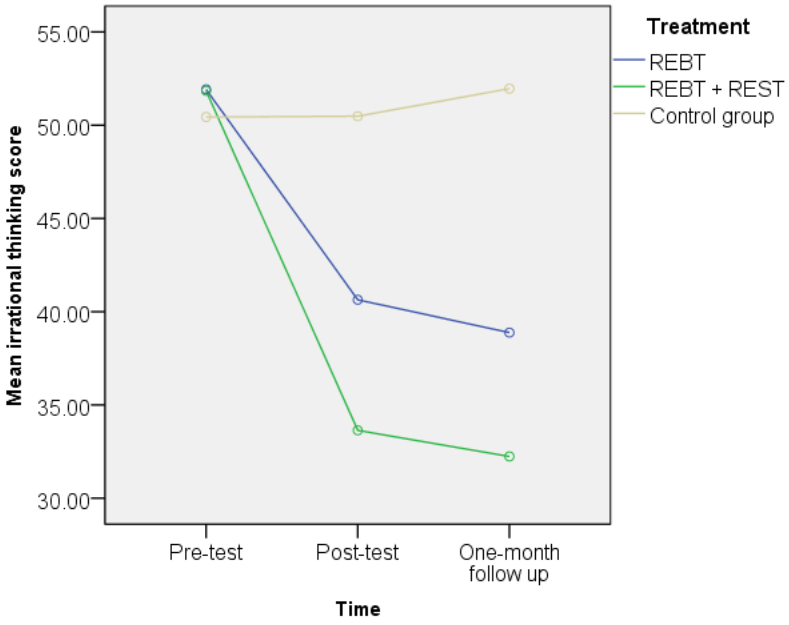

Figure 8*: Profile plot of irrational thinking scores*

Table 9: Tests of within-subjects effects

Source	Type III Sum of Squares	DF	Mean Square	F	p
Time	5105.53	2	2552.76	101.78	0.000*
Time X Treatment	3413.14	4	853.28	34.02	0.000*
Error (time)	3611.60	144	25.08		

*Note: Outcome variable = irrational thinking scores. DF = degrees of freedom. F = F statistic. p = p-value. * indicates significant at the 0.05 level.*

Table 10: Test results of the treatment effects at each time point

Time	Source	Sum of Squares	DF	Mean Square	F	p
Pre-test	Treatment	34.64	2	17.32	0.59	0.560
	Error	2130.96	72	29.60		
Post-test	Treatment	3578.43	2	1789.21	87.65	0.000*
	Error	1469.76	72	20.41		
One-month follow up	Treatment	5033.79	2	2516.89	93.21	0.000*
	Error	1944.16	72	27.00		

*Note: Outcome variable = irrational thinking scores. DF = degrees of freedom. F = F statistic. p = p-value. * indicates significant at the 0.05 level.*

Table 11: P-values of pairwise comparisons between treatment groups at each time point

Pairwise comparison	Pre-test	Post-test	One-month follow-up
REBT vs. REBT/REST	1.000	0.000*	0.000*
REBT vs. Control	1.000	0.000*	0.000*
REBT/REST vs. Control	1.000	0.000*	0.000*

*Note: Outcome variable = irrational thinking scores. * indicates significant at the 0.05 level.*

2.2 Interaction Anxiousness

A repeated-measures ANOVA was conducted determine if interaction anxiousness scores were statistically significantly different between the three treatment conditions (REBT, REBT/REST, and control) at pre-test, post-test, and one-month follow up. Mauchly's test of sphericity suggested that the variances of the differences between all combinations of the independent variables were equal (p = 0.725). Hence, the assumption of homogeneous variances for repeated-measures ANOVA was satisfied. The multivariate normality assumption for repeated-measures ANOVA was examined via the chi-square quantile –quantile plot (Figure 9). As most points lie very nearly along the 45 degree line, we concluded that the multivariate normality assumption was satisfied for the repeated-measures ANOVA.

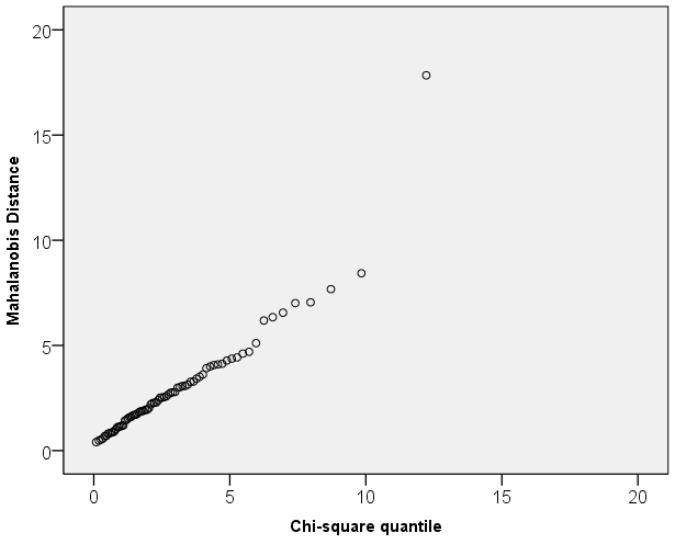

Figure 9: *Chi-square QQ plot, outcome variable = social anxiousness scores*

Table 12 shows the descriptive statistics (mean and standard deviation) of interaction anxiousness scores by treatment group at each time point. Recall that higher interaction anxiousness scores indicate more interaction anxiousness. Figure 10 is the visualization of Table 12. It appears that there was a decreasing trend of interaction anxiousness in both REBT and REBT/REST treatment groups though out the study period.

The analysis results suggested that there was a statistically significant interaction effect of time and treatment (p = 0.000) (Table 13), indicating the treatment effects on interaction anxiousness scores varied at each time point. Table 14 shows the test results of the treatment effects at each time point. The results suggest that there was a statistically significant difference in interaction anxiousness scores among the three treatment groups at post-test (p = 0.000) and one-month follow up (p = 0.000). However, there was no statistically significant difference in interaction anxiousness scores among the three treatment groups at pre-test (p = 0.686).

The results of pairwise comparisons between treatment groups at each time point are presented in Table 15. It appears that at post-test, there was a statistically significant difference in interaction anxiousness scores between REBT and REBT/REST (p = 0.000), between REBT and control (p = 0.000), and between REBT/REST and control (p = 0.000) (M = 39.64, SD = 4.98 for REBT; M = 33.64, SD = 4.98 for REBT/REST; M = 47.48, SD = 3.40 for control). At one-month follow up, there was a statistically significant difference in interaction anxiousness scores between REBT and REBT/REST (p = 0.000), between REBT and control (p = 0.000), and between REBT/REST and control (p = 0.000) (M = 40.88, SD = 5.18 for REBT; M = 34.24, SD = 5.08 for REBT/REST; M = 48.96, SD = 5.33 for control).

According to the analysis results, hypothesis 2 was supported. In other words, participants exposed to the REBT/REST condition will show significantly lower Interaction Anxiousness Scale test scores on post-testing and on the one month follow-up re-testing than participants exposed to REBT group therapy treatment and control participants.

Table 12: Mean (SD) of the interaction anxiousness scores

	Pre-test	Post-test	One-month follow up
REBT	47.40 (6.65)	39.64 (4.98)	40.88 (5.18)
REBT/REST	47.94 (4.84)	33.64 (4.98)	34.24 (5.08)
Control	46.62 (4.42)	47.48 (3.40)	48.96 (5.33)

Note: SD = standard deviation.

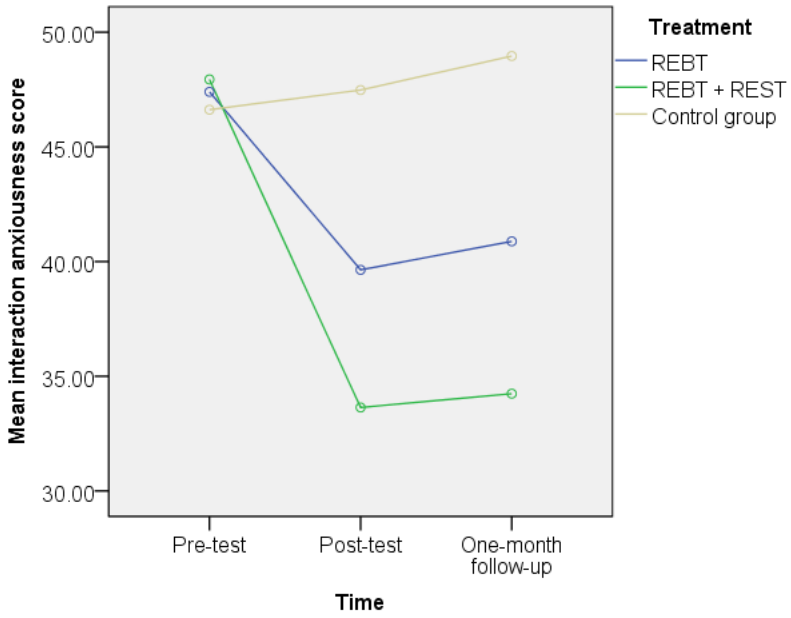

Figure 10: *Profile plot of interaction anxiousness scores*

Table 13: Tests of within-subjects effects

Source	Type III Sum of Squares	DF	Mean Square	F	p
Time	2167.10	2	1083.55	43.18	0.000*
Time X Treatment	2042.99	4	210.75	20.35	0.000*
Error (time)	3613.76	144	25.10		

*Note: Outcome variable = interaction anxiousness scores. DF = degrees of freedom. F = F statistic. p = p-value. * indicates significant at the 0.05 level.*

Table 14: Test results of the treatment effects at each time point

Time	Source	Sum of Squares	DF	Mean Square	F	*p*
Pre-test	Treatment	22.02	2	11.01	0.40	0.686
	Error	2090.72	72	29.04		
Post-test	Treatment	2408.43	2	1204.21	58.99	0.000*
	Error	1469.76	72	20.41		
One-month follow up	Treatment	2717.12	2	1358.56	50.31	0.000*
	Error	1944.16	72	27.00		

*Note: Outcome variable = interaction anxiousness scores. DF = degrees of freedom. F = F statistic. p = p-value. * indicates significant at the 0.05 level.*

Table 15: P-values of pairwise comparisons between treatment groups at each time point

Pairwise comparison	Pre-test	Post-test	One-month follow-up
REBT vs. REBT/REST	1.000	0.000*	0.000*
REBT vs. Control	1.000	0.000*	0.000*
REBT/REST vs. Control	1.000	0.000*	0.000*

*Note: Outcome variable = interaction anxiousness scores. * indicates significant at the 0.05 level.*

2.3 Shyness

A repeated-measures ANOVA was conducted determine if shyness scores were statistically significantly different between the three treatment conditions (REBT, REBT/REST, and control) at pre-test, post-test, and one-month follow up. Mauchly's test of sphericity suggested that the variances of the differences between all combinations of the independent variables were equal (p = 0.779). Hence, the assumption of homogeneous variances for repeated-measures ANOVA was satisfied. The multivariate normality assumption for repeated-measures ANOVA was also examined and was satisfied (Appendix H). The multivariate normality assumption for repeated-measures ANOVA was examined via the chi-square quantile –quantile plot (Figure 11). As most points lie very nearly along the 45 degree line, we concluded that the multivariate normality assumption was satisfied for the repeated-measures ANOVA.

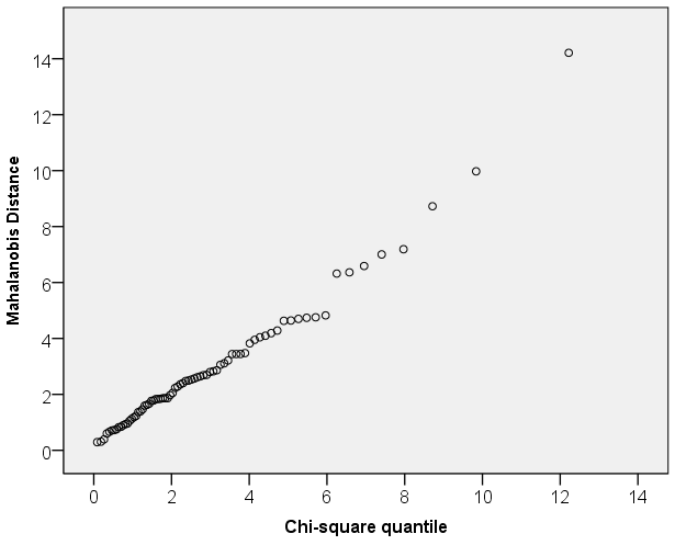

Figure 11:*Chi-square QQ plot, outcome variable = shyness scores*

Table 16 shows the descriptive statistics (mean and standard deviation) of shyness scores by treatment group at each time point. Recall that higher shyness scores indicate more shyness. Figure 12 is the visualization of Table 16. It appears that there was a decreasing trend of shyness in both REBT and REBT/REST treatment groups though out the study period.

The analysis results suggested that there was a statistically significant interaction effect of time and treatment (p = 0.000) (Table 17), indicating the treatment effects on shyness scores varied at each time point. Table 18 shows the test results of the treatment effects at each time point. The results suggest that there was a statistically significant difference in shyness scores among the three treatment groups at post-test (p = 0.000) and one-month follow up (p = 0.000). However, there was no statistically significant difference in shyness scores among the three treatment groups at pre-test (p = 0.707).

The results of pairwise comparisons between treatment groups at each time point are presented in Table 19. It appears that at post-test, there was a statistically significant difference in shyness scores between REBT and REBT/REST (p = 0.008), between REBT and control (p = 0.000), and between REBT/REST and control (p = 0.000) (M = 39.52, SD = 5.01 for REBT; M = 35.52, SD = 5.01 for REBT/REST; M = 46.48, SD = 3.40 for control). At one-month follow up, there was a statistically significant difference in shyness scores between REBT and REBT/REST (p = 0.001), between REBT and control (p = 0.003), and between REBT/REST and control (p = 0.000) (M = 40.88, SD =

5.18 for REBT; *M* = 35.24, *SD* = 5.08 for REBT/REST; *M* = 45.96, *SD* = 5.32 for control).

According to the analysis results, hypothesis 3 was supported. In other words, participants exposed to the REBT/REST condition will show significantly lower Shyness Scale test scores on post-testing and on the one month follow-up re-testing than participants exposed to REBT group therapy treatment and control participants.

Table 16: Mean (SD) of the shyness scores

	Pre-test	Post-test	One-month follow up
REBT	45.12 (6.53)	39.52 (5.01)	40.88 (5.18)
REBT/REST	45.70 (5.14)	35.52 (5.01)	35.24 (5.08)
Control	44.42 (4.40)	46.48 (3.40)	45.96 (5.32)

Note: SD = standard deviation.

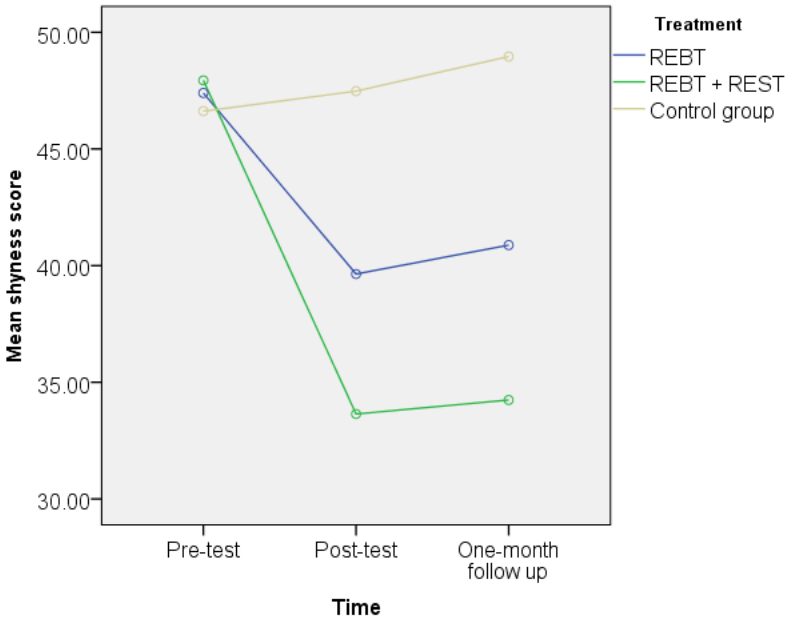

Figure 12: *Profile plot of shyness scores*

Table 17: Tests of within-subjects effects

Source	Type III Sum of Squares	DF	Mean Square	F	p
Time	1004.83	2	502.41	19.81	0.000*
Time X Treatment	1255.13	4	313.78	12.37	0.000*
Error (time)	3652.96	144	25.37		

*Note: Outcome variable = shyness scores. DF = degrees of freedom. F = F statistic. p = p-value. * indicates significant at the 0.05 level.*

Table 18: Test results of the treatment effects at each time point

Time	Source	Sum of Squares	DF	Mean Square	F	p
Pre-test	Treatment	20.54	2	10.27	0.35	0.707
	Error	2124.16	72	29.50		
Post-test	Treatment	1538.03	2	769.01	37.34	0.000*
	Error	1482.72	72	20.59		
One-month follow up	Treatment	1437.79	2	718.89	26.62	0.000*
	Error	1944.16	72	27.00		

*Note: Outcome variable = shyness scores. DF = degrees of freedom. F = F statistic. p = p-value. * indicates significant at the 0.05 level.*

Table 19: P-values of pairwise comparisons between treatment groups at each time point

Pairwise comparison	Pre-test	Post-test	One-month follow-up
REBT vs. REBT/REST	1.000	0.008*	0.001*
REBT vs. Control	1.000	0.000*	0.003*
REBT/REST vs. Control	1.000	0.000*	0.000*

*Note: Outcome variable = shyness scores. * indicates significant at the 0.05 level.*

Part II: Results of the Content Analysis

The purpose of the analysis in Part II was to complement the analysis results of Part I, and present the qualitative data obtained from the reflections and cognitions of the participants in the study with regard to the questions and hypotheses set for this study. A content analysis devised in light of Shapiro's (1989) Vlidity of Cognition Scale (henceforth, VoC) serves to introduce the qualitative data obtained and how the researcher arrived at the quantified results by manipulating Shapiro's VoC scale (See Appendix D). Baseline measures include the Validity of Cognition ([VoC] Shapiro, 1989) scale, on which clients rate how true the positive cognition feels on a 1 to 7 scale, with 1 = totally false and 7 = totally true, and a Subjective Units of Disturbance ([SUD] Shapiro, 1989) scale, which uses a 0–10 scale, with 0 = calm/neutral and 10 = the worst it could be. More will be given on the nature, benefits and reasons for the use of VoC for content analysis within the discussion of rating thoughts with regard to experience in the coming pages.

The results are presented and analysed in terms of such hypotheses that have been formulated based on a thorough review of the literature and on the findings from the replicated original study by O'Toole (1997). In the end, a critical summary of the research findings for the main research question as presented in this chapter and the previous one will be put forward accordingly.

3 Rating Thoughts with regard to Experience

The ability to gain or reconstruct meaning from previous experience and the capacity to interpret such experience are characteristic of mentally healthy individuals, whereas losing these two capacities can be indicative of psychological disorders, such as stress or anxiety disorders (Shapiro, 1995). According to Shapiro (2008):

> 'Clinical experience has clearly shown that when an individual is locked into a particular interpretation of reality, the source of the problem is the interaction of the present situation with disturbing memories. For example, combat veterans may react with violent rage in the present because a co-worker's incompetence triggers memories of comrades who died in Vietnam because of negligence. For them, albeit on a preconscious level, incompetence means impending disaster. Such pre-constructed, rigid schema and reaction patterns appear to be manifestations of unprocessed information in which negative affect dominates.' (p. 7)

As cognitive therapists may concentrate on the beliefs presently displayed, this helps rating previous events that have contributed to the present problem (Shapiro, 2008). Therefore, the VoC scale is used as a measure of rating such etiological events, which has become the central focus of both theory and practice (See Appendix D). As such, the VoC is a semantic differential scale that assesses the 'felt truth' about a self-statement relating to the memory of a particular event (Shapiro, 1989).

The validation of cognition scale (VoC) is used to obtain information about a client's progress with regard to past events, present triggers and future templates that are targeted for reprocessing this information to relate to current therapy practice. In other words, it is used to bring forth the perceptions of the client's schemata of events that triggered irrational beliefs and how these events were validly perceived with regard to the positive cognitions that helped to root out irrational beliefs at a particular phase of treatment (Shapiro, 2008). The use of VoC is not only for rating the felt truth about cognitised or perceived beliefs about the clients' progress with their psychotherapy, but it also helps to 'integrate the perceptions of sensory input and the cognitive components of experience into an associated internal memory network to allow for ecological, healthful, balanced functioning' (Shapiro, 2008, p. 8). Shapiro (2008) here affirms that:

> 'All the contributors to a happy and fruitful existence are available when one is able to trust one's own perceptions, bond, experience joy and intimacy, and achieve a sense of greater purpose, service, and connection, however those may be defined. This experience is possible because a physiological mechanism is in place to take any perceptual experience, including disturbance, to a higher level of mental health.' (pp. 8-9)

However, one of the major problems encountered in research into the value of a new treatment for social anxiety or other psycho-social states and/or diseases is the small number of participants in controlled experiments, such as this present study. Another problem is the great diversity of symptoms which social anxiety and irrational beliefs patients display, making it difficult to standardise trials.

These two problems may be partly overcome by the use of the method of rating devised by Shapiro (1989; 1995), i.e., the VoC scale. The Shapiro cards scale method of assessment utilises daily behaviour reports and has been widely accepted and used across a variety of situations with patients with challenging behaviours in order to document change in those behaviours (Chafouleas, Riley-Tillman & Sassu, 2006) under particular circumstances such as hypnosis or desensitisation (Shapiro, 1989) Use of the VoC allows

researchers to broaden their subject base because they can include data from participants who may not be necessarily be near their physical region. Additionally, a standardised coding scale generates greater reliability among trials. However, because the VoC relies on participants' subjective responses of how they feel, each participant may use the scale differently, and results among participants may vary greatly. The participants in this study kept thoughts and feelings diaries or logs in order to observe their progress in the counselling programme. They were requested to participate in a thought-listing activity using an Irrational Beliefs Log for one week prior to, one week after, and one month following their treatment.

Example: Mesfer was in the midst of reprocessing a disturbing or anxiety-provoking event involving malicious accusations by his father (i.e., 'You're a failure.' 'You must have been careless about your studies somehow.' 'You deserved your failure.'). These comments were made by his father after Mesfer had repeated the junior year for two years, three months earlier. Following several sessions of therapeutic strategies, using REBT plus REST to unblock or shift his processing of this social phobia provoking memory and the latent irrational belief that he is an irrevocable failure, Mesfer's level of disturbance (feeling of anxiety and irrational beliefs about his academic capacities) did not change. The clinician strategically asked Mesfer to focus on the words 'I am a success,' (his original negative cognition) and to scan for earlier events in his life that were disappointing and humiliating. The memory that finally emerged was the memory of his siblings scolding and blaming him for the years he spent at college unsuccessfully, with this taking place in the presence of guests or other relatives. The memory of his brothers' cruel behaviour feeds his irrationality and social anxiety 'I do not want to appear in social events involving my siblings'.

The psychotherapist, applying REBT plus REST, used to utilise blocking beliefs, or counter-irrational beliefs. A blocking belief is a belief that stops the processing of an initial target. Blocking beliefs typically show themselves when the clinician is evaluating the Subjective Units of Disturbance (SUD) or VoC in a process named by Shapiro as desensitisation. In this desensitisation process, the SUD level will not move below a 1 and, in the installation phase, the VoC remains below a 7[9]. Typically, when the

[9] A negative self-devastating belief that arises when the disturbing experience is brought to mind might be something like, "It's all my fault", "I am not good enough", "I am vulnerable", "I am powerless". A

psychotherapist asks the patient in the desensitisation phase, 'What prevents it (i.e., SUD) from being a 0?' or, if the patient is in the installation phase, 'What prevents it (i.e., VoC) from being a 7?' the client is able to respond with a negative belief and an appropriate, associative early memory. At this point, the processing on the initial target is stopped until the blocking belief memory has been targeted and reprocessed. Then, and only then, is the original memory retargeted and reprocessing continued. Towards this end, the psychotherapist used the Subjective Units of Disturbance (SUD) together with the VoC as an instrument that he filled himself in the sessions (See Sequel to Appendix D).

Participants in REBT plus REST who were resistant to these sessions of psychotherapy or who were persuasively led to this therapy at the urging of someone else (e.g., referrals by the college's counselling centre) were most susceptible to this phenomenon. They had been in therapy, not by their own volition, but because of someone else are prompting, and they possessed no desire to report or deal with any of their personal feelings.

As explained in Chapter Three, by the end of each treatment session, the participants were requested to conduct a listing activity after they had participated in a social situation in which they felt anxiety by listing the thoughts, feelings and/or behaviours they associated with such situation they had encountered one week prior to, one week after, and for one month following their treatment. Accordingly, they were asked to perform the listing activity for three separate occasions. The qualitative data obtained from this activity were quantified by the Shapiro scale (1989) on a range of 0 to 7. The Shapiro scale is a technique employed to identify themes in qualitative data so they can be coded and turned into quantified data. Such *open coding* or *qualitative analysis* (Berelson, 1952) or *latent coding* (Shapiro and Markoff, 1997) can be done through recognising the characteristics of the phenomena being studied. Open coding involves 'breaking down, examining, comparing, conceptualizing, and categorizing data', in the initial phase of data acquisition and profiling overall features of the phenomenon at issue (Strauss & Corbin, 1990, p. 61), often, in terms of properties and dimensions. The examination of such data is often conducted to fracture it and generate codes that could proceed 'line by line' in a tedious, yet highly generative fashion, and is,

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preferred, positive cognition (or positive, adaptive belief) is also identified to ascertain and verbalize the client's desired outcome..

therefore, often recommended in the initial phases of analysis, by sentence or paragraph, or by a holistic analysis of an entire document.

The open coding process, while procedurally guided, is fundamentally interpretive in nature, and grounded theory researchers 'must include the perspectives and voices of the people' whom they study (Strauss & Corbin, 1990, p. 274). In the case of this study, for instance, only one coder was used, which creates a lack of inter-rater reliability and leaves room for potential bias. Ideally, more than one coder would be employed to prevent misinterpretations and ensure that the scale and measurements made are accurate.

The participants in the present study were asked in each psychotherapy session to write down in their diaries their thoughts, feelings and/or behaviours they had on the day of the treatment. Afterwards, the participants were requested to rate their thoughts for the degree of inaccuracy expressed in each statement they wrote. They did so using Shapiro's (1989) VoC scale, which is a 7-point (1 = completely untrue to 7 = completely true) scale (See Appendix D).

By illustration, evoking the case of Mesfer, the participant was asked to rate the trueness of his feelings about the beliefs he held and was thought to be responsible for his trauma (i.e., social anxiety) on a scale of 1 to 7 points: e.g., is it true that I am a failure?

Overall, the social events that the participants in this study described by the end of each session in the form of qualitative thoughts/logs of feelings were varied by all means in both types of social situations deemed as social anxiety-triggering and also greatly varied in terms of the intensity of the social anxiety felt. The participants, overall, reported a variety of instances (50 in number) which involved social interactions with others: 20 instances of interacting with people (tribal relatives at social gatherings); 15 instances of interacting with figures of authority inside family, local community or at university; 10 instances of interacting with women inside the kin and kindred tribe; and 5 instances of interacting with friends and comrades. These were grouped into three social situations per participant: (1) social interactions with others in social gatherings; (2) social interactions in study environments; and (3) social interactions in situations involving the other gender.

3.1 Results from Thoughts and Feelings Logs Kept by Participants

The analysis results of the two-way analysis of variances using the data obtained from the three situations for the three treatment groups (REBT, REBT/REST, and control) at three different intervals of the study (pre-test, post-test, and one-month follow up) are presented in this section. Because the anxiety level scores were measured at three intervals of the study for each subject, the observations from the same subjects at the three study intervals were assumed to be independent as the time between the intervals was comparatively long for an intervention like the one used in the present study.

The analysis results for the first situation are presented in in Table 20. There was no treatment and time interaction effect. However, the treatment effect was significant ($p < 0.01$). To determine which two treatment groups were significantly different in the anxiety scores, Tukey's post hoc pairwise comparisons were performed (Table 21). The results suggested that there was a statistically significant difference in anxiety level scores between REBT/REST and control, and between REBT and control ($M = 37.9$ for REBT/REST; $M = 43.5$ for REBT, and $M = 53.7$ for control). The results indicated that participants treated with REBT/REST and REBT only had lower anxiety, compared to participants in the control group, across the study periods.

Table 20: ANOVA Table: First Situation Thoughts/Feelings Logs Anxiety level scores

Source	Type III Sum of Squares	DF	Mean Square	F
Treatment	3122.59	2	1561.29	60.108*
Time	5989.95	2	2994.97	115.303*
Treatment X Time	55.47	4	13.87	0.534
Error	5610.56	216	25.98	

*Note: Outcome variable = shyness scores. DF = degrees of freedom. F = F statistic. * indicates significance at the 0.01 level.*

Table 21: Tukey's Test for Pairwise Comparisons of the First Situation Thoughts/Feelings Logs Anxiety Level Scores

	REBT (43.5)	Control (53.7)
REBT + REST (37.9)	1.9	11.77**
REBT (43.5)		9.87**

*Note: Numbers in parentheses are estimated means. ** Indicates mean difference was significant at 0.01 level.*

The analysis results for the second situation are presented in in Table 22. There was no treatment and time interaction effect. However, the treatment effect was significant ($p < 0.01$). To determine which two treatment groups were significantly different in the anxiety scores, Tukey's post hoc pairwise comparisons were performed (Table 23). The results suggested that there was a statistically significant difference in anxiety level scores between REBT/REST and control, and between REBT and control ($M = 33.16$ for REBT/REST; $M = 34.08$ for REBT, and $M = 45.64$ for control). The results indicated that participants treated with REBT/REST and REBT only had lower anxiety, compared to participants in the control group, across the study periods.

Table 22: ANOVA Table: Second Situation Thoughts/Feelings Logs Anxiety level scores

Source	Type III Sum of Squares	DF	Mean Square	F
Treatment	7255.76	2	3627.88	141.024*
Time	46.51	2	23.25	0.904
Treatment X Time	81.73	4	20.43	0.794
Error	5556.64	216	25.73	

*Note: Outcome variable = shyness scores. DF = degrees of freedom. F = F statistic. * indicates significance at the 0.01 level.*

Table 23: Tukey's Test for Pairwise Comparisons of the Second Situation Thoughts/Feelings Logs Anxiety Level Scores

	REBT (34.08)	REBT + REST (33.16)
Control (45.64)	11.56**	12.48**
REBT (34.08)		0.92

*Note: Numbers in parentheses are estimated means. ** Indicates mean difference was significant at 0.01 level.*

The analysis results for the third situation are presented in in Table 24. There was no treatment and time interaction effect. However, the treatment effect was significant ($p < 0.01$). To determine which two treatment groups were significantly different in the anxiety scores, Tukey's post hoc pairwise comparisons were performed (Table 25). The results suggested that there was a statistically significant difference in anxiety level scores between REBT/REST and control, and between REBT and control ($M = 34.53$ for REBT/REST; $M = 35.40$ for REBT, and $M = 43.95$ for control). The results indicated that participants treated with REBT/REST and REBT only had lower anxiety, compared to participants in the control group, across the study periods.

Table 24: ANOVA Table: Third Situation Thoughts/Feelings Logs Anxiety level scores

Source	Type III Sum of Squares	DF	Mean Square	F
Treatment	4060.19	2	2030.09	77.581*
Time	40.56	2	20.28	0.775
Treatment X Time	57.73	4	14.43	0.552
Error	5652.16	216	26.17	

*Note: Outcome variable = shyness scores. DF = degrees of freedom. F = F statistic. * indicates significance at the 0.01 level.*

Table 25: Tukey's Test for Pairwise Comparisons of the Third Situation Thoughts/Feelings Logs Anxiety Level Scores

	REBT (35.40)	REBT + REST (34.53)
Control (43.95)	8.55*	9.41**
REBT (35.40)		0.87

*Note: Numbers in parentheses are estimated means. * indicates mean difference was significant at the 0.05 level. ** Indicates mean difference was significant at 0.01 level.*

4 Conclusions: Findings with Regard to the Main Research Question

The main research question seeks to find an answer to whether the suggested counselling programme grounded in using REBT and REST is effective in relieving and treating irrational thinking, social anxiety, and shyness among Saudi College Students in a governmental university. As seen in the analysis results, REBT therapy was effective, but when it was combined with REST, the treatment group that received REBT plus REST was more responsive in the counselling programme, demonstrating more improvement in relieved irrationality, social anxiousness and shyness than the REBT-only treatment group and the control group. The control group which received neither REBT nor REBT plus REST treatments showed very similar pre-testing and post-testing scores on the measures used for assessing the level of irrationality, social anxiety and shyness, which indicates that some improvement has been achieved, again demonstrating that in a controlled experiment, REBT combined with REST had more psychotherapeutical effectiveness than REBT only or no treatment at all.

Additionally, the analysis results of thoughts/feelings logs for the anxiety level scores indicated that participants treated with REBT/REST and REBT only had lower anxiety, compared to participants in the control group, across the study periods.

CHAPTER FIVE - ANALYSIS, DISCUSSION, SUMMARY & RECOMMENDATIONS

1 Introduction

This study attempted to determine if a treatment programme, based on the principles of REBT and/or Restricted Environmental Stimulated Therapy (REST), would reduce irrational beliefs, anxiety and shyness of 75 college students diagnosed with SAD; 25 students were assigned to an experimental group counselled using REBT only (henceforth, referred to as Experimental Group 1), 25 students were assigned to another experimental group counselled using REBT plus REST (henceforth, referred to as Experimental Group 2), and finally 25 students were assigned to the control group with no treatment. Irrational beliefs was measured using the Irrational Belief Scale; anxiety with the Social Interaction Scale; and shyness with the Shyness Scale.

The student-participants were selected based on the recommendation of the counselling psychology clinic of the College of Arts & Humanities, King Abdulaziz University in Jeddah. The said clinic did a screening of the student-participants who manifested the signs and symptoms of SAD. The mentioned signs and symptoms were measured three times: pre-test, post-test and one month after the post-test.

2 Significant findings

The study examined the treatment effects on irrational thinking, shyness, and interaction anxiousness, across the three study periods, pre-test, post-test, and one-month follow up. The results suggested that there was no statistically significant difference in irrational thinking, shyness, and interaction anxiousness among the three treatment groups at pre-test. However, it was discovered that participants exposed to the REBT/REST condition would have significantly less irrational thinking, shyness, and interaction anxiousness on post-testing and at one-month follow-up than participants exposed to REBT group therapy treatment and participants with no treatments (control group). The study also found that participants exposed to the REBT-only treatment would have significantly less irrational thinking, shyness, and interaction anxiousness on post-testing and at one-month follow-up than participants with no treatments (control group).

Additionally, the analysis results of thoughts/feelings logs for the anxiety level scores indicated that participants treated with REBT/REST and REBT only had lower anxiety, compared to participants in the control group, across the study periods.

3 Benefits of REBT

The notable reduction in the levels of irrational thinking of the participants with REBT-only treatment discovered in this research study confirms the research findings of Watson and Friend (1969), DiGiuseppe et al. (1990) and O'Toole (1997). These researchers concluded that REBT is effective in alleviating and treating social anxiety. According to DiGiuseppe et al. (1990), cognitive therapies and behavioural treatment conditions can generate a significant reduction of anxiety specific to interpersonal and social behaviour. REBT is one type of CBT with an extensive history of use with children and adolescents (Bernard, 1990; Bernard & DiGiuseppe, 1994). Researchers have generally been supportive of this approach with effect size estimates from a number of meta-analyses ranging from 0.35 (Dush et al., 1989) to 1.27 (Lewinsohn & Clarke, 1999). REBT is within this specific branch of therapy. There has been a plethora of research that has recognised the relationship between people's cognitive structures, irrational beliefs and social anxiety (Davison & Zighelboim, 1987; Rohsenhow & Smith, 1982; Sutton-Simon &Goldfried, 1979).The present study falls within this category of research, confirming the findings that REBT is an effective treatment technique for social anxiety, irrationality and rumination of beliefs that lead to different forms of anxiety, especially social anxiety (Bernard et al., 2006; DiGiuseppe et al., 1998; DiGiuseppe & Bernard, 1990; Durlak et al., 1991; Gormally et al., 1981; Kocovski & Rector, 2007; Rodebaugh et al., 2004; Schulz & Kaspar, 1994; Vassilopoulos, 2009; Watson & Friend, 1969;). By the same token, many researchers concluded that in the circumstances of child and adolescent psychotherapy, REBT has become a popular form of psychotherapy for both psychological and mental health problems, including phobias, social anxiety, shyness and social withdrawal. With the increasing popularity and support for cognitive therapies among health professionals, a number of clinicians have used REBT theory as the basis for developing new patterns of working with psychopathology patients.

However, the present study also showed that the REBT treatment was not much effective as REBT plus REST in reducing social anxiety. This means that the REBT plus REST treatment was more effective than REBT only. This confirms earlier findings,

for example the assertion that REBT is helpful in inducing self-esteem; as earlier noted in O'Toole (1997),

> 'the most consistent research findings show an inverse relationship between measures of shyness and global self-esteem which typically correlate around the -.50 level' (p. 6).

It is noted in the literature review that there is a relationship between self-esteem, self-presentation and inter-personal relationships which could affect social interactions (Leary, 2001c); the lack of self-esteem could lead to crushing the ability to socialise in social settings which is correlated to social phobia as presented in prior research (Quellet & Joshi, 1986; Schlenker, etal., 1990; Weaver & Mathews, 1993). Other studies showed that the lack of self-esteem leads to loneliness and shyness (Ceyhan et al., 2008; Ceyhan & Ceyhan, 2011; McWhirter, 1990; Yerin-Güneri, 2006). In addition, Lecrubier et al. (2000) found that 'poor social skills, hypersensitivity to criticism and negative evaluation, and difficulty being assertive, as well as low self-esteem and feelings of inferiority' are significant causes of social anxiety. Similar findings are present in Lake & Arkin (1985) and more recently in Heinrich & Gullone (2006).

The findings regarding REBT from this study confirms the findings of O'Toole's study, which claims that REBT interventions are effective techniques harnessed by psychotherapists for alleviating shyness in people with social phobia.

As a procedure, the basis on which psychotherapy functions in the case of shy people is that these individuals suffer from self-defeating attributions. (Lazarus, 1968; 1991c; Malouff, 1992; Malouff et al., 1992; Schachter & Singer, 1962; Tobacyk & Downs, 1986). These self-defeating attributions are indeed irrational beliefs.

Furthermore, according to Arkin and Grove (1990) and Miller (1995), shy people emphasise unstable causes for positive outcomes and internal (i.e., dispositional) causes for negative outcomes, affectively and behaviourally (O'Toole, 1997). Indeed, REBT interventions work wonders in alleviating shyness.

4 Enhancing REBT with REST

The marked reduction in the outcome measures of the subject of irrational thinking in participants with REBT/REST treatment, affirms the claims of Azima and Cramer-Azima (1956), Barabasz (2004; 2010), Barabasz & Barabasz (1981), Barabasz & Barabasz (2000), Hilgard (1973) and O'Toole (1997) that REST, as a technique, could enhance the effects of REBT. The exact mechanism by which this mentioned process takes place may as well be one, or a combination, of the following: (a) It increases

participants' willingness to receive psychotherapy by increasing their susceptibility to the influence of external sources (Suedfeld, 1980 & 1987; and O'Toole, 1997); (b) the techniques it employs induce muscle contraction and relieve headaches (Rzewnicki et al., 1990); and (c) it enhances hypnotisability (Barabasz et al. 1997; Barabasz, 1977a; Barabasz, 1977b).

Hajzler & Bernard (1991)revealed that REBT is an effective therapy for decreasing irrationality and ameliorating the internal locus of control of clients, which greatly helps in alleviating the anxiety of most subjects recruited in the different samples in the studies reviewed. These findings are also commensurated with other more recent meta-analysis studies; for instance, Engles et al. (1993). Acarturk et al. (2009), Federoff& Taylor (2001), Gonzalez et al. (2004), Gould et al. (1997), Hattie (1992) and Weisz et al. (1995) all indicated that, in controlled experiments using REBT with adolescents and adults, favourable effects were evidenced to the good of using REBT in treating psychotherapy.

REST, commonly known as 'Flotation-REST' has been reported in relevant literature as enjoying positive effects in many studies (Mahoney, 1990; Norlander et al., 2003; Sandlund et al., 2001, Schultz & Kasper, 1994, to cite just a few). REST was used and can potentially be used as a therapeutic agent (Azima& Cramer-Azima, 1956). It is thus used to help induce the cognitive effects of cognitive therapy techniques, such as REBT, for the effective insinuation of habit change. This is achievable by decrease of distraction, increased stimulus hunger, and greater openness to new information associated with the stimulus reduction experience.

REST was also used as a stress management technique, and hence, increases its effectiveness in helping relieve stress and other psychological disturbances. As earlier noted in Chapter Two, REST was applied in earlier studies as an intervention to enhance personal functioning. When combined with REBT, REST can bear more favourable effects. According to Suedfeld (1980), clients can potentially scrap as unwanted all beliefs and thoughts concerning behaviour because of the environmental stimuli that can rid external distracters.

According to O'Toole (1997), REST

> 'sets up a situation in which persons must turn to internal stimulation. They are forced to focus on internal stimuli and reduced external stimuli. The combination of focusing on internal material and craving external input may leave individuals less critical of the meaning of the input.' (p. 18)

The present study has confirmed the findings from O'Toole (1997) that an amalgam of both REBT and REST is more effective than REBT only treatment. This finding, too, is in line with prior research in which REST was combined with hypnosis and REBT for moderating performance anxiety (e.g., Barabasz, Baer, Sheehan & Barabasz 1986; Barabasz et al., 1984; Ellis, 2004a). One possible interpretation for that is that REST can potentially and effectively increase participants' willingness to receive psychotherapy by increasing their susceptibility to the influence of external sources.

5 Discrepancies between O'Toole (1997) and the Present Study

These results in this study confirm the major findings of O'Toole which concluded that the REBT, in conjunction with REST is more effective than solely using REBT. But, both REBT and REST, as separate techniques, are still effective in alleviating irrationality, and therefore, social anxiety.

O'Toole (1997) hypothesised that participants who have received REST (Experimental Group 2) would report significantly less irrational thinking compared to participants in the other two groups was not supported as there was no REST-only group in the present study. The data in Chapter Four, however, shows that there were significant reductions in IBT test scores from pre-to post-test and pre-test to follow-up, with no significant differences between treatment groups at post-test or follow-up for the REBT+REST group in the present research. There appeared to be no advantage to utilizing any single treatment over the other two. As O'Toole (1997) hypothesised that participants who received REST would report significantly less social anxiety compared to participants in the other two conditions, this was not supported in the present study as there was no REST-only group. However, there was significant decrease in IAS test scores from pre- test to post-test and pre-test to follow-up, with noted significant differences between treatment groups at post-test and follow-up measurements for the second experimental group where REST was combined with REBT. There appeared to be no advantage to employing any single treatment over the other two. In terms of the effects of the counselling programme, of REBT only and of REBT in conjunction with REST on the variable of shyness. This could be due to the fact that this trait is not easily reductible in a matter of the weeks of the duration of the programme.

In point of fact, there was no special treatment to test the effectiveness of REST treatment in isolation inasmuch as there was for REBT treatment. In my experiment, there were three treatments: REBT only, REBT plus REST and a control group with no

treatment. The researcher did not include a special treatment group to receive REST only, for one believes that REST is an additional, complementary and integrative treatment or rather an aide to psychotherapy. As could be seen from the present study findings, REST has consolidated and empowered REBT, as shown in statistically significant differences between REBT only and REBT plus REST to the good of the latter treatment group where irrational beliefs were far more decreased and social anxiety was far more reduced, though both treatments led to improvements the two experimental groups.

Since there was a significant reduction in the irrational beliefs of the participants, and a corresponding reduction in social anxiety test scores for the two treatment groups from pre-test to post-test and follow-up, the findings from the present study seem to support the theory that there is a correlation between a person's irrational beliefs (Ellis, 1977b) and their social anxiety (Ellis, 2004b; Emmelkamp et al., 1988; DiGiuseppe et al., 1998; O'Toole, 1997; Schelver & Gutsch, 1983; Vestre & Judge, 1989; Warren et al, 1989). This supports the hypothesis that both REBT and REST treatments would enhance participants' receptivity to changing their irrational beliefs compared to control participants; but this does not seem to support different findings in some prior studies in this point (e.g., Barabasz & Barabasz, 1993; Dyer et al., 1993; Suedfeld, 1980).

The success of the REBT and/or REBT plus REST treatments arises from the observation that adopting a problem-solving oriented approach to the problems in living is an essential ingredient in successful problem-solving performance to reduce irrational thinking. In fact, negative affect and the negative consequences of poor problem-solving is thought to originate in an irrational way of thinking about the problems or their adversities in the sense that these events or situations are believed to be highly threatening and cataclysmic, whereas in fact, they are not. A REBT intervention can potentially help in altering irrational beliefs to rational beliefs, resulting in significantly less emotional distress (Ellis, 1962; 1977a; Jacofsky, 2006; Jensen, 2008; Moore, 2006;).

The intervention programme both for the REBT and REBT plus REST groups was also intended to encourage the participants to accept 'probably true' interpretations of the experiences which they thought were social anxiety-provoking for them.

It is strongly recommended that in future studies, volunteers in similar research should be recruited from different universities and backgrounds to avoid any interactions between the control students and their cohorts in the othe experimental groups to avoid

subject-subject interactions that may vitiate the validity of their performance on the tests/scales used in data collection on pretesting and/or posttesting.

The REBT approach with REST, which induces desensitisation, helps shy people to selectively focus on the tasks they are up to in social interactions at the cognitive, affective and consequently at the behavioural levels. The problem with shy people is that they are too much self-focused, which interferes with the attention that should be paid to others during interactions, shy people are believed to suffer from a 'selective attention deficit' that impairs their ability to participate effectively in social transactions (Hartman, 1983; O'Toole, 1997). As demonstrated in this study, and that of O'Toole (1997), shyness can be deterred and treated by REBT interventions. It can, furthermore, be alleviated by REBT which provides cognitive, affective and behavioural training, which staves off shyness and its symptoms, and REST which helps desensitise one's emotions and bodily degree of interaction with the internal covert impulses (dispositional stimuli) resulting from the self-defeating attributions which in themselves are resultant from irrational thinking, crushed self-esteem, and a persistent resistance to positive feedback.

Finally, O'Toole (1997) argued that the improvements in post-testing on social anxiety, shyness and lowered irrational beliefs were the outcome of a statistical regression towards the mean. According to O'Toole (1997), the participants were sensitised and more aware of their self-perception and feelings of anxiety, and thus, they were more inclined towards expressing these feelings on pre-testing before receiving any experimental treatment as it appeared on the pre-test scale results. This may possibly explain the reduction that occurred significantly on post-testing in social anxiety and irrationality.

In this study, the improvements have been proven to be the result of the intervention programmes both in quantitative and qualitative data analyses. The concept of irrational beliefs contributing to the social anxiety of college students appears to be a factor of impact in initiating and maintaining SADs in this population. Indeed, when the intervention programmes for the Experimental Group 1 and Experimental Group 2 were geared towards effecting a reduction in the participants' irrational thinking patterns, their reports of social anxiety decreased after having been cognitively, emotionally and behaviourally trained on how to reduce/obliterate their irrational beliefs and enhance their rational thinking patterns.

According to the findings of this study, a system of irrational beliefs could contribute to the social anxiety of college students as it was the case in the participants of

the present study, and this appears to be the clincher in initiating and maintaining SADs in this population of college students within the limitations of the present study.

6 Delimitations

The validity, expandability, and generalisability of the evidence generated by the study should be interpreted with caution because of the following delimitations:

This study employed purposeful sampling so that the study findings could aid in providing appropriate educational and counselling assistance for students suffering from social anxiety, social phobias and other related socio-psychological disorders in in Saudi college students. In other words, the findings of the study are limited to the sample used for this study; i.e., a section of male, college Saudi population in the Western region of KSA. Furthermore, this study was conducted during the academic year 2008–2009, thus, being time-limited to this period.

In this way, the respondents involved only 75 male college students from the College of Arts and Humanities, King Abdulaziz University in Jeddah, Saudi Arabia, distributed to their respective groups, each comprising of 25 participants. As such, evidence may not be generalisable to the universe of teenagers in Saudi Arabia who are diagnosed with SAD. Also, one of the gaps in the current literature was not tested: whether it is really more common among males than females; this is due to the cultural characteristics of the Saudi society which does not allow for co-education.

The selection of respondents for the study did not make distinctions, thus, the generated data are not really specific, to wit, (a) SADs are of two general types: generalised and non-generalised. The way by which the respondents were screened did not make any distinction; (b) the occurrence of SAD has been known to have co-morbidities. The selection of respondents to the study did not make any distinctions; (c) social network relationships affect occurrence of SAD, but the screening of the respondents did not make any distinctions; and (d) the internet exposure is known to affect occurrence of SAD, but the screening of respondents did not take this into consideration.

The full effects of REBT and/or REST in reducing irrational thinking and consequently, reducing anxiety can only be achieved if subjects are exposed to hypnotism prior to therapy. This study did away with the use of hypnosis and in its stead, utilised another technique where a psychotherapist exposed subjects to suggestive, relaxing, and desensitizing environment before the therapy sessions began. This may have an effect on the purity of the data.

The study was not conducted under strict laboratory conditions. The respondents were made to frequent the college's counselling centre and they were made to go home after the required tests measuring their irrational thinking, anxiety and shyness were completed. As such, they have been exposed to extraneous variables in their respective environments at home which may unduly affect the results of the study.

Furthermore, the findings were constrained by the scales and measures utilised for assessing and diagnosing social anxiety, irrational beliefs and shyness, as well as by the REBT/REST counselling programme developed for this study and used within the cited limitations.

7 Summary, Recommendations and Suggestions for Future Research

This experimental study was aimed at finding answers to the main research question: what is the effectiveness of the suggested counselling programme grounded in REBT/REST theories in relieving and treating college-level students' social anxiety and irrationality?

As such, randomly assigning participants to treatment groups (levels of X) controlled for internal validity together with the pre-test, and also served to control for regression and selection factors. The pre-test also 'controlled for history, testing and instrumentation' (see Gay, 1996, p.365–368) making it highly unlikely that some third variable would be correlated with the variables of the study. The dependent measures were self-reports of irrational thinking as determined by the scores on the Irrational Beliefs Test and social anxiety levels as determined by the scores on the relevant scales, and an irrational thoughts log that each participant maintained for one week prior to, one week after, and for one month after therapy had ceased as quantitatively assessed using the validation of cognition scale (VoC) by Shapiro (1989).

7.1 Sampling

Volunteer participants were recruited from a Saudi college's student population. Participants were drawn from undergraduate students through a call for participation in the study made by the psychology department of the college.

7.1.1 Research Ethics & Procedures

Prior consent, obtainable in written form, was required before launching this study. Personal information about participants was not revealed to any authority due to

the consent agreement reached between the researcher and psychotherapists on the one hand and the students participating in the treatment programmes on the other hand.

Participants in the study were then administered the IAS and Shyness Scale to decide whether the criterion for inclusion in the study had been met. All participants who scored one standard deviation above the mean for each measure (IAS = 49, Shyness Scale = 43) were included as participants. All participants were then administered the IBT to obtain baseline amounts of irrational thinking.

7.1.2 REST/REBT Condition

REBT/REST participants were given an intensive orientation to the REST and REBT procedures. They were thus reassured in a tranquil and serene lab environment concerning any fears or apprehensions about the REST procedures. The psychotherapist assigned to this group of participants conducted a brief pre-experimental interview in an attempt to assess whether the participants had been subjected to any stress, anxieties or other events which could make the REST sessions uncomfortable for them.

7.1.3 REBT Therapy Group Condition

Participants in this condition were exposed to a bi-weekly 3-hour REBT counselling group sessions per week. In these sessions participants were introduced to the main concepts of REBT, and given the chance to put these concepts into practice in their daily lives, and advised that they should regularly – and consciously – adhere to these tenets.

Procedures also included learning the ABC theory of how irrational beliefs about daily events can lead to emotional disturbance: assessing how their personal irrational beliefs result in social anxiety; setting therapeutic goals that are specific, realistic, achievable and measurable: making a commitment to invest the time and energy necessary to achieve these goals; and, with the support of the group, challenging their irrational beliefs and deciding to substitute more appropriate and rational beliefs. At the end of a session and beginning of the next, participants heard the same recorded adaptation of the basic tenets of REBT. In between sessions, participants were given homework assignments designed to help them maintain their focus on, and work at, changing their irrational beliefs.

7.1.4 No treatment control

Participants in this condition spent three hours a week in a non-REST/REBT or REBT only environments located in the college psychological laboratories, where normal levels of stimulation were assured. Participants brought personal materials to help maintain normal levels of stimulation (e.g., textbooks, class notes, study materials, magazines, etc. to exactly model the study of O'Toole, 1997), and extra materials were provided as needed. Social contact was maintained by intermittent interruptions by the experimenter approximately every hour to help ensure participants were experiencing normal amounts of stimulation. They did not receive any training in the basic tenets of REBT or REST plus REBT. In addition, the control group participants were not isolated from the other experimental participants as they were interacting with each other before the sessions or after the sessions since the sessions for the research groups were consecutively held on the three days of the week the lab was reserved or this study.

7.1.5 Follow-up

Immediately following their treatments, or no treatment in the control case, and again after a one-month period of cessating the treatment, participants in the three groups were asked to report their irrational thinking patterns by completing the IBT and reporting their experiences of social anxiety by completing the IAS and Shyness scale and finally completing an Irrational Thoughts log for one week.

8 Summary of Findings

The study examined the treatment effects on irrational thinking, shyness, and interaction anxiousness, across the three study periods, pre-test, post-test, and one-month follow up. The results suggested that there was no statistically significant difference in irrational thinking, shyness, and interaction anxiousness among the three treatment groups at pre-test. However, it was discovered that participants exposed to the REBT/REST condition would have significantly less irrational thinking, shyness, and interaction anxiousness on post-testing and at one-month follow-up than participants exposed to REBT group therapy treatment and participants with no treatments (control group). The study also found that participants exposed to the REBT-only treatment would have significantly less irrational thinking, shyness, and interaction anxiousness on post-testing and at one-month follow-up than participants with no treatments (control group).

Additionally, the analysis results of thoughts/feelings logs for the anxiety level scores indicated that participants treated with REBT/REST and REBT only had lower anxiety, compared to participants in the control group, across the study periods.

9 Conclusions

The National Comorbidity Survey has borne out recent data showing that social anxiety disorder (SAD) is one of the most common mental illnesses, third in order after depression and alcohol abuse (Kessler et al. 2005). Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR, 2000) defines social anxiety (synonymous with *social phobia*) as an intense fear of negative evaluation from others, and a chronic concern and self-doubt about one's social ability and social performance.

Even though the terms *social phobia* and *social anxiety* have been used interchangeably or synonymously in the literature, the former is more accurately used to refer to a clinically diagnosed condition, whereas the latter, being a milder form of social discomfort, is more prevalent than is probably diagnosed and statistically reported. However, social anxiety in its most severe form can emotionally and physiologically disable SAD patients, with many of them struggling to cope with other psychological concomitant challenges, such as finding or maintaining functional pro-social/professional life relationships and/or engagements. As reviewed in the literature, prior research findings demonstrated that approximately one half of the patients suffering from social anxiety had a co-morbid mental, drug, or alcohol problem (Barlow, 1991; 2002).

Further and above all, if left without due, in-time interventions, SAD can be chronic and pervasive, not only due to the concomitant co-morbid conditions, but because of a morbid dependence on social avoidance mechanisms inevitably employed by SAD sufferers. Despite the fact that avoidance, loneliness, social avoidance and shyness may provisionally abate, alleviate or even eliminate SAD symptoms, the underlying fears will usually remain in the inner soul of the SAD sufferers, precluding them to accommodate functionally in social/professional life. This observation is well-established in prior research demonstrating that approximately 85 percent of SAD patients experience academic and/or occupational difficulties caused by their incapacity or failure to meet the social demands of starting or even maintaining their jobs or social relationships (Bruce & Saaed, 1999; Carducci, Stubbins & Bryant, 2007; Carducci & Zimbardo, 1995; Zimbardo, 1977; Kashdan & Herbert, 2001).

Prior research has detected a correlation between social anxiety and irrational beliefs. Therefore, Ellis (1962) suggested that irrational beliefs could be the primary culprit inducing emotional and behavioural disorders. Using this theoretical framework by Ellis (1962), which has been consequently substantiated by solid empirical research, it is deduced that the predicaments experienced by SAD patients are not caused by specific conditions or events; rather they are caused by their explanation and evaluation of such conditions and events. Irrational-thinking individuals often tend to pass absolute and resolved judgments based on mistaken perceptions of the reality. These judgments and perceptions often contradict with the self and life realities, which bring forth emotional stress likely to engender anxiety, depression, and sadness (Dryden, 1999).

As discussed in great detail in the first two chapters, social anxiety has been proven to be one of the most prevalent psycho-social disorders. In addition, the social and academic environment has seen a dramatic and significant surge in mental health and behaviour problems among college students. The findings from this study show that social anxiety in the general student population is significantly correlated with irrational thinking in the Arab academic environment. This study is also unique as it has demonstrated how common social anxiety and irrational thinking is on college campuses today in Saudi Arabia as elsewhere in the world.

In addition, the counseling psychology research findings have been specifically focused on cognitive and emotional aspects of personality development and role in psychological and social accommodation. Thus, an emotional-rational therapy approach developed by (Ellis, 1962) contributed to explanation of the relationship between one's irrational beliefs and emotional and behavioural disorders which can help alleviate, reduce and treat SAD once these irrational beliefs have been eliminated.

The present study supports O'Toole's research findings that REBT is effective in alleviating and treating social anxiety. This finding is compatible with prior research (Bernard, 1990; Bernard & DiGiuseppe, 1994; DiGiuseppe, et al., 1990; O'Toole, 1997; Watson & Friend, 1969). Prior research has demonstrated that there were statistically significant differences between irrationality and some disorders, such as social anxiety (Rateeb, 2000).

Ellis (1971) conjectured that there is a relationship between irrational beliefs and various other forms of emotional disturbances, such as social anxiety, resurging as a result of the interactions of negative events or situations and negative emotions conducing to certain irrational beliefs or any other irrational or other dysfunctional

patterns of thought likely to cause emotional disorders (Lohr & Bonge, 1981; Niedenthal et al., 2005; Thyer et al., 1985; Tiba, 2010). Therefore it may be explained, as revealed in several relevant research endeavours, that SAD patients were found to be inconsistently receptive to positive and/or negative evaluations from others (Ross & Sicoly, 1979), they may be affected by their own reactions to appraisals from others (Jones, 1973), and the individual's self-evaluation or self-concept has been seen as a likely mediator of reactions to social evaluation (Shrauger, 1982).

The underlying point in the replication of O'Toole's work (1997) is to assert that by reducing irrational beliefs to a minimum, one can behave normally, with less anxiety – a point deduced from prior research, too, and confirmed in the present study (Davison & Zighelboim, 1987; O'Toole, 1997; Rohsenhow & Smith, 1982; Sutton-Simon & Goldfried, 1979). Clearly put, the findings from the present study confirmed that REBT is an effective treatment technique for social anxiety, irrationality and rumination of beliefs that lead to different forms of anxiety, especially social anxiety (Bernard et al., 2006; DiGiuseppe & Bernard, 1990; DiGiuseppe et al., 1998; Durlak et al., 1991; Fehm et al., 2007; Gormally et al., 1981; Kocovski& Rector, 2007; Rodebaugh et al., 2004; Schulz & Kasper, 1994; Vassilopoulos, 2009; Watson & Friend, 1969). As stated in the previous chapter, several studies were conducted to test the effectiveness of REBT or REST separately or in combination at the time O'Toole launched his study, but still these studies were rare, and were done mostly in the West; sparse studies were conducted in the Arab world on the effectiveness of REBT in treating anxieties. Further, in different contexts, many studies have been conducted on irrational belief dimensions among college students in developed societies.

By and large, researchers in Western societies have used counselling skills and cognitive-behaviour interventions for disputing the types of irrational thinking such as demandingness, awfulizing and depreciation. Few studies are available from Saudi Arabia or the Middle East, however, although such irrational belief systems and their negative consequences such as depression and social anxiety had been observed three decades ago among undergraduate students in some Arab countries (Nadeem, 1998). For example, Nadeem (1998) observed that three privileges in Arab societies (e.g., love, protection and social acceptance), are essential not only for a peaceful psychological life of individuals in these societies, but also for their very survival. By the same token, Nadeem (1998) demonstrated that the lack of independence among Yemeni individuals (a very similar society to the social structures of Saudi Arabia), together with excessive

fatalism, is likely to generate not only many obstacles to development, particularly from adolescence onwards, but also trigger emotional disturbances such as depression and social anxiety. Saleh (1985) indicated that Arabs are prone to suffer from social anxiety and other emotional disturbances because of irrational belief systems. Research in some Arab countries had showed that irrational beliefs could be conducive to psychological disturbances; this research demonstrated that it is the perceptions of individuals that cause their irrationality. When individuals thought (irrationally) that the events or situations they passed through were awfulizing, painful or saddening, then their emotional disturbances were triggered off (Ahmed, 2004; Al-Akad, 1997; Al-Faisal, 1992; Almaleh & Al-zarrad, 2005; Al-Namlah et al., 2006; Al-Raihani, 1987b; Rateeb, 2000). Chaleby in a series of studies has further suggested that social phobias are rampant in Saudi Arabia, even claiming that it is more rife in Saudi Arabia than it is in England (Lane, 2007).

The present study has come to fill in this gap in Arab literature. In addition, reviews of prior studies and relevant literature indicated that, from 1997 onwards to 2008, more research as well as theoretical synthesis studies were carried out on the effectiveness of REBT (Anderson, 2000; Aumann, 2004; Banks, 2006; Cornwall, 2008; Ford, 2009; Gonzalez et al, 2004; Gregas, 2009; Jensen, 2008; Koffler, 2005; Moore, 2006; Pace, 2006; Sharp, 2003; Sias, 2006).

In conclusion, REBT has become one of the most widely accepted forms of psychotherapy for both psychological and mental health problems for which irrational thinking is the most culpable factor, such as phobias, social anxiety, shyness and social withdrawal. With the increasing popularity of, and evidence-based support for, cognitive therapies used by counselling psychologists and psychotherapists, a number of clinical psychologists and counsellors have used REBT applications as the basis for developing new patterns of solving problems rooted in psychopathology. This has provided evidence-based guarantees for applying REBT treatment to college students in need of psychotherapy in order to treat such disorders, especially the SAD – the most prevalent disruption of well-being.

10 Criticisms of the Present Study

As was the case in the original study by O'Toole (1997), the session time allotments that participants spent in the REBT and the REBT plus REST therapy groups were limited and short enough to provide a clear discrepancy in the statistical processing between post-assessments as compared with the pre-assessments. In fact, due to logistic

problems in the labs and the students' lack of desire to spend longer time in therapy, it appears that the session time was insufficient to eradicate irrational beliefs altogether as claimed in previous research. The length of time the subjects were engaged in therapy restricted the extent of the study because the participants' availability was limited by the academic calendar as they were volunteer students from the university. Therefore, it is strongly suggested that future research tapping into the effects of REBT and/or REBT plus REST should dedicate more time to therapy sessions over longer periods of time rather than a period of a couple of months. As suggested by O'Toole, future studies may want to increase the length and number of sessions employed in an REBT group as well as in the REBT plus REST group. Longitudinal research on the effectiveness of research can confirm the effectiveness of REBT in treating social anxiety in college students. However, employing REST therapy has its limitations as many clients are not willing to invest the time to subject themselves to sensory deprivation. Currently, REST still requires an unwieldy flotation tank, which can seem quite intimidating and inconvenient when clients can choose instead a 1-hour session of talk therapy.

In addition, the effects of REST-only psychotherapy should be compared with REBT and REBT plus REST, too. The original research design in O'Toole (1997) had included a fourth treatment group (REST with no educational message), comprising of 20 participants per treatment group. Unfortunately, due to the limited number of college students diagnosed as having social phobia and shyness rooted in irrational thinking readily available to participate in the present study over the few months period of empirical data collection, the research design of this study was limited to two treatment groups with 25 participants per group. Future research would likely benefit from studying a larger number of participants in a research design utilizing a REST only group (receiving no educational message), which would add up to the statistical power of ANOVA or t-test comparisons of findings on pre-testing, post-testing, and an interval of a few months after post-testing rather than a one-month interval period. This is true when considering effect size considerations. As earlier noted in this chapter and elsewhere, the Multivariate Eta Square (0.69) suggested a very large effect size of the counselling programme in reducing irrational beliefs in the participants in both treatment groups. However, original effect size calculations, based on REST research in other areas, indicated that a limited number of participants could be adequately sufficient to prove the effectiveness of counselling programmes grounded in REST/REBT treatment. Still, a

greater variability than expected was found on the dependent measures used as noted by O'Toole (1997).

Analysing the effects of a REST only group is also important to determine if the combination of REBT and REST therapy produces a synergistic effect or not. It may be that simply putting participants under more therapy, regardless of whichever class it may be, will improve their psychological health. If the effects of receiving both REBT and REST are greater than the combination of REBT alone and REST alone, then that future study can conclude that REBT and REST complement one another. In contrast, the control group was simply told they were on a waiting list for therapy, and they participated in their usual daily chores. The first experimental group receiving REBT alone showed comparative improvement in their alleviated social anxiety, while the second experimental group showed better improvements due to the fact that REST was introduced to support REBT by creating a more conducive environment for suggestibility and responsiveness to the treatment in a more comfortable setting.

This study only examined participants suffering from SAD. However, additional research on the effectiveness of REBT and/or REBT plus REST should further explore the effects of this psychotherapy on treating other emotional disorders, such as depression, stress, general anxiety, test anxiety, different types of phobia and other personality disorders such as shyness and social withdrawal. Testing the effects of REBT and REST on other psychological disorders would increase its relevance to more therapists and clients if the same results are found.

In addition, it should be noted that rationality and irrationality in REBT theory are relative to the individual's particular goals, purposes, motivations, priorities and options, and these concepts of what is rational versus what is irrational are culture-specific in the first place. The case being as such, what is considered sound judgment or good sense as rational belief system for an individual in a certain culture may be foolish or irrational in another culture. Rational beliefs (those that are helpful to the individual in a particular context or the logical statement opposite to irrational beliefs) are not always logical or factually supported, but many – probably most – are. Some religious rituals are accepted rational behaviour in Islamic culture, while they might be evaluated as irrational behaviours among, for example, Indian, European and American cultures. Such considerations have to be taken in future replica research by designing culture-responsive scales or tests of irrational thinking appropriate to Arabian society.

By the same token, REBT greatly emphasises the distinction between rational preferences as the basic needs through some verbal expressions (wants, wishes, hopes and desires) and irrational preferential beliefs such as musts, shoulds and demands. This clearly pronounced distinction was lacking of awareness in the Arab culture of Saudi society (musts refer to illogical belief and wishes refer to logical preference). Despite the fact that the scales, especially the IBT, were validated to be appropriate for use in their Arabic version in the present study, there should still be a specific scale for measuring irrational beliefs in Saudi Arabia. The researcher used two scales for measuring and detecting social phobia in my sample: the social interaction anxiousness and the shyness scale. There should be other independent measures, specifically designed for the Arab world, for measuring social phobia. In fact, such scales are available, and some of them have been specifically designed to be appropriate for the Arabian environment (Saleh, 1987). However, in this research, Arabic editions of the same tools used in the original study by O'Toole were preferred for purposes of comparison and therefore, they were pilot-tested for reliability and validity for use in the present study.

Although original effect size calculations showed that the number of participants used in this study was sufficient to draw conclusions, this study can be bolstered further by increasing its sample size. The participants were selected through nominations by the university's academic advisors and counselling psychologists, and these professionals may have unconsciously chosen students whom they believed would have greater success receiving REBT/REST therapy. Additionally, because these participants were aware and willing to participate in this study, their anticipation of receiving therapy may have influenced their results. Those who see themselves as receiving more therapy in the REBT/REST group may have given greater efforts to improve. The sample group was also limited in its diversity by recruiting only male participants when the ratio of females to males with SAD is 2:1. Lastly, given that the entire sample was composed of university-level students, the success of a cognitive-based therapy may partly be due to their level of education.

Certain uncontrollable factors may also have swayed the results of this study. For example, the study participants were not confined in a laboratory setting: they were free to be exposed to other influences once they returned to their home environment. Even talking with others about the study they are participating in may have changed their outlook on their disorder and their circumstances. Also, it is difficult to perform a blind study on the participant as both the therapist and the participant can easily determine of

which experimental group the participant is a member. Thus, expectation can motivate both the therapist and the participant to succeed.

11 Recommendations and suggestions for future research

The use of REST in combination with REBT has been evidenced as an effective aid to psychotherapy grounded in REBT theory. In this line, using a REST environment to improve and ameliorate the receptivity of suggestions for alleviating irrational thinking and reducing somatic symptoms of social anxiousness in college students has, unlike the original study of O'Toole, been demonstrated as an integrated and complementary assistant to REBT therapy, especially when accompanied by educational messages in an environment with normal stimulation.

Another way to expand this study is to improve the limitations of REBT and REST therapy altogether. Since REBT focuses on addressing cognitive symptoms, the emotional components of psychological disorders are often neglected. Additionally, due to the inconvenience of REST treatment on the client, it could be less likely to be chosen by the client if given other options. As mentioned in the section discussing the limitations of this present study, cultural relevance is extremely important. Research can be conducted on how likely the Arab world would accept REBT/REST therapy as a treatment plan. Good clinical practice evaluates a client's needs in a holistic aspect, taking into consideration its content, delivery and receptivity.

On that note, future research can be expanded to include neuroimaging studies that will better reveal how decreased physical stimulation enhances the receptivity of cognitive therapy. If a subject is sweating because he is nervous, for example, then most of his mental energy is concentrated in telling himself to stop sweating, and he cannot stop to consider the cognitive therapy techniques he previously learned. However, once that physical stimulation is decreased by REST therapy, then he is better able to focus on how to change his perspective on the external circumstance that he is experiencing. It can be hypothesised that reducing somatic symptoms may correlate with greater activity in the prefrontal cortex, the region of the brain associated with higher thinking. Seeing the neurological underpinnings of which areas in the brain are activated will provide greater insight into the biological roots of how REBT and REST therapy operate. It may also lead the way for new pharmaceutical developments and start tracking the changes made in the brain due to perspective shifting.

Future research tapping into the effects of religious faith and commitment, especially the Islamic faith, can be explored in further research that may design

counselling programmes of REBT grounded in the Muslim faith. In fact, many of the tenets of the Islamic faith, and by extension, Christianity, Judaism and others, are compatible with those of REBT, and the utilisation of faith for enhancing rational thinking and combating irrational beliefs is an interesting topic for Saudi researchers. In addition, the extent to which religiosity impacts on mental illness remains understudied, and the extent of using REBT counselling programmes grounded in religious faith is quite ignored or unexplored. In the present study, REBT psychotherapeutic applications have primarily dealt with belief systems from a purely philosophical perspective, but the treatment programme did not provide any instruction as to how religion and REBT may be compatible. Furthermore, the possibility that faith-based counselling programmes may have any impact on the final outcome still remains unclear. This would require further research to determine the impact of faith-based treatment models versus non-faith-based treatment models. There are several rationales why REBT could be an appropriately suitable psychotherapy for use with religious clients. First, REBT is an appropriate treatment method for individuals with strong adherence to religious faith specifically because it is a belief-focused therapy (Nielsen, 2003). The psychotherapeutic system of REBT is highly harmonious with many basic principles of universally known religious scriptures and belief systems (Ellis, 1983). In this regard, the Jewish, Christian and Muslim perspectives, that all people are equally worthwhile and that all sins are pardonable and atonable, may serve as an appropriate undergirding for those techniques of REBT which seek to emphasise the riddance or at least overcoming of the tendency to rate one's own worth and the value of others on quite irrational or subjective bases. The Christian and Muslim stance of accepting the sinner but not the sin can be relevant here. Noticeably, Ellis has stressed that REBT does not disregard or lightly consider immoral acts and sins, but rather, it wholeheartedly accepts the humanity and fallibility of those who commit such acts and sins and seeks to redress them (Ellis & Dryden, 1997). Nielsen, Johnson, & Ridley (2000) have adeptly noted that ‘Religious doctrine and rational emotive psychology both endorse the centrality of belief in the emotional, behavioural, and cognitive lives of human beings.’ Therefore, recognizing and comprehending religious beliefs, and the content and quality of one’s religious belief system, is an elementary step towards perceiving and comprehending the nature and quality of both religion as a human phenomenon and religion as a force in an individual's life (Nielsen et al., 2000). In this regard, Tillich (1952) noted that ‘whatever concerns a man ultimately becomes god for him’ (p. 211).

Having been proven as an effective addition to REBT, REST should be studied in its own right as a therapy and in combination with REBT therapy in the Saudi context. Several studies utilised REST designs involving longer periods of time in the REST sessions, revealing that REST could bear significant effects in changing the attitudes and personal functioning of participants (Barabasz & Barabasz, 1993; Barabasz, Barabasz & Dyer, 1993; Dyer et al., 1993; Suedfeld, 1980). Therefore, prospective researchers may need to endeavour researching the effects of REST in decreasing and further eradicating irrational beliefs among college students as well as treating emotional disturbances, such as different types of anxieties and phobias, stress and depression. In the present study, hypnosis was not used as it was ideally used in O'Toole or other works by other authors. However, given the possibility that the hypnotisability level of participants may also influence the effectiveness of the REST environment, this should further be explored as an intervening variable in prospective research. Controlled studies as such may be conducted for the purpose of comparing the effects of suggestions for rational thinking on high versus low hypnotisable participants in a REST versus non-REST environment on the one hand and REBT versus REBT plus REST environments on the other hand. Thus, given that the use of rational suggestions has been demonstrated in some prior research as in the present study to be effective, prospective research may also use a wider variety of assessment instruments appropriate for the Arabian environment to examine different areas in which the rational suggestions may be having a positive effect on participants' psychological lives.

References

Abdel-Khalek, A. M. & El-Yahfoufi, N. (2004). Prevalence rates of anxiety, its correlates and predictors among Lebanese students. *The Educational Journal*, *18*, 11–54. (in Arabic).

Abdel-Khalek, A. M., Tomás-Sabádo, J. & Gomez-Bénito, J. (2004). The Spanish version of the Kuwait University Anxiety Scale (S-KUAS): Psychometric parameters. *European Journal of Psychological Assessment*. *20*, 349– 357.

Abdul Rahman, M. & Abdullah, S. (1994). Irrational beliefs in children and adolescents as related to anxiety trait and state, and locus of control. *Studies in Psychology (Derasat) Journal*, *4* (3), 11–33.

Abu Aita, S. (1997). *Principles of counselling psychology*. Dar al-Fikr for Publishing, Amman.

Acarturk, C., de Graaf, R., van Straten, A. & Have, M. (2008). Social phobia and number of social fears, and their association with comorbidity, health-related quality of life and help seeking: a population-based study. *Social Psychiatry and Psychiatric Epidemiology 43*(4):273–9.

Acarturk, C., Smit, F., de Graaf, R., van Straten, A., ten Have, M. & Cuijpers, P. (2009). Economic costs of social phobia: A population-based study. *Journal of Affective Disorders, 115*, 421–429.

Adams, H. B. (1980). Effects of reduced stimulation on institutionalized adult patients. In P. Suedfeld, *Restricted environmental stimulation: Research and clinical applications*. New York: Wiley.

Addis & Bernard, (2002). Marital adjustment and irrational beliefs. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, *17*, 1–21.

Adler, A. (1964). Inferiority feelings and defiance and obedience. In H. L. Ansbacher & R. R. Ansbacher (Eds.), *The individual psychology of Alfred Adler* (pp. 52–55). New York: Harper.

Ahmed, A. (2004). *Irrational beliefs and psychological burnout in the teachers of Ta'az city of Yemen*. San'aa University at San'aa, Yemen.

Al-Ahmadi, S. (1991). Anxiety in young adults: A cross-cultural study of the Egyptian and the Saudi Arabian society. *Studies in Psychology (Derasat) Journal*, *1*(3), 387–414.

Al-Akad, E. (1997). *The effect of emotive rational therapy in reducing hostility in adolescents*. Cairo: Anglo-Egyptian Bookshop.

Al-Ali, S. (2004). *Irrational beliefs and psychological and social adjustment in the students of Mosul University*. (Unpublished MA, Library of the University of Jordan, Centre of Thesis Deposit).

Al-Ansari, B. (2007). Prevalence rates of dental anxiety amongst in Kuwait University students of both genders. *Damascus University Periodical*, *23* (1), 125–157.

Al-Ashgar, H. (2004). *Effects of an intervention programme based on collective rational, emotional, behavioural therapy on reducing speaking anxiety in intern female students at King Saud University*. (Unpublished MA.) King Saud University, Riyadh.

Al-Atawi, D. (1998). When fear becomes a disorder. *Majalat Al-Nafs Al-Mutma'ena* (*Journal of the Secured Self*), *54*(1), 21–36.

Albano, A. M. & Kendall, P. C. (2002). Cognitive behavioural therapy for children and adolescents with anxiety disorders: Clinical research advances. *International Review of Psychiatry, 14*, 129–134

Albano, A. M., Causey, D. & Carter, B. (2001). Fear and anxiety in children. In C. E. Walker & M. C. Roberts (Eds.), *Handbook of Clinical Child Psychology* (3rd ed., pp. 291– 316). New York: John Wiley & Sons.

Albuquerque, J. & Deshauer, D. (2002 June) Social Anxiety Disorder: A Syndrome With many faces. The Canadian Journal of CME, 87-99.

Alden, L. & Safran, J. (1978). Irrational beliefs and nonassertive behavior. *Cognitive Therapy and Research*, *2*, 357–364.

Alden, L. E. & Wallace, S. T. (1991). Social standards and social withdrawal. *Cognitive Therapy and Research*, *15*, 85–100.

Al-Dulaim, A. & Amer, A. (2004). *Loneliness in a sample of male and female Saudi adolescents*. (Unpublished MA, Um Al-Qurra University, Makka).

Alegria, M., Bijl, RV., Lin, E, Eslyrtd, RR. &Kessler RC. (2000). Income differences in persons seeking outpatient treatment for metnal disorders: a comparison of the US with Ontario and the Netherlands, *Archives of General Psychiatry*. 2000;57:383-391.

Al-Faisal, M. (1992). *Correlation between irrational beliefs, parenting style, and self-concept in community college students in Jordan*. (Unpublished MA, Yermuk University at Irbid, Jordan).

Al-Garny, M. (2001). *Social phobia related to some parenting styles as perceived by children*. Unpublished MA, King Saud University: Riyadh.

Al-Gelban, K. (2007). Depression, anxiety and stress among Saudi adolescent school boys. *The Journal of the Royal Society for the Promotion of Health, 127*, 33.

Al-Ghamdi, A. (1998). *Effectiveness of rational emotive behavioural therapy in alleviating test anxiety in a sample of KSU college students*. (Unpublished MA.) Riyadh: King Saud University – (Arabic document).

Al-Hanafi, M. (1978). *Symptoms of anxiety, depression and phobias*. (Unpublished MA, King Saud University, Riyadh).

Al-Jusmani, A. & Mohammed, J. (1989). College students' social and psychological adjustment and emotional disturbance: a field study. *Al-Mustanseria University Periodical*, *17*(3), 3–17.

Al-Madkhali, A. (1995). *Effectiveness of rational emotive behavioural therapy in alleviating speaking anxiety*. (Unpublished MA.) Riyadh: King Saud University, (Arabic document).

Al-Maghrabi, N. (1992). *Relationship between irrational beliefs and matrimonial adaptation in community college students in Amman*. (Unpublished MA,) University of Jordan at Amman, Jordan.

Al-Maleh, H. & Al-Zarrad, F. (2005). Social Phobia In Arabs: A Descriptive Study About Its Prevelance, General and Clinical Features. In *A Sample of Arab Users of The Internet, In Comparison to A Random Clinical Sample*. Retrieved online from www.hayatnafs.com/derasat_maidania (Accessed on 25 December 2009).

Al-Munaizel, S. (1999). *Effectiveness of a group counselling programme for reducing social anxiety and enhancing self-esteem in gifted students*. (Unpublished MA.) Arab Gulf University, Bahrain.

Al-Namlah, A., Fernyhough, C.& Meins, E. (2006). Socio-cultural influences on the development of verbal mediation: private speech and phonological recoding in Saudi Arabian and British Samples. *Journal of Developmental Psychology*, 42 (1), 117–131.

Al-Qaisi, J. (1998).*Effects of a counselling programme designed for relieving phobia in Saudi female college students*. (Unpublished doctoral dissertation.) Ains Shams University, Cairo.
Al-Qawasmi, H. (1995). *Relationship between matrimonial adaptation and irrational beliefs in a sample of male and female teachers in governmental schools in Irbid, Jordan.* (Unpublished MA.) Yarmulke University at Irbid, Jordan.
Al-Raihani, S. (1987a). Irrational beliefs in Jordanian and American college students: a transcultural investigation into the effectiveness of Ellis' REBT. *Journal of Studies in Psychology (Derasat), 14*(15), 16–51.
Al-Raihani, S. (1987b). Irrational beliefs in college students in the University of Jordan as related to gender and specialisation versus rational thinking. *Journal of Studies in Psychology (Derasat), 14* (5), 98–113.
Al-Raihani, S., Nazih, H. & Saber, A. (1989). Irrational beliefs and depression in the University of Jordan students. *Studies in Psychology (Derasat) Journal*, *14* (5), 5–28.
Al-Rawi, M. (2003). *Parenting styles and irrational beliefs in college students*. (Unpublished MA.) Faculty of Education, Baghdad University, Baghdad.
Al-Rifa'i, N. (1987). *Psychological Health*. Damascus University: An Nabigha Publishing House: Damascus.
Al-Rihany, S. (1987). *Irrational beliefs in Jordanians and Americans: a cross-cultural study of Ellis' theory of REBT*. Amman, Educational Studies (Dearasat – Arabic document).
Al-Rufaei, O., Albar, A. & Al-Dabal, B. (1988), Identifying anxiety and depressive disorders among primary care patients: A pilot study. *Acta Psychiatrica Scandanvica*, 77: 280-282
Al-Saffar, R. (2002). *Irrational beliefs in teachers as related to gender, specialisation, and tenure of service.* (Unpublished MA, Faculty of Education, Baghdad University, Baghdad).
Al-Shabbanat, A. (1996). Evaluation of RET in the treatment of social phobia. (Unpublished MA.) Arab Centre for Security Research, Riyadh (Arabic document).
Al-Shammari, S.A. and Al-Subaie, A. (1999), Prevalence and Correlates of Depression among Saudi Elderly. International Journal of Geriatric Psychiatry, 14, 739-747.
Al-Shawi, R. & Samoor, Q. (2000). Relationship between religiosity and rational vs. irrational beliefs in students of Yermuk University. *College of Education Journal*, *2* (1), 12–34.
Al-Sheikh, M. (1986). *Effects of rational emotive behavioural therapy on alleviating test anxiety*. (Unpublished doctoral dissertation.) Cairo University, Cairo (Arabic document).
Al-Shirbini, Z. (1999). *Dimensions of psychological adaptation in relation to social phobia in high achievers: a cross-cultural study in Saudi Arabia and Egypt*. Darul Nahda, Beirut.
Al-Subaie, A. & Alhamad, A. (2000). Psychiatry in Saudi-Arabia. In I. Al-Issa (Ed.), *Al-Junun: Mental illness in the Islamic world* (pp. 205–233). Madison: International Universities Press.
Al-Tayyeb, M. (1990). *Role of faith in psychotherapy*. Dar-al-Nahda, Beirut.
American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders*. (4th ed.). Washington, DC: Author.
American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders.* (DSM-IV-TR). (4th ed.). Washington, DC: Author.

Amin, N., Foa, E. B. & Coles, M. E. (1998). Negative interpretation bias in social phobia. *Behaviour Research and Therapy*, *36*, 945–957.

Anastasi, A. (1988*). Psychological testing*. New York: Macmillan.

Anderson, J. R. (2000). *Cognitive psychology and its implications*. (5th ed). New York: Worth Publishing.

Anderson, S. (2000). *The effects of a rational emotive behaviour therapy intervention on irrational beliefs and burnout among middle school teachers in the State of Iowa*. (Unpublished Ph.D.) University of Northern Iowa.

Antony, M. & Swinson, R. (2000). *The shyness and social anxiety workbook*. Oakland, CA: New Harbinger.

Antony, M. M. & Rowa, K. A. (2005). Evidence-based assessment of anxiety disorders. *Psychological Assessment, 17*, 256–266.

Arkin, R. M. & Grove, T. (1990). Shyness, sociability and patterns of everyday affiliation. *Journal of Social and Personal Relationships, 7*, 273–281.

Arkin, R. M. (1981). Self-presentation styles. In J. T. Tedeschi (Ed.), *Impression management theory and social psychological research* (pp. 311-333). New York: Academic Press.

Arkowitz, H., Hinton, R., Perl, J. & Himadi, W. (1978). Treatment strategies for dating anxiety in college men based on real-life practice. *Counselling Psychologist*, *7*(4), 41–46.

Aron, E. N., Aron, A. & Davies, K. M. (2005). Adult shyness: the interaction of temperamental sensitivity and an adverse childhood environment. *Personality and Social Psychology Bulletin*, *31*, 181–197.

Aspendorf J. B. (1989). Shyness as a final common pathway for two different kinds of inhibition. *Journal of Personality Social Psychology*, *57*, 481–92.

Aumann, C. M. (2004) *The effects of Gestalt Awareness Training versus rational emotive behavioural therapy video training on the anxiety, self-efficacy, and basic counselling skill competency of counsellor trainees*. (Unpublished Ph.D.) Wayne State University.

Avasthi, A. & Kumar, D. (2004). Phenomenology of Obsessive Compulsive Disorder. *J.K. Science*, *6*(1), 9–14.

Aydin, A., Tekinsav-Sütçü, S. & Sorias, O. (2010). Evaluation of the Effectiveness of a Cognitive-Behavioral Therapy Program for Alleviating the Symptoms of Social Anxiety in Adolescents. *The Turkish Journal of Psychiatry*, *21*(1): 25–36.

Azima, H. & Cramer-Azima, F. J. (1956). Effects of partial isolation in mentally disturbed individuals. *Diseases of the Nervous System*, *17*, 117–122.

Azima, H. & Cramer-Azima, F. J. (1956). Effects of the decrease in sensory variability on body scheme. *Canadian Psychiatric Association Journal*. *1*: 59–72.

Azima, H. & Cramer-Azima, F. J. (1957). *Studies on perceptual isolation .Diseases of the Nervous System* (Monograph Supplement, cited in O'Toole, 1997).

Baer, S. & Garland, J. (2005). Pilot study of community-based cognitive behavioural group therapy for adolescents with social phobia. *Journal of the American Academy of Child and Adolescent Psychiatry*, *44*, 258–264.

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, *37*, 122– 147.

Bandura, A. (1997). *Self-efficacy, the exercise of control*. New York: W. H. Freeman.

Bandura, A. (2008). Toward an agentic theory of the self. In H. Marsh, R. G. Craven & D. M. McInerney (Eds.), Self-Processes, *Learning, and Enabling Human Potential:*

Dynamic New Approaches (Vol. 2, pp. 15–49). Charlotte, NC: Information Age Publishing.
Banerjee, R. & Yuill, N. (1998). Children's explanations for self-presentational behaviour. *European Journal of Social Psychology*, *29*, 105–111.
Banks, T. (2006). *Teaching rational emotive behaviour therapy to adolescents in an alternative urban educational setting*. (Unpublished Ph.D.) Graduate School of Education, Health, and Human Services, Kent State University.
Barabasz, A. & Barabasz, M. (2000). Treating AD/HD with hypnosis and neurotherapy. *Child Study Journal*, *30*, 1, 25–42.
Barabasz, A. & Barabasz, M. (2006) Effects of tailored and manualized hypnotic inductions for complicated irritatable bowel syndrome patients. *International Journal of Clinical and Experimental Hypnosis*, *54*,(1), 100–112.
Barabasz, A. & Barabasz, M. (2010). Hypnosis and the Brain. In M. Nash & A. Barnier (Eds.) *Contemporary Hypnosis Research*, N.Y. Norton.
Barabasz, A. & Barabasz, M. (Eds) (1993). *Clinical and Experimental Restricted Environmental Stimulation: new Developments and Perspectives*. New York: Springer-Verlag.
Barabasz, A. (2004). Theories of hypnosis: Issues, convergence, and research breakthroughs. Hypnose-konzepte: Fragen und durchbruche in der forschung, *Hypnose und Kognition* (HyKog), *21*, 1 & 2, Oktober.
Barabasz, A. F. & Barabasz, M. (1981). Effects of rational-emotive therapy on psychophysiological and reported measures of anxiety arousal. *Journal of Clinical Psvchology*, *3*(1), 621–632.
Barabasz, A. F. & Barabasz, M. (1986). Antarctic Isolation and Inversion perception: Regression Phenomena. *Environment and Behavior*, *18*, 185 -292.
Barabasz, A. F. &, Barabasz, M. (1989). Effects of restricted environmental stimulation: Enhancement of hypnotizability in experimental and chronic pain control. *International Journal of Clinical and Experimental Hypnosis*, *37*, 217–231.
Barabasz, A. F. (1976). *Treatment effects and subject awareness in the administration of the Barber Suggestibility Scale*. (Departmental Presentation.) University of Canterbury, Christchurch, New Zealand.
Barabasz, A. F. (1977a). *The Barabasz systematic desensitization quantifier.* Lafayette. Ind.: Lafayette Instrument Corp.
Barabasz, A. F. (1978a). E1ectroencephalography, isolation and hypnotic capabil y at Scott Base, Antarctica. *New Zealand Antarctic Record*, pp. l, 35–42.
Barabasz, A. F. (1978b). Sensory deprivation and the enhancement of hypnotizability; Pain, EEG alpha, skin conductance and temperature responses. *Journal of Personality and Social Psychology*, *34*,114–117.
Barabasz, A. F. (1979). Isolation, EEG alpha and hypnotizability in Antarctica. In G. Burrows, D. R. Collinson and L. Dennerstein (Eds.), *Hypnosis*. Amsterdam: Elsevier/North Holland Biomedica Press, pp. 9–16.
Barabasz, A. F. (1980a). EEG alpha, skin conductance and hypnotizability in Antarctica. *International Journal of Clinical and Experimental Hypnosis*, pp. 63–74.
Barabasz, A. F. (1980b). Effects of hypnosis and perceptual deprivation on vigilance in a simulated radar target detection task. *Perceptual and Motor Skills*, pp. 19–24.
Barabasz, A. F. (1980c). Enhancement of hypnotic susceptibility following perceptual deprivation: Pain tolerance, electrodermal and EEG correlates. *Paper presented at the meeting of the European Congress of Hypnosis in Psychotherapy and Psychosomatic Medicine, Dubrovnik, Yugoslavia*.

Barabasz, A. F. (1980d). Imaginative involvement, hypnotizability and skin conductance in Antarctica. *Paper presented at The 10*th *Annual Congress of the Australian Society for Clinical and Experimental Hypnosis, Hobart, Tasmania*.

Barabasz, A. F. (1982). Restricted environmental stimulation and the enhancement of hypnotizability, PAM., EEG, alpha, skin conductance and temperature responses. *International Journal of Clinical and Experimental Hypnosis 2*, 147–166.

Barabasz, A. F. (2005). Whither spontaneous hypnosis: A critical issue for practitioners and researchers. *American Journal of Clinical Hypnosis, 48*,(2–3). 91–98.

Barabasz, A. F., Baer, L., Sheehan, D. V., & Barabasz, M. (1986). A three year clinical follow-up of hypnosis and restricted environmental stimulation therapy for smoking: *International Journal of Clinical and Experimental Hypnosis, 36,*169–181.

Barabasz, A., Gregson, R. A. M., Mullin, C. S. (1984), Questionable chronometry: Does Antarctic isolation produce cognitive slowing? *New Zealand Journal of Psychology, 13*, 71–78.

Barabasz, M. & Barabasz, A. F.& Mullin, C.S. (1983).Effects of brief Antarctic isolation on absorption and hypnotic susceptibility. *International Journal of Clinical and Experimental Hypnosis, 3l*, 235–238.

Barabasz, M. (1983). Effects of brief antartic isolation on absorption and hypnotic susceptibility: preliminary results and recommendations. *The International Journal of Clinical and Experimental Hypnosis, 4*, 235–238 .

Barabasz, M. (1987). Trichotillomania: a new treatment. *The International Journal of Clinical and Experimental Hypnosis, 35*, 146–154.

Barabasz, M. (2010). How research inspires clinical practice. Invited address 'Distinguished Contributions to the Profession of Hypnosis.' 2010 Annual Convention of the American Psychological Association, San Diego, CA.

Barabasz, M., Barabasz, A., Darakjy-Jaeger, J., Justice, T., Anderson, K. & Trevisan, M. (1997). Effects of flotation REST on hypnotizability, EEG, and skin conductance in lighted and unlighted conditions. *Paper presented at the 6th International REST Conference, San Francisco, CA* .

Barabasz; A. F. (1977b). *New techniques in behaviour therapy and Hypnosis*. SQ. Orange, N.J.: Power Publishers, Inc.

Barlow, D. H. (1991). The nature of anxiety: Anxiety, depression, and emotional disorders. In R. M. Rapee & D. H. Barlow (Eds.), *Chronic anxiety: Generalized anxiety disorder and mixed anxiety– depression* (pp. 1–28). New York, NY: Guilford Press.

Barlow, D. H. (2002) *Anxiety and its disorders*. New York: The Guilford Press.

Barlow, D. H., Chorpita, B. F. & Turovsky, J. (1996). Fear, panic, anxiety, and the disorders of emotion. In D. A. Hope (Ed.), *Nebraska Symposium on Motivation: Perspectives on anxiety, panic, and fear* (Vol. 43, pp. 251–328). Lincoln: University of Nebraska Press.

Barnes, L. J. (1976). *Comparative effectiveness of a Five-Day Plan and a sensory deprivation program on reduction and abstinence from cigarette smoking*. (Unpublished MA thesis.) Dalhousie University).

Barrett, C. T. (1981). Fetal and neonatal effects of heroin addiction. *Western Journal of Medicine, 134,* 510–512.

Barrett, L. F., Gross, J., Christensen, T. C. & Benvenuto, M. (2001). Knowing what you're feeling and knowing what to do about it: Mapping the relation between emotion differentiation and emotion regulation. *Cognition & Emotion, 15*, 713–724.

Barrios, B. A. & O'Dell, S. L. (1998). Fears and anxieties. In E. J. Mash & R. A. Barkley (Eds.), *Treatment of childhood disorders* (2nd ed., pp. 249–337). New York: Guilford Press.
Bartlett, F.C. (1932). *Remembering: A Study in Experimental and Social Psychology*. Cambridge, England: Cambridge University Press.
Bassiony, M. (2005). Social anxiety disorder and depression in Saudi Arabia. *Depression and Anxiety*, *21* (2): 90–94.
Batte, M. (1996). ABCs of Rational Living. Retrieved 24/08/2009 from www.thejoveinstitute.org/
Bausewein, C. (2008). The Trial of Trials in Palliative Care Research: Choosing a placebo. *Abstracts, Palliative Medicine*, *22*: 399–558.
Beal, D., Kopec, A. M. & DiGiuseppe, R. (1996). Disputing clients' irrational beliefs. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*. *14*, 215–229.
Beauchamp, T. L., Faden, R.R., Wallace, Jr., R.J. & Walters, L. (1982*). Ethical issues in social science research*. Baltimore and London: The Johns Hopkins University Press.
Beck, A. T. & Weishaar, M. E. (2005). *Cognitive therapy*. In R. J. Corsini & D. Wedding (Eds.), Current psychotherapies (238–268). Belmont, CA: Brooks/Cole-Thomson Learning.
Beck, A. T. (1976). *Cognitive therapy and the emotional disorders*. New York: International Universities Press.
Beck, A. T., Emery, G. & Greenberg, R. (1985). *Anxiety disorders and phobias: A cognitive perspective.* New York: Basic Books.
Beck, A. T., Epstein, N. & Harrison, R. (1983). Cognitions, attitudes and personality dimensions in depression. *British Journal of Cognitive Psychotherapy*, *1*, 1–16.
Beidel, D. C. & Morris, T. L. (1995). Social Phobia. In J. S. March (Ed.), *Anxiety disorders in children and adolescents* (pp. 181–211). New York: Guilford Press.
Beidel, D. C., Turner, S. & Morris, T. (1999). Psychopathology of childhood social phobia. *Journal of the American Academy of Child and Adolescent Psychiatry*, *38*, 643–650.
Beidel, D. C., Turner, S. M. & Morris, T. L. (2000). Behavioural treatment of childhood social phobia. *Journal of Consulting and Clinical Psychology*, *68*, 1072–1080.
Beidel, D. C., Turner, S. M., Young, B. J., Ammerman, R. T., Sallee, F. R. & Crosby, L. (2007). Psychopathology of adolescent social phobia. *Journal of Psychopathology and Behavioral Assessment*, *29*, 47–54.
Berelson, Bernard. (1952). *Content analysis in communication research*. Glencoe, IL: Free Press.
Berger, A. (1983). *The role of irrational cognitions in the phenomenology of anger and guilt in parents of disturbed children*. (Unpublished Ph.D. Dissertation.) Hofstra University, Jul, 1983.
Berger, R. E. (1981). *Heart rate, arousal, and the 'mere presence' hypothesis of social facilitation*. (Unpublished doctoral dissertation.) Richmond: Virginia Commonwealth University.
Bernard, M. E. & DiGiuseppe, R. (1994). *Rational-emotive consultation in applied settings*. Hillsdale, N.J.: Erlbaum.
Bernard, M. E. & DiGiuseppe, R. (Eds). (1989). *Inside rational-emotive therapy: A critical appraisal of the theory and therapy of Albert Ellis.* New York: Academic Press, Inc.
Bernard, M. E. (1986).*Staying alive in an irrational world: Albert Ellis and rational-emotive therapy*. South Melbourne, Australia: Carlson/Macmillan.
Bernard, M. E. (1990). Rational-emotive therapy with children and adolescents: Treatment strategies. *School Psychology Review*, *19* (3), 294–304.

Bernard, M. E., Ellis, A. & Terjesen, M. D. (2006). Rational–emotive behavioural approaches to childhood disorders: History, theory, practice, and research. In A. Ellis & M. E. Bernard (Eds.), *Rational emotive behaviour approaches to childhood disorders* (pp.3–84). New York: Springer.

Bernard, M.E. (1998). Validation of the General Attitude and Belief Scale. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, *16*, 183 – 196.

Bernstein, D. A. & Borkovec, T. D. (1973). *Progressive relaxation training: A manual for the helping professions.* Champaign, Illinois: Research Pres.

Bessai, J. L. & Lane, S. H. (1976). Self-rating scale for rationality: An update. *Rational Living*, *11*, 28–30

Best, J. A. & Suedfeld, P. (1981). Restricted environmental stimulation therapy and self-management in smoking cessation. *Journal of Applied Social Psychology*, *12*, 408–419.

Bexton, W. H., Heron, W. & Scott, T. H. (1954). Effects of decreased variation in the sensory environment. *Canadian Journal of Psychology*, *8*, 70–76.

Bijl, R.V., et al. (2003). The prevalence of treated and untreated mental disorders in five countries. *Journal* of *Health Affairs* (Millwood). 2003; 22:122-133

Bijl, R.V., Zessen, G., van Ravelli, A., de Rijk, C., Langendoen, Y. (1998). The Netherlands Mental Health Survey and Incidence Study (NEMESIS): objectives and design. *Social Psychiatry and Psychiatric Epidemiology*, *33*, 581–586.

Bisserbe, J. C., Weiller, E., Boyer, P., Lepine, J.P., Lecrubier, Y., (1996). Social phobia in primary care: level of recognition and drug use. *International Clinical Psychopharmacology Journal*, *11*, 25–28.

Block, J. (1978). Effects of a rational-emotive mental health program on poorly achieving, disruptive high school students. *Journal of Counselling Psychology*, *25*, 61.65

Blote, A., Kint, M., Westenberg, M. (2007). Peer behaviour toward socially anxious adolescents: Classroom observations. *Behaviour Research and Therapy*, *45* (1), 2773–2779.

Boeree, C. G.(2001).Anxity. Retrieved online from www.generalpsych.com/article10111.html (Accessed February 15th, 2010).

Bond, F. W. & Dryden, W. (2000). How rational beliefs and irrational beliefs affect people's inferences: An experimental investigation. *Behavioural and Cognitive Psychotherapy*, *28*(1), 33–43.

Bonetti, L. (2009). *The relationship of loneliness and social anxiety with children's and adolescents' online communication*. (Unpublished MA.) Queensland University of Technology. Retrieved online from http://eprints.qut.edu.au/29140/1/Luigi_Bonetti_Thesis.pdf (Accessed December, 2009).

Bonner, R. L. & Rich, A. R. (1991). Predicting vulnerability to hopelessness: a longitudinal analysis. *Journal of Nervous and Mental Disease*, *179*, 29–32.

Bood, S. (2007). *Bending and Mending the Neurosignature: Frameworks of influence by floatation-REST*. Karlstad University.

Book, S. W. & Randall C. L. (2002). Social anxiety disorder and alcohol use. *Alcohol Research & Health*, *26*(2):130–135.

Borkovec, T. D. & Inz, J. (1990). The nature of worry in generalized anxiety disorder: A predominance of thought activity. *Behaviour Research and Therapy*, *28*, 153–158.

Borkovec, T. D., Shadick, R. & Hopkins, M. (1991). The nature of normal and pathological worry. In R.M. Rapee & D.H. Barlow (Eds.), *Chronic anxiety, generalized anxiety disorder, and mixed anxiety depression* (pp. 29–51). New York: Guilford Press.

Borrie, R. (1993). Bridging the gap. In A. F. Barabasz & M. Barabasz (Eds.), *Clinical and experimental restricted environmental stimulation* (pp. 21–27). New York: Springer-Verlag.
Borys, S. & Perlman, D. (1985). Gender differences in loneliness. *Personality and Social Psychology Bulletin, 11*, 63–74.
Brady, E. & Kendall, P. (1992). Co-morbidity of anxiety and depression in children and adolescents. *Psychological Bulletin, 111*, 244–255., P.
Breiter, H., Raugh, S, Kwong, K., Baker, J., Weisskoff, D., Kennedy, D., … Cohen, M (1996). Functional magnetic resonance imaging of symptom provocation in obsessive-compulsive disorder. *Archives of General Psychiatry, 53*, 595–606.
Brennan, T. (1982). Loneliness in adolescence. In L.A. Peplau & D. Perlman (eds). *Loneliness: A Sourcebook of Current Theory, Research, and Therapy*. Wiley: New York.
Bridges, K. R. & Harnish, R.J. (2010). Assessment of irrational beliefs. In I.B. Weiner & E. W. Craighead (Eds.), *The Corsini Encyclopaedia of Psychology and Behavioural Science* (4th ed, pp. 871–872). New York: Wiley.
Bruce, T. J., & Saeed, S. A. (1999). Social anxiety disorder: A common, underrecognized mental Disorder. *American Family Physician, 60*, 2311-2320.
Bryman, A. & Cramer, D. (1999). *Quantitative Data Analysis with SPSS Release 8 for Windows. A Guide for Social Scientists*. London: Routledge.
Bryman, A. & Cramer, D. (2005). *Quantitative Data Analysis with SPSS12 and 13. A Guide for Social Scientists*. East Sussex: Routledge.
Burgess, P. M. (1990). Towards resolution of conceptual issues in the assessment of beliefs systems in rational-emotive therapy. *Journal of Cognitive Psychotherapy: an International Quarterly*, *4*(2), 171–184.
Burgio, K. L., Merluzzi, T. V. & Pryor, J. B. (1986). Effects of performance expectancy and self-focused attention on social interaction. *Journal of Personality and Social Psychology*, *50*, 1216–1221.
Burton, R. (1621). *The Anatomy of Melancholy*. Vintage, New York (reprinted 1977).
Busfield, J. (1996). *Men, Women and Madness: Understanding Gender and Mental disorder*. London: Macmillan.
Buss, A. H. (1980). *Self-consciousness and social anxiety.* San Francisco: Freeman.
Buss, D. M. (2000). The evolution of happiness. *American Psychologist*, *55*:15–23.
Butler, G., Fennel, M., Robson, P. & Gelder, M. (1991). Comparison of behavior therapy and cognitive behavior therapy in the treatment of generalized anxiety disorder. *Journal of Consulting and Clinical Psychology, 59*, 167–175.
Byrne, R. M. J. & Johnson-Laird, P. N. (2009). 'If' and the problems of conditional reasoning. *Trends in Cognitive Sciences, 13*(1), 282–287.
Cacioppo, J. T., Glass, C. R. & Merluzzi, T. V. (1979). Self-statements and self-evaluations: A cognitive response analysis of hetero-social anxiety. *Cognitive Therapy and Research, 3*,249–262.
Camacho, M. L. & Paulus, P. B. (1995). The Role of Social Anxiousness in Group Brainstorming. *Journal of Personality and Social Psychology*. *68*(6), 1071–1080.
Campbell, D. & Fehr, B. (1990). Self-esteem and perceptions of conveyed impressions: Is negative affectivity associated with greater realism? *Journal of Personality and Social Psychology, 58*, 122–133.
Campbell, I. (1985). The psychology of homosexuality. In A. Ellis & M. E. Bernard (Eds.) *Clinical applications of rational-emotive therapy* (pp. 153–183). New York:Plenum.
Cangelosi, A., Gressard, C. F. & Mines, R. A. (1980). The effects of a rational thinking group on self-concepts in adolescents. *The School Counselor*, *27*, 357–361.

Cannon, W. B. (1927). The James-Lange theory of emotions: a critical examination and an alternative theory. *American Journal of Psychology, 39*, 106–124.
Caplan, M. (1993). Inhibitory influences in development: The case of pro-social behaviour In D.F. Hay & A. Angold (Eds.), *Precursors and causes in development psychopathology* (pp. 169–198). New York: Wiley.
Carducci, B. J. & Zimbardo, P. G. (1995). Are you shy? *Psychology Today, 34*(4), 64– 68.
Carducci, B. J., Stubbins, Q. A. & Bryant, M. R. (2007). Still shy after all these (30) years, *Paper presented at the American Psychological Association, 115*th *National Conference Boston, MA.*
Carmines, E. G. & Zeller, R. A. (1991). *Reliability and viability assessment*. Thousand Oaks, CA: Sage.
Carrington, P. (1978). *Freedom in meditation*. Garden City, N.Y.: Anchor.
Carver, C. S. & Scheier, M. F. (1986). Analyzing shyness: A specific application of broader self-regulatory principles. In W. H. Jones, J. M. Cheek & S. R. Briggs (Eds.), *Shyness: Perspectives on research and treatment* (pp. 173–185). New York: Plenum Press.
Cash, T. F., Cash, D. W. & Butters, J. W. (1983). 'Mirror, mirror on the wall… ?: Contrast effects and self-evaluations of physical attractiveness. *Personality and Social Psychology Bulletin, 9*, 351–358.
Cash, T. F., Rimm, D. C. & MacKinnon, R. (1986). Rational-irrational beliefs and the effects of the Velten Mood Induction Procedure. *Cognitive Therapy and Research, 10*, 461–467.
Castellanos, D. & Hunter, T. (1999). Anxiety disorders in children and adolescents. *Southern Medical Journal, 92*(10), 945–955.
Ceyhan, E. & Ceyhan, A. (2011). Loneliness and Depression Levels of Students Using a University Counselling Centre. *Education and Science Journal*, *36*(160), 81–92.
Ceyhan, E., Kızıltaş, A., Dönmezel, S. & Yemenici, B. (2008). The profile of university students who apply for individual counselling assistance from counselling centre of Anatolian University]. *Paper presented at the meeting of III. Üniversiteler Psikolojik Danışmanlık ve Rehberlik Sempozyumu, İstanbul Bilgi Universitesi*.
Chafouleas, S. M., Riley-Tillman, T. C. & Sassu, K. A. (2006). Acceptability and reported use of Daily Behavior Report Cards among teachers. *Journal of Positive Behavior Interventions, 8*, 174–182.
Chaleby, K. & Raslan, A. (1990). Delineation of social phobia in Saudi Arabians. *Social Psychiatry and Psychiatric Epidemiology*, *25*(6): 324–327.
Chaleby, K. (1987). Social phobia in Saudis. *Journal of Social Psychology*, *22*:167–170.
Chamberlain, J. M. & Haaga, D. A. F. (2001). Unconditional self-acceptance and psychological health. *Journal of Rational-Emotive and Cognitive-Behaviour Therapy*, *19*, 163–76.
Chamberlain, S. R., Menzies, L, Hampshire, A., Suckling, J., Fineberg, N. A., del Campo, N. (2008). Orbitofrontal dysfunction in patients with obsessive-compulsive disorder and their unaffected relatives. *Science 321*, 421–422.
Chang, E. C. & D'Zurilla, T. J. (1996). Relations between problem orientation and optimism, pessimism, and trait affectivity: A construct validation study. *Behavior Research and Therapy*, *34*, 185–194.
Chavira, D., Stein, M. & Malcarne, V. (2002). Scrutinizing the relationship between shyness and social phobia. *Journal of Anxiety Disorder, 16* (6), 585-598.
Cheek, J. M. & Briggs, S. R. (1982). Self-consciousness and aspects of identity. *Journal of Research in Personality, 16*, 401–408.

Cheek, J. M. & Busch, C. M. (1981). The influence of shyness on loneliness in a new situation. *Personality and Social Psychology Bulletin*, *7*, 572–577.
Cheek, J. M. & Buss, A. H. (1981). Shyness and sociability. *Journal of Personality and Social Psychology*, *41*, 330–339 .
Cheek, J. M. (1983). *The revised Cheek and Buss Shyness Scale*. (Unpublished manuscript.) Wellesley College.
Claridge, G. (2009). Personality and psychosis. In P. J. Corr & G. Matthews (Eds.), *The Cambridge handbook of personality psychology* (pp. 631–648). Cambridge: Cambridge University Press.
Clark, D. M. & Wells, A. (1995). A cognitive model of social phobia. In R. Heimberg, M. Liebowitz,D.A. Hope,& F. R. Schneier (Eds.), *Social phobia: Diagnosis, assessment and treatment*. (pp. 69–93). New York: Guilford Press.
Clark, D. M. (2000). Cognitive behaviour therapy for anxiety disorders. In M. G. Gelder, J. Lopez-Ibor & N. N. Andreason (Eds.), *New Oxford textbook of psychiatry*. Oxford University Press, Oxford.
Clark, D., Ehlers, A., McManus, F., Hackmann, A., Fennell, M., Campbell, H. (2003). Cognitive therapy versus fluoxetine in generalized social phobia: A randomized placebo-controlled trial. *Journal of Consulting Clinical Psychology*, *71*, 1058–1067.
Clark, L. A.,Watson, D. & Mineka, S. (1994). Temperament, personality, and the mood and anxiety disorders. *Journal of Abnormal Psychology, 103*, 103–116.
Clark,D. M. (1999). Anxiety disorders: why they persist and how to treat them. *Behaviour Research and Therapy, 37*, S5–S27.
Cloninger, C. R. (1986). A unified biosocial theory of personality and its role in the development of anxiety states. *Psychiatric Developments*, 4, 167–226.
Cohen, L., Manion, L. & Morrison, K. (2000). *Research Methods in Education* (5th edition). London: RoutledgeFalmer.
Conrad, P. (2004). On the medicalization of deviance and social control. In Ingleby, D. (ed.) *Critical Psychiatry: the Politics of Mental Health*. 2nd Edition. London: Free Association.
Conture, E. G. & Curlee, R. F. (2007). *Stuttering and related disorders of fluency*. (3rd ed.). New York, NY: Thieme Medical Publishers.
Cooper, G. (1998). *Research into cognitive load theory and instructional design at UNSW*. Retrieved 18th June 2009 from http://paedpsych.jku.at:4711LEHRTTEXTE/Cooper98.html (Accessed June 18th, 2009).
Corey, G. (2009). *Theory and practice of counselling and psychotherapy*. California: Thomson Brooks/Cole.
Cornwall, M. (2008). *Using articulated thought disputation (ATD) to strengthen REBT*. (Unpublished Ph.D.) Northcentral University, Prescott, Arizona.
Corr, P. (2010). The psychoticism–psychopathy continuum: A neuropsychological model of core deficits. *Personality and Individual Differences 48* (2) 695–703.
Costello, E. J., Egger, H. & Angold, A. (2005) The developmental epidemiology of anxiety disorders: Phenomenology, prevalence, and comorbidity. *Child and Adolescent Psychiatric Clinics of North America, 14*, pp. 631–648.
Cox, B. J., MacPherson, P. S. R. & Enns, M. W. (2005). Psychiatric correlates of childhood shyness in a nationally representative sample. *Behaviour Research and Therapy, 43*, 1019–1027.
Cozby, P. & Bates, S. (2011). Methods in Behavioural Research. New York: McGraw-Hill.

Cramer, D. & Fong, J. (1991). Effects of rational and irrational beliefs on intensity and 'inappropriateness' of feelings: A test of rational-emotive theory. *Cognitive Therapy and Research, 15*, 319–329.
Craske, M. G. (1999). *Anxiety disorders: Psychological approaches to theory and treatment.* Boulder, CO: Westview.
Creswell, John W. (2013). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. London: Sage.
Crittenden, P. M. (2004). The origins of physical punishment: An ethological/attachment perspective on the use of punishment by hum an parents. In M. Donnelly & M. A. Strauss (Eds.) *Corporal Punishment of Children in Theoretical Perspective*. (New Haven: Yale University Press).
Crocker, L., and Algina, J. (1986*) Introduction to Classical and Modern Test Theory*. Philadelphia: Harcourt Brace Jovanovich College Publishers: Philadelphia.
Cunningham, A. (2002) Social Phobia or just shyness? Retrieved online from http://serendip.brynmawr.edu/bb/neuro/neuro02/web3/acunningham.html (Accessed December, 3rd, 2009).
Curran, J. P. (1977). Skills training as an approach to the treatment of heterosexual-social anxiety: A review. *Psychological Bulletin, 84*, 140–157.
Cutrona, C. (1982). Transition to college: Loneliness and the process of social adjustment. In L. Peplau & D. Perlman (Eds.), *Loneliness: A sourcebook of current theory, research, and therapy* (pp. 291–309). New York: John Wiley & Sons.
Dahl, A. & Dahl, C. (2010). Are there gender differences in impairment associated with high social anxiety? A community-based study. *Journal of Anxiety Disorders, 24*(5), 487–493.
Dammeyer, M. & Nunez, N. (1999). Anxiety and Depression among Law Students: Current Knowledge and Future Directions. *Law and Human Behaviour*, *23*(1): 55–73 .
Darwin, Charles. (1872, reprinted 1965). *The Expression of Emotion in Man and Animals*. Chicago: University of Chicago Press.
David D., Szentagotai, A., Eva, K. & Macavei, B. (2005). A synopsis of Rational-Emotive Behavior Therapy (REBT); fundamental and applied research. *Journal of Rational-Emotive and Cognitive-Behavior Therapy, 23*, 175–221.
David, B., Kirby, L. & Smith, C. (2003). On the Sociality of Emotion-Eliciting Appraisals. In J. P. Forgas (Ed.), *Affect in social thinking and behaviour* (pp. 85–101). New York, NY, US: Psychology Press.
David, D. (2000). *Unconscious information processing*. Cluj-Napoca: Dacia Press.
David, D., Montgomery, G.H., Macavei, B. & Bovbjerg, D.H. (2005). An empirical investigation of Albert Ellis's model of distress. *Journal of Clinical Psychology, 61*, 499–516.
David, D., Schnur, J. & Belloiu, A. (2002). Another search for the 'hot' cognition: Appraisal irrational beliefs, attribution, and their relation to emotion. *Journal of Rational-Emotive and Cognitive-Behaviour Therapy, 20,* 93–131.
Davidson, J. R. T., Hughes, D. L., George, L. K. & Blazer, D. G. (1993). The epidemiology of social phobia: findings from the Duke Epidemiological Catchment Area Study. *Psychological Medicine, 23*:709–718.
Davidson, J. R., Hughes, D. C., George, L. K. & Blazer, D. G. (1994). The boundary of social phobia: Exploring the threshold. *Archives of General Psychiatry, 51*, 975–983.
Davison, G. & Zighelboim, V. (1987). Irrational beliefs in the articulated thoughts of college students with social anxiety. *Journal of Rational-Emotive Therapy, 5*, 238–254.

Davison, G. C., Feldman, P. M. & Osbom, C. E. (1984). Articulated thoughts, irrational beliefs, and fear of negative evaluation. *Cognitive Therapy and Research, 8,* 349–362.

Dawes, R. (2000). A theory of irrationality as a 'reasonable' response to an incomplete specification. *Synthese, 122*, 133–163.

Dawood, N. (2001). Effectiveness of a counselling programme grounded in Rational Emotive Therapy in alleviating stress and irrational thinking in 10th graders. *Studies in Psychology (Derasat), 24* (2), 28–36.

De Jong, P. J., Merckelbach, H., Bögels, S. & Kindt, M. (1998). Illusory correlation and social anxiety. *Behaviour Research & Therapy Journal*, *36*:1063–1073.

De Jongh, R., Groenink, L., van der Gugten J. & Olivier B. (2002). The light-enhanced startle paradigm as a putative animal model for anxiety: Effects of chlordiazepoxide, flesinoxan and fluvoxamine. *Psychopharmacology 159*:176–180.

DeBord, J., Romans, J. S. C. & Krieshok, T. (1996). Predicting dyadic adjustment from general and relationship-specific beliefs. *Journal of Psychology, 130,* 263–280.

Deffenbacher, J. L., Demm, P. M. & Brandon, A. D. (1986). High general anger: Correlates and treatment. *Behaviour Research and Therapy*, *24*, 481–489.

Delaney, C. (2005). The Spirituality Scale, Development and Psychometric Testing of a Holistic Instrument o Assess the Human Spiritual Dimension. *Journal of Holistic Nursing, 23* (2), 145–167.

Demaria, T. P., Kassinove, H. & Dill, C. A. (1989). Psychometric properties of the Survey of Personal Beliefs: A rational emotive measure of irrational thinking. *Journal of Personality Assessment*, *53*(2), 329–341.

Denoff, M .S. (1991). Irrational beliefs, situational attributions, and the coping responses of adolescent runaways. *Journal of Rational-Emotive and Cognitive Behaviour Therapy*, *9*(2), 113–135.

Depression and Anxiety, 12, 232-237.

DeSilvestri, C. (1989). Clinical models in RET: An advanced model of the organization of emotional and behavioural disorders. *Journal of Rational-Emotive & Cognitive Behaviour Therapy, 7,* 51–58.

DeVon, H. A., Block, M. E., Moyle-Wright, P., Ernst, D. M., Hayden, S. J., Lazzara, D. J. … Kostas-Polson, E. (2007). A psychometric Toolbox for testing Validity and Reliability. *Journal of Nursing scholarship, 39*(2), 155–164.

Diener, E. (2000). Subjective well-being: The science of happiness, and a proposal for a national index. *American Psychologist*, *55*, 34–43.

DiGiuseppe, R. & Bernard, M. E. (1990). The application of rational-emotive therapy to school-aged children. *School Psychology Review*, 3, 268–286.

DiGiuseppe, R. & Bernard, M.E. (2006). REBT assessment and treatment with children. In A. Ellis & M.E. Bernard (Eds.), *Rational emotive behavioural approaches to childhood disorders*. New York: Springer.

DiGiuseppe, R. & Kassinove, H. (1976). Effects of a rational-emotive school mental health program on children's emotional adjustment. *Journal of Community Psychology*, *4*, 382–387.

DiGiuseppe, R. & Miller. N. J. (1977). A review of outcome studies on rational-emotive therapy. In A. Ellis & R. Grieger (Eds.), *Handbook of rational-emotive therapy*, pp. 130–147). New York: Springer.

DiGiuseppe, R. (1996). The nature of irrational and rational beliefs: progress in rational emotive behavior theory. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, *4*, 5–28.

DiGiuseppe, R., Leaf, R., Exner, T. & Robin, M. (1988). The development of a measure of irrational/rational thinking. *Paper presented at the World Congress of Behavior Therapy, Edinburg, Scotland*.

DiGiuseppe, R., McGowan, L., Sutton-Simon, K. & Gardner, F. (1990). A comparative outcome study of four cognitive therapies in the treatment of social anxiety. *Journal of Rational-Emotive & Cognitive Behaviour Therapy, 8*, 129–146.

DiGiuseppe, R., Robin, M. W., Leaf, R. & Gormon, B. (1989). A discriminate validation and factor analysis of a measure of irrational/rational beliefs. *Paper presented at the meeting of the World Congress of Cognitive Therapy, Oxford, England*.

DiGiuseppe, R., Terjesen, M., Goodman, R., Rose, R., Doyle, K. & Vidalikis, N. (1998). *A meta-analytic review of REBT outcome studies: A comparative investigation.* Poster presented at the 106th annual convention of the American Psychological Association, San Francisco, CA.

Dobson, D. & Dobson, K. S. (2009). *Evidence-based practice of Cognitive-Behavioral Therapy*. New York: Guilford.

Dozois, D. J. A., Dobson, K. S. & Westra, H. A. (2004). The comorbidity of anxiety and depression, and the implications of comorbidity for prevention. In D. J. A. Dozois & K. S. Dobson (Eds.), *The prevention of anxiety and depression: Theory, research, and practice*. (pp. 261–280).Washington, DC, American Psychological Association.

Draguns, J. G. & Tanaka-Matsumi, J. (2003). Assessment of psychopathology across and within cultures: Issues and findings. *Behaviour Research and Therapy, 41*, 755–776.

Dryden, W. & DiGiuseppe, R. (1990). *A Primer On Rational-Emotive Therapy*. Champaign, IL: Research Press.

Dryden, W. & Neenan, M. (2006). *Rational Emotive Behaviour Therapy: 100 Key Points and Techniques*. London: Routledge.

Dryden, W. (1990). Dealing with anger problems: Understanding your anger and aggression. Odessa, Fl.:Professional Resources Exchange.

Dryden, W. (1995). *Brief rational-emotive behaviour therapy*. New York: Wiley.

Dryden, W. (1999). Beyond LFT and discomfort disturbance: The case for the term 'non-ego disturbance'. *Journal of Rational-Emotive and Cognitive-Behaviour Therapy*, 17, 165–200.

Dryden, W. (2001). *Reason to Change: a REBT Workbook*. East Sussex: Brunner-Routeledge.

Dryden, W. (2003). The cream cake made me eat it: an introduction to the ABC theory of REBT. In W. Dryden (ed.), *Rational emotive behaviour therapy: theoretical developments*, pp. 1–21. New York: Brunner-Routledge.

Dryden, W. (2006). *Getting Started with REBT: A Concise Guide for Clients*. Routledge: London.

Dryden, W. (2008). *Distinctive features of rational emotive behaviour therapy*. Hove: Brunner-Routledge.

Dryden, W. (2009). *Rational emotive behaviour*. London: Routledge.

Dryden, W., DiGiuseppe, R. & Neenan, M. (2003). *A primer on rational emotive behaviour therapy*. 2nd edition. Champaign, IL: Research Press.

Durkin, K. (1995). *Developmental social psychology: From infancy to old age*. Cambridge, MA: Blackwell.

Durlak, J. A., Fuhrman, T. & Lampman, C. (1991). Effectiveness of cognitive-behaviour therapy for maladapting children: A metaanalysis. *Psychological Bulletin, 110*, 204– 214.

Dush, D. M., Hirt, M. L. & Schroeder, H. E. (1989). Self-statement modification in the treatment of child behaviour disorders: a meta-analysis. *Psychological Bulletin, 106* (1), 97–106.
Dwairy, M. (2004). Parenting styles and psychological adjustment of Arab adolescents. *Transcultural Psychiatry, 41*(2), 233–252.
Dwairy, M., Achoui, M., Abouserie, R. & Farah, A. (2006). Parenting Styles, Individuation, and Mental Health of Arab Adolescents: A Third Cross-Regional Research Study. *Journal of Cross-Cultural Psychology, 37*; 262.
Dyer, R., Barabasz. A. & Barabasz. M. (1993). Twenty-four hours of chamber REST produces specific food aversions in obese females. In A. Barabasz & M.Barabasz (Eds). *Clinical and Experimental Restricted Environmental Stimulation* (pp127–144). New York Springer-Vertog.
Eaton W. W., Dryman A. & Weissman M. (1991). Panic and phobia. In: Robins L. N., Regier D. A., eds. (pp. 155–79). *Psychiatric disorders in America: The epidemiologic catchment area study*. New York: The Free Press.
Eisner, S. (2007). *From destructive to constructive thinking: Techniques of self-therapy for adults with ADD.* (Unpublished doctoral dissertation.) The University of North Carolina at Chapel Hill.
Ekman, P. (1992). An argument for basic emotions. Cognitive *Emotion 6*, 169–200.
Ellis A. (1962). *Reason and Emotion in Psychotherapy*. New York: Lyle Stuart.
Ellis, A. & Bernard, M. E. (1983). (Eds.). *Rational emotive approaches to the problems of childhood.* New York: Plenum Press.
Ellis, A. & Bernard, M.E. (Eds.). (2006). *Rational emotive behavioural approaches to childhood disorders*. New York: Springer.
Ellis, A. & Blau, S. (1997). Rational emotive behaviour therapy. *Directions in Clinical and Counselling Psychology, 8*(4), 41–56.
Ellis, A. & Dryden, W. (1987). *The practice of rational-emotive therapy*. New York, NY.
Ellis, A. & Dryden, W. (1997). Basic practice of REBT. In A. Ellis & W. Dryden (Eds.), *The practice of rational-emotive behaviour therapy* (pp. 27–71). New York: Springer Publishing Company, Inc.
Ellis, A. & Dryden, W. (1997). *The practice of rational-emotive therapy*. (2nd ed.). New York: Springer.
Ellis, A. & Grieger, R. (1977). *Handbook of rational-emotive therapy*. New York: Springer.
Ellis, A. & Harper, R. A. (1961). *A guide to rational living*. Englewood Cliffs, NJ: Prentice-Hall.
Ellis, A. (1969). A weekend of rational encounter. In A. Burton (Ed.), *Encounter* (pp. 112–127). San Francisco: Jossey-Bass.
Ellis, A. (1973). *Humanistic psychotherapy: The rational-emotive approach*. New York: The Julian Press, Inc.
Ellis, A. (1974). Cognitive aspects of abreactive therapy. *Voices, 10*(1), 48–56.
Ellis, A. (1975). Rational emotive therapy and the school counsellor. *School Counsellor, 22*, 236–242.
Ellis, A. (1976). The biological basis of human irrationality. *Journal of Individual Psychology*. *32*, 145–168.
Ellis, A. (1977a). *Existentialism and rational psychotherapy*. New York: Institute for Rational-Emotive Therapy.
Ellis, A. (1977b). Rational-emotive therapy: Research data that support the clinical and personality hypotheses of RET and other modes of cognitive-behaviour therapy. *Counselling Psychologist, 7*, 2–42.

Ellis, A. (1979a) Rational-emotive therapy. In Corsinii (ed) *Current psychotherapies*. (2nd ed) Pracock Publishers.

Ellis, A. (1979b). Rational-emotive therapy. In A. Ellis & J. M. Whiteley (Eds.), *Theoretical and empirical foundations of rational-emotive therapy* (pp. 1–6). Monterey, CA: Brooks/Cole.

Ellis, A. (1979c). Rejoinder: Elegant and inelegant RET. In A. Ellis & J. M. Whitely (Eds.), *Theoretical and empirical foundations of rational-emotive therapy* (pp. 240–267). Monterey, CA: Brooks/Cole.

Ellis, A. (1980). Psychotherapy and atheistic values: A response to A. E. Bergin's 'Psychotherapy and Religious Values.' *Journal of Consulting and Clinical Psychology*, *48*, 635–639.

Ellis, A. (1983). *The case against religiosity*. New York: Institute for Rational-Emotive Therapy.

Ellis, A. (1984). The use of hypnosis with RET. *International Journal of Eclectic Psychotherapy*, *3*(3), 15-22.

Ellis, A. (1985). Approaches to overcoming resistance. 4: Handling special kinds of clients. *British Journal of Cognitive Psychotherapy*, 3*(*1),26-42.

Ellis, A. (1987). Rational-emotive therapy: Current appraisal and future directions. *Journal of Cognitive Psychotherapy*, *1*, 73–86.

Ellis, A. (1988). *How to stubbornly refuse to make yourself miserable about anything – yes, anything!* Secaucus, NJ: Lyle Stuart.

Ellis, A. (1990). Is rational-emotive therapy (RET) 'rationalist' or 'constructivist'? In W. Dryden (Ed.), *The essential Albert Ellis: Seminal writings on psychotherapy* (pp. 114–141). New York: Springer.

Ellis, A. (1991). The revised ABC's of rational-emotive therapy. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, *9*(3), 139–172.

Ellis, A. (1994). *Reason and emotion in psychotherapy: A comprehensive method of treating human disturbance*. New York: Birch Lane Press.

Ellis, A. (1996). A rational emotive-behaviour therapist perspective. In G. Corey (eds) *Case approach to counselling and psychotherapy*. N.Y. books Cole Publishing. (4th ed).

Ellis, A. (1997). Post-modern ethics for active-directive counselling and psychotherapy. *Journal of Mental Health Counselling*, 19, 11–25.

Ellis, A. (1998). *Rational emotive behavior therapy: A therapist's guide*. San Jose, CA: Impact.

Ellis, A. (1999). Rational emotive behaviour therapy as an internal control psychology. *International Journal of Reality Therapy*, *19*, 4–11.

Ellis, A. (2001a). *Feeling better, Getting Better, Staying Better: profound Self-help Therapy for your Emotions*. Atascadero: Impact Publishers.

Ellis, A. (2001b). *Overcoming destructive beliefs, feelings and behaviours: New directions for rational emotive behaviour therapy*. New York: Prometheus Books.

Ellis, A. (2003a). Discomfort Anxiety: A New Cognitive –Behavioral Construct (Part 1). *Journal of Rational Emotive and Cognitive Behavioural Therapy*, *21*, 3–4.

Ellis, A. (2003b). Early theories and practices of rational emotive behaviour theory and how they have been augmented and revised during the last three decades. *Journal of Rational-Emotive and Cognitive-Behaviour Therapy*, *21*, 219–243.

Ellis, A. (2003c). How To Deal With Your Most Difficult Client – You. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, *21*(3/4), 203–213.

Ellis, A. (2004a**).** *Rational emotive behaviour therapy: It works for me – it can work for you*. Amherst, NY: Prometheus Books.
Ellis, A. (2004b). *The road to tolerance: The philosophy of REBT*. New York: Prometheus Books.
Ellis, A. (2005). Can rational emotive behaviour therapy (REBT) and acceptance and commitment therapy (ACT) resolve their differences and be integrated? *Journal of Rational-Emotive & Cognitive-Behaviour Therapy, 23,* 153–168.
Ellis, A. E. & Grieger, R. M. (Eds.). (1986). *Handbook of rational-emotive therapy: Volume II.* New York: Springer.
Ellis, A., Gordon, J., Neenan, M. and Palmer, S. (1997). *Stress Counselling: A Rational Emotive Behavioural Approach*. London. Cassell.
Ellis, A., Wolfe, J. & Moseley, S. (1966). *How to raise an emotionally healthy, happy child*. New York: Crown.
El-Rufaie, O. Albar, A. & Al-Dabal, B. (2007). Identifying anxiety and depressive disorders among primary care patients: A pilot study. *Acta Psychiatrica Scandinavica*, *77* (3): 280–282.
Emara, A. (1985). *Using REBT for treating myths in college students*. (Unpublished doctoral dissertation.) Ain Shams University, Cairo (Arabic document).
Emmelkamp P. M. G. (1982). *Phobic and Obsessive-Compulsive Disorders: Theory, Research and Practice*. Plenum Press, New York.
Emmelkamp, P. M. G., Visser, S. & Hoekstra, R. J. (1988). Cognitive therapy vs exposure in vivo in the treatment of obsessive-compulsives. *Cognitive Therapy and Research*, *12*, 103-14.
Engels, G. I., Garnefski, N. & Diekstra, R. F. W. (1993). Efficacy of Rational-Emotive Therapy; A quantitative analysis. *Journal of Consulting and Clinical Psychology*, *61*, 1083–1091.
Epictetus, George Long (trans.). (1955). *Enchiridion*. New York: Prometheus.
Epictetus, Hastings Crossley (trans.) (1914). *The Golden Sayings of Epictetus*. The Harvard Classics. Harvard University Press.
Erikson, E.H. (1963). *Childhood and Society*. New York: W.W. Norton.
Essau, C. A., Conradt, J. & Petermann, F. (2000). Frequency, comorbidity, and psychosocial impairment of anxiety disorders in German adolescents. *Journal of Anxiety Disorders*, *14*, 263–279.
Eysenck, H. J. (1957). *The dynamics of anxiety and hysteria*. New York: Praeger.
Eysenck, H. J. (1967). *Biological basis of personality*. Springfield, IL: Thomas.
Eysenck, S. B. G., Eysenck, H. J. & Barrett, P. (1985). A revised version of the psychoticism scale. *Personality and Individual Differences*, *6*, 21–29.
Fakhr El-Islam, M. (1983). The effect of Islamic Sharia on behavioural disturbances in the Kingdom of Saudi Arabia. *Transcultural Psychiatry*, Vol. 20, No. 1: pp. 62–66.
Fakhr El-Islam, M. (2000). Mental illness in Kuwait and Qatar. In I. Al-Issa (Ed.), *Al-Junun: Mental illness in the Islamic world* (pp. 121–137). Madison: International Universities Press.
Falloon I. R. H., Lindley P., McDonald R. & Marks I. M. (1977). Social skills training of out-patient groups. A controlled study of rehearsal and homework. *British Journal of Psychiatry, 131*, 599–609.
Faravelli, C., Guerrini Degl'Innocenti, B. & Giardinelli, L. (1989). Epidemiology of anxiety disorders in Florence. *Acta Psychiatrica Scandinavica*, *79* (1), 308–12.
Faravelli, C., Zucchi, T., Viviani, B., Salmoria ,R., Perone, A., Paionni, A., … Abrardi L. (2000). Epidemiology of social phobia: a clinical approach. *European Psychiatry 15*:17–24.

Farmer, E. M. Z., Burns, B., Phillips, S. D., Angold, A. & Costello, J. E. (2003). Pathways into and through mental health services for children and adolescents. *Psychiatric Services*, *54*, 60–66.
Fatouhi, F. (1997). Irrational beliefs in adolescents. *Journal of Education & Science, 42*(1), 11–33.
Federoff, I. C. & Taylor, S. (2001). Psychological and pharmacological treatments of social phobia: A meta-analysis. *Journal of Clinical Psychopharmacology*, *21*, 311–24.
Fehm, L., Schneider, G. & Hoyer, J. (2007). Is post-event processing specific for social anxiety? *Journal of Behavior Therapy and Experimental Psychiatry*, *38*, 11−22.
Fernald, L. C. & Grantham-McGregor, S. M. (1998). Stress response in children who have been growth retarded since early childhood. *Ameican Journal of Clinical Nutrition*, *68*, 691–698.
Feske U. & Chambless D. L. (1995): Cognitive behavioral versus exposure only treatment for social phobia: A meta-analysis. *Behavioural Therapy*, *26*:695–720.
Fine, H. (1990). *Restricted Environmental Stimulation: research and commentary*, 3rd International conference on REST , Medical College of OHIO, Toledo, Ohio.
Fine, T. H. & Turner, J. W. (1985). Rest-assisted relaxation and chronic pain. In J. J. Sa´nchez-Sosa (Ed.), *Health and clinical psychology* (pp. 115–126). North-Holland: Elsevier Science Publisher.
Fine, T. H. & Turner, J. W., Jr. (1983). The Use of Restricted Environmental Stimulation Therapy (REST) in the Treatment of Essential Hypertension, *First International Conference on REST and Self-Regulation, 136–143 .*
Fiske, S. T. (1982). Schema-triggered affect: Applications to social perception. In M. S. Clark & S. T. Fiske (Eds.), *Affect and Cognition: The 17*th *Annual Carnegie Symposium on Cognition* (55–78). Hillsdale, NJ: Erlbaum.
Fiske, S. T., and Taylor, S. E. (1991). *Social Cognition*. 2nd Edition. Singapore: McGraw Hill.
Foa, E. B., Franklin, M. E. & Kozak, M. J. (2001). Social phobia: An information processing perspective. In S. Hofman & P. M. DiBartolo (Eds.), *From Social Anxiety to Social Phobia: Multiple Perspectives*, 268–280. Needham, MA: Allyn & Bacon.
Fones, C. S., Manfro, G. C. & Pollack, M. H. (1998). Social phobia: an update. *Harvard Review of Psychiatry*, *5*, 247–59.
Ford, P. W. (2009). Effect of methodological improvements and study quality on REBT treatment outcome research since 1990: a meta-analysis. Dissertation Abstracts International: Section B: *The Sciences and Engineering*, *69* (12–B), 7809).
Forgays, D. G. & Forgays, F. K. (1992). Creativity enhancement through flotation isolation. *Journal of Environmental Psychology*, *12*, 329–335.
Francis, R.D. (1999). *A Code of Ethics for Psychologists*. Leicester, BPS Books.
Freud, S. (1926). Inhibitions, symptoms, and anxieties. *Standard Edition, 20,* 75–174.
Freud, S. (1936). *The Problem of Anxiety*. (Henry Bunker, trans.) New York.
Freud, S. (1940).*Some Elementary Lessons in Psychoanalysis. The standard edition of the complete works of Sigmund Freud*, Vol. 23. London: Hogarth Press.
Freud, S. (1953) [originally 1905]. Three Essays on the Theory of Sexuality. In *Standard Edition*, vol. 7. London: Hogarth Press and the Institute of Psycho-Analysis.
Freud, S. (1975). *Letters of Freud* . New York: Basic Books.
Froggatt, W. (2005). *A brief introduction to Rational Emotive Behaviour Therapy*. (Retrieved December 30th 2010). Retrieved online from
www.anapsys.co.uk/files/Brief%20Introduction%20to%20REBT.htm (Accessed January 4th 2010).

Fromm, E. & Nash, M. (Eds) (1992). *Contemporary Hypnosis Research*. London: Guilford Press.
Fry, P. S. (1969). Anxiety theory versus guilt theory of maladaptive behavior. *Canadian Psychologist, 10*(4), 398–408.
Furmark, T. (2002). Social phobia: overview of community surveys. *Acta Psychiatrica Scandinavica, 105*, 84–93.
Fyer. A. J., Mannuzza, S., Chapman T. F., Liebowitz M. R. & Klein. D. F. (1993). A direct interview family study of social phobia. *Archives of General Psychiatry, 50*, 286–293.
Garcia-Lopez, J., Rodriguez-Marroyo, J. A., Juneau, C.,E., Peleteiro, J., Martinez, A. C. & Villa, J. G. (2008). Reference values and improvement of aerodynamic drag in professional cyclists. *Journal of Sports Sciences, 26*(3), 277–286.
Gay, L. R. & Airasian, P. (2003). *Educational research: Competencies for analysis and applications*. Upper Saddle River, NJ: Merrill Prentice Hall.
Gay, L. R. (1996). *Education Research: Competencies for Analysis and Application*. 5th ed., New Jersey: Prentice Hall.
Gerdes, E. & Guidi, E. (1987). Anxiety in Patients Awaiting Primary Medical Care. *Medical Care, 25*(9): 913–923.
Gershuny, B. S. & Sher, K. J. (1992). The relation between personality and anxiety: Finding from a 3–year prospective study. *Journal of Abnormal Psychology, 107*, 252–262.
Gerzon, Robert. (1998). *Finding Serenity in the Age of Anxiety*. Simon & Schuster: New York: Bantam.
Ghubash, R., Hamdi, E. & Bebbington, P. (1992), the Dubai Community Psychiatric Survey:I. Prevalence and socio-demographic correlates, Social Psychiatry and Psychiatric Epidemiology, 27, 53-61
Gibby, R. G., Adams, H. B. & Carrera, R. N. (1960). Therapeutic changes in psychiatric patients following partial sensory deprivation: A lot study. *Archives of General Psychiatry*, 33–42.
Gilbert, P. & Trower, P. (1990). The evolution and manifestation of social anxiety. In W.R. Crozier (Ed.), *Shyness and Embarrassment* (pp. 144–177). New York: Cambridge University Press.
Gilbert, S. (1999). For some children, it's an after-school pressure cooker. *New York Times*. August 3rd, 1999, p. F7.
Ginsburg, G. S. & Drake, K. L. (2002). School-based treatment for anxious African-American adolescents: A controlled pilot study. *Journal of the American Academy of Child and Adolescent Psychiatry, 41*, 768–775.
Ginsburg, G. S. & Grover, R. (2005). Assessing and treating social phobia in children and adolescents. *Psychiatric Annals, 35*(9), 736–744.
Goldfried, M. & Sobocinski, D. (1975). Effect of irrational beliefs on emotional arousal. *Journal of Consulting and Clinical Psychology, 43*, 504–510.
Goldfried, M. (1979). Anxiety reduction through cognitive-behavioural intervention. In P.C. Kendall & S. P. Hollon (eds.), *Cognitive-behavioural interventions: Theory, research, and procedures* (pp. 65–77). New York: Academic Press.
Goldstein, A. J. & Chambless, D. L. (1978). A reanalysis of agoraphobia. *Behaviour Therapy, 9*, 47–59.
Gomez, R. & Francis, L. M. (2003). Generalized anxiety disorder: Relationships with Eysenck's, Gray's and Newman's theories. *Personality and Individual Differences, 34*, 3–17.

Gonzalez, J. E., Nelson, R. J., Gutkin, T. B., Saunders, A., Galloway, A. & Shwery, C .S. (2004). Rational Emotive Therapy With Children and Adolescents: A Meta-Analysis. *Journal of Emotional and Behavioural Disorders, 12* (4): 222–235.

Good, B. J. & Kleinman, A. M. (1985). Culture and anxiety: Cross-cultural evidence for the patterning of anxiety disorders. In A. M. Tuma, A. Hussain & J. D. Maser (Eds.), *Anxiety and the anxiety disorders* (pp. 297–323). Hillsdale, NJ: Erlbaum.

Gormally, J., Sipps, G., Raphael, R., Edwin, D. & Varvil-Weld, D. (1981). The relationship between maladaptive cognitions and social anxiety. *Journal of Consulting and Clinical Psychology*, *49*, 300–301.

Goswick, R. A. & Jones, W. H. (1981). Loneliness, self-concept and adjustment. *Journal of Psychology*, 237–240.

Gould, R. A., Buckminster, S., Pollack, M. H., Otto, M. W. & Yap, L. (1997): Cognitive-behavioural and pharmacological treatment for social phobia: A meta-analysis. *Clinical Psychology: Science and Practice*, *4*:291–306.

Grant, B.F., Hasin, D.S., Blanco, C., Stinson, F.S., Chou, S.P., Goldstein, … Huang, B. (2005). The epidemiology of social anxiety disorder in the United States: results from the national epidemiologic survey on alcohol and related conditions. *Journal of Clinical Psychiatry*, *66*, 1351–1361.

Gray, J. A. (1970). The psychophysiological basis of introversion-extraversion. *Behaviour Research and Therapy*, 8,249–266.

Gray, J. A. (1981). A critique of Eysenck's theory of personality. In H. J. Eysenck (Ed.), *A model of personality* (pp. 246–276). New York: Springer.

Gray, J. A. (1982). *The neuropsychology of anxiety: An enquiry into the function of the septo-hippocampal system*. New York: Oxford University Press.

Gregas, A. J. (2009). *Cognitive-behavioural therapies: Efficacy of three interventions with effect sizes and confidence intervals*. (Unpublished Ph.D. in Educational Psychology.) The University of Wisconsin-Milwaukee.

Greist, J. H., Marks, I. M., Baer, L., Kobak, K. A., Wenzel, K. W., Hirsch, M. J., Mantle, J. M. & Clary, C. M. (2002). Behaviour therapy for obsessive compulsive disorder guided by a computer or by a clinician compared with relaxation as a control. *Journal of Clinical Psychiatry*, *63*, 138–145.

Grimes, L. & Jensen, S. (2008, April). Social skills training in conjunction with parent training: Its effects. *Paper presented at the annual conference of the Western Psychological Association in Irvine, CA*.

Guichard, M. T. (1976). The Leboyer babies. *Psychologie*, 1976, *8*, 33–38.

Gutheil, T. G. (1978). Observations on the theoretical bases for seclusion of the psychiatric inpatient. *American Journal of Psychiatry*, *136*, 325–328.

Haemmerlie, F. M., Montgomery, R. L. & Melchers, J. (1988). Social support, perceptions of attractiveness, weight, and the CPI in socially anxious males and females. *Journal of Clinical Psychology*, *44*(3), 435–441.

Hajzler, D. J. & Bernard, M. E. (1991). A review of rational-emotive education outcome studies. *School Psychology Quarterly*, *6*, 27–49.

Halamandaris, K. F. & Power, K. G. (1997). Individual differences, dysfunctional attitudes, and social support: A Study of the psychosocial adjustment to university life of home students. *Personality and Individual Differences*, 22(1), 93–104.

Hall, C.S. (1954). *A primer of Freudian psychology*. Cleveland, OH: World.

Hall, R. and Goldberg, D. (1977). The role of social anxiety in social interaction difficulties. *British Journal of Psychiatry*, *131*, 610–615.

Hamidi, F. & Motlagh, S. (2010). Comparison of Irrational Beliefs and Defence Mechanisms in Patients with Obsessive Compulsive Disorder and Normal Individuals. *Procedia – Social and Behavioral Sciences, 5*, 1620–1624.

Hamidi, F., and Hosseini, Z. (2010). The relationship between irrational beliefs and social, emotional and educational adjustment among junior students. *Procedia Social and Behavioral Sciences, 5*, 1531–1536.

Hartman, L. (1983). A metacognitive model of social anxiety:implications for treatment. *Clinical Psychology Review, 3*, 435–456.

Hartos, J. and Power, S. (2000). Association between parent – adolescence communication and adolescent adjustment. *Journal of youth and adolescence, 29*: 441–450.

Hattie, J. (1992). Self-Concept. Hillsdale: Lawrence Erlbaum. Lake, E. A. & Arkin, R. M. (1983). Social anxiety and reactions to interpersonal evaluative information. *Paper presented at the annual convention of the American Psychological Association (91*st, *Anaheim, CA, August 26–30).*

Hay, D. F. (1994). Prosocial development. *Journal of Child Psychology and Psychiatry*, 35, 29–71.

Hayward, C., Varady, S., Albano, A., Thienemann, M., Henderson, L. & Schatzbertg, A. (2000). Cognitive-behavioural group therapy for social phobia in female adolescents: results of a pilot study. *Journal of American Academy of Child and Adolescent Psychiatry, 39*:721–726.

Heimberg, R. G., Acerra, M. C. & Holstein, A. (1985). Partner similarity mediates interpersonal anxiety. *Cognitive Therapy and Research, 9*,443–453.

Heimberg, R. G., Dodge, C. S. & Becker, R. E. (Eds.). (1987). *Social phobia*. New York: Guilford Press.

Heimberg, R. G., Stein, M. B., Hiripi, E. & Kessler, R. C. (2000). Trends in the prevalence of social phobia in the United States: A synthetic cohort analysis of changes over four decades. *European Psychiatry, 15*, 29–37.

Heinrich, L. M. & Gullone, E. (2006). The clinical significance of loneliness: a literature review. *Clinical Psychology Review, 26*, 695–718.

Heiser, N. A., Turner, S. M., Beidel, D. C. (2003). Shyness: Relationship to social phobia and other psychiatric disorders. *Behaviour Research and Therapy, 41*, 209–221.

Henderson, L. & Zimbardo, P. (1993). *Self-blame attributions in shys vs. non-shys in a high-school sample*. Paper presented at the annual conference of the Anxiety Disorders Association of America, Charleston, South Carolina.

Henderson, L. & Zimbardo, P. (2009). Shyness, social anxiety and social phobia. In S. G. Hofmann & P. M. DiBartolo (Eds.), *Social anxiety: Clinical, developmental, and social perspectives, second edition* (2nd ed.). Taramani, Chennai, India: Elsevier.

Henderson, L. (1992). Shyness Groups. In M. McKay & K. Paleg (Eds.), *Focal Group Psychotherapy*. Oakland, CA: New Harbinger Press.

Henderson, L. and Zimbardo, P. (2005) The Shyness Home Page (from The Shyness Institute, Palo Alto, California). Retrieved online from www.shyness.com/encyclopedia.html (Accessed September, 2010).

Henderson, L., & Zimbardo, P. (2001). Shyness, social anxiety, and social phobia. In: S. G. Hofmann & P. M. DiBartolo (Eds.), *From social anxiety to social phobia*. Boston, MA: Allyn and Bacon.

Heron, W., Bexton, W. H. & Hebb, D. O. (1953). Cognitive effects of a decreased variation to the sensory environment. *American Psychologist, 8*, 366.

Herring M. P., O'Connor, P.J. & Dishman R. K. (2010). The effect of exercise training on anxiety symptoms among patients: a systematic review. *Archives of Internal Medicine, 170*:321–331.

Hesham, M. (1990). *Effects of REBT on treating neurotic depression*. (Unpublished doctoral dissertation.) Zagazig University: Zagazig.

Hidalgo, M., Siu, L., Nemunaitis, J., Rizzo, J., Hammond, L., Takimoto, C., … Rowinsky, E. (2001). Phase I and Pharmacologic Study of OSI-774, an Epidermal Growth Factor Receptor Tyrosine Kinase Inhibitor, in Patients With Advanced Solid Malignancies. *Journal of Clinical Oncology*, *19* (13), 3267–3279.

Hidalgo, R. B., Barnett, S. D. & Davidson, J. R. (2001). Social anxiety disorder in review: Two decades of progress. *International Journal of Neuropsychopharmacology*, *4*, 279–298.

Hilgard, E. R. (1973). A neurodissociation interpretation of pain reduction in hypnosis. *Psychological Review*, *80*,396–411.

Himle, J. A., Himle, D. P. & Thyer, B. A.(1989). Irrational beliefs and the anxiety disorders. *Journal of Rational-Emotive & Cognitive Behaviour Therapy*, *7*(3), 155–165.

Hirsch, C. R. & Clark, D. M. (2004). Information-processing bias in social phobia. *Clinical Psychology Review*, *24*, 799–825.

Hirschfeld, R. (1995). The impact of health care reform on social phobia. *Journal of Clinical Psychiatry*, *95* (suppl 5), 13 – 17.

Hisham, M. (2000). *Effects of a counselling programme rooted in RET for treating neurotic depression*. (Unpublished doctoral dissertation.) Zagazig University: Zagazig.

Hjelle, L. A. & Ziegler, D. J. (1992). *Personality theories: Basic assumptions, research, and applications*, 3rd ed. New York: McGraw-Hill.

Hofmann, S. G. & DiBartolo, P. M. (2010). *Social anxiety: Clinical, developmental, and social perspectives*. (2nd ed.). New York: Elsevier/Academic Press.

Hofmann, S. G., Newman, M. G., Becker, E., Taylor, C. B. & Roth, W. T. (1995). Social phobia with and without avoidant personality disorder: Preliminary behaviour therapy outcome findings. *Journal of Anxiety Disorders*, 9, 427–438.

Holton, R. (1999). Intention and Weakness of the Will. *The Journal of Philosophy*, *95*, 241–62.

Hope, D. A., Gansler, D. A. & Heimberg, R. G. (1989). Attentional focus and causal attributions in social phobia: Implications from social psychology. *Clinical Psychology Review*, 9, 49–60.

Hope, D. A., Rapee, R. M., Heimberg, R. G. & Dombeck, M. S. (1990). Representations of the self in social phobia: Vulnerability in social interaction. *Cognitive Therapy and Research*, 14, 177–189.

Howarth, John (editor) (1996). Psychological Research: Innovative Methods and Strategies. New York: Routledge.

Hunt, A. (1999). Anxiety and Social Explanation: Some Anxieties about Anxiety. *Journal of Social History*, *32* (3): 509–528.

Hussein, T. & Hussein, S. (2006). *Stress management strategies in psychology and education*. Dar al-Fikr for Publishing, Amman.

Hutchison, Michael (2003). *The book of Floating*. Gateways Books & Tapes, US.

IBM Corp. Released Version (2013). *IBM SPSS Statistics for Windows, Version 22.0*. Armonk, NY: IBM Corp.

Ibn Hazm al-Andalusi, A. (1990). Tazkiyah (Dispelling Anxiety). In *Pursuit of Virtue: The Moral Theology and Psychology of Ibn Hazm*. Edited and translated by Muhammad Abu Layla, London: TaHa Publishers Ltd., 1990.

Ibrahim, Abdel-Sattar (1987). Perception and concern about sociocultural change and psychopathology in a Saudi Arabian sample. *Journal of Psychopathology*, *20*(5), 250–254.

Ibrahim, Abdul-Sattar (1998). *Understanding and interventions of depression*. Kuwait: Kuwait University Press.

Ibrahim, E. (1990). *An investigation into irrational thinking as related to social anxiety and self-orientation in college youths*. (Unpublished MA. Zagazig University, Zagazig, Egypt.

İnanç, N., Savaş, H. A., Tutkun, H., Herken, H. & Savaş, E. (2004). The clinical and socio-demographic characteristics of the students psychiatrically examined at the Medico-Social Centre of Gaziantep University. *Anatolian Journal of Psychiatry, 5*, 222–230.

Ingram. R. E. (1990). Self-focused attention in clinical disorders: Review and a conceptual model. *Psychological Bulletin, 107*, 157–176.

International Association of Counselling Services (IACS) Inc. (2010), Standards for University and College Counseling Services, Alexandria, VA, viewed at http://www.iacsinc.org/IACS%20STANDARDS%20rev%2010-3-11.pdf

Ivey, A. E., & Ivey, M. B. (2003). *Intentional interviewing and counselling: Facilitating client development in a multicultural society* (5th ed.). Pacific Grove, CA: Brooks/Cole-Thompson Learning.

Izard, C. E. (1972). Comments on Drs. Phillips, Martin, and Meyers' paper. In C.D. Spielberger (ed.), *Anxiety: Current trends in theory and research* (pp. 465–468). New York: Academic Press.

Jaber, M. (1995). *Locus of control and social and psychological adjustment in college students of the University of Baghdad*. (Unpublished MA.) Faculty of Education, University of Baghdad, Baghdad.

Jackson, T., Soderlind, A. & Weiss, K. (2000). Personality traits and quality of relationships as predictors of future loneliness among American college students. *Social Behaviour & Personality, 28*, 463–470.

Jacofsky, M. (2006). *Mediating and moderating effects of irrationality on stress in school psychology students*. (Unpublished Ph.D.) St. John's University.

Jensen, P. E. (2008). *Evaluating the ABC Model of Rational Emotive Behaviour Therapy Theory: An Analysis of the Relationship between Irrational Thinking and Guilt*. (Unpublished MA.) Villanova University.

Jensen, S., Sirker, N., Brais, G., Breen, H., Calavano, V., Wells, D. & Zanini D. (2008, April). *Anticipation of parenting in college students: Efficacy and parenting knowledge*. Poster presented at the annual conference of the Western Psychological Association in Irvine, CA.

Jerremalm, A. & Johansson, J. (1981). Individual response patterns and the effects of different behavioral methods in the treatment of social phobia. *Behaviour Research and Therapy, 19*, 1–16.

Jessen, W. E. (1990). In-tank flotation therapy. In J. W. Turner & T. H. Fine (Eds.), *Restricted environmental stimulation* (pp. 152–157). Ohio: Medical College of Ohio Press.

Jones, C. (1995). Saudi Arabia After the Gulf War: the Internal-External Security Dilemma. *International Relations*, Vol. 12: pp. 31 – 51.

Jones, R. G. (1969). A factored measure of Ellis' irrational belief system, with personality and maladjustment correlates. (Doctoral dissertation, Texas Technological College, 1968). *Dissertation Abstracts International, 69*, 6443.

Jones, S. C. (1973). Self and Interpersonal Evaluations: Esteem Theories versus Consistency Theories. *Psychological Bulletin, 79*:185–99.
Jones, W. H., Hobbs, S. A & Hockenbury, D. (1982). Loneliness and social skill deficits. *Journal Personality and Social psychology*, *42*(1), 682–689.
Kagan, J. & Reznick, J. S. (1986). Shyness and temperament. In W. H. Jones, J. M. Cheek & S. R. Briggs (Eds.), *Shyness: Perspectives on research and treatment* (pp. 81–90). New York: Plenum.
Kagan, J. & Snidman, N. (1991). Infant predictors of inhibited and uninhibited profiles. *Psychological Science*, *2*(1), 40–44.
Kaiser, H. F. (1960). The application of electronic computers to factor analysis. *Educational and Psychological Measurement, 20*, 141-151.
Kaminer, D. & Stein, D. J. (2003). Social anxiety disorder. *World Journal of Biological Psychiatry*, *4*, 103–110.
Kant, I. (1929). *Critique of Pure Reason*, (Norman Kemp Smith, trans.) London: Macmillan.
Kaplan, C. A., Thompson, A .E. and Searson, S. M. (1995). Cognitive behaviour therapy in children and adolescents. *Archives of Disease in Childhood, 73*, 472–5
Karami, A. (1998). *Psychological Tests, Adjustment questionnaire*. Roshd Publication: Tehran, Iran.
Kashdan, T. B. & Herbert, J. D. (2001). Social anxiety disorder in childhood and adolescence: Current status and future directions. *Clinical Child and Family Psychology Review*, *4*, 37–61.
Kashdan, T. B. & Roberts, J. E. (2004). Social anxiety's impact on affect, curiosity, and social self-efficacy during a high self-focus social threat situation. *Cognitive Therapy and Research*, *28*, 119–141.
Kassinove, H, Eckhardt, C. & Endes, R. (1993). Assessing the intensity of 'appropriate' and 'inappropriate' emotions in rational-emotive therapy. *Journal of Cognitive Psychotherapy: An International Quarterly*. *7*, 227-240.
Kassinove, H. & Eckhardt, C. (1994). Irrational beliefs and self-reported affect in Russia and America. *Personality and Individual Differences*, *16*(1), 133–142.
Kassinove, H. (1986). Self-reported affect and core irrational thinking: a preliminary analysis. *Journal of Rational Emotive Therapy*, *4*, 119–130.
Kassinove, H., Crisci, R. & Tiegerman, S. (1977). Developmental trends in rational thinking: Implications for rational-emotive school mental health programs. *Journal of Community Psychology*, *5*, 266–274.
Kazdin, A. E., Bass, D., Ayers, W. A. & Rogers, A. (1990). Empirical and clinical focus of child and adolescent psychotherapy research. *Journal of Consulting and Clinical Psychology*, *58*(6), 729–740.
Kearney, C. A. & Albano, A. M. (2000a). *When children refuse school: A cognitive behavioural therapy approach*. Parent workbook. New York: Psychological Corporation.
Kearney, C. A. & Albano, A. M. (2000b). *When children refuse school: A cognitive behavioural therapy approach*. Therapist's manual. New York: Psychological Corporation.
Kelly, E. M. (1995). Parents as partners: Including mothers and fathers in the treatment of children who stutter. *Journal of Communication Disorders, 28*, 93–106.
Kelly, G. A. (1955). *The Psychology of Personal Constructs*. N.Y.: Norton
Kendall, P. C. & Korgeski, G. P. (1979). Assessment and cognitive behavioral intervention. *Cognitive Therapy and Research, 3*, 1–21.
Kendall, P. C. (1990). *Coping Cat workbook*. Ardmore, PA: Workbook.

Kendall, P. C., Haaga, D. A., Ellis, A., Bemard, M., DiGiuseppe, R. & Kassinove, H. (1995). Rational-emotive therapy in the 1990s and beyond: Current status, recent revisions, and research questions. *Clinical Psychology Review*, *15* (3), 1 69–185.

Kendall, P.C. & Southam-Gerow, M. A., (1996): Long- term follow-up of a cognitive- be havioral therapy for anxiety-disordered youth. *Journal of Consulting and Clinical Psychology*, *64*(4) pp.724–730.

Kendall, P.C. & Suveg, C. (2006). Treating anxiety disorders in youth. In P.C. Kendall (Ed.), *Child and adolescent therapy*. New York: The Guilford Press, pp. 243–294.

Kessen, W., and Mandler, G. (1961). Anxiety, pain and the inhibition of distress. *Psychological Review*, *68*, 396‑404.

Kessler, R. C., Chiu, W. T., Demler, O. & Walters, E. E. (2005). Prevalence, severity, and comorbidity of 12–month DSM-IV disorders in the national comorbidity survey replication. *Archives of General Psychiatry*, *62*, 617–627.

Kessler, R. C., Chiu, W. T., Demler, O., Merikangas, K. R. & Walters, E. E. (2005). Prevalence, severity, and comorbidity of 12–month DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychology*, *62*(6), 617–27.

Kessler, R. C., Foster, C. L., Saunders, W. B. & Stang, P. E. (1995). Social consequences of psychiatric disorders on educational attainment. *American Journal of Psychiatr*y, *32*(1): 126–152.

Kessler, R. C., Gruber, M., Hettema, J. M., Hwang, I., Sampson, N., Yonkers, K. A. (2007). Co-orbid major depression and generalized anxiety disorders in the National Comorbidity Survey follow-up. *Psychological Medicine*, *38*, 365–374.

Kessler, R. C., McGonagle, K. A., Zhao, S., Nelson, C. B., Hughes, M., Eshleman, S., Wittchen, H.U. & Kendler, K. S. (1994). Lifetime and 12–month prevalence of DSM-III-R psychiatric disorders in the United States. *Archives of General Psychiatry*, *51*, 8–19.

Kessler, R. C., Stang, P. E., Wittchen, H. U., Ustun, T. B., Roy-Burne, P. P., Walters, E.E. (1998). Lifetime panic-depression comorbidity in the National Comorbidity Survey. *Archives of General Psychiatry 55*: 801–808.

Khalid-Khan, S., Santibanez, M., McMicken, C. & Rynn, M. (2007). Social anxiety disorder in children and adolescents. *Paediatric Drugs*, 9, 227–237.

Khoja, T. A. & Farid, S. M. (2000). *Saudi Arabia Family Health Survey 1996: Principal Report*. Ministry of Health, Riyadh.

Kierkegaard, S. (1844/2006). *The concept of anxiety*. Princeton, NY: Princeton University Press.

Kirmayer, L. J. (2001). Cultural variations in the clinical presentation of depression and anxiety: Implications for diagnosis and treatment. *Journal of Clinical Psychology*, *62*, 22–28.

Kjellgren, A. (2003). *The experience of floatation REST (restricted Environmental stimulation technique), subjective stress and pain*, Goteborg University Sweden.

Klein, S. B. & Kihlstrom, J. F. (1998). On bridging the gap between social-personality psychology and neuropsychology. *Personality and Social Psychology Review*, *2*, 228–242.

Knaus, W. J. (1974). *Rational-emotive education. A manual for elementary school teachers*. New York: Institute for Rational Living.

Knaus,W. J. & Boker, S. (1975). The effect of rational-emotive education lessons on anxiety and self-concept in sixth grade students. *Rational Living*, *10*, 7–10.

Kocovski, N. L. & Rector, N. A. (2007). Predictors of post-event rumination related to social anxiety. *Cognitive Behaviour Therapy*, *43*, 1−11.

Koe, G. G. & Oldridge, O. A. (1987). An experimental investigation of the interaction between hypnotic responsiveness and type of esteem suggestion on self-concept. *American Journal of Clinical Hypnosis*, *30*, 44–50.

Koffler, A. (2005). *Perceptions of beliefs in rational emotive theory among college students: a multi-dimensional scaling analysis*. (Unpublished Ph.D.) Hofstra University, Hempstead, New York.

Korzybski, A. (1933). A Non-Aristotelian System and its Necessity for Rigour in Mathematics and Physics. *Science and Sanity*, *1*, 747–761.

Kotov, R., Watson, D., Robles, J. & Schmidt, N. B. (2007). Personality traits and anxiety symptoms: The multilevel trait predictor model. *Behaviour Research and Therapy*, *45*, 1485–1503.

Kpec, A. M., Beal, D., & DGiuseppe, R. (1994). Training in RET: Disputation strategies. *Journal of Rational-Emotive and Cognitive-Behaviour Therapy*, *12*(1), 47-60.

Kugler, K. & Jones, W. (1992). On Conceptualizing and Assessing Shame and Guilt. *Journal of Personality and Social Psychology*, *62*(2), 318–327.

Kupke, T. E., Hobbs. S. A. & Cheney. T. H. (1979). Selection of hetero-social skills. I. Criterion-rated validity. *Behaviour Therapy*. *10*,327–335.

Kwon, S. & Oei, T. P. S. (1994). The roles of two levels of cognitions in the development, maintenance, and treatment of depression. *Clinical Psychology Review*, *14*, 331–358.

Lake, E. A. & Arkin, R. M. (1985). Reactions to objective and subjective inter-personal evaluation: The influence of social anxiety. *Journal of Social and Clinical Psychology*, *3*, 143–160.

Lamiell, J. T. (1997). Individuals and the differences between them. In R. Hogan, J. Johnson & S. Briggs (Eds.), *Handbook of personality psychology* (pp. 117–141). San Diego, CA: Academic Press.

Lane, C. (2007). *How normal behaviour became a sickness: shyness*. Yale University Press.

Larsen, R. J. & Ketelaar, T. (1991). Personality and susceptibility to positive and negative emotional states. *Journal of Personality and Social Psychology*, *61*, 132–140.

Lasgaard, M., Goossens, L. & Elklit, A. (2011). Loneliness, Depressive Symptomatology, and Suicide Ideation in Adolescence: Cross-Sectional and Longitudinal Analyses. *Journal of Abnormal Child Psychology*, *39* (1), 137–150.

Last, C. G. (1991). Somatic complaints in anxiety disordered children. *Journal of Anxiety Disorders*, *5*, 125–138.

Last, C. G. (Ed.) (1993). *Anxiety across the lifespan: A developmental perspective*. New York: Springer.

Lazarus, P. (1982). Incidence of shyness in elementary-school age children. *Psychological Reports*, *51*, 904–906.

Lazarus, R. S. (1968). Emotions and adaptation: Conceptual and empirical relations. In W. Arnold (Ed.), *Nebraska Symposium* on *Motivation*, *16*, 175–266. Lincoln: University of Nebraska Press.

Lazarus, R. S. (1991a). *Emotion and Adaptation*. Oxford University Press, New York.

Lazarus, R. S. (1991b). `Progress on a cognitive-motivational-relational theory of emotion', *American Psychologist*, *46*, 819–834.

Lazarus, R. S. (1991c). Cognition and motivation in emotion. *American Psychologist*, *46*, 352–367.

Leary, M. R. & Kowalski, R. M. (1995). *Social anxiety.* New York: The Guilford Press.
Leary, M. R. (1983a). Social anxiousness: The construct and its measurement. *Journal of Personality Assessment, 47,* 66–75.
Leary, M. R. (1983b). *Understanding Social Anxiety: Social, Personal and Clinical Perspectives*. Beverly Hills: Sage.
Leary, M. R. (1991). Social anxiety, shyness, and related constructs. In J. Robinson, P. Shaver & L. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 161–194). New York: Academic.
Leary, M. R. (2001a). Shyness and the self: Attentional, motivational, and cognitive selfrprocesses in social anxiety and inhibition. In W. R. Crozier & L. E. Alden (Eds.), *International handbook of social anxiety: Concepts, research and interventions relating to the self and shyness* (pp. 217–234). New York: Wiley.
Leary, M. R. (2001b). Social anxiety as an early warning system: A refinement and extension of the self-presentation theory of social anxiety. In S. G. Hofmann & P.M. DiBartolo (Eds.), *From social anxiety to social phobia: Multiple perspectives* (pp. 321–334). Boston: Allyn and Bacon.
Leary, M. R. (2001c). The self we know and the self we show: Self-esteem, self-presentation, and the maintenance of interpersonal relationships. In G. J. O. Fletcher and M. S. Clark (Eds.). *The Blackwell handbook in social psychology: Interpersonal processes* (pp. 457–477). Oxford, England: Blackwell.
Leboyer, F. (1974). *For birth without violence*. Wildwood Press, London.
Lecrubier, Y., Wittchen, H. U., Faravelli, C., Bobes, J., Patel, A., Knapp, M. (2000). A European perspective on social anxiety disorder. *European Psychiatry*,*15*(1), 5–16.
LeDoux, J. E. (1996). *The emotional brain*. New York: Simon & Schuster.
Lega, L. I. & Ellis, A. (2001). Rational Emotive Behavior Therapy (REBT) in the New Millenium: A cross-cultural approach. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, *19*(4), 201–222.
Leitenberg, H. (1990). *Handbook of social and evaluation anxiety*. New York, NY, US: Plenum Press.
Leventhal, H. & Scherer, K. (1987). The Relationship of Emotion to Cognition: A Functional Approach to a Semantic Controversy. *Cognitive Emotion*, *1,* 3–28.
Levin, I. & Stokes, J. (1986). An examination of the relation of individual difference variables to loneliness. *Journal of Personality, 54*, 201–217.
Levin, J. (1996). Religion in aging and health: theoretical foundations and
Lewinsohn, P. M. & Clarke, G. N. (1999). Psychosocial treatments for adolescent depression. *Clinical Psychology Review*, *19* (3), 329–342.
Lewinsohn, P. M., Hops, H., Roberts, R. E., Seeley, J. R. & Andrews, J. A. (1993). Adolescent psychopathology, I: Prevalence and incidence of depression and other DSM-III-R disorders in high school students. *Journal of Abnormal Psychology*, *102,* 133–144.
Lieb, R., Becker, E., Altamura, C., (2005). The epidemiology of generalized anxiety disorder in Europe. *Journal of European Neuropsychopharmacology*, *15*, 445–452.
Liebowitz, M. R, Gorman, J. M., Fyer, A J. & Klein, D. F. (1985). Social phobia: Review of a neglected anxiety disorder. *Archives of General Psychiatry*, *42*, 729–736.
Liebowitz, M. R, Schneier, F., Gitow, A., Feerick, J. (1993). Reversible monoamine oxidase-A inhibitors in social phobia. *Clinical Neuropharmacology*, *16*, 83–88.
Liebowitz, M., Heimberg, R., Fresco, D., Travers, J. & Stein, M. (2000). Social phobia or social anxiety disorder: what's in a name? *Archives of general Psychology*, *57*, 191–192.

Liebowitz, M.R., Gorman, J.M., Fyer, A.J., et al. (1985). Social phobia: Review of a neglected anxiety disorder. *Arch Gen Psychiatry*, *42*(7):729–736.
Lilly, J. C. (1956). Mental effects of reduction of ordinary levels of physical stimuli on intact, healthy persons. *Psychiatric Research Reports*, *5*,1–9.
Lilly, J. C. (1977). *The Deep Self*. New York: Simon & Schuster.
Lisak, R. P. Truong, D., Carroll, W. & Bhidayasiri, R. (2009). *International neurology: a clinical approach*. Wiley-Blackwell, London.
Lloyd, A. J. & Shurley, J. T. (1976). The effects of sensory perceptual isolation on single motor unit conditioning. *Psychophysiology*, *13*, 340–344.
Lohr, J. M. & Bonge, D. (1981). On the distinction between illogical and irrational beliefs and their relationship to anxiety. *Psychological Reports*, *48*, 191–194.
Lohr, J. M. & Bonge, D. (1982). The factorial validity of the irrational beliefs test: A psychometric investigation. *Cognitive Therapy and Research, 6*, 225–230.
Lugo, J. & LeMonda, C. S. (2008). Family Resources and Parenting Quality: Links to Children's Cognitive Development Across the First 3 Years. *Child Development, 79*(4), 1065–1085.
Luisada, P. V. & Brown, B. I. (1976). Clinical management of the phencyclidine psychosis. *Clinical Toxicology*, *9*, 535–545.
Luthar, S. (2003). The Culture of Affluence: Psychological Costs of Material Wealth. *Child Development, 74*(6), 1581–1593.
Luthar, S. S. & Becker, B. E. (2002). Privileged but pressured: A study of affluent youth. *Child Development*. *73*:1593–1610.
Luthar, S. S.& D'Avanzo, K. (1999). Contextual factors in substance use: A study of suburban and inner-city adolescents. *Development and Psychopathology*, *11*(4), 845–867.
Lyons, L. C. & Woods, P. J. (1991). The efficacy of rational-emotive therapy: A quantitative review of the outcome research. *School Psychology Review*, *11*, 357–369.
MacInnes, D. (2004). The theories underpinning rational emotive behaviour therapy: Where's the supportive evidence? *International Journal of Nursing Studies*, *41*(6), 685–695.
Maddi, S. R. (1967). The existential neurosis. *Journal of Abnormal Psychology*, *72*(4), 311–325.
Magee, W. J., Eaton, W. W., Wittchen, H. U., McGonagle & K.A., Kessler, R. C. (1996). Agoraphobia, simple phobia, and social phobia in the National Comorbidity Survey. *Archives of General Psychiatry*, *53*, 159–168.
Mahoney, M. J. & Arnkoff, D. (1978). Cognitive and self-control therapies. In *Handbook of psychotherapy and behaviour change: An empirical analysis*, ed. S.L. Garfield and A.E. Bergin, 689–722. New York: John Wiley & Sons.
Mahoney, M. J. (1990). Applications of flotation REST in personal development. In J. W. Turner & T. H. Fine (Eds.), *Restricted environmental stimulation* (pp. 174–180). Ohio: Medical College of Ohio Press.
Malouff, J. M. & Schutte, N. S. (1986). Development and validation of a measure of irrational belief. *Journal of Consulting and Clinical Psychology*, *54*, 860–862.
Malouff, J. M. (1992). Examination of the relationship between irrational beliefs and state anxiety. *Personality and Individual Differences*, *13*, 451–456.
Malouff, J. M., Schutte, N. S. & McClelland, T. (1992). Examination of the relationship between irrational beliefs and state anxiety. *Personality and Individual Differences*, *13*, 451–456.
Mandler, G. (1975). *Mind and Emotion*. New York: Wiley.

Mandler, G. (1990). A constructivist theory of emotion. In N. S. Stein, B. L. Leventhal & T. Trabasso (Eds.). *Psychological and Biological Approaches to Emotion* (pp 21–43). Hillsdale, NJ: Erlbaum.

Marks, I. M. (1970). The classification of phobic disorders. *British Journal of Psychiatry, 116*, 377–86.

Marks, M. & Gelder, M. (1966). Different ages of onset in varieties of phobia. *American Journal of Psychiatry*, *12*(3): 218–21

Maroldo, G. (1981). Shyness and loneliness among college men and women. *Psychological Reports*, *48*, 885–886.

Marzillier, J. S., Lambert, C. and Kellett, J. (1976) A controlled evaluation of systematic desensitization and social skills training for social inadequate psychiatric patients. *Behavioural Research Therapy*, *14*, 225–228.

Masia, C. L., Klein, R. G., Storch, E. A. & Corda, B. (2001). School-based behavioral treatment for social anxiety disorder in adolescents: Results of a pilot study. *Journal of the American Academy of Child and Adolescent Psychiatry*, *40*, 780–786.

Masia-Warner, C., Fisher, P. H., Shrout, P. E., Rathor, S. & Klein, R. G. (2007). Treating adolescents with social anxiety disorder in school: An attention control trial. *Journal of Child Psychology and Psychiatry*, *48*, 676–686.

Master, S. & Gershman, L. (1983). Physiological responses to rational emotive self-verbalizations. *Journal of Behavior Therapy and Experimental Psychiatry*, *14*, 289–296.

Mathews, A. (1990). Why worry? The cognitive function of anxiety. *Behaviour Research and Therapy*, *28*, 455–468.

Matsudaira, T. & Kitamura, T. (2006). Personality Traits as Risk Factors of Depression and Anxiety Among Japanese Students. *Journal of Clinical Psychology*, *62*(1), 97–109.

Mattick, R. P., Kimber, J., Breen, C. & Davoli, M. (2004). Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence. *Cochrane Database System Review*, *3*(2).

Mattick, R. P., Page, A. C. & Lampe, L. (1995). Cognitive and behavioural aspects. In M. B. Stein (Ed.), *Social phobia: Clinical and research perspectives* (pp. 189–227). Washington: American Psychiatric Press.

Mattick, R. P., Peters, L. & Clarke, J. C. (1989). Exposure and cognitive restructuring for social phobia: A controlled study. *Behaviour Therapy*, *20*, 3–23.

Maultsby, M. (1984). *Rational Behaviour Therapy*. Prentice-Hall, NJ.

May, R. (1961). Existential bases of psychotherapy. In R. May (Ed.). *Existential psychology* (75–84). Random House: New York.

McDermut, J. F. & Waga, D. (2003). Cognitive bias and irrational beliefs in major depression and dysphoria. *Journal cognitive therapy and research*, *27* (2003), pp. 9–470.

McDermut, J. F., Haaga, D. A. F. & Bilek, L. A. (1997). Cognitive bias and irrational beliefs in major depression and dysphoria. *Cognitive Therapy and Research*, *21*, 459–476.

McDonald, S. D., Hartman, N. & Vrana, S. R. (2008). Trait anxiety, disgust sensitivity, and the hierarchic structure of fears. *Journal of Anxiety Disorders*, *22*, 1059–1074.

McGovern, T. & Silverman, M. (1984). A review of outcome studies on rational-emotive therapy. *Journal of Rational-Emotive Therapy*, *2*, 7–18.

McGrady, A. V. Turner, J. W. Jr. Fine, T. H. & Higgins, J. T. (1987). Effects of biobehaviourally-assisted relaxation training on blood pressure, plasma renin, cortisol, and aldosterone levels in borderline essential hypertension. *Clinical Biofeedback & Health*, *10*(1), 16–25 .

McGrady, A.V. Turner, J.W. Jr. Fine, T.H. & Higgins, J.T. (1987). Effects of biobehaviorally-assisted relaxation training on blood pressure, plasma renin, cortisol, and aldosterone levels in borderline essential hypertension. *Clinical Biofeedback & Health*, *10*(1), 16-25.

McManus, F., Grey, N., Shfran, R. (2008). Cognitive Therapy for Anxiety Disorders: Current Status and Future Challenges. *Behavioural and Cognitive Psychotherapy, 36, 695–704.*

McWhirter, B. T. (1990). Loneliness: A review of current literature, with implications for counselling and research. *Journal of Counselling and Development*, *68*, 417–422.

Meehl, P. E. (1962). Psychopathology and pur-pose. In P. Hoch & J. Zubin (Eds.), *The future of psychiatry* (pp. 61–69). New York: Grune and Stratton.

Mele, A. R. (1987). *Irrationality: An Essay on Akrasia, Self-Deception and self-control*. Oxford University Press, Oxford.

Meleis, A. (1982). Arab Students in Western Universities: Social Properties and Dilemmas. *The Journal of Higher Education*, *53*(4): 439–447.

Meleshko, K. J. A. & Alden, L. E. (1993). Anxiety and self-disclosure: Toward a motivational mode. *Journal of Personality and Social Psychology*, *64*, 1000–1009 .

Melfsen, S., Kühnemund, M., Schwieger, J., Warnke, A., Stadler, C., Poustka, F. & Stangier, U. (2011). Cognitive behavioural therapy of socially phobic children focusing on cognition: a randomised wait-list control study. *Child Adolescent Psychiatry Mental Health*, 5: 5, doi: 10.1186/1753–2000–5–5.

Mental Health Foundation (2005) Statistics on mental health fact sheet. Retrieved online from www.mentalhealth.org.uk/page.cfm?pagecode=PMMHST (Accessed February 13th, 2009).

Merrell, K. W. (2001). *Helping students overcome depression and anxiety: A practical guide*. New York, NY: The Guilford Press.

Mersch, P. P. A., Emmelkamp, P. M. G., Bögels, S. M. & van der Sleen, J. (1989). Social phobia: Individual response patterns and the effects of behavioural and cognitive interventions. *Behaviour Research and Therapy*, *27*, 421–434.

Mersch, P. P. A., Jansen, M. A. & Arntz, A. (1994). Social phobia: The influence of avoidant personality disorder on treatment outcome. *Journal of Personality Disorders*, *9*, 143–159.

methodological frontiers. Thousand Oaks, CA: Sage Publishing, Inc.

Metzger, R. L., Miller, M., Cohen, M., Sofka, M. & Borkovec, T. D. (1990). Worry changes in decision-making: The effect of negative thoughts on cognitive processing. *Journal of Clinical Psychology*, *46*, 78–88.

Michail, M. & Birchwood, M. (2009). Social anxiety disorder in first-episode psychosis: incidence. *Journal of Psychiatry*, *195*:234–41.

Michelson, L, June, K., Vives, A., Testa, S. & Marchione, N. (1998). The role of trauma and dissociation in cognitive-behavioural psychotherapy outcome and maintenance for panic disorder with agoraphobia. *Behaviour Research and Therapy*, *36* (11), 1011–1050.

Miller, R. S. (1995). On the nature of embarassability: Shyness, social evaluation and social skill. *Journal of Personality*, *63*, 315–339.

Mineka, S. & Zinbarg, R. (2006). A contemporary learning theory perspective on the aetiology of anxiety disorders: It's not what you thought it was. *American Psychologist*, *61*, 10–26.

Mohamed, H. (1992). *The relationship between irrational beliefs and psychological stresses*. (Unpublished Ph.D. thesis) University of Baghdad, Iraq.

Monroe, S. M. & Simons, A. D. (1991). Diathesis-stress theories in the context of life stress research: Implications for the depressive disorders. *Psychological Bulletin*, *110*(3), 406–425.
Monti, P. M., Boice, R., Fingeret, A. L., Zwick, W. R., Kolko, D., Munroe, S. & Grunberger, A. (1984). Midi-level measurement of social anxiety in psychiatric and non-psychiatric samples. *Behaviour Research and Therapy*, *22*, 651–660.
Moore, J. (2006). *Changing the way you think can change the way you feel: a program design utilising rational emotive behaviour group therapy*. (Unpublished Ph.D.) The Chicago School of Professional Psychology.
Moriarty G. 2002. *Sharing practice: A guide to self-evaluation in the context of social exclusion*. London: Arts Council England.
Morris, B. (1993). A rational-emotive treatment program with conduct-disordered and attention-deficit hyperactivity disorder adolescents. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, *11*, 123–134.
Morris, T. & March, J. (2004). *Anxiety Disorders in Children and Adolescents*. 2nd ed. The Guilford Press: London.
Mosher, D. L. & White, B. B. (1981). On differentiating shame and shyness. *Motivation and Emotion*, *5*, 61–74.
Mukangi, A. (2010). The role of birth order in subsetance related disorders. *Journal of Language, Technology & Entrepreneurship in Africa*, *2*(2), 221–237.
Munro, B. H. (2005). *Statistical methods for health care research*. Philadelphia: Lippincott, Williams & Wilkins.
Muran, J. C. & Segal, Z. V. (1992). The development of an idiographic measure of self-schemas: An illustration of the construction and use of self-scenarios. *Psychotherapy*, *29*, 524–535.
Muran, J. C. (1991). A reformulation of the ABC model in cognitive psychotherapies: Implications for assessment and treatment. *Clinical Psychology Review*, *11*, 399–418.
Muran, J. C., Kassinove, H., Ross, S. & Muran, F. (1989). Irrational thinking and negative emotionality in college students and applicants for mental health services. *Journal of Clinical Psychology*, *45*, 188–93.
Musa, C. & Lepine, J. (2000). Cognitive aspects of social phobia: A review of theories and experimental research. *European Psychiatry*, *15*, 59–66.
Myers, D. G. (2000). The funds, friends, and faith of happy people. *American Psychologist*, *55*:56–67.
Nadeem, A. (1998). Contextual obstacles to adult development; A comparative study.*Journal of Taiz University*, *1*, 19–42.
Nantel-Vivier, A. (2010). *Patterns and Correlates of Prosocial Behaviour Development*. (Unpublished Doctoral dissertation, McGill University, Montreal, 2010).
Nardone G. (1996). *Brief Strategic Solution – Oriented Therapy of Phobic and Obsessive Disorders*. Aronson, New Jersey.
Neenan, M. & Dryden, W. (1999). *Rational emotive behavior therapy: Advances in theory and practice.* London, England: Whurr.
Newman, D. L., Moffitt, T. E., Caspi, A., Magdol, L., Silva, P. A. & Stanton, W. R. (1996). Psychiatric disorder in a birth cohort young adults: Prevalence, comorbidity, clinical significance, and new case incidence from ages 11 to 21. *Journal of Consulting and Clinical Psychology*, *64*(3), 552–562.
Niedenthal, P. M., Barsalou, L. W., Winkielman, P., Krauth-Gruber, S. & Ric, F. (2005). Embodiment in attitudes, social perception, and emotion. *Personality and Social Psychology Review*, *9*, 184–211.

Nielsen, L. (2003). How deep can we go? How deep should we go? Irrational beliefs as schemata. In W. Dryden (Ed.), *Rational Emotive Behaviour therapy: Theoretical developments* (pp. 77–107). London: Brunner-Routledge.

Nielsen, S. L.,Johnson, W. B. & Ridley, C. R. (2000). Religiously-sensitive Rational Emotive Behavior Therapy: Theory, techniques, and brief excerpts from a case. *Professional Psychology: Research and Practice*, *31*, 21–28.

NIMH. (2006). Generalized Anxiety Disorder, National Institute of Mental Health, U.S. Dept. of Health and Human Services. Retrieved online from http://www.nimh.nih.gov/healthinformation/gadmenu.cfm (Accessed December 30th, 2009)

Norlander, T., Bergman, H. & Archer, T. (1998). Effects of flotation REST on creative problem solving and originality. *Journal of Environmental Psychology*, *18*, 399–408.

Norlander, T., Bergman, H. & Archer, T. (1999). Primary process in competitive archery performance: Effects of flotation REST. *Journal of Applied Sport Psychology*, *11*, 194–209.

Norlander, T., Kjellgren, A. & Archer, T. (2003). Effects of flotation- versus chamber restricted environmental stimulation technique (REST) on creativity and realism under stress and non-stress conditions. *Imagination, Cognition and Personality*, *22*, 341–357.

Norton, P. J., Sexton, K. A., Walker, J. R. & Norton, G. R. (2005). Hierarchical model of vulnerabilities for anxiety: Replication and extension with a clinical sample. *Cognitive Behaviour Therapy*, *34*, 49–63.

Nunnally, J. C. (1982). Reliability of measurement. In H. E. Mitzel (Ed.), *Encyclopedia of educational research* (pp. 1589–1601). New York, NY: Free Press.

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory*. New York: McGraw-Hill.

O'Toole, P. (1997). *Effects of rational emotive suggestions and restricted environmental stimulation on rational thinking and social anxiety in college students*. (Unpublished PhD,) Washington State University.

O'Brien, M., Balto, K., Erber, S. & Gee, C. (1995). College students' cognitive and emotional reactions to simulated marital and family conflict. *Cognitive Therapy and Research*, *19*, 707–724.

O'Brien, M., Margolin, G., John, R. S. & Krueger, L. (1991). Mothers' and sons' cognitive and emotional reactions to simulated marital and family conflict. *Journal of Consulting and Clinical Psychology*, *59*, 692–703.

Oei T. P. S., Henley J. & Miller S. (1993). The empirical status of rational beliefs in rational emotive therapy. *Australian Psychologist*, *28*, 195–200.

Ohman, A. & Dimberg, U. (1978). Facial expressions as conditioned stimuli for electrodermal responses: A case of 'preparedness'. *Journal of Personality and Social Psychology*, *36*, 1251–1258.

Ohman, A. (2000). Fear and anxiety: Evolutionary, cognitive, and clinical perspectives. In M. Lewis & J. M. Haviland-Jones (Eds.). *Handbook of emotions*. (pp.573–593). New York: The Guilford Press.

Orlans, V. & van Scoyo, S. (2009). *A Short Introduction to Counselling Psychology*. SAGE Publications Ltd, London.

Ormel J. et al. (1994). Common mental disorders and disability across cultures: results from the WHO collaborative study on psychological problems in General Health Care. *The Journal of American Medical Association (JAMA)*, 1994;272:1741-1748.

Ormrod, J. E. (2006). *Educational psychology: Developing learners* (5th ed.). Upper Saddle River, N. J.: Pearson/Merrill Prentice Hall.

Osman, A., Barrios, F. X., Haupt, D., King, K., Osman, J. R. & Slavens, S. (1996). The Social Phobia and Anxiety Inventory: Further evaluation in two nonclinical samples. *Journal of Psychopathology and Behavioural Assessment*, *18*, 35–47.
Ouellet, R. & Joshi, P. (1986). Loneliness in relation to depression and self-esteem. *Psychological Reports*, *58*, 821–822.
Ovadia, F. T. (1979).*Twenty-four hour sensory deprivation: Its effects on smoking and eating behaviours.* (Unpublished MA thesis.) The University of New South Wales.
Overall, J. & Doyle, S. (1994). Estimating sample sizes for repeated measurement designs. *Controlled Clinical Trials*, *15*, 100–23.
Pace, R. (2006). *Effects of rational emotive behaviour therapy on self-seteem and depression within faith-based populations*. (Unpublished ED.D.) Graduate School of Texas Southern University.
Patel, A., Knapp, M., Henderson, J., Baldwin, D. (2002). The economic consequences of social phobia. *Journal of Affective Disorders, 68*, 221–233.
Patterson, C. H. (1980). *Theories of Counseling and Psychotherapy*. (3rd ed.). New York: Harper & Row, Publishers.
Patterson, C. H. (2000) *Understanding psychotherapy: Fifty years of client-centred theory and practice*. Ross-on-Wye: PCCS Books.
Paulhus, D. L., Fridhandler, B. & Hayes, S. (1997). Psychological defense: Contemporary theory and research. In J. Johnson, R. Hogan & S. R. Briggs (Eds.), *Handbook of personality psychology* (pp. 543–579). New York: Academic Press.
Pavlov, I. P. (1927). *Conditional reflexes*. London: Oxford University Press.
Pears, D. (2009). *Motivated irrationality*. Clarendon Press, New York.
Pecoraro, A. (2006). *Cognitive Behavioural, Psycho-analitic, and Psycho-physiological Factors Associated with High Test Anxiety among College Students*. (Ph.D. Dissertation.) The School of Human Services Professions, Widener University, 1−226.
Pelusi, W. (2007). Albert Ellis on confidence. *Psychology Today*, *40*(2), 112– 112.
Perkins, A., Kemp, S. E. & Corr, P. J. (2007). Fear and anxiety as separable emotions: An investigation of the revised reinforcement sensitivity theory of personality. *Emotion*, *7*, 252–261.
Piaget, J. (1926). *The Language and Thought of the Child*. New York: Harcourt Brace & Company.
Piaget, J. & Inhelder, B. (1958). *The growth of logical thinking*. New York: Basic Books.
Piaget, J. (1968). *Genetic epistemology.* New York, NY: Columbia University Press.
Pickering, A. D., Díaz, A. & Gray, J. A. (1995). Personality and reinforcement: An exploration using a maze-learning task. *Personality and Individual Differences*, *18*, 541–558.
Pilkonis, P. A. (1977). Shyness, public and private, and its relationship to other measures of social behaviour. *Journal of Personality*, *45*, 585–595 .
Pittman, F.S. (1985). Children of the rich. *Family Process*, *24*: 461–472.
Plotkin, W. B. (1978). Long-term eyes-closed alpha-enhancement training: Effects on alpha amplitudes and on experiential state. *Psychophysiology*, *15*, 40–52.
Plutchik, R. (1976). Emotions and attitudes related to being overweight. *Journal of Clinical Psychology*, *32*, 21–24.
Ponzetti, J. (1990). Loneliness among College Students. *Family Relations*, *39*(3), 336–340.
Pozo, C., Carver, C. S., Wellens, A. R. & Scheier, M. F. (1991). Social anxiety and social perception: Construing others' reactions to the self. *Personality and Social Psychology Bulletin*, *17*, 355–362.

Quest Consulting. (2004). Quest conducts major study about Saudi Youth. Retrieved online from www.highbeam.com (Accessed June 21st 2008).
Qureshi, N., Al-Habeeb, T. Al-Ghamdi, Y. Magzoub, M. & Van Der Molen H. (2001), Psychiatric co-morbidity in primary care and hospital referrals, Saudi Arabia. La Revue De Sante de la Mediterrane Orientale, 7(3), 492-501.
Rachman, S. (Ed.). (1983). Fear and courage among military bombdisposal operators [Special issue]. *Advances in Behaviour Research and Therapy*, *4*(3), 175–176.
Racy, J. (1980). Somatization in Saudi Women: a therapeutic challenge. *British Journal of Psychiatry 137*: 212–216.
Ramanaiah, N. V., Conn, S. R. & Schill, T., (1987). On the content saturation of the Buss-Durkee Hostility Inventory Scales. *Psychology. Rep. 61,* 591–594.
Rapee, R. M. & Heimberg, R. G. (1997). A cognitive-behavioural model of anxiety in social phobia. *Behaviour Research and Therapy, 35*:741–756.
Rapee, R., Gaston, J. & Abbott, M. (2009). Testing the efficacy of theoretically derived improvements in the treatment of social phobia. *Journal of Clinical Psychology, 77* (2), 317–27.
Rateeb, N. (2000). *Correlation between irrational beliefs and social anxiety in college juniors in Damascus University*. (Unpublished MA,) Damascus University, Syria.
Raudenbush, S. & Liu X. (2001). Effects of study duration, frequency of observation, and sample size on power in studies of group differences in polynomial change. *Psychological Methods*, *6*: 387–401.
Raynor, C. M. (1992). Managing angry feelings: Teaching troubled children to cope . *Perspectives in Psychiatric Care*, *28*, 11–14.
Reardon, J. & Williams, N. (2007). The specificity of cognitive vulnerabilities to emotional disorders: Anxiety sensitivity, looming vulnerability and explanatory style. *Journal of Anxiety Disorders*, *21*, 625–643.
Regier, D. A., Boyd, J. H., Burke, J. D., Rae, D. S., Myers, J. K., Kramer, M., … Locke, B. Z. (1988) One-month prevalence of mental disorders in the United States. *Archives of General Psychiatry*, *45*, 977–986.
Reinecke, M., Dattilio, F. & Freeman, A. (2006). *Cognitive therapy with children and adolescents*. New York, NY: Guilford Press
Reno, R. R. & Kenny, D. A. (1992). Effects of self-consciousness and social anxiety on self-disclosure among unacquainted individuals: An application of the Social Relations Model. *Journal of Personality*, *60*(1), 79–94.
Rhazis, A. (1950). *The Spiritual Physick*. (Arthur J. Arberry, trans.) London: John Murray.
Rheingold, A., Herbert, J. & Franklin, M., (2003) Cognitive bias in adolescents with social anxiety disorders. *Cognitive Therapy Research, 27*(6): 639–655.
Riccardi, C. (2009). *The role of loneliness in the relationship between social anxiety and substance use*. (Unpublished MA.) The Florida State University. Retrieved online from http://etd.lib.fsu.edu/theses/available/etd-09222009–085607/unrestricted/Riccardi_C_Thesis_2009.pdf (Accessed May 3rd 2009)
Richards, T. (2012). What is the Difference Between Social Anxiety and Panic Disorder? Retrieved online from www.socialanxietyinstitute.org/diff.html
Robb, H. B. & Warren, R. (1990). Irrational beliefs tests: New insights, new directions. *Journal of Cognitive Psychotherapy*, *4*, 303 311.
Roberts, R. E., Roberts, C. R. & Chan, W. (2009). One-year incidence of psychiatric disorders and associated risk factors among adolescents in the community. *Journal of Child Psychology and Psychiatry*,*50*(4), 405–415.
Rodebaugh, T. L., Woods, C. M., Thissen, D. M., Heimberg, R. G., Chambless, D. L. & Rapee, R. M. (2004). More information from fewer questions: The factor structure

and item properties of the original and Brief Fear of Negative Evaluation Scale. *Psychological Assessment*, *16*, 169–181.
Rogers, C. R. (1951). *Client-centred therapy: Its current practice, implications, and theory*. Boston: Houghton Mifflin.
Rogers, C. R. (1961). *On Becoming a Person: A Therapist's View of Psychotherapy*. London: Constable.
Rohsenhow, D. & Smith, R. (1982). Irrational beliefs as predictors of negative affective states. *Motivation and Emotion*, *6*, 299–314.
Rokeach, M. (1986). *Beliefs, attitudes and values: A theory of organization and change*. San Francisco, CA: JosseyBass Publishers.
Rosen, J. B. & Schulkin, J. (1998). From normal fear to pathological anxiety. *Psychological Review*, *105*, 325-350.
Rosenbaum, T., McMurray, N. E. & Campbell, I. M. (1991). The effects of rational emotive education on locus of control, rationality and anxiety in primary school children. *Australian Journal of Education*, *35*, 187–200 .
Ross, M. & Sicoly, F. (1979). Egocentric biases in availability and attribution. *Journal of Personality and Social Psychology*, *37*, 322–336.
Rothbart, M.K. & Derryberry, D. (1981). Development of individual differences in temperament. In M.E. Lamb & A.L. Brown (Eds.), *Advances in developmental psychology*, *1*, 37–86. Hillsdale, NJ: Erlbaum.
Rowa, K. & Antony, M. (2005). Psychological treatments for social phobia. *Canadian Journal of Psychiatry*, *50*, 308–315.
Rubin, K. H. & Asendorpf, J. B. (1993). Social withdrawal, inhibition, and shyness in childhood: Conceptual and methodological issues. In K. H. Rubin & J. B. Asendorpf (Eds.), *Social withdrawal, inhibition and shyness in childhood* (pp. 359). Hillsdale, New Jersey: Lawrence Erlbaum.
Ruth, W.J. (1992). Evolutionary psychology and rational emotive theory: Time to open the floodgates. *Journal of Rational Emotive and Cognitive Behavior Therapy*, *11*, 235 248.
Rzewnicki, R. Alistair, B. C. Wallbaum, Steel, H. & Suedfeld, P, (1990). REST for muscle contraction headaches: A comparison of two REST environments combined with progressive muscle relaxation training. *Restricted Environmental Stimulation: Research and Commentary*, 245–254 .
Sadek, A. (1988). *Psychiatry*. Saudi Publishing house.
Safren S. A., Heimberg R. G., Brown E. J. & Holle C. (1997): Quality of life in social phobia. *Depress Anxiety 4*:126–133.
Saleh, A. Z. (1985). *Educational psychology*. (10th edition). Al-Nahda Egyptian Bookshop Publishing House. Cairo.
Saleh, M. (1987). Counseling and guidance in the Kingdom of Saudi Arabia. *International Journal for the Advancement of Counselling*. *10*(4): 277–286.
Sanders, R. S, Reyher. J. (1972).The clinical applicability of nude figure drawings. *Journal of Personality Assessment*, *36*(3):254–62.
Sandlund, E. S., Linnarud, M. & Norlander, T. (2001). Effects of stress versus flotation–REST relaxation on creativity and literacy skills in advanced English as a second language (ESL) composition. *International Journal of Language & Communication*, *15*, 95–113.
SANE (2004) Entry for Anxiety, phobia and obsession. Retrieved online from www.sane.org.uk/About_Mental_Illness/Anxiety_Phobia_Obsession.htm (Accessed February 13th, 2009).
Sarantakos, S. (1993). *Social Research*. Basingstoke, Macmillan

Sarhan, W., Al-Khateeb, G. & Habashna, M. (2001). *Behaviours: Depression and Social Anxiety Disorder*. Psychological Studies Centre, Tripoli.

Sauter, F. M., Heyne, D. A. & Westenberg, P. M. (2009). Cognitive behavior therapy for anxious adolescents: Developmental influences on treatment design and delivery. *Clinical Child and Family Psychology Review, 12*(4), 310–335.

Schachter, S. & Singer, J., (1962). Cognitive, Social, and Physiological Determinants of Emotional State. *Psychological Review, 69, 379–399.*

Schechter, M. D., Shurley, J. T., Toussieng, P. W. & Maier, W. J. (1969). Sensory isolation therapy of autistic children: A preliminary report. *Journal of Paediatrics, 74*, 564–569.

Schelver, S. R. & Gutsch, K. (1983). The effects of self-administered cognitive therapy on social-evaluative anxiety. *Journal of Clinical Psychology, 39*,658–666.

Schlenker, B. R. & Leary, M. R. (1985). Social anxiety and communication about the self. *Journal of Language and Social Psychology, 4*, 171–192 .

Schlenker, B. R., Weigold, M. F. & Hallam, J. R. (1990). Self-serving attributions in social context: Effects of self-esteem and social pressure. *Journal of Personality and Social Psychology, 58*, 855–863.

Schlenker, B. R.,& Leary, M. R. (1982). Social anxiety and self-presentation: A conceptualization and model. *Psychological Bulletin, 92*, 641–669.

Schmitt, J. P. & Kurdek, L. A. (1984). Correlates of social anxiety in college students and homosexuals. *Journal of Personality Assessment, 48*,403–409.

Schneider, F. R., Blanco, C., Antia, S. X., Liebowitz, M. R. (2002). The social anxiety spectrum. *Psychiatric Clinics of North America, 25* (4): 757–774.

Schneider, F. R., Heckelman, L. R., Garnkel, R., Campeas, R., Fallon, B. A., Gitow, A. … Liebowitz, M. R. (1994). Functional impairment in social phobia. *Journal of Clinical Psychiatry 55*, 322–331.

Schneider, F. R., Johnson, J., Hornig, C. D., Liebowitz, M. R., and Weissman, M. M. (1992). Social phobia: Comorbidity and morbidity in an epidemiologic sample. *Archives of General Psychiatry, 49*, 282–288.

Schneider, F. R., Liebowitz, M., Abi-Dargham, A., Zea-Ponce, Y., Lin, S. & Laruelle, M. (2000) Low dopamine D(2) receptor binding potential in social phobia. *American Journal of Psychiatry, 157*, 457459.

Schroeder, J. E. (1995). Self-concept, social anxiety, and interpersonal perception skills. *Personality and Individual Differences*, 19, 955–958.

Schultz, N. R. & Moore, D. (1986). The loneliness experience of college students: Sex differences. *Personality and Social Psychology Bulletin, 12*, 111–119.

Schulz, P. & Kaspar, C. H. (1994). Neuroendocrine and psychological effects of restricted environmental stimulation technique in a floatation tank. *Biological Psychology, 37*, 161–175.

Schwartz, G. (1980). The Use of 'REST' (Restricted Environmental Stimulation Therapy) as a Therapeutic Treatment Model for the Autistic Child: A Pilot Study. *ERIC Document: ED199943*.

Scott, S. (2003). *Towards a Sociology of Shyness*. (Unpublished PhD thesis.) School of Social Sciences, Cardiff University.

Scott, S. (2004a) The shell, the stranger and the competent other: towards a sociology of shyness. *Sociology, 38*, 1, 121–37.

Scott, S. (2004b) Researching shyness: a contradiction in terms? *Qualitative Research, 4* (1), 91–105.

Scott, S. (2005) The red, shaking fool: dramaturgical dilemmas in shyness. *Symbolic Interaction, 28*, 1, 91–110.

Scott, S. (2006). The medicalisation of shyness: from social misfits to social fitness. *Sociology of Health & Illness*, *28*(2), 133–153.
Seligman, M. (1971). Phobias and preparedness. *Behaviour Therapy*, *2*, 307–320.
Seligman, M. E. P., Walker, E. F. & Rosenhan, D. L. (2001). *Abnormal psychology*. (4th ed.) New York: W.W. Norton & Company, Inc.
Seudfeld, Peter. (2013). *History of Floating*. Paper presented at the Portland Float Conference, Oregon State University, Oregon, 9th March 2013.
Shafi, A. & Naseri, G. (1998). *Theories of counseling and psychiatry*. Markaz Nashre Daneshgahi: Tehran, Iran.
Shafran, R. B. (1992). Children of affluent parents. In O'Brien J. D., Pilowsky D. J. (eds.) *Psychotherapies with children and adolescents: Adapting the psychodynamic process*. Washington, DC: American Psychiatric Association, pp. 269–288.
Shapiro, F. (1989). Efficacy of the eye movement desensitization procedure in the treatment of traumatic memories. *Journal of Traumatic Stress*, *2*, 199–222.
Shapiro, F. (1995). *Eye movement desensitization and reprocessing: Basic principles, protocols, and procedures*. New York: Guilford.
Shapiro, F. (2008). Whose recovery? Of what? Relationships and environments promoting grief and growth. *Death Studies*, *32*(1), 40–58.
Shapiro, G. & Markoff, J. (1997). A Matter of Definition. In C.W. Roberts (Ed.). *Text Analysis for the Social Sciences: Methods for Drawing Statistical Inferences from Texts and Transcripts*. Mahwah, NJ: Lawrence Erlbaum Associates.
Sharkin, B. S. & Coulter, L. P. (2005). Empirically supporting the increasing severity of college counselling centre client problems: Why is it so challenging? *Journal of College Counselling*, *8*,165–171.
Sharkin, B. S. (1997). Increasing severity of presenting problems in college counselling centres: A closer look. *Journal of Counselling and Development*, *75*, 275–281.
Sharp, S. (2003). *Effectiveness of an anger management training program based on rational emotive behaviour theory (REBT) for middle school students with behaviour problems*. (Unpublished PhD.), The University of Tennessee.
Shaver, P., Furman, W. & Buhrmester, D. (1985). Aspects of a life transition: Network changes, social skills and loneliness. In S. Duck & D. Perlman (Eds.), *The Sage series in personal relationships, 1*,193–220). London: Sage.
Shear, M. K. & Maser, J. D. (1994). Standardized assessment for panic disorder research. *Archives of General Psychiatry*, *51*, 346–354.
Shorkey, C. T. & Whitman, V. L. (1977). Development of the rational behavior inventory: Initial validity and reliabilities. *Educational and Psychological Measurement*, *37*, 527–534.
Shostrom, E.L. (1963). *Personal Orientation Inventory*. San Diego: Consulting Psychologists Press.
Shotton, M. A. (1988) An exploratory study of computer dependency. (Unpublished PhD thesis, Loughborough University). Retrieved online from www.theses.com/idx/038/it038004281.htm (Accessed June 18th, 2010).
Shrauger, J. S. (1982). Selection and processing of self-evaluative information: Experimental evidence and clinical implication. In G. Weary & H. L. Mirels (Eds.), *Integrations of clinical and social psychology* (pp. 128–153). New York: Oxford University Press.
Sias, J. (2006). *Effects of Religiosity and REBT on Substance Abuse and Mental Health*. Texas: University of Texas Published.

Silverman, M. S., McCarthy, M. & McGovern,T. (1992). A review of outcome studies of rational-emotive therapy. *Journal of Rational-Emotive and Cognitive-Behaviour Therapy, 10*, 111–175.

Silverman, S. & Digiuseppe, R. (2001). Cognitive-Behavioral constructs and chıldren?s behavioral and emotional problems. *Journal of Rational-Emotive & Cognitive-Behavior Therapy, 19*(2): 119–134.

Silverman, W. K. & Kurtines, W. M. (1996). *Anxiety and phobic disorders: A pragmatic approach*. New York: Plenum Press.

Sinclair, R. C., Hoffman, C., Mark, M. M., Martin, L .L. & Pickering, T. L. (1994). Construct accessibility and the misattribution of arousal – Schachter and Singer revisited. *Psychological Science, 5*, 15–19.

Skinner, B. F. (1971). *Beyond Freedom and Dignity*. New York: Alfred A. Knopf.

Smit, F., Cuijpers, P., Oostenbrink, J., Batelaan, N., de Graaf, R. & Beekman, A. (2006). Excess costs of common mental disorders: population-based cohort study. *Journal of Mental Health Policy and Economics*, *9*, 193–200.

Smith, C. and Lazarus, R. S. (1990). Emotion and adaptation. In: Pervin, L. A. (Ed.), *Handbook of Personality: Theory and Research*, pp. 609–637, Guilford Press, New York.

Smith, T. W. & Allred, K. D. (1986). Rationality revisited: A reassessment of the empirical support for the rational-emotive model. In P. C. Kendall (Ed.), *Advances in cognitive-behavioural research and therapy* (Vol. 5, pp.63–87). New York: Academic Press.

Smith, T. W. (1982). Irrational beliefs in the cause and treatment of emotional stress: A critical review of the rational-emotive model. *Clinical Psychology Review*, *2*, 505–522.

Smith, T. W. (1989). Assessment in Rational-Emotive Therapy: Empirical access to the ABCD model. In M. E. Bernard & R. DiGiuseppe (Eds.), *Inside Rational-Emotive Therapy: A critical appraisal of the theory and therapy of Albert Ellis* (pp. 135–153). New York: Academic Press.

Solomon, A., Bruce, A., Gotlib, I. H. & Wind, B. (2003). Individualized measurement of irrational beliefs in remitted depressives. *Journal of Clinical Psychology, 59*, 439–455.

Spence, S., Donovan, C. & Brechman-Toussaint, M. (2000). The treatment of childhood social phobia: The effectiveness of a social skills training-based cognitive behavioural intervention with and without parental involvement. *Journal of the American Academy of Child and Adolescent Psychiatry, 41*, 713–726.

Spielberger, C. D. (1966). Theory and research on anxiety. In C. D. Spielberger (Ed.), *Anxiety and behavior* (pp. 3–20). New York: Academic Press.

St. Lorant, T., Henderson, L. & Zimbardo, P. (2000). Co-morbidity in chronic shyness. *Depression and Anxiety, 12*, 232–237.

St. Lorant, T., Henderson, L., & Zimbardo, P. (2000). Cormobidity in chronic shyness.

Stanley, M. A., Beck, J. G. (2000). Anxiety disorders. *Clinical Psychology Review, 20*(6),731–54.

Stein, K., Jacobsen, P., Greenberg, H. & Lyman, G. (2000). Impact of hot flashes on quality of life among postmenopausal being treated for breast cancer. *Journal of Symptomatology and Management, 19*(6), 436-445.

Stein, M. B. & Chavira, D. A. (1998). Subtypes of social phobia and comorbidity with depression and other anxiety disorders. *Journal of Affective Disorders, 50*, S11–S16.

Stein, M. B. & Kean, Y. M., (2000). Disability and quality of life in social phobia: epidemiologic findings. *American Journal of Psychiatry*, *157*, 1606– 1613.
Stein, M. B., Chartier, M. J., Hazen, A. L., Kozak, M. V., Tancer, M. E., Lander, S. … Walker, J. R. (1998). A direct-interview family study of generalized social phobia. *American Journal of Psychiatry*, *155*(1), 90–97.
Steven, N. (1995). *Cognitive processes in social anxiety: The role of imperatives and self-efficacy*. (Unpublished PhD.) New School for Social Researc).
Stokes, J. (1985). The relation of social network and individual difference variables to loneliness. *Journal of Personality and Social Psychology*, *48*, 981–990.
Strauss, A. & Corbin, J. (1990*). Basics of qualitative research: Grounded theory procedures and techniques.* Newbury Park, CA: Sage Publications, Inc.
Suedfeld, P. & Ikard, F. F. (1974). The use of sensory deprivation in facilitating the reduction of cigarette smoking. *Journal of Consulting and Clinical Psychology*, *42*, 888–895.
Suedfeld, P. (1980*). Restricted environmental stimulation*. New York: Wiley.
Suedfeld, P. (1983). The restricted environmental stimulation technique in the modification of addictive behaviours: Through the centuries to frontiers for the Eighties. *Bulletin of the Society of Psychologists in Addictive Behaviours*, *2*, 231–237.
Suedfeld, P. (1987). Presidential address. *The 3rd international conference on REST, New York City, August, 1987.*
Suedfeld, P., Landon, P. B., Pargament, R. & Epstein, Y. M. (1972). An experimental attack on smoking: Attitude manipulation in restricted environments, III. *International Journal of the Addictions*, *7*, 721–733.
Suedfeld, P., Metcalfe, J. & Bluck, S. (1987). Enhancement of scientific creativity by flotation REST (restricted environmental stimulation technique). *Journal of Environmental Psychology*, *7*, 219–231.
Suedfeld, P., Schwartz, G. & Arnold, W. (1980). Study of restricted environmental stimulation therapy (REST) as a treatment for autistic children. *Journal of Autism and Developmental Disorders*, *10*, 377–378.
Sussman, D. (1996). The quiet disorder: shyness becomes more prevalent as the world goes tech. Retrieved online from
www.service.com/PAW/morgue/cover/1996_Jan_31.COVER31.html (Accessed January 31st, 2009).
Sutherland, S. (1992). Irrationality: Why We Don't Think Straight.New Brunswick, NJ: Rutgers University Press.
Sutton-Simon, K. & Goldfried, M. (1979). Faulty thinking patterns in two types of anxiety. *Cognitive Therapy and Research*, 3, 193–203.
Sutton-Simon, K. (1981). Assessing belief systems: Conceptions and strategies. In S. D. Hollon & P. C. Kendall (Eds.), *Cognitive behavioral interventions: Assessment methods*. New York: Academic Press.
Sutton-Simon, K., DiGiuseppe, R. & Miller, N. (1978). Psychotherapy. *Theory, Research & Practice*, *15*(3), 266–271.
Szadoczky, E., Rı´hmer, Z., Papp, Z., Furedi, J. (1997). The prevalence of affective and anxiety disorders in primary care practice in Hungary. *Journal of Affective Disorders*, *43*, 239–244.
Szentagotai, A., Schnur, J., DiGiuseppe, R., Macavei, B., Kallay, E. & David, D. (2005). The organization and the nature of irrational beliefs: schemas or appraisal? *Journal of Cognitive and Behavioral Psychotherapies*, *5*, 139–158.
Taher, S. (1995). *Irrational beliefs in college students: correlations with stress and coping strategies*. (Unpublished Ph.D.) Faculty of Education, Al-Mustanseria University.

Tanion, C., Abou-Saleh, M, Karam, A.Salamoum, M. Mneimneh, Z. and Karam, Z. (2009), The epidemiology of anxiety disorders in the Arab world: A review, Journal of Anxiety Disorders, 23 (2009) 409-419.
Taylor, S. (1996). Meta-analysis of cognitive-behavioural treatment for social phobia. *Journal of Behavioural Therapy & Experimental Psychiatry*, *27*:1–9.
Taylor, S. J. & Bogdan, R. (1984). *Introduction to qualitative research methods: The search for meanings*. New York: John Wiley & Sons.
Tellegen, A. (1985). Structures of mood and personality and their relevance to assessing anxiety, with an emphasis on self-report. In A.H. Tuma & J.D. Maser (Eds.), *Anxiety and the anxiety disorders* (pp. 681–706). Hillsdale, NJ: Lawrence Erlbaum.
Terjesen, M. D., Salhany, J., Sciutto, M. J. (2009). A psychometric review of measures of irrational beliefs: Implications for psychotherapy. *Journal of Rational Emotive & Cognitive Behaviour Therapy*, *27*(2), 83–96.
Tessler, R. & Mechanic, D. (1978). Psychological distress and perceived health status. *Journal of Health and Social Behaviour*, *19*, 254–262.
Thayer, J. F., Friedman, B. H. & Borkovec, T. D. (1996). Autonomic characteristics of generalized anxiety disorder and worry. *Biological Psychiatry*, *39*, 255–266.
Thomas, A. & Chess, S. (1977). *Temperament and development*. New York: Brunner/Mazel.
Thomas, C. D. & Freeman, R. J. (1990). The Body Esteem Scale: Construct validity of the female subscales. *Journal of Personality Assessment*, *54*, 204–212.
Thompson, A. & Taylor, N. eds. (2006). *Hamlet.* The Arden Shakespeare, third ser. Volume one. London: Arden.
Thompson, S. K. (1990). Adaptive cluster sampling. *Journal of the American Statistical Association*, *85*, 1050–1059.
Thyer B. A., Parrish, R. T., Curtis, G. C., Nesse, R. M. & Cameron, O. G. (1985). Ages of onset on DSMIII anxiety disorders. *Comprehensive Psychiatry 26*, 117–122.
Tiba, A. (2010). A grounded cognition perspective on irrational beliefs in rational emotive behavior therapy. *Journal of Cognitive and Behavioural Psychotherapies*, *10*(1), 87–99.
Tidd, K. L. & Lockard, J. S. (1978). Monetary significance of the affiliative smile: A case for reciprocal altruism. *Bulletin of the Psychonomic Society*, *11*, 344–346.
Tillich, P. (1952). *The Courage To Be*. New Haven: Yale University Press.
Tobacyk, J. & Downs, A. (1986). Personal construct threat and irrational beliefs as cognitive predictors of increases in musical performance anxiety. *Journal of Personality and Social Psychology*, *51*(4), 779–782.
Trexler, L. & Karst, T. (1973). RET, placebo, and no treatment effects on public speaking anxiety. *Journal of Abnormal Psychology*, *79*, 60–67.
Trivers, R. L. (1985). *Social Evolution*. Benjamin/Cummings, Menlo Park, CA.
Trower, P. & Gilbert, P. (1989) New theoretical conceptions of social anxiety and social phobia. *Clinical Psychology Review*, *9*, 1935.
Trower, P., Yardley, K., Bryant, B. M. & Shaw, P. (1978). The treatment of social failure: A comparison of anxiety reduction and skills-acquisition procedures on two social problems. *Behaviour Modification*, *2*, 41–60.
Turner, J. W., Fine, T., Ewy, G. & Sershon, P. (1989). The presence or absence of light during floatation restricted environmental stimulation: Effects on plasma cortisol, blood pressure, and mood. *Biofeedback and Self-Regulation*, *14*, 291–300.
Turner, S. M., Beidel, D. C. & Dancu, C. V. (1989). An empirically derived inventory to measure social fears and anxiety: the Social Phobia and Anxiety Inventory. *Psychological Assessment*, *1*, 35–40.

Turner, S. M., Beidel, D. C. & Townsley, R. M. (1990). Social phobia: Relationship to shyness. *Behaviour Research and Therapy*, *28*,497–505.
Turner, S. M., Beidel, D. C. & Townsley, R. M. (1992). Social phobia: A comparison of specific and generalized subtypes and avoidant personality disorder. *Journal of Abnormal Psychology*. *101* (2), 326–331.
Turner, S. M., Beidel, D. C., & Townsley, R. M. (1990). Social phobia: relationship to shyness. *Behaviour Research and Therapy*, 28, 297-305.
Valente, S. (2002a). Anxiety among clients for plastic surgery. *Plastic-Surgical Nursing Journal*, *22*(2), 55–62.
Valente, S. (2002b). Social Phobia. *Journal of the American Psychiatric Nurses Association*, *8* (1): 67–75.
Van der Molen, H. T. (1990). A definition of shyness and its implications for clinical practice. In W. R. Crozier (Ed.), *Shyness and embarrassment: Perspectives from social psychology* (pp. 255–285). New York, NY: Cambridge University Press.
Van Velzen, C. J. M., Emmelkamp, P. M. G. & Scholing, A.(2000) Generalized social phobia versus avoidant personality disorder: differences in psychopathology, personality traits and social and occupational functioning. *Journal of Anxiety Disorders*, *14*, 395–411.
Vassilopoulos, S. P. (2004). Anticipatory processing in social anxiety. *Behavioural and Cognitive Psychotherapy*, *32*, 285–293.
Vassilopoulos, S. P. (2009). Shyness and social anxiety in primary school children: Prevalence and a new questionnaire of childhood anticipatory processing. *Psicologia*, *16*, 44–59
Velting, O. & Albano, A. (2001). Current trends in the understanding and treatment of social phobia in youth. *Journal of Child Psychology and Psychiatry*, *42*, 127–140.
Velting, O. N., Setzer, N. & Albano, A. M. (2004). Update on and advances in assessment and cognitive–behavioural treatment of anxiety disorders in children and adolescents. *Professional Psychology: Research and Practice*, *35*, 42–54.
Vertue, F. (2003). From Adaptive Emotion to Dysfunction: An Attachment Perspective on Social Anxiety Disorder. *Personality Psychology and Social Psychology Review*, *7* (2): 170–191.
Vestre, N. D. & Judge, T. J. (1989). Evaluation of self- administered rational emotive therapy programs for interpersonal anxiety. *Journal of Rational-Emotive & Cognitive-Behavioural Therapy*, *7*, 141–154.
Wakefield, J. C., Pottick, J. J. & Kirk, S. A. (2002) Should the DSM-IV diagnostic criteria for conduct disorder consider social context? *American Journal of Psychiatry*, *159*, 380–386.
Walen, S. DiGiuseppe, R. Dryden, W. (1992). *A Practitioner's Guide to Rational Emotive Therapy*. NY: Oxford University Press.
Warren R., Zgourides, G. & Jones, A. (1989). Cognitive bias and irrational belief as predictors of avoidance. *Behaviour Research and Therapy*, *27*, 2, 181–188.
Warren, R., Deffenbacher, J. L. & Brading, P. (1976). Rational-emotive therapy and the reduction of test anxiety in elementary school students. *Rational Living*, *11*, 26–29.
Wathney, S.E. (1978). *Effects of sensory isolation on self- actualization*. (Unpublished doctoral dissertation.) California School of Professional Psychology, Fresno, CA.
Watson, D. & Clark, L. A. (1984). Negative affectivity: The disposition to experience negative aversive emotional states. *Psychological Bulletin*, *96*, 465–490.
Watson, D. & Friend, R. (1969). Measurement of social evaluative anxiety. *Journal of Consulting and Clinical Psychology*, *33*, 448–457.

Weaver, M. D. & Mathews, D. B. (1993). The effects of a program to build the self-esteem of at-risk students. *Journal of Humanistic Education and Development*, *31*, 181–188.

Webster's New World Dictionary (9th ed.). (1991). Englewood Cliffs, NJ: Prentice-Hall, Inc.

Weeks, D. G., Michela, J. L., Peplau, L. A. & Bragg, M. E. (1980). Relation between loneliness and depression: A structural equation analysis. *Journal of Personality and Social Psychology*, *39*, 1238−1244.

Weiller, E., Bisserbe, J. C., Boyer, P., Lepine J. P., Lecrubier, Y. (1996). Social phobia in general health care: an unrecognised undertreated disabling disorder. *British Journal of Psychiatry*, *168*(4), 169–174.

Weinrach, S. G., Ellis, A., MacLaren, C., DiGuiseppe, R., Vernon, A., Wolfe, J., … Backx, W. (2001). Rational Emotive Behavioral Therapy success and failures: Eight personal perspectives. *Journal of Counseling & Development*, *79*, 259–268.

Weissman, M. (1985). The epidemiology of anxiety disorders: Rates, risks and familial patterns. In A. H. Tuma & J. D. Maser (Eds.), *Anxiety and anxiety disorders*. Hillsdale, N.J.: Erlbaum.

Weissman, M. M., Leckman, J. F., Merikangas, K. R., Gammon, G. D. & Prusoff, B. A. (1984). Depression and anxiety disorders in parents and children. *Archives of General Psychiatry, 41*:845–852.

Weissman, MM. Et al. (1994). The Cross national epidemiology of obsessive compulsive disorder. *Journal of Clinical Psychiatry*, 1994; 55(suppl.) 5-10

Weissman, MM. Et al. (1994). The Cross national epidemiology of obsessive compulsive disorder. *Journal of Clinical Psychiatry*, 1994 (suppl.) 5-10

Weissman, MM. Et al. (1996). The Cross national epidemiology of major depression and bipolar disorders. *Journal of American Medical Association (JAMA).* 1996; 276:293-299.

Weissman, MM. Et al. (1997). The Cross national epidemiology of panic disorder. *Archives of General Psychiatry.* 1997;54:305-309

Weisz, J. R., Weiss, B., Alicke, M. D. & Klotz, M. L. (1987). Effectiveness of psychotherapy with children and adolescents: A meta-analysis for clinicians. *Journal of Consulting and Clinical Psychology*, *55*, 542–549.

Weisz, J. R., Weiss, B., Han, S. S., Granger, D. A. & Morton, T. (1995). Effects of psychotherapy with children and psychotherapy research. *Journal of Consulting and Clinical Psychology*, *58*(6), 729–740.

Weitzenhoffer, A. & Hilgard, E. (1962). *Stanford Hypnotic Susceptibility Scale: Form C* (SHSS:C). Palo Alto, Calif.: Consulting Psychologissts Press.

Wells, K. Et al. (1989). The functioning and wellbeing of depressed patients: results from the Medical Outcomes study. *Journal of American Medical Association (JAMA).*1989;262:914-919

Wessler, R. A. and Wessler, R. L. (1980). *The principles and practice of rational–emotive therapy*. San Francisco: Jossey-Bass.

Whalen, P.J., Shin, L.M., McInerney, S.C., Fischer, H., Wright, C.I., Rauch, S.L. (2001). A functional MRI study of human amygdala responses to facial expressions of fear versus anger. *Emotion 1*:70 –83.

Wikipedia, the free encyclopedia. (2012). Irrationality. Retrieved 31 January 2013. http://en.wikipedia.org/wiki/Irrationality.

Wilcox, J. W. (1957). *A practical approach to treatment of colic*. Proceedings of the Southwestern Pediatric Society.

Winton, E. C., Clark, D. M. & Edelmann, R. J. (1995). Social anxiety, fear of negative evaluation and the detection of negative emotion in others. *Behaviour Research and Therapy*, *33*, 193–196.

Wittchen H.-U., Zhao, S., Kessler, R. C., Eaton, W. (1994). DSM-III-R generalized anxiety disorder in the National Comorbidity Survey. *Archives of General Psychiatry 51*:355–364.

Wittchen, H.-U. & Fehm, L. (2003). Epidemiology and natural course of social fears and social phobia. *Acta Psychiatrica Scandinavia*, *108*, 4–18.

Wittchen, H.-U., Kessler, R.C., Beesdo, K., Krause, P., Höfler, M., Hoyer, J., (2002). Generalized anxiety and depression in primary care: prevalence, recognition, and management. *Journal of Clinical Psychiatry*, *63*, 24– 34.

Wittchen, H.-U., Stein, M. B. & Kessler, R. C. (1999). Social fears and social phobia in a community sample of adolescents and young adults: prevalence, risk factors and co-morbidity. *Psychological Medicine*, *29*(2), 309–323.

Wittenberg, M. & Reis, H. (1986). Loneliness, social skills, and social perception. *Personality and Social Psychology Bulletin*, *12*, 121–130.

Wolpe, J. (1958): *Psychotherapy by Reciprocal Inhibition*. Stanford, CA: Stanford University Press.

Wong, J. L. & Whitaker, D. J. (1993). Depressive mood states and their cognitive and personality correlates in college students: They improve over time. *Journal Clinical Psychology*, *49* (5), 21–615.

Woods, P. J. (1992). A study of 'belief' and 'non-belief' items from the Jones Irrational Beliefs Test with implications for the theory of RET. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, *10*(1), 41–52.

World Health Organization (WHO), Department of Mental Health and Substance Abuse, Mental Health Atlas, Saudi Arabia, Mental Health, retrieved on-line at http://www.who.int/mental_health/evidence/atlas/profiles/sau_mh_profile

Yerin-Güneri, O. (2006). Counselling services in Turkish universities. *International Journal of Mental Health*, *35*(1), 26–38.

Zahran, H. (2000). *Psycho-counselling*. Cairo: Anglo-Egyptian Bookshop.

Zelie, K., Stone, C. I. & Lehr, L. (1980). Cognitive-behavioural intervention in school discipline: A preliminary study. *The Personnel and Guidance Journal*, *63*, 80–83.

Ziegler, D. J. (2000). Basic assumptions concerning human nature underlying rational emotive behaviour therapy (REBT) personality theory. *Journal of Rational-Emotive and Cognitive-Behaviour Therapy*, *18*, 67–85.

Zimbardo, P. G. & Radl, S. L. (1981). *The Shy Child*. New York: McGraw-Hill.

Zimbardo, P. G. (1977). *Shyness: what it is what to do about it*. Reading, MA: Addison-Wesley.

Zimbardo, P. G. (1977). *Shyness: what it is, what to do about it*. Reading, MA: Addison-Wesley.

Zimbardo, P. G. (1982). Shyness and the stresses of the human connection. In L. Goldberger & S. Breznitz (Eds.), *Handbook of stress: Theoretical and clinical aspects* (pp. 466–481). New York: Free Press.

Zinbarg, R. E. & Barlow, D. H. (1996). Structure of anxiety and the anxiety disorders: A hierarchical model. *Journal of Abnormal Psychology*, *105*, 181–193.

Zinbarg, R. E. (1998). Concordance and synchrony in measures of anxiety and panic reconsidered: A hierarchical model of anxiety and panic. *Behaviour Therapy*, *29*, 301–323.

Zubek, J. P. (ed) (1969). *Sensory Deprivation: Fifteen Years of Research*. New York: Appleton-Century-Crofts.
Zubin, J. & Spring, B. (1977). Vulnerability: A new view of schizophrenia. *Journal of Abnormal Psychology, 86*, 103–126.

APPENDICES

Appendix A

INTERACTION ANXIOUSNESS SCALE

Name: .....
College: .....
Department: .....
Academic Number: .....

Instructions:

Read each item carefully and decide the degree to which the statement is characteristic or true of you. Then place a number between '1' and '5' in the correct space according to the following scale.

1 = The statement is not at all characteristic of me.
2 = The statement is slightly characteristic of me.
3 =The statement is moderately characteristic of me.
4 =The statement is very characteristic of me.
5 =The statement is extremely characteristic of me.

Statement	1	2	3	4	5
1. I often feel nervous even in casual get-togethers.					
2. I usually feel uncomfortable when I am in a group of people I don't know.					
3. I am usually at ease when speaking to a member of the opposite sex.					
4. I get nervous when I must talk to a teacher or boss.					
5. Parties often make me feel anxious and uncomfortable.					
6. I am probably less shy in social interactions than most people.					
7. I sometimes feel tense when talking to people of my own sex if I don't know them well.					
8. I would be nervous if I was being interviewed for a job.					
9. I wish I had more confidence in social situations.					
10. I seldom feel anxious in social situations.					
11. In general, I am a shy person.					
12. I often feel nervous when talking to an attractive member of the opposite sex.					
13. I often feel nervous when calling someone I don't know very well on the telephone.					
14. I get nervous when I speak to someone in a position of authority.					
15. I usually feel relaxed around other people, even people who are quite different from myself.					

ملحق أ

مقياس القلق أثناء التفاعل الاجتماعي

الاسم .....

الكلية .....

القسم .....

الرقم الأكاديمي .....

تعليمات:

اقرأ العبارات الآتية قراءة واعية، ثم اختر ما يناسب كل عبارة من استجابات تصف شخصيتك وسماتك النفسية وفق المدرج الآتي:

1 – العبارة لا تنطبق إطلاقاً على شخصي.

2 – العبارة تعبر بعض الشئ عن بعض سماتي.

3 –العبارة تعبر عني إلى حد ما.

4 – العبارة تعبر عن شخصي بشكل كبير

5 – العبارة تعبر عني بشكل كبير جداً

العبـــــــارة	1	2	3	4	5
1. غالباً ما أشعر بالعصبية في التجمعات مع الآخرين حتى في المواقف غير الرسمية.					
2. عادةً أشعر بعدم الارتياح عندما أجتمع مع أناس لا أعرفهم.					
3. أشعر بالارتياح عندما أتحدث مع أحد من الجنس الآخر.					
4. ينتابني شعور بالعصبية إذا اضطررت اضطراراً للحديث مع المعلم أو مع المدير.					
5. تُشعرني الحفلات والتجمعات بالقلق وعدم الارتياح.					
6. أنا أقلُّ خجلاً على الأرجح من معظم الناس، وبخاصة في التفاعلات الاجتماعية.					
7. أشعر أحياناً بالتوتر عندما أتحدث مع أناس من نفس جنسي لاسيما إذا لم يكن بيني وبينهم سابق معرفة.					
8. قد تنتابني حالة من العصبية إذا عقدت مقابلة مع أحد للحصول على وظيفة أو عمل.					
9. أتمنى لو أنني واثق بنفسي أثناء التفاعلات الاجتماعية.					
10. نادراً ما تنتابني حالة من القلق في أثناء التفاعل الاجتماعي مع الآخرين.					
11. أشعر بأنني . بصفة عامة . رجل خجول.					
12. غالباً ما أشعر بالعصبية عندما أتحدث مع أحد من الجنس اللطيف، وبخاصة إذا كانت جذابة.					
13. غالباً ما أشعر بالعصبية عندما أجري مكالمة هاتفية مع شخص لا أعرفه جيداً.					
14. أشعر بالعصبية إذا تحدثت مع شخص ذي سلطة أو منصب.					
15. عادةً ما أشعر بالارتياح في صحبة الآخرين، وحتى وإن اختلفوا في أمزجتهم وسماتهم النفسية عني.					

Appendix B

SHYNESS SCALE

Name: .....

College: .....

Department: .....

Academic Number: .....

Instructions:

Read each item carefully and decide the degree to which the statement is characteristic or true of you. Then place a number between "1" and "5" in the correct space according to the following scale.

1. The statement is not at all characteristic of me.
2. The statement is slightly characteristic of me.
3. The statement is moderately characteristic of me.
4. The statement is very characteristic of me.
5. The statement is extremely characteristic of me.

Statement	1	2	3	4	5
1. I feel tense when I'm with people I don't know well.					
2. I am socially somewhat awkward.					
3. I do not find it difficult to ask other people for information.					
4. I am often uncomfortable at parties and other social functions.					
5. When in a group of people, I have trouble thinking of the right things to talk about.					
6. It does not take me long to overcome my shyness in new situations.					
7. It is hard for me to act natural when I am meeting with new people.					
8. I feel nervous when speaking to someone in authority.					
9. I have no doubts about my social competence.					
10. I have trouble looking someone right in the eye.					
11. I feel inhibited in social situations.					
12. I do not find it hard to talk to strangers.					

ملحق ب

مقياس الخجل

الاسم .....

الكلية .....

القسم .....

الرقم الأكاديمي .....

تعليمات:

اقرأ العبارات الآتية قراءة واعية، ثم اختر ما يناسب كل عبارة من استجابات تصف شخصيتك وسماتك النفسية وفق المدرج الآتي:

1 = العبارة لا تنطبق إطلاقاً على شخصي.

2 = العبارة تعبر بعض الشئ عن بعض سماتي.

3 = العبارة تعبر عني إلى حد ما.

4 = العبارة تعبر عن شخصي بشكل كبير

5 = العبارة تعبر عني بشكل كبير جداً

العبـــــــــــــارة	1	2	3	4	5
1. أشعر بالتوتر عندما أكون في صحبة أناس لا أعرفهم جيداً.					
2. أعتقد أنني أخرق اجتماعياً بعض الشئ.					
3. لا أجد ثَمَّ صعوبةً في الاستفسار وطلب المعلومات من الآخرين.					
4. أشعر غالباً بعدم الارتياح في الحفلات وغيرها من المواقف الاجتماعية.					
5. عندما أكون في صحبة من الناس، أجد صعوبة في فتح موضوعات مناسبة للحديث عنها معهم.					
6. لا يستغرقني الوقت والجهد أن أتغلب على حيائي في المواقف الاجتماعية الجديدة.					
7. قد يصعب الأمر عليَّ أن أتصرف على سجيتي عندما أقابل أناساً جدداً للوهلة الأولى.					
8. أشعر بالعصبية عند التحدث مع شخص ذي سلطة ومنصب.					
9. لا تنتابني الشكوك إزاء كفائتي الاجتماعية.					
10. أجد صعوبة في أن أنظر إلى أي شخص مباشرة في عينه أثناء الحديث.					
11. أشعر بالتثبيط والإحباط في المواقف الاجتماعية.					
12. لا أجد ثَمَّ صعوبةً في الحديث إلى الأغراب.					

Appendix C

IRRATIONAL BELIEFS TEST

Name: .....

College: .....

Department: .....

Academic Number: .....

1 If you STRONGLY DISAGREE

2 If you SOMEWHAT DISAGREE

3 If you NEITHER AGREE NOR DISAGREE

4 If you SOMEWHAT AGREE

5 If you STRONGLY AGREE

- It is not necessary to think over any item very long. Mark your answer quickly and go on to the next statement.
- Be sure to mark how you actually feel about the statement, not how you think you
- should feel.
- Try to avoid the neutral of '3' response as much as possible. Select this answer only if you really cannot decide whether you tend to agree or disagree with a statement.

Statement	1	2	3	4	5
1. It is important to me that others approve of me.					
2. I hate to fail at anything.					
3. People who do wrong deserve what they get.					
4. I usually accept what happens philosophically.					
5. If a person wants that he can be happy under almost any circumstances.					
6. I have a fear of some things that often bothers me.					
7. I usually put off important decisions.					
8. Everyone needs someone he can depend on for help and advice.					
9. "A zebra cannot change his stripes".					

1O. There is a right way to do everything.					
11. I like the respect of others. but I don't have to have it.					
12. I avoid things I cannot do well.					
13. Too many evil persons escape the punishment they deserve.					
14. Frustrations don’t upset me.					
15. People are disturbed not by situations but by the view they take of them.					
16. I feel little anxiety over unexpected dangers or future events.					
17. I try to go ahead and get irksome tasks behind me when they come up.					
18. I try to consult an authority on important decisions.					
19. It is almost impossible to overcome the influence of the past.					
20. There is no perfect solution to anything.					
21. I want everyone to like me.					
22. I don't mind competing in activities where others are better than I.					
23. Those who do wrong deserve to be blamed.					
24. Things should be different from the way they are.					
25. I cause my own moods.					
26. I often can't get my mind off some concern.					
27. I avoid facing my problems.					
28. People need a source of strength outside themselves.					
29. Just because something once strongly affects your life doesn't mean it need do so in the future.					
30. There is seldom an easy way out of life's difficulties.					
31. I can like myself even when many others don't.					
32. I like to succeed at something but I don't feel 1have to.					
33. Immorality should be strongly punished.					

34. I often get disturbed over situations I don't like.					
35. People who are miserable have usually made themselves that way.					
36. If I can't keep something from happening, I don't worry about it					
37. I usually make decisions as promptly as I can.					
38. There are certain people that I depend on greatly.					
39. People overvalue the influence of the past.					
40. Some problems will always be with us.					
41. If others dislike me, that's their problem, not mine.					
42. It is highly important to me to be successful in everything I do.					
43. I seldom blame people for their wrongdoings.					
44. I usually accept things the way they are, even if I don't like them.					
45. A person won't stay angry or blue long unless they keep themselves that way.					
46. I can't stand to take chances.					
47. Life is too short to spend it doing unpleasant tasks.					
48. I like to stand on my own two feet.					
49. If I had had different experiences I could be more like I want to be.					
50. Every problem has a correct solution.					
51. I find it hard to go against what others think.					
52. I enjoy activities for their own sake, no matter how good I am at them.					
53. The fear of punishment helps people be good.					
54. If things annoy me, I just ignore them.					
55. The more problems a person has, the less happy they will be.					
56. I am seldom anxious over the future.					

57. I seldom put things off.					
58. I am the only one who can really understand and face my problems.					
59. I seldom think of past experiences as affecting me now.					
60. We live in a world of chance and probability.					
61. Although I like approval, it's not a real need for me.					
62. It bothers me when others are better at something than me.					
63. Everyone is basically good.					
64. I do what I can to get what I want and then don't worry about it					
65. Nothing is upsetting in itself - only in the way you interpret it.					
66. I worry a lot about certain things in the future.					
67. It is difficult for me to do unpleasant chores.					
68. I dislike for others to make my decisions for me.					
69. We are slaves to our personal histories.					
70. There is seldom an ideal solution to anything.					
71. I often worry about how much people approve of and accept me.					
72. It upsets me to make mistakes.					
73. It's unfair that "the rain falls on both the just and the unjust".					
74. I am fairly easygoing about life.					
75. More people should face up to the unpleasantness of life.					
76. Sometimes I can't get a fear off my mind.					
77. A life of ease is seldom very rewarding.					
78. I find it easy to seek advice.					
79. Once something strongly affects your life, it always will.					
80. It is better to look for a practical solution than a perfect one.					

81. I have considerable concern with what people are feeling about me.					
82. I often become quite annoyed over little things.					
83. I usually give someone who has wronged me a second chance.					
84. I dislike responsibility.					
85. There is never any reason to remain sorrowful for very long.					
86. I hardly ever think of such things as death or nuclear war.					
87. People are happiest when they have challenges and problems to overcome.					
88. I dislike having to depend on others.					
89. People never change basically.					
90. I feel I must handle things in the right way.					
91. It is annoying but not upsetting to be criticized.					
92. I'm not afraid to do things which I cannot do well.					
93. No one is evil, even though their deeds may be.					
94. I seldom become upset over the mistakes of others.					
95. Man makes his own hell within himself.					
96. I often find myself planning what I would do in different dangerous situations.					
97. If something is necessary. I do it even if ifs unpleasant					
98. I've learned not to expect someone else to be very concerned about my welfare.					
99. I don't look upon the past with any regrets.					
100. There is no such thing as an ideal set of circumstances.					

ملحق ج

اختبار الأفكار اللاعقلانية

الاسم .....

الكلية .....

القسم .....

الرقم الأكاديمي .....

تعليمات:

هذا الاستبيان الغرض منه الكشف عن أساليب تفكيرك في الأشياء والأحداث من حولك، وطرق إحساسك بها. فيما يلي بعض العبارات التي قد تميل أن تقبل بها أو ترفضها. اقرأ كل عبارة بعناية وأناة، ثم قرر ما إذا كنت ستوافق عليها أو ترفضها. اختر من المدرج الآتي ما يناسب استجاباتك لهذه العبارات:

1 = أرفض بشدة

2 = أرفض نوعاً ما

3 = محايد

4 = أوافق نوعاً ما

5 = أوافق بشدة

- **ليس من المهم أن تستغرق وقتاً كثيراً في التفكير في الإجابة.**
- **ضع علامات استجاباتك سريعاً دون أن تضيع الوقت في التفكير، ثم انتقل إلى العبارة التي تليها. فالمهم أن تكون استجاباتك معبرة عن شعورك وليس عن تفكيرك.**
- **حاول أن تتحاشى الإجابات المحايدة ما استطعت إلى ذلك من سبيل. فقط اختر الإجابة المحايدة عندما لا تستطيع فعلياً الاختيار أو القرار بالموافقة أو الرفض.**

العبارة	1	2	3	4	5
1. يهمني أن أحظى بقبول الآخرين.					
2. أبغض الفشل في أي شئ.					
3. من يرتكب ذنباً، فهو جدير بما ينزل به من العقاب.					
4. من الناحية الفلسفية، أقبل ما يحدث من أحداث.					
5. يمكن للإنسان أن يحقق السعادة تحت أي ظرف إذا أراد ذلك حقاً.					
6. أشعر بالخوف من الأشياء التي تزعجني.					
7. عادةً ما أقوم بتأجيل القرارات المهمة.					
8. كل امرئ يحتاج إلى إنسان يعتمد عليه، ويثق به للمساعدة وإسداء النصيحة.					
9. لا يمكن للمرأ أن يغير صفاته التي ولد عليها، كما لا يمكن للحمار الوحشي أن يغير الخطوط التي تلون جسمه.					
10. لكل شئ طريقة صحيحة لإنجازه.					
11.أحب احترام الآخرين، لكني لست مضطراً لذلك.					
12. أتحاشى الأشياء التي لا يمكنني إنجازها على نحو جيد.					
13. الكثير والكثير من الأشرار يفلتون بفعالهم من العقاب الذي يستحقونه.					
14. لا تزعجني الإحباطات.					
15. لا ينزعج الناس بالمواقف التي يمرون بها بقدر ما ينزعجون بآرائهم عما يمرون به من مواقف.					
16. أشعر بقليل من القلق حيال المخاطر غير المتوقعة أو أحداث المستقبل التي لا يمكن التنبؤ بها.					
17. أحاول أن أتقدم في السير قدماً، ملقياً خلف ظهري ما يؤرقني من مهام أو مشكلات تنشأ فجأة.					
18. أسعى أن أستشير الكبار وأولي العلم والخبرة عندما أضطر لاتخاذ قرار مهم في حياتي.					
19. من المحال أو يقاربه أن يتخلص المرأ من ماضيه، وتأثيره.					
20. لا يوجد حل أمثل لأي مشكلة.					
21. أريد أن يحبني كل إنسان.					
22. لا أمانع أن أنافس الآخرين في المجالات التي قد يتفوقون علي فيها.					
23. من يكسب إثماً يجز به.					
24. يجب أن تسير الأمور على نحو أفضل مما هي عليه الآن.					
25. أنا الذي يتسبب في حالتي المزاجية والنفسية، وليس أحداً غيري.					
26. إذا ألمت بي ملمة، لا أستطيع أن أتمالك نفسي دون التفكير فيها باستمرار.					
27. أتحاشى دوماً أن أواجه مشكلاتي.					
28. يحتاج المرأ إلى من يقوي عزيمته.					
29. ما أن يؤثر فيك شئ بقوة في الوقت الحالي، لا يعني أن يدوم تأثيره بقوة في المستقبل.					

30. لا توجد طريقة سهلة للتخلص من مشكلات الحياة.					
31. يمكنني أن أقبل نفسي، حتى وإن رفضها الآخرون.					
32. أحب النجاح في الأمور كلها، ولكني لست أشعر بأنه يجب علي تحقيق النجاح دوماً.					
33. أي فعل لا أخلاقي يجب معاقبته بحزم.					
34. أشعر بالقلق حيال المواقف التي لا أحبها.					
35. البؤساء هم الذين اختاروا البؤس طريق حياتهم.					
36. إذا لم أستطع أن أحول بيني وبين الشر، فلا ينبغي علي أن أقلق بصدده.					
37. عادة ما أصنع القرارات بسرعة حدوث الأحداث.					
38. يوجد أناس في حياتي أعتمد عليهم إلى حد كبير.					
39. يفرط الناس في تقييم تأثير الماضي في الحاضر.					
40. دائماً ما تعلق بي بعض المشكلات التي لا أستطيع الفكاك منها.					
41. إذا كرهني الناس، فهذه مشكلتهم، وليست مشكلتي الشخصية.					
42. من الأهمية لي أن أكون ناجحاً في الأمور كلها.					
43. نادراً ما ألوم الناس بأخطائهم.					
44. عادة ما أقبل الأمور على علاتها، وحتى وإن كرهتها.					
45. لا يمكن للمرأ أن يعتريه الغضب دوماً إلا أن يفعلوا ذلك بأنفسهم.					
46. لا أستطيع أن أتحمل المخاطرة.					
47. الحياة أقصر من أن نقضيها في توافه الأمور وترهاتها.					
48. أحب الاعتماد على نفسي بنفسي.					
49. لو مررت بخبرات كافية في حياتي، لكانت حياتي قد تغيرت على النحو الذي أحب.					
50. لكل مشكلة حل واحد صحيح.					
51. قد يصعب عليَّ التمرد على ما يعتقده الآخرون بصددي.					
52. أستمتع بالأحداث والأنشطة على علاتها، وليس لأنني ماهر بها.					
53. الخوف من العقاب يساعد الناس أن يكونوا صالحين.					
54. الأمر الذي يضايقني أتجاهله.					
55. كلما يمر المرأ بالمشكلات والحوادث، كلما ابتعد عن السعادة.					
56. نادراً ما ينتابني القلق إزاء المستقبل.					
57. نادراً ما أؤجل عمل اليوم إلى الغد.					
58. أنا الإنسان الوحيد الذي يستطيع أن يواجه مشكلاتي ويحلها، فما حك جلدي مثل ظفري.					
59. نادراً ما أفكر بحوادث الماضي على النحو الذي يؤثر في حاضري.					
60. نحن نعيش في عالم من الاحتمالات والشكوك، فليس هناك أمور يقينية.					

61. رغم أنني أحب أن يقبلني الآخرون، إلا أنني لا أشعر بضرورة قبولهم لي.					
62. لا يعجبني أن يتميز الآخرون علي في الأمور كلها.					
63. كل إنسان في داخله الخير.					
64. أبذل الجهد كله للحصول على ما أبتغيه من أمور؛ ولا ينتابني القلق أبداً.					
65. لا شئ باعث على القلق في ذاته؛ فقط تفسيراتنا للأحداث هي التي تبعث فينا القلق أو تثبطه.					
66. ينتابني كثير من القلق حيال المستقبل وأحداثه.					
67. من الصعب علي أن أفعل أشياء روتينية باعثة على الضجر والملل.					
68. أكره أن يتخذ الآخرون قراراتي بالنيابة عني.					
69. نحن عبيد ماضينا الشخصي.					
70. نادراً ما يكون هناك حل مثالي لأية مشكلة.					
71. غالباً ما ينتابني القلق حول مدى قبول الآخرين لي، واعترافهم بشخصي.					
72. أنزعج كثيراً من ارتكاب الأخطاء.					
73. من الظلم أن ينزل الخير بالمحسن والمسئ سواءً بسواء.					
74. أتساهل مع الحياة في الأمور كلها.					
75. يجب على الكثير من الناس أن يواجهوا فظاعات الحياة.					
76. أحياناً لا أستطيع التخلص من مخاوفي.					
77. حياة اليسر نادراً ما تكون مجزية.					
78. يسهل علي طلب النصح من الآخرين.					
79. ما أن تلم بك ملمة، فسوف تؤثر فيك مدى الحياة.					
80. من الأفضل البحث عن حلول عملية لمشكلات الحياة بدلاً عن البحث عن حلول مثالية.					
81. ينتابني الكثير من القلق حيال الطرق التي يشعر بها الآخرون تجاهي.					
82. أغتاظ غالباً من توافه الأمور.					
83. عادةً ما أعطي فرصة ثانية لمن أساء إلي.					
84. أبغض تحمل المسؤولية.					
85. لا يوجد سبب منطقي للبقاء في الحزن مدة طويلة.					
86. نادراً ما أفكر في أشياء مثل الموت أو اندلاع حرب نووية.					
87. يسعد الناس عندما يجدون في حياتهم ما يتحدى قدراتهم من مشكلات يجب أن يتغلبوا عليها.					
88. أكره أن أعيش عالةً على الآخرين.					
89. لا يتغير الناس من داخلهم دوماً.					
90. أشعر وكأنه يجب علي أن أقوم بالأشياء على النحو الصحيح دوماً.					
91. قد يضايقني النقد، ولكن لا يحزنني أبداً.					

92. لا أخاف أن أفعل أشياء لا أجيدها.					
93. ليس هناك إنسان شرير بالمرة، حتى وإن دلت أفعاله على الشر.					
94. نادراً ما أشعر بالحزن على أخطاء الغير.					
95. الإنسان هو الذي يصنع من حياته جحيماً.					
96. أجد نفسي غالباً ما أخطط ما علي فعله في المواقف الخطيرة على اختلافها.					
97. إذا كان عليَّ فعل أمر ضروري، أقوم به وإن لم يكن محبباً إلى نفسي.					
98. تعلمت ألا أتوقع من الآخرين أن يعنوا بتحقيق رفاهيتي وسعادتي الخاصة.					
99. لا أنظر إلى الماضي بعين الندم.					
100.لا يوجد شئ مثالي في الحياة.					

Appendix D

Validity of Cognition (VoC) scale

Is the cognition true or false?

On a scale of 1-7, **1** is all the way false, up to **7**, all the way true.

Circle a number to show how true each statement feels **right now**, when you think about the event.

1. It was my fault	FALSE	1	2	3	4	5	6	7	TRUE
2. I am helpless	FALSE	1	2	3	4	5	6	7	TRUE
3. I'll never get over it	FALSE	1	2	3	4	5	6	7	TRUE
4. I'm a good person	FALSE	1	2	3	4	5	6	7	TRUE
5. I did my best	FALSE	1	2	3	4	5	6	7	TRUE
6. I'm okay now	FALSE	1	2	3	4	5	6	7	TRUE

(VoC) scale from Shapiro, F. (1989). Efficacy of the eye movement desensitization procedure in the treatment of traumatic memories. *Journal of Traumatic Stress, 2,* 199-223.

Appendix D (Sequel)

The Subjective Units of Distress (SUD) Scale

The subjective units of distress – or SUD – scale is a convenient way of communicating to other people how much distress you are experiencing at any given time. There are eleven points on the scale, ranging from zero (absolutely complete relaxation) up to ten (extreme distress).

Rating

Zero: Complete relaxation. Deep sleep, no distress at all.

One: Awake but very relaxed; dosing off. Your mind wanders and drifts, similar to what you might feel just prior to falling asleep.

Two: Relaxing at the beach, relaxing at home in front of a warm fire on a wintry day, or walking peacefully in the woods.

Three: The amount of tension and stress needed to keep your attention from wandering, to keep your head erect, and so on. This tension and stress is not experienced as unpleasant; it is "normal."

Four: Mild distress such as mild feelings of bodily tension, mild worry, mild apprehension, mild fear, or mild anxiety. Somewhat unpleasant but easily tolerated.

Five: Mild to moderate distress. Distinctly unpleasant but insufficient to produce many bodily symptoms.

Six: Moderate distress. Very unpleasant feelings of fear, anxiety, anger, worry, apprehension, and/or substantial bodily tension such as a headache or upset stomach. Distinctly unpleasant but tolerable sensations; you're still able to think clearly. What most people would describe as a "bad day," but your ability to work, drive, converse, and so on is not impeded.

Seven: Moderately high distress that makes concentration hard. Fairly intense bodily distress.

Eight: High distress. High levels of fear, anxiety, worry, apprehension, and/or bodily tension. These feelings cannot be tolerated very long. Thinking and problem-solving is impaired. Bodily distress is substantial. Ability to work, drive, converse, and so on is difficult.

Nine: High to extreme distress. Thinking is substantially impaired.

Ten: Extreme distress, panic- and/or terror-stricken, extreme bodily tension. The maximum amount of fear, anxiety, and/or apprehension you can possibly imagine.

ملحق د

مقياس صدق المدركات العقلية

هل ما تعتقد صحيح أم خاطئ؟

على مقياس ليكرت سباعي، حدد مدى صدق المدركات عن أفكارك اللاعقلانية هل هي صحيحة أم خاطئة؟ اختر من 1-7 على المقياس ما تدركه ذهنياً عن مدى صدق الفكرة العقلية حيث 1 خاطئة و7 صحيحة وما بينهما مستويات الإدراك بين الصحة والخطأ فيما يتعلق بمدركاتك عن الحدث الذي يسبب لك القلق.

1. الخطأ خطأيي.	خطأ	1	2	3	4	5	6	7	صحيح
2. أشعر بالبؤس.	خطأ	1	2	3	4	5	6	7	صحيح
3. لن أتغلب على ما أمر به.	خطأ	1	2	3	4	5	6	7	صحيح
4. أنا شخص طيب.	خطأ	1	2	3	4	5	6	7	صحيح
5. سوف أبذل قصارى جهدي.	خطأ	1	2	3	4	5	6	7	صحيح
6. لا بأس بي الآن!	خطأ	1	2	3	4	5	6	7	صحيح

Appendix E

1.1 Informed Consent

1.1.1 Form A

Introduction:

This is a study exploring anxiety and irrational thinking in students diagnosed as having social anxiety and / or irrational thinking as determined by the KAU Psychological Counselling Centre.

However, levels of anxiety/ irrational thinking/shyness can vary quite considerably; yet, this should not mean that those who are more anxious are suffering from an anxiety disorder unless otherwise determined by the documents of the KAU Psychological Counselling Centre.

The purpose of the study is to determine whether rational-emotive behavioural therapy accompanied by restricted environmental stimulation therapy, with this latter involving reduced environmental stimulation, would decrease inaccurate thinking and social anxiety in participants. The Departments of Psychology of College of Arts and Humanities, KAU, and School of Social Sciences, Brunel University have approved the solicitation of participants to participate in this research.

Description:

The programme proposed for this study will involve 2- to 3-hour REST therapy group sessions. A participant will be expected to take about 30 minutes to complete one self-report measure of his beliefs and two measures of social anxiety, and to participate in a thought-listing procedure for the one week period prior to his REBT therapy sessions before or after his participation in all social situations in which he feels anxiety.

Commitments Requiring Consent:

I will be asked to list any and all thoughts, feelings and/or behaviours I have associated with the situation (or, if assessed beforehand, while waiting to interact).

I will also be asked to rate these thoughts based on their accuracy.

In the therapy sessions, I will be introduced to the main concepts of REST, and given the chance to put these concepts into practice in my daily life. This will include learning the ABC theory of how irrational beliefs about daily events can lead to emotional disturbance; assessing how my personal irrational beliefs are resulting in emotional discomfort or problems: setting therapeutic goals which are specific, realistic, achievable and measurable; making a commitment to invest the time and energy necessary to achieve these goals; and, with the support of the group, challenging my irrational beliefs and deciding on more appropriate and rational beliefs to substitute in their place.

In between sessions, I will be given homework assignments designed to help me maintain my focus on, and work at changing, my irrational beliefs. Immediately following the last session, I will be asked to complete the self-report measure of my beliefs and two measures

of social anxiety as well as participate in the thought-listing procedure for a one-week period, and again one month later. I am free to terminate my participation in the study at any time without penalty to me.

Potential benefits to this intervention include a reduction of my social anxiety.

Although the extent of time I will be engaged in therapy will be limited to 2- to 3-hour sessions, I realise that whenever people engage in therapy, there may be unexpected consequences in their lives, and they may become aware of personal issues with which they are dissatisfied. A potential risk of this treatment is that I may become aware of such issues for myself, and I may make a decision to make changes in my life.

I, or my next of kin, or legally authorised representative, have and will continue to have opportunities to ask questions and to seek further information about the procedures or the results of this study.

Should the experimenters become aware of any new information that might affect my decision to participate in the study, they will inform me. I may choose to end my participation in the study at any time.

Data obtained will be coded and maintained in a confidential file in the investigator's office. Confidentiality will be maintained.

In any research reports, participants will be listed only by number code.

Individual findings will be given to any person who agrees to participate in the study upon request. If during the course of the study, or subsequently, anyone wishes to discuss their participation in or concerns regarding the study, that person can contact Jahaz Al-Moteri via mobile phone (00966555558890) or leave electronic messages at his email (almoteri@hotmail.com).

I am of normal health and have no history of any medical or mental condition that might preclude my participation in this study. The requirements have been explained to me and my questions have been answered. I understand I am free to ask additional questions and/or terminate the experiment at any time.

I, the undersigned, have read the above consent form and agree to participate in this study.

Name: ……..

Signed, ……

Date, ……

1.2 Informed Consent

1.2.1 Form B

Introduction:

This is a study exploring anxiety and irrational thinking in students diagnosed as having social anxiety and / or irrational thinking as diagnosed in the KAU Psychological Counselling Centre archives.

Purpose and Description of the Experiment:

Therefore, the purpose of the study is to determine whether reduced environmental stimulation (REST therapy) accompanying a REBT therapeutic intervention would decrease inaccurate thinking and social anxiety in participants. The Departments of Psychology of College of Arts and Humanities, KAU, and School of Social Sciences, Brunel University have approved the solicitation of participants to participate in this research Chamber Restricted Environmental Stimulation (REST) which involves lying on a bed in a sound attenuated chamber (3 metres x 1.7 metres x 2.4 metres) for a period of 6 hours.

Commitments Requiring Participant Consent:

I will be asked to wear earplugs and blindfold goggles that resemble ski goggles. The chamber is equipped with a portable toilet which is situated so as to provide complete privacy. Low-level white noise will be used as a masking sound. I will be asked to remain on the bed and to minimise my movement during the session (except for toileting).

I will be continuously monitored and I am free to terminate the session at any time.

I will be asked to take about 30 minutes to complete one self-report measure of my beliefs and two measures of social anxiety, and to participate in a thought-listing procedure for the one week period prior to my REST session. Before or after my participation in all social situations in which I feel anxiety, I will be asked to list any and all thoughts, feelings and/or behaviours.

I have associated with the situation (or, if assessed beforehand, while waiting to interact). I will also be asked to rate these thoughts based on their accuracy.

I will be given a full orientation to the chamber, information about the REST session and have the opportunity to ask questions. I will then be situated comfortably on the bed. Instructions reviewing the REST procedure will be read to me over the intercommunications system followed by relaxation instructions. Immediately following the session, I will be asked to complete the self-report measure of inaccurate thinking and two measures of social anxiety as well as participate in the thought-listing procedure for a one week period, and again one month later.

I am of course free to terminate my participation in the study at any time without penalty to me.

Potential benefits to this treatment include a reduction in my social anxiety. I also realise that, while over 1000 participants have engaged in REST in other laboratories or clinics around

the world with no lasting adverse effects, there is a possibility that I may find the experience stressful. Because of this, I will have the right to terminate the REST session at any time, and I will be continuously monitored for signs of stress. The monitor will terminate the session if signs of stress are evident, and there is counselling available to me, for any stress experienced, upon request.

I, or my next of kin, or legally authorised representative, have and will continue to have opportunities to ask questions and to seek further information about the procedures or the results of this study. Should the experimenters become aware of any new information which might affect my decision to participate in the study, they will inform me. I may choose to end my participation in the study at any time.

Data obtained will be coded and maintained in a confidential file in the investigator's office. Confidentiality will be maintained. In any research reports, participants will be listed only by number code.

Individual findings will be given to any person who agrees to participate in the study upon request. If during the course of the study, or subsequently, anyone wishes to discuss their participation in or concerns regarding the study, that person can contact Jahaz Al-Moteri via mobile phone (00966555558890) or leave electronic messages at his email (almoteri@hotmail.com).

I am of normal health and have no history of any medical or mental condition that might preclude my participation in this study. The requirements have been explained to me and my questions have been answered. I understand I am free to ask additional questions and/or terminate the experiment at any time.

I, the undersigned, have read the above consent form and agree to participate in this study.

Name: ……..

Signed, ……

Date, ……

1.3 Written Confirmation

I, Jahaz Fahad Al-Moteri, herein confirm that the required procedural amendments requested with regard to the confidentiality of the experiment and intervention details and the revelation of findings of the study have been scrupulously traced; specifically, no mention will ever be made to disclose the identities of the participants in the experiment, specifically in the research report (here the Methodology and Results chapters), except that the participants' personal information are retained in the Counselling Psychology Centre's registers as part of formalities of seeking psychological counselling at this centre. But to this point, the Counselling Psychology Centre of the Faculty of Arts and Humanities' Psychology Department has a staunchly adhered to privacy protocol that resists any leakage of information in this respect. I also confirm that it is permissible, upon request, for parents or next of kin, who signed the consent forms, to be informed about particular findings about their children's responses to the intervention in my experiment. I also confirm that all pre-experiment and post-experiment ethical considerations earlier raised have been meticulously followed under the close supervision of the Department of Psychology of the Faculty of Arts and Humanities, King Abdul Aziz University in Jeddah.

Signed by

Jahaz Fahad Ekab Al-Moteri

PhD Researcher, Brunel University

Dated this Wednesday, 15 July, 2009

Appendix F

REBT/REST Programme

PRELUDE

Counselling Psychologist performing psychological counselling using REBT gives an overview of the REBT model of psychotherapy. Then, he expounds the educational messages implied in REBT as in the Giving a Speech model explained below:

Let me begin by inviting you to join me as a participant as I go over the 'Giving a Speech Model'. This model gets to the heart of REBT's view of psychological problems. There are four steps in this model:

STEP 1

I want you to imagine that you have been asked by your professor or boss to give a speech to a group of faculty and students in your college or dignitaries visiting your workplace if you are working (the first half of which will be before their morning coffee break and the second half after it) and you hold the following belief about this event:

I want to give a good speech, but it isn't absolutely necessary for me to do so. If I don't give a good speech, it will be bad, but it wouldn't be the end of the world.

How would you feel about the possibility of not giving a good speech while holding this belief?

If you think about it, you would probably feel concerned about the possibility of not giving a good speech, but you wouldn't feel unduly anxious about it.

STEP 2

Now in this second step, I want you to imagine again that you have been asked by your boss to give a speech to a group of faculty and students in your college or a group of visiting dignitaries in your workplace (the first half of which will be before their morning

coffee break and the second half after it) and you hold the following different belief about this event:

I absolutely must give a good speech and it would be truly awful if I didn't.

How would you feel this time about the possibility of not giving a good speech while holding this belief?

If you think about it, you would probably feel very anxious about the possibility of not giving a good speech.

Now I want you to focus on one important point here:

While facing the same event, your different feelings are determined by different beliefs.

STEP 3

In the third step of the model, I want you to imagine that you still believe that you absolutely have to give a good speech and it would be terrible if you didn't. You give the first half of your speech and at the end of it, you conclude that it has gone down well. Now, how would you feel about that? You would probably feel relieved or pleased.

STEP 4

But, still believing that you have to give a good speech and it would be awful if you didn't, you suddenly stop feeling relieved or pleased and become anxious again. What do you think you would be anxious about?

That's right! You would probably be anxious about the possibility that the second half of your speech wouldn't be good.

The POINT is that all humans, black or white, rich or poor, male or female, from whichever culture, make themselves emotionally disturbed when they don't get what they demand they must get and are vulnerable to emotional disturbance when they do get what they demand because the situation may change and their demands may no longer

be met. However, if humans stayed with their preferences and didn't change these into demands, then they would still experience negative feelings when their preferences weren't met, but these negative feelings would be healthy and would motivate them to change what can be changed and adjust constructively what can't be changed.

Have you ever heard the famous dictum attributed to Epictetus, the Stoic philosopher: 'People are disturbed not by things, but by their views of these things'?

The REBT view of psychological problems is very nicely summarised by a reformulation of this dictum exactly as below:

People are disturbed, not by things, but by their rigid and extreme views of things.

In our Muslim tradition, we have something similar. Read the Qur'an (Surah 8, verses 43, 44 below:

إِذْ يُرِيكَهُمُ اللَّهُ فِي مَنَامِكَ قَلِيلًا ۖ وَلَوْ أَرَاكَهُمْ كَثِيرًا لَفَشِلْتُمْ وَلَتَنَازَعْتُمْ فِي الْأَمْرِ وَلَٰكِنَّ اللَّهَ سَلَّمَ ۗ إِنَّهُ عَلِيمٌ بِذَاتِ الصُّدُورِ (43)

And remember) when Allâh showed them to you as few in your (i.e. Muhammad's peace be upon him) dream; if He had shown them to you as many, you would surely have been discouraged, and you would surely have disputed in making a decision. But Allâh saved (you). Certainly, He is the All-Knower of what is in the breasts.

وَإِذْ يُرِيكُمُوهُمْ إِذِ الْتَقَيْتُمْ فِي أَعْيُنِكُمْ قَلِيلًا وَيُقَلِّلُكُمْ فِي أَعْيُنِهِمْ لِيَقْضِيَ اللَّهُ أَمْرًا كَانَ مَفْعُولًا ۗ وَإِلَى اللَّهِ تُرْجَعُ الْأُمُورُ (44)

And (remember) when you met (the army of the disbelievers on the Day of the battle of Badr), He showed them to you as few in your eyes and He made you appear as few in their eyes, so that Allâh might accomplish a matter already ordained (in His Knowledge), and to Allâh return all matters (for decision).

It is the same philosophy; it is our views in life, real or visionary, that determine our beliefs, rational or irrational, which in turn, affects our motivation, determination and action. Therefore, listen to the following educational messages implied in the REBT and assured in the counselling programme:

Educational Message

Day-by-day you will increasingly do what you enjoy doing rather than what other people think you ought to do in life. It would be nice if other people approved of what you do, but it is not necessary to your happiness for you to be loved and approved of by almost everyone for almost everything you do.

You know what it is that makes you happy, that makes life enjoyable and this is what you should do.

As each day passes, you will become increasingly competent as you try to better your own performance. Do things because they bring you pleasure and rewards, but give up the notion of trying to be thoroughly competent, adequate and achieving.

Try to do rather than do perfectly. Accept failures as undesirable but not dreadful. You are a worthwhile, valuable person because you exist as a human being, not because of how well you do something. You are worthwhile in yourself, quite apart from your performance.

Day-by-day you will find it easier and easier to accept that you are a fallible human being and therefore likely to make mistakes. You will be able to learn from your mistakes and be increasingly successful as a result. Because you can accept that, as a human being, you are fallible, you will find it completely unnecessary to blame yourself for anything, for self-blame is completely unhelpful and destructive.

When conditions are not as you would like them to be you will be able, wherever possible, to change them for the better. When, for the moment, things cannot be changed,

you will be able to accept them calmly, realizing that anger and frustration would be making you miserable for nothing. It would be nice if things were going the way you want, but if they are not, it is not terrible, horrible, or catastrophic. You will be able to accept the situation and determinedly work to improve it.

Day-by-day, you will become more and more successful in feeding positive, happy thoughts into your mind. You will accept more and more strongly that you are responsible for your emotions, that you decide whether you will be happy or miserable. It is not external events that make you happy or sad, but the attitude you take to these events. Your misery is caused by your irrational thinking and the negative sentences you speak to yourself.

Gradually you will find less and less need to worry about future problems and danger, many of which are quite imaginary. You will be able to determine the real dangers about the things you fear, and see what the probabilities are of their actually occurring. Most of the things we worry about never happen so we make ourselves miserable for nothing. Day-by-day, you will find yourself becoming more and more successful in overcoming such pointless worry.

As each day passes, you will become increasingly able to face up to the difficulties and responsibilities of life. You will be able to determine for yourself what the truly necessary activities of life are, and no matter how unpleasant they may be, you will be able to perform them unrebelliously and promptly.

As you do so, you will feel an ever-growing sense of happiness and accomplishment.

With every passing day, the irrationalities of the past will influence your life less and less. You will reject more and more strongly the idea that the past is all important

and you will realise very powerfully that, just because something once strongly affected you, there is no reason why it should continue to do so indefinitely.

You are a different person now from the one you were in the past and you can now successfully cope with things which may have previously upset you.

With ever increasing frequency, you will be able to accept people and things as they are, seeing that compromise and reasonable solutions are necessary. You will be able to give up the notion that it is catastrophic if perfect solutions to life's problems are not found.

As each day passes, you will find yourself making definite attempts to become vitally absorbed in some persons or things outside yourself. To make our lives happy and fulfilling we need a purpose, and you will be able to find such a purpose for yourself.

REBT THERAPY GROUP OUTLINE

The REBT therapy group will meet for ten 3-hour sessions approximately five times a week. These sessions follow the initial session of the prelude where concepts of REBT are presented and expounded to participants, which will be primarily educational, and the coming sessions will primarily involve topics developing a problem framework and setting goals, choosing a target problem and assessing a specific example, questioning beliefs, dealing with doubts, taking action, etc. In addition, each session will involve discussion of the results of homework assignments and supportive therapy for maintaining and improving progress made in the homework assignments.

SESSION 1: Learn how to relax!

1. Think of the situations in which you experience social problems, e.g. speaking in public.
2. Identify the theme of the problem, what it is about the situations that you specified that is a problem for you. You may have already expressed the theme of the problem in step 1, e.g. acting foolishly.
3. Identify the one major unhealthy emotion from the list below that you experience when you encounter the situations or themes specified above, you may experience several unhealthy emotions, but select the main one, e.g. anxiety:

Anxiety Hurt

Depression Unhealthy anger

Guilt Unhealthy jealousy

Shame Unhealthy envy

4. Identify the relevant behaviour that is related to the problem, e.g. 'to cope with my anxiety, I over-prepare my material'.

The NEXT stage is to put all the elements together in a sentence. Let me show you how to do this by first placing each element under its relevant heading:

Type of situation	***Theme***	***Unhealthy Negative Emotion***	***Behaviour***
When I have to speak in public	I think I might act foolishly	I feel anxious	To cope with my social anxiety, I over prepare my material.

Now, here is the sentence:

When I have to speak in public, and think I might act foolishly, I feel anxious and cope with my social anxiety by over preparing my material.

This then constitutes your problem.

Now use the template in the handout (shown projected via data show) to develop your own list of problems:

Figure 1. Problem List

1.
2.
3.
4.
5.

Once you have developed your problem list, the next step is for you to set realistic goals with respect to each of your problems. This involves the following steps:

1. Keep the type of the situation in which you disturb yourself the same. After all, it is possible that you may well encounter such situations in the future.
2. Keep the theme about which you disturbed yourself the same. Again, it is possible that you may well encounter situations in which the theme reflects reality. You will have the opportunity later to consider whether or not the theme is an accurate representation of reality.
3. Change your unhealthy negative emotion to a healthy negative emotion. This step is important in that it helps you to deal with negative situations in a healthy, but realistic way.

4. Change your unconstructive behaviour to constructive behaviour. Again, this step is important in that it helps you to act constructively in the face of negative situations.

Let me exemplify this goal-setting process by returning to the example problem defined before, i.e., giving a public speech. Let me first give the problem in sentence format:

When I have to speak in public, and think I might act foolishly, I feel anxious and cope with my social anxiety by over preparing my material.

Now let me present this problem element by element under the appropriate heading:

Type of situation	**Theme**	**Unhealthy Negative Emotion**	**Behaviour**
When I have to speak in public	I think I might act foolishly	I feel anxious	To cope with my social anxiety, I over prepare my material.

If you follow the four guidelines outlined above, you will note that in specifying your goal, the first two elements are the same as in the defined problem:

Type of situation	**Theme**
When I have to speak in public	I think I might act foolishly

So all we have to do is to set goals with respect to emotion and behaviour. Let's do this one step at a time. First let's consider the emotional goal:

Type of situation	**Theme**	**Healthy Negative Emotion**
When I have to speak in public	I think I might act foolishly	I want to feel concerned rather than feel anxious

Here the person has correctly realised that the healthy emotional alternative to anxiety is concern. Anyone of you may have now changed the negative emotion of anxiety to that healthy emotion of concern. Now let's move on to the behavioural goal:

Type of situation	**Theme**	**Healthy Negative Emotion**	**Behaviour**
When I have to speak in public	I think I might act foolishly	I want to feel concerned rather than feel anxious	I want to prepare normally rather than over prepare my material

Again note that your goal is to prepare normally rather than over prepare your material.

Now use the format below to develop your goals vis-à-vis each of your problems: List the goals and rate the progress you are making towards them. Do this by choosing a number between 0 and 10, where 0 represents no progress and 10 presents 100% progress, and record the date:

1.						
2.						

3.						
4.						
5.						
6.						

SESSION 2: How Unhealthy Negative Emotions Crp Up!

Proceedings of the previous session are summarised as an introduction to the present session. We have learned how to identify a specific problem, or the target problem for which REBT will be applied. When you have selected a specific example of your target problem, use the following Dryden REBT Form below to assess the target problem. This form can be used to assess your social anxiety problem or related problems by assessing the episodes of emotional disturbance that you are experiencing:

Dryden REBT Form (DRF-2)

1. Situation: briefly describe a specific situation in which you disturbed yourself.
2. C (Consequence): identify your major unhealthy negative emotion in this episode: anxiety, depression, shame, guilt, hurt, unhealthy anger; unhealthy jealousy and unhealthy envy. Also specify how you acted or felt like acting in this situation.

I) Emotional consequences

ii) Behavioural consequences

3. Critical A (Activating event): identify the aspect of the situation that you were most disturbed about at C
4. B (Beliefs): identify your irrational beliefs about A and list their rational alternatives

i) Demand i) Full preference

ii) Awfulizing belief	ii) Anti-awfulizing belief
iii) Low frustration tolerance belief	iii) High frustration tolerance belief
iv) Depreciation belief	iv) Acceptance belief

Step 1: Describe the situation

The first step in assessing your target problem for an episode of emotional disturbance is to describe the situation in which you feel disturbed.

An example situation is like this:

Whenever I am in the company of authorities, I think that they will criticise me and I become anxious. When this happens, I try to find an excuse to withdraw from the situation.

1. Situation: briefly describe a specific situation in which you disturbed yourself

E.g. I received a memo to see the academic advisor just before the exams.

Step 2: Identify C – emotional and behavioural responses

The most common way that you are likely to know that you are experiencing a psychological problem is by the way that you feel and the way that you behave. Consequently, after you have described the situation in which you experienced the problem, the next step is to identify how you felt and/or acted or felt like acting in that situation:

5. C (Consequence): identify your major unhealthy negative emotion in this episode: anxiety, depression, shame, guilt, hurt, unhealthy anger; unhealthy

jealousy and unhealthy envy. Also specify how you acted or felt like acting in this situation.

I) Emotional consequences

ii) Behavioural consequences

Identify your major unhealthy negative emotion in this episode:

If you go back to the target problem, you will see that it contains an unhealthy negative emotion. Thus, this unhealthy negative emotion should also be the major unhealthy negative emotion that you experienced in the specific example of your target problem.

Unhealthy negative emotion	Healthy negative emotion
Anxiety	Concern
Depression	Sadness
Guilt	Remorse
Shame	Disappointment
Hurt	Sorrow
Unhealthy anger	Healthy anger
Unhealthy jealousy	Healthy jealousy
Unhealthy envy	Healthy envy

Identify major inference themes associated with your major unhealthy negative emotion

Emotion	Inferential themes
Anxiety	Threat, danger
Depression	Loss, loss of value, failure
Guilt	Public disclosure of weakness, falling very short of one's ideal
Shame	Moral violation (sin of commission and omission), hurting others
Hurt	Others treat you badly (and you consider that you don't deserve such treatment)
Unhealthy anger	Frustrated, transgressed against
Unhealthy jealousy	Threat to present relationship passed by another person
Unhealthy envy	Others experience the good fortune, which you lack and covet

Identify the major action or tendency associated with your major unhealthy negative emotion.

Identify the way you thought after you began to experience your major unhealthy negative emotion.

Specify how you acted or felt like acting in this situation

Step 3: identify the critical A

So far, you have done the following:

1. You have chosen a specific example of your target problem or selected an episode in which you disturbed yourself.

2. You have pinpointed your major unhealthy negative emotion and how you acted or felt like acting in the situation in question (these are known as emotional and behavioural consequences and occur at C in the ABC framework employed in REBT).

Your next step is to identify the aspect of the situation that you were most disturbed about at C. This is called the 'Critical A' in REBT. 'A' stands for activating events. Only one of these events is a critical event.

3.Critical A (Activating event): identify the aspect of the situation that you were most disturbed about at C

e.g. Whenever I am in the company of authorities, *I think that they will criticise me and I become anxious*. When this happens, I try to find an excuse to withdraw from the situation.

Step 4: identify your irrational beliefs about your critical A and their rational alternatives

Identify your irrational beliefs:

B (Beliefs): identify your irrational beliefs about A and list their rational alternatives	
i) Demand	i) Full preference
ii) Awfulizing belief	ii) Anti-awfulizing belief
iii) Low frustration tolerance belief	iii) High frustration tolerance belief
iv) Depreciation belief	iv) Acceptance belief

Identify your irrational beliefs about A.

- **Is it the end of the world that ……**
- **Is it horrible that ……**

Identify the rational alternatives to your irrational beliefs:

Session 4: Select your composite unhealthy and healthy beliefs

In step 4 of the DRF-2, I showed you how to identify the four irrational beliefs underpinning your emotional and behavioural responses to the critical A, and their irrational alternatives. In step 5, you are asked to condense these irrational beliefs into a composite, unhealthy belief by selecting the demand and one of the following irrational beliefs (awfulizing belief, LFT belief or depreciation belief) that best captured what you believed when you disturbed yourself in the situation of question.

6. Select your demand and the one other irrational belief (from the remaining three) that was at the core of your emotional and / or behavioural reaction to A. Also select your full preference and the appropriate rational belief and write down both sets of beliefs which you can refer to as unhealthy and healthy beliefs respectively side by side in the space below:

Demand and irrational belief (Unhealthy belief)	Full preference and rational belief (Healthy belief)

Step 6: set your emotional and behavioural goals

The next step is for you to set your emotional and behavioural goals for the specific example under consideration.

1. Ask yourself what would be a healthy emotional and behavioural response to the critical activating event at A.
2. Choose responses which are both healthy and realistic and to which you can commit yourself.

3. Consult what you wrote in step 2. Select an emotional goal that is the healthy negative emotion that you listed in step 2.
4. As before, only select one healthy negative emotion.
5. Then choose a healthy behavioural goal, one that is constructive alternative to the behavioural consequence that you listed in step 2.
6. Remember that this can be either an overt behaviour or an urge to act – a tendency to act in a specific way.

List your emotional and behavioural goals in the form below:

7. Emotional and behavioural goals: identify what you would have preferred your healthy negative emotion to have been if you had responded constructively to A. Choose your negative unhealthy emotion and specify how you would have preferred to have acted or felt like acting towards it:

i. Emotional Goal

ii. Behavioural Goal

Step 7: list your belief goal

This next step is for you to choose the belief (unhealthy or healthy) that you listed in step 5 which you consider will best help you to achieve the emotional and behavioural goals that you outlined in step 6.

8. Belief Goal: which belief listed in step 5 would help you to achieve your emotional and behavioural goals listed above:

Session 7: Questioning your (un)healthy, (ir)rational beliefs

Questioning your healthy, rational beliefs and your unhealthy irrational beliefs is at the core of REBT.

I am going to show you in this session how you can question both your healthy, rational beliefs and your unhealthy irrational beliefs. By this point, you should ideally understand what both sets of beliefs are, but if you would like to refresh your memory on this point, try to understand why your unhealthy beliefs are unhealthy and why your healthy beliefs are healthy. To do this, you need to ask yourself the following questions:

1. is it true or false?

2. is it logical or illogical?

3. is it helpful or unhelpful?

8.List persuasive arguments that would help you to strengthen your conviction in the belief you listed in step 7 in the previous session and weaken your conviction in the other belief:
i.
ii.
iii.
iv.

Developing this list, it is possible to create a grid where you can review the arguments that you employed in step 8 of the DRF-2 and plot which argument you employed with which belief. A blank grid is charted below as an example:

	Is it true/false?	**Is it logical/illogical?**	**Is it helpful/unhelpful?**
Unhealthy belief (demand + irrational belief)			
Healthy belief (full preference + rational belief)			
Demand			
Full preference			
Awfulizing belief			
Antif-awfulizing belief			
Low frustration tolerance belief			
High frustration tolerance belief			
Self-depreciation belief			
Self-acceptance belief			

Once you have digested these points, continue working on your specific target problem by completing the grid above. As you do so, do not rely too much on the arguments used by your peers. Use your own words in constructing your arguments. After you have done this, you are ready to move on to the next session.

Session 8: Dealing with your doubts, suspicions, reservations and objections: the ABCDE Model

In the previous session, you learned how to question your beliefs and, in particular, to generate persuasive arguments to help you to strengthen your conviction in your healthy beliefs and to weaken your conviction in your unhealthy beliefs.

Although you may have done so successfully, you may still harbour some doubts, reservations, suspicions or objections that may prevent you from moving on. These doubts, reservations, suspicions or objections centre on the following:

1. doubts, reservations, suspicions or objections to adopting your healthy belief and/or giving your unhealthy belief up;
2. doubts, reservations, suspicions or objections to adopting your unhealthy negative emotion and/or giving up your unhealthy negative emotion;
3. doubts, reservations, suspicions or objections to adopting your constructive behavioural goal and/or giving up your unconstructive behaviour.

Unless you identify and deal constructively with any doubts, reservations, suspicions or objections to adopting your healthy belief and/or giving up your unhealthy belief, emotion or behaviour, then you may stop yourself overcoming your psychological problems.

Dealing with doubts, reservations and objections to adopting your healthy belief and / or giving up your unhealthy belief:

Consider the two major doubts, reservations and objections to adopting your healthy belief and/or giving up your unhealthy belief and adapt to your own situation:

oubts, reservations and objections to adopting a full preference and giving up a demand:

Doubt 1: My demand motivates me to achieve what I want while the full preference doesn't. Therefore, if I give up my demand in favour of my full preference, I'll lose the motivation to do what is important to me.

Response: If this were true, then I can understand why you would be reluctant to give up your demand and work towards gaining conviction in your full preference.

However, your contention is not the case. Let me put it this way: your demand comprises a partial preference component (e.g. I want to do well in my upcoming test), and a demand component (and therefore, I must do so). Now the partial preference component provides you with healthy motivation in that it leads you to focus on and execute all the tasks necessary to fulfil your desire (e.g. organizing your study materials, revising these materials and testing yourself to determine your grasp of what you are to be tested on). The demand component, on the other hand, will either provide you with unhealthy motivation, sidetrack you, or lead you to freeze.

Let me consider these effects one at a time. First, your demand will provide you with unhealthy motivation. Since you believe that you absolutely have to pass the test, you will devote all your energies to studying and neglect other important activities like sleep, rest and recreation that will actually help you to get the most out of your studies.

You will likely end up too exhausted to concentrate properly and forget much of what you learned on the day of the test.

Second, the demand component will sidetrack you from carrying out effective study and revision strategies, and will lead you to concentrate on what psychologists call task-irrelevant thoughts.

Thus, you may become overly concerned with the likelihood of failure, exaggerate the consequences of failure, and think that the responses of other people to your failure will be highly negative.

I hope that you can see that those thoughts are hardly conducive to effective study and test-taking behaviour. Finally, the demand component may lead you to become so preoccupied with failing the test that you may freeze and stop revising for the test altogether.

By contrast, your full preference comprises a partial preference component (e.g. I want to do well in my upcoming test) and a negation of the demand component (e.g. but I don't absolutely have to do so). Now, as before, the partial preference component provides you with healthy motivation in that it leads you to focus and execute all the tasks that you need to do to actualise your desire.

The negation of the demand component (a) ensures that you don't get obsessed with your desire to pass the test; (b) keeps you focused on the task by encouraging task-relevant thinking, and (c) prevents freezing.

Doubts, reservations, and objections to adopting an anti-awfulizing belief and to giving up an awfulizing belief:

Doubts, reservations and objections to adopting a HFT belief and to giving up a low frustration tolerance belief:

Doubts, reservations and objections to adopting an acceptance belief and to giving up a depreciation belief:

Doubts, reservations and objections to adopting your healthy negative emotion and/or giving up your unhealthy negative emotion:

Doubts, reservations and objections to feeling concern and to stopping feeling anxious:

Doubts, reservations and objections to feeling sad and to stopping feeling depressed:

Doubts, reservations and objections to feeling disappointed and to stopping feeling ashamed:

Doubts, reservations and objections to feeling remorse and to stopping feeling guilt:

Doubts, reservations and objections to feeling sorrow and to stopping feeling hurt:

Doubts, reservations and objections to feeling healthy anger and to stopping feeling unhealthy anger:

Doubts, reservations and objections to feeling healthy jealousy and to stopping feeling unhealthy jealousy:

Doubts, reservations and objections to feeling healthy envy and to stopping feeling unhealthy envy:

Doubts, reservations and objections to adopting constructive behaviour and/or giving up unconstructive behaviour:

Doubts, reservations and objections to taking action to solve your psychological problems and to giving up procrastinating:

Doubts, reservations and objections to asserting yourself and to giving up staying quiet.

Session 9: A.B.C.D.E. Model: Taking Action

You learned in the previous session how to bring out your doubts, reservations and objections.

Now, you are in a position to take one of the most important steps of all in addressing your specific psychological problem – that of social anxiety, and its target specific related problems – i.e., taking action. The name of the approach to therapy in this programme is REBT – short for Rational Emotive Behavioural Therapy. The word 'rational' points to the fact that thinking is very important in your problems and that thinking rationally is a crucial component in psychological health. The word 'emotive' points to the fact that you are an emotional being and that disturbed feelings have most likely led you to seek help. Finally, the word 'behaviour' points to the fact that change very often does not take root unless you act in healthy ways.

Taking action, then, is very important in the change process. At this point, you have gained some experience in examining your unhealthy beliefs and their healthy alternatives, and you have generated arguments against the former and in support of the latter as discussed in the previous session.

You have also had the opportunity to identify and respond to your doubts, reservations and objections to moving forward with your healthy beliefs, emotions and behaviour, and to leaving behind your unhealthy equivalents.

The next stage is planning to take action. This action in particular is thought to strengthen your conviction in developing your healthy beliefs and weakening your entrenched beliefs.

In this session, the most important of this programme, you are going to take assignments – specific behavioural homework assignments that are designed to help you act in ways that are consistent with your healthy beliefs and inconsistent with your unhealthy beliefs.

Guidelines for designing and executing behavioural assignments

The REBT therapist explains in detail the following guidelines (in Dryden 2001):

1. Plan to face the critical A
2. Avoid safety-seeking strategies
3. Take appropriate risks in facing the critical A
4. Review your healthy beliefs at appropriate points
5. Review your healthy beliefs in different ways
6. Use imagery to rehearse taking action
7. Use role-play to rehearse taking action
8. Identify and overcome blocks to taking action
    - Capitalise on change by branching out into related areas

i. Capitalise on your gains I: same theme, similar context, different people: one way of capitalizing on your gains at this phase is by extending your practice into similar contexts or situations where different people are involved.

ii. Capitalise on your gains II: variation on theme, similar context, different people: If you were anxious about being criticised about your appearance in public, you could review a slightly modified version of your previous healthy beliefs; e.g. I am not inadequate if some people don't like the way I look or talk. I am the same fallible person as any other human being whether they like my appearance or not.

iii. Capitalise on your gains III: variation on theme, different context, different people: Similarly, if you have a problem of being anxious about being criticised when appearing in public, you can again review a modified version of your healthy beliefs and act accordingly; e.g. I can accept myself even if other people criticise me about my behaviour. I don't have to have their approval, saying this at home better aloud – i.e. speaking up rather than remaining silent and thus not taking a risk.

10. List homework assignments that you can do to strengthen your conviction in your healthy beliefs. Be specific concerning what you will do for homework, when you will do it, and where you will do it. The best homework assignments enable you to rehearse your healthy beliefs while acting in ways that are consistent with them:

i.

ii.

iii.

iv.

v.

Session 10: Dealing with your core unhealthy beliefs

Up till now, I have mainly concentrated on helping you to identify and challenge your specific unhealthy beliefs as they become manifest in specific situations where your social anxiety is at work and you disturb yourself in some way.

In this session, I will show you how to identify and deal with your core unhealthy beliefs. A core unhealthy belief (CUB) is a general unhealthy belief that is at the seat of your social anxiety. It has the following features:

1. it is general in nature;
2. it relates to a psychological theme such as approval/disapproval;
3. it spans situations relating to a psychological theme such as rejection by the others;
4. it involves people; it relates to one person, but may also relate to a number of people;
5. it affects the way you feel, how you behave and how you subsequently think;
6. it has far more dysfunctional than functional consequences;
7. it comprises a demand and at least one of the following: an awfulizing belief, a low frustration tolerance belief and a depreciation belief;
8. it leads you to infer the presence of the relevant theme in the absence of corroborative evidence such as the belief that you have been rejected while it is not clear that you have been.

Identifying your core unhealthy beliefs

Identify disturbance-related themes

Follow these steps:

1. Ask yourself what you largely disturb yourself about from the following list of psychological themes:

Being rejected losing status

Failing acting poorly or foolishly in public

Falling short of your ideals being frustrated

Breaking your moral code discomfort

Hurting other people's feelings emotional pain

Poor performance loss

Being criticised injustice to oneself

Being disapproved of injustice to others

Not being loved being betrayed or let down by others

2. Identify the contexts in which you experience problems related to the identified theme and / or relevant people involved.
3. Add the demand and at least one other unhealthy belief from the following list:

- anti-awfulizing belief;
- LFT belief;
- Depreciation belief

e.g. *I must not be criticised by authority figures at work or at college and I am incompetent person if I am criticised by such people.*

Monitoring your preoccupations

Considering what you avoid in life

Identifying your nightmare scenarios

Listing your core unhealthy beliefs, their core healthy alternatives and the effects of each

Using the Dryden Core Belief Form (DCBF)

The Dryden Core Belief Form (DCBF)

1. List your core unhealthy belief in a demand form and one of the following irrational beliefs: awfulizing belief; low frustration tolerance belief or depreciation belief. Then list next to it your alternative core healthy beliefs

in the form of a full preference and one of the following rational beliefs: antiawfulizing beliefs; HFT beliefs or acceptance beliefs:

Core Unhealthy Beliefs (CUB) **Core Healthy Beliefs (CHB)**

3. **Select the core belief that you wish to strengthen**
4. **Explain why you wish to strengthen it:**

i.

ii.

iii.

iv.

v.

5. List persuasive arguments that would help you to strengthen your conviction in your chosen core belief and weaken your conviction in the other core belief:

i.

ii.

iii.

iv.

v.

vi.

vii.

ix.

5. **List any doubts, reservations or objections you have about adopting your selected core belief or giving up the other core belief. Then respond to each doubt, reservation or objection:**

a) **Doubt, reservation, objection**

Response

b) **Doubt, reservation, objection**

Response

c) **Doubt, reservation, objection**

Response

d) **Doubt, reservation, objection**

Response

e) **Doubt, reservation, objection**

Response

6. List homework assignments that you can do to strengthen your conviction in your selected core beliefs and weaken your conviction in your other core belief. Choose assignments where you act and think in ways that are consistent with your selected core belief and inconsistent with your other core belief:

1.

2.

3.

4.

5.

6.

7.

8.

REST THERAPY GROUP OUTLINE

The REST therapy group will meet for two 3-hour sessions approximately one week apart. The initial session will be primarily educational, and the second session primarily involved discussion of the results of homework assignments and supportive therapy for maintaining and improving progress made in the homework assignments.

SESSION 1

Introduce members to the group and explain the group process: educational presentations, sharing of personal issues, in-group exercises, homework assignments and the issue of confidentiality.

Introduce the general principle of emotional responsibility by using diagrams to show members that it is their beliefs about negative events in their lives that are largely responsible for their feelings of anxiety. Encourage recognition among members that people can effect change in their psychological problems by using a general argument that change is possible. This includes examples of people overcoming alcoholism and/or addictions to drugs, and comparing how easy members imagine this to be compared to changing their anxiety.

Introduce the specific principle of emotional responsibility utilizing the ABC theory of REST and referring to the inaccurate thoughts log they had kept for the week prior to the session. Explain how their inaccurate thoughts are examples of their irrational beliefs about their anxiety, and that they can detect their irrational beliefs by using the same method. Explain that members need to distinguish them from their rational beliefs so that they can dispute them effectively. This involves explaining the difference between: absolute and non-absolute shoulds; unconditional and conditional musts; events being awful and very bad; unconditional and conditional self-acceptance; and help members specify their full rational belief.

Help members set appropriate individual goals by creating a problem list with respect to their anxiety, then defining their goals for specific problems within an ABC format. Guidelines for appropriate goals included: (a) being within members' control; (b) stated positively; (c) observable; (d) achievable; (e) health-promoting; and (f) ethical and legal.

Elicit a commitment to change utilizing a cost-benefit analysis of their anxiety and their goal. This analysis covered the following points: (a) there is an alternative to members' problem with anxiety; (b) the problem and goal both have actual and perceived advantages and disadvantages; (c) these advantages/disadvantages operate both in the short and long term; and d) these advantages/disadvantages are relevant for both members and others in their lives. Members listed the short and long term advantages and disadvantages for both their problem as well as ifs alternative, for both themselves and other people.

Explain the need to dispute irrational beliefs to change them, and describe how this can be done by subjecting their beliefs to the four criteria for rationality: a) are they flexible? b) are they realistic or consistent with reality? c) are they logical? and d) do they help or hinder the pursuit of the members' stated goals?

Explain the need to internalise new rational beliefs by employing cognitive, behavioural and emotive methods of change. This included the following points: (a) the effectiveness of combining behavioural methods with cognitive methods; (b) the importance of emotive force in the change process; (c) emotional change often lingers behind behavioural and cognitive change; and (d) therapeutic progress is uneven and lapses and relapses are normal.

Negotiate homework assignments with members by explaining their importance and encouraging member input on what they feel would be appropriate assignments for them. Homework included cognitive, imagery, behavioural and/or emotive assignments.

At the end of Session 1, the recorded educational REBT message will be played for members as an example of rational beliefs.

SESSION 2

Review information covered in Session 1; check for and correct any misunderstandings. The recorded educational REBT message will again be played for members.

Review cost-benefit analyses to help emphasise members' commitment to changing their irrational beliefs. Review homework assignments, inducting: (a) what members learned from doing the assignments; (b) what problems they experienced doing the assignments; and (c) what changes are needed for them to carry out their assignments. This involves 1.2.3.-step process for encouraging other members to give feedback, support and ideas for making positive changes in future assignments.

Close Session 2 by encouraging members to continue working on their goals and homework assignments.

Appendix G

TABLES 26–36 – CHAPTER 3

Table 26: Reliability assessment of the Irrational Beliefs Test using Alpha Co-efficient

Question	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Alpha if Item Deleted
QA1	306.1	557.1563	-0.1139	0.7737
QA2	303.674	545.0178	0.1371	0.7697
QA3	305.618	557.4149	-0.1064	0.7743
QA4	305.1	538.3948	0.2563	0.7669
QA5	304.338	549.0378	0.0706	0.7711
QA6	305.67	542.0532	0.2088	0.7681
QA7	304.65	535.9875	0.2775	0.7662
QA8	303.662	542.6491	0.1995	0.7683
QA9	304.226	548.2835	0.052	0.7723
QA10	303.448	547.9031	0.1071	0.7703
QA11	304.95	544.8612	0.1035	0.7709
QA12	304.53	547.6644	0.0883	0.7708
QA13	304.162	543.4947	0.1445	0.7696
QA14	304.506	548.6433	0.0555	0.7719
QA15	304.822	545.0685	0.1404	0.7696
QA16	304.092	538.1759	0.258	0.7668
QA17	304.23	545.0953	0.1116	0.7705
QA18	305.524	545.6888	0.1221	0.7701
QA19	304.934	538.7992	0.2028	0.768
QA20	305.98	546.0758	0.1251	0.77
QA21	303.368	547.9966	0.0997	0.7704
QA22	303.766	550.6245	0.0408	0.7717
QA23	304.688	545.9946	0.0928	0.7711
QA24	305.052	556.5905	-0.0745	0.7763
QA25	304.192	550.3278	0.0346	0.7722
QA26	305.35	552.5887	-0.0061	0.7731
QA27	305.316	543.948	0.1545	0.7693
QA28	303.614	542.1012	0.2308	0.7678
QA29	305.276	554.6852	-0.0448	0.7739
QA30	305.086	538.4675	0.2338	0.7673
QA31	303.988	547.054	0.0999	0.7706
QA32	303.186	544.9934	0.2017	0.7686
QA33	303.58	547.7631	0.1084	0.7703
QA34	304.078	537.1743	0.3476	0.7655
QA35	304.226	545.9548	0.1114	0.7704
QA36	304.594	559.9451	-0.1347	0.7766

Question	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Alpha if Item Deleted
QA37	304.83	538.5262	0.259	0.7669
QA38	305.214	541.6475	0.1844	0.7686
QA39	304.902	537.6838	0.2984	0.7661
QA40	304.542	551.5794	0.0188	0.7722
QA41	305.194	541.3871	0.1779	0.7687
QA42	303.548	544.2482	0.1932	0.7686
QA43	304.776	548.3786	0.0834	0.7708
QA44	304.708	543.7021	0.1742	0.7689
QA45	305.054	548.3798	0.0786	0.771
QA46	304.78	545.4224	0.1368	0.7697
QA47	303.928	548.5519	0.0718	0.7712
QA48	304.378	544.2476	0.1794	0.7688
QA49	304.116	539.9304	0.2459	0.7673
QA50	305.27	546.1775	0.1142	0.7703
QA51	305.17	549.929	0.0412	0.772
QA52	304.438	536.5913	0.314	0.7657
QA53	303.796	543.7739	0.1776	0.7688
QA54	305.16	557.4533	-0.0969	0.775
QA55	304.76	539.6737	0.2235	0.7676
QA56	304.78	546.204	0.1051	0.7705
QA57	304.896	551.4561	0.0126	0.7728
QA58	305.376	540.1149	0.2276	0.7676
QA59	304.846	546.6275	0.1186	0.7701
QA60	304.832	534.136	0.295	0.7656
QA61	304.95	543.3101	0.1453	0.7696
QA62	304.702	538.1295	0.2543	0.7669
QA63	304.282	540.3392	0.2264	0.7676
QA64	304.492	532.7635	0.3596	0.7643
QA65	304.7	532.9679	0.3831	0.7641
QA66	304.454	532.7895	0.3568	0.7644
QA67	304.074	544.4374	0.1645	0.7691
QA68	305.76	545.0244	0.1385	0.7697
QA69	304.6	538.1283	0.2756	0.7665
QA70	305.076	538.6515	0.2366	0.7673
QA71	304.732	536.0362	0.3139	0.7656
QA72	303.928	538.4397	0.2891	0.7664
QA73	305.196	539.0036	0.1633	0.7693
QA74	304.928	538.2633	0.2649	0.7667
QA75	304.152	546.6302	0.1256	0.7699
QA76	304.532	537.0751	0.3156	0.7658
QA77	304.724	540.3565	0.225	0.7677
QA78	305.186	538.8571	0.261	0.7669
QA79	305.264	534.4632	0.3378	0.765

Question	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Alpha if Item Deleted
QA80	303.85	545.8512	0.1284	0.7699
QA81	304.596	536.1771	0.3107	0.7657
QA82	304.856	534.0634	0.32	0.7652
QA83	305.616	541.4194	0.2212	0.7678
QA84	305.386	541.1273	0.2045	0.7681
QA85	305.496	554.4389	-0.0435	0.7753
QA86	304.77	545.448	0.1116	0.7704
QA87	304.868	547.1048	0.1071	0.7703
QA88	305.878	543.0893	0.1909	0.7685
QA89	305.164	540.2135	0.2193	0.7677
QA90	303.84	544.4072	0.1765	0.7689
QA91	304.404	538.8264	0.2782	0.7666
QA92	304.734	544.6125	0.1545	0.7693
QA93	304.864	546.9394	0.0814	0.7713
QA94	304.768	544.3308	0.1676	0.769
QA95	304.392	543.4653	0.1475	0.7695
QA96	305.664	540.6564	0.2586	0.7672
QA97	304.296	544.2449	0.1588	0.7692
QA98	304.882	537.0582	0.2963	0.7661
QA99	304.852	553.1965	-0.0179	0.7734
QA100	305.452	539.675	0.2064	0.768

Reliability Coefficients N of Cases = 500.0 N of Items =100 Alpha = .7710

Table 27: Reliability assessment of the Irrational Beliefs Test using the Split-half Method

Question	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Alpha if Item Deleted
QA1	306.1	557.1563	-0.1139	0.7737
QA2	303.674	545.0178	0.1371	0.7697
QA3	305.618	557.4149	-0.1064	0.7743
QA4	305.1	538.3948	0.2563	0.7669
QA5	304.338	549.0378	0.0706	0.7711
QA6	305.67	542.0532	0.2088	0.7681
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QA9	304.226	548.2835	0.052	0.7723
QA10	303.448	547.9031	0.1071	0.7703
QA11	304.95	544.8612	0.1035	0.7709
QA12	304.53	547.6644	0.0883	0.7708
QA13	304.162	543.4947	0.1445	0.7696
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QA36	304.594	559.9451	-0.1347	0.7766
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Question	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Alpha if Item Deleted
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QA40	304.542	551.5794	0.0188	0.7722
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QA48	304.378	544.2476	0.1794	0.7688
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QA51	305.17	549.929	0.0412	0.772
QA52	304.438	536.5913	0.314	0.7657
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QA57	304.896	551.4561	0.0126	0.7728
QA58	305.376	540.1149	0.2276	0.7676
QA59	304.846	546.6275	0.1186	0.7701
QA60	304.832	534.136	0.295	0.7656
QA61	304.95	543.3101	0.1453	0.7696
QA62	304.702	538.1295	0.2543	0.7669
QA63	304.282	540.3392	0.2264	0.7676
QA64	304.492	532.7635	0.3596	0.7643
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QA66	304.454	532.7895	0.3568	0.7644
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QA73	305.196	539.0036	0.1633	0.7693
QA74	304.928	538.2633	0.2649	0.7667
QA75	304.152	546.6302	0.1256	0.7699
QA76	304.532	537.0751	0.3156	0.7658
QA77	304.724	540.3565	0.225	0.7677
QA78	305.186	538.8571	0.261	0.7669
QA79	305.264	534.4632	0.3378	0.765
QA80	303.85	545.8512	0.1284	0.7699

Question	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Alpha if Item Deleted
QA81	304.596	536.1771	0.3107	0.7657
QA82	304.856	534.0634	0.32	0.7652
QA83	305.616	541.4194	0.2212	0.7678
QA84	305.386	541.1273	0.2045	0.7681
QA85	305.496	554.4389	-0.0435	0.7753
QA86	304.77	545.448	0.1116	0.7704
QA87	304.868	547.1048	0.1071	0.7703
QA88	305.878	543.0893	0.1909	0.7685
QA89	305.164	540.2135	0.2193	0.7677
QA90	303.84	544.4072	0.1765	0.7689
QA91	304.404	538.8264	0.2782	0.7666
QA92	304.734	544.6125	0.1545	0.7693
QA93	304.864	546.9394	0.0814	0.7713
QA94	304.768	544.3308	0.1676	0.769
QA95	304.392	543.4653	0.1475	0.7695
QA96	305.664	540.6564	0.2586	0.7672
QA97	304.296	544.2449	0.1588	0.7692
QA98	304.882	537.0582	0.2963	0.7661
QA99	304.852	553.1965	-0.0179	0.7734

Reliability Coefficients

N of Cases = 500.0 N of Items =100

Correlation between forms = .5482 Equal-length Spearman-Brown = .7082

Guttman Split-half = .6887 Unequal-length Spearman-Brown = .7082

50 Items in part 1 50 Items in part 2

Alpha for part 1 = .5132 Alpha for part 2 = .7290

Table 28: Reliability assessment of the Irrational Beliefs Test using Guttman's Coefficient

Question	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
QA1	306.1	557.1563	-0.1139	0.2917	0.7737
QA2	303.674	545.0178	0.1371	0.3198	0.7697
QA3	305.618	557.4149	-0.1064	0.2737	0.7743
QA4	305.1	538.3948	0.2563	0.3608	0.7669
QA5	304.338	549.0378	0.0706	0.364	0.7711
QA6	305.67	542.0532	0.2088	0.256	0.7681
QA7	304.65	535.9875	0.2775	0.4387	0.7662
QA8	303.662	542.6491	0.1995	0.3215	0.7683
QA9	304.226	548.2835	0.052	0.2055	0.7723
QA10	303.448	547.9031	0.1071	0.3358	0.7703
QA11	304.95	544.8612	0.1035	0.2209	0.7709
QA12	304.53	547.6644	0.0883	0.27	0.7708
QA13	304.162	543.4947	0.1445	0.2524	0.7696
QA14	304.506	548.6433	0.0555	0.3294	0.7719
QA15	304.822	545.0685	0.1404	0.2418	0.7696
QA16	304.092	538.1759	0.258	0.3371	0.7668
QA17	304.23	545.0953	0.1116	0.2987	0.7705
QA18	305.524	545.6888	0.1221	0.3343	0.7701
QA19	304.934	538.7992	0.2028	0.2926	0.768
QA20	305.98	546.0758	0.1251	0.3951	0.77
QA21	303.368	547.9966	0.0997	0.3274	0.7704
QA22	303.766	550.6245	0.0408	0.3124	0.7717
QA23	304.688	545.9946	0.0928	0.3996	0.7711
QA24	305.052	556.5905	-0.0745	0.4317	0.7763
QA25	304.192	550.3278	0.0346	0.315	0.7722
QA26	305.35	552.5887	-0.0061	0.2643	0.7731
QA27	305.316	543.948	0.1545	0.3063	0.7693
QA28	303.614	542.1012	0.2308	0.3395	0.7678
QA29	305.276	554.6852	-0.0448	0.2871	0.7739
QA30	305.086	538.4675	0.2338	0.3627	0.7673
QA31	303.988	547.054	0.0999	0.3807	0.7706
QA32	303.186	544.9934	0.2017	0.4027	0.7686
QA33	303.58	547.7631	0.1084	0.3281	0.7703
QA34	304.078	537.1743	0.3476	0.4116	0.7655
QA35	304.226	545.9548	0.1114	0.3296	0.7704
QA36	304.594	559.9451	-0.1347	0.2873	0.7766
QA37	304.83	538.5262	0.259	0.3667	0.7669
QA38	305.214	541.6475	0.1844	0.3916	0.7686

Question	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
QA39	304.902	537.6838	0.2984	0.3792	0.7661
QA40	304.542	551.5794	0.0188	0.4032	0.7722
QA41	305.194	541.3871	0.1779	0.3988	0.7687
QA42	303.548	544.2482	0.1932	0.364	0.7686
QA43	304.776	548.3786	0.0834	0.2575	0.7708
QA44	304.708	543.7021	0.1742	0.259	0.7689
QA45	305.054	548.3798	0.0786	0.2695	0.771
QA46	304.78	545.4224	0.1368	0.3678	0.7697
QA47	303.928	548.5519	0.0718	0.3547	0.7712
QA48	304.378	544.2476	0.1794	0.3339	0.7688
QA49	304.116	539.9304	0.2459	0.3071	0.7673
QA50	305.27	546.1775	0.1142	0.2659	0.7703
QA51	305.17	549.929	0.0412	0.4008	0.772
QA52	304.438	536.5913	0.314	0.3458	0.7657
QA53	303.796	543.7739	0.1776	0.3201	0.7688
QA54	305.16	557.4533	-0.0969	0.2801	0.775
QA55	304.76	539.6737	0.2235	0.2994	0.7676
QA56	304.78	546.204	0.1051	0.3197	0.7705
QA57	304.896	551.4561	0.0126	0.3175	0.7728
QA58	305.376	540.1149	0.2276	0.3028	0.7676
QA59	304.846	3 546.6275	0.1186	0.2552	0.7701
QA60	304.832	534.136	0.295	0.3762	0.7656
QA61	304.95	543.3101	0.1453	0.3395	0.7696
QA62	304.702	538.1295	0.2543	0.3035	0.7669
QA63	304.282	540.3392	0.2264	0.3585	0.7676
QA64	304.492	532.7635	0.3596	0.3785	0.7643
QA65	304.7	532.9679	0.3831	0.4184	0.7641
QA66	304.454	532.7895	0.3568	0.49	0.7644
QA67	304.074	544.4374	0.1645	0.3111	0.7691
QA68	305.76	545.0244	0.1385	0.3285	0.7697
QA69	304.6	538.1283	0.2756	0.3939	0.7665
QA70	305.076	538.6515	0.2366	0.3481	0.7673
QA71	304.732	536.0362	0.3139	0.3504	0.7656
QA72	303.928	538.4397	0.2891	0.3931	0.7664
QA73	305.196	539.0036	0.1633	0.2113	0.7693
QA74	304.928	538.2633	0.2649	0.3529	0.7667
QA75	304.152	546.6302	0.1256	0.2885	0.7699
QA76	304.532	537.0751	0.3156	0.3502	0.7658
QA77	304.724	540.3565	0.225	0.3059	0.7677
QA78	305.186	538.8571	0.261	0.4003	0.7669
QA79	305.264	534.4632	0.3378	0.4204	0.765
QA80	303.85	545.8512	0.1284	0.5127	0.7699

Question	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
QA81	304.596	536.1771	0.3107	0.4867	0.7657
QA82	304.856	534.0634	0.32	0.3253	0.7652
QA83	305.616	541.4194	0.2212	0.4202	0.7678
QA85	305.496	554.4389	-0.0435	0.3112	0.7753
QA86	304.77	545.448	0.1116	0.2485	0.7704
QA87	304.868	547.1048	0.1071	0.2726	0.7703
QA88	305.878	543.0893	0.1909	0.4294	0.7685
QA89	305.164	540.2135	0.2193	0.3318	0.7677
QA90	303.84	544.4072	0.1765	0.381	0.7689
QA91	304.404	538.8264	0.2782	0.3748	0.7666
QA92	304.734	544.6125	0.1545	0.327	0.7693
QA93	304.864	546.9394	0.0814	0.2692	0.7713
QA94	304.768	544.3308	0.1676	0.2572	0.769
QA95	304.392	543.4653	0.1475	0.3064	0.7695
QA96	305.664	540.6564	0.2586	0.3439	0.7672
QA97	304.296	544.2449	0.1588	0.2989	0.7692
QA98	304.882	537.0582	0.2963	0.2919	0.7661
QA99	304.852	553.1965	-0.0179	0.3418	0.7734
QA100	305.452	539.675	0.2064	0.4453	0.768

Reliability Coefficients 100 items

Lambda 1 = .7633 Lambda 2 = .7840 Lambda 3 = .7710

Lambda 4 = .6887 Lambda 5 = .7699 Lambda 6 = .8425

Table 29: Reliability assessment of the shyness scale using Alpha Co-efficient

Question	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Alpha if Item Deleted
QB1	34.26	70.2208	0.514	0.7243
QB2	33.61	70.0941	0.4552	0.7284
QB3	34.234	78.0914	0.076	0.765
QB4	34.72	72.7631	0.3894	0.7357
QB5	34.592	71.6649	0.3965	0.7344
QB6	33.848	78.6261	0.0562	0.7664
QB7	34.406	69.6765	0.5017	0.7244
QB8	34.418	72.4963	0.3643	0.7375
QB9	34.094	69.897	0.3892	0.7349
QB10	34.104	73.7567	0.3034	0.7431
QB11	33.942	69.6219	0.4622	0.7275
QB12	33.628	71.7812	0.3111	0.7436
QB13	34.486	70.8194	0.4726	0.7279
QB14	33.836	69.8488	0.4886	0.7255
QB15	33.774	75.6382	0.1983	0.753

Reliability CoefficientsN of Cases = 500.0 N of Items = 15

Alpha = .7517

Table 30: Reliability assessment of the shyness scale using Spearman Co-efficient

Question	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Alpha if Item Deleted
QB1	34.26	70.2208	0.514	0.7243
QB2	33.61	70.0941	0.4552	0.7284
QB3	34.234	78.0914	0.076	0.765
QB4	34.72	72.7631	0.3894	0.7357
QB5	34.592	71.6649	0.3965	0.7344
QB6	33.848	78.6261	0.0562	0.7664
QB7	34.406	69.6765	0.5017	0.7244
QB8	34.418	72.4963	0.3643	0.7375
QB9	34.094	69.897	0.3892	0.7349
QB10	34.104	73.7567	0.3034	0.7431
QB11	33.942	69.6219	0.4622	0.7275
QB12	33.628	71.7812	0.3111	0.7436
QB13	34.486	70.8194	0.4726	0.7279
QB14	33.836	69.8488	0.4886	0.7255
QB15	33.774	75.6382	0.1983	0.753

Reliability Coefficients N of Cases = 500.0 N of Items = 15

Correlation between forms = .5016 Equal-length Spearman-Brown = .6680

Guttman Split-half = .6680 Unequal-length Spearman-Brown = .6688

8 Items in part 1 7 Items in part 2

Alpha for part 1 = .6236 Alpha for part 2 = .6512

Table 31: Reliability Assessment of the Shyness Scale Using the Covariance Matrix

Question	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
QB1	34.26	70.2208	0.514	0.3179	0.7243
QB2	33.61	70.0941	0.4552	0.2682	0.7284
QB3	34.234	78.0914	0.076	0.0508	0.765
QB4	34.72	72.7631	0.3894	0.2465	0.7357
QB5	34.592	71.6649	0.3965	0.209	0.7344
QB6	33.848	78.6261	0.0562	0.0888	0.7664
QB7	34.406	69.6765	0.5017	0.3025	0.7244
QB8	34.418	72.4963	0.3643	0.1726	0.7375
QB9	34.094	69.897	0.3892	0.1829	0.7349
QB10	34.104	73.7567	0.3034	0.1113	0.7431
QB11	33.942	69.6219	0.4622	0.3287	0.7275
QB12	33.628	71.7812	0.3111	0.2026	0.7436
QB13	34.486	70.8194	0.4726	0.2853	0.7279
QB14	33.836	69.8488	0.4886	0.3171	0.7255
QB15	33.774	75.6382	0.1983	0.0517	0.753

Reliability Coefficients 15 items

Lambda 1 = .7016 Lambda 2 = .7620 Lambda 3 = .7517

Lambda 4 = .6680 Lambda 5 = .7412 Lambda 6 = .7631

Table 32: Reliability assessment of the s Interaction Anxiousness Scale using the Alpha Coefficient

Question	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Alpha if Item Deleted
QC1	27.874	36.2707	0.3332	0.5709
QC2	28.954	37.4388	0.3815	0.5681
QC3	26.934	40.4145	0.0506	0.6288
QC4	28.448	35.4702	0.3943	0.5581
QC5	28.65	36.1197	0.4169	0.5576
QC6	27.782	41.0245	0.0173	0.6345
QC7	27.64	36.0024	0.3373	0.5696
QC8	27.72	34.9315	0.4138	0.5529
QC9	27.838	38.8895	0.1698	0.6035
QC10	28.304	36.192	0.3372	0.57
QC11	28.422	35.5911	0.3995	0.5578
QC12	27.462	41.1148	-0.0018	0.6418

Reliability Coefficients N of Cases = 500.0 N of Items = 12

Alpha = .6072

Table 33: Reliability assessment of the s Interaction Anxiousness Scale using the Split-half Method

Question	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Alpha if Item Deleted
QC1	27.874	36.2707	0.3332	0.5709
QC2	28.954	37.4388	0.3815	0.5681
QC3	26.934	40.4145	0.0506	0.6288
QC4	28.448	35.4702	0.3943	0.5581
QC5	28.65	36.1197	0.4169	0.5576
QC6	27.782	41.0245	0.0173	0.6345
QC7	27.64	36.0024	0.3373	0.5696
QC8	27.72	34.9315	0.4138	0.5529
QC9	27.838	38.8895	0.1698	0.6035
QC10	28.304	36.192	0.3372	0.57
QC11	28.422	35.5911	0.3995	0.5578
QC12	27.462	41.1148	-0.0018	0.6418

Reliability Coefficients N of Cases = 500.0 N of Items = 12

Correlation between forms = .5252 Equal-length Spearman-Brown = .6887

Guttman Split-half = .6868 Unequal-length Spearman-Brown = .6887

6 Items in part 1 6 Items in part 2

Alpha for part 1 = .3607 Alpha for part 2 = .4138

Table 34: Reliability assessment of the s Interaction Anxiousness Scale using the Covariance Matrix

Question	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
QC1	27.874	36.2707	0.3332	0.2462	0.5709
QC2	28.954	37.4388	0.3815	0.2855	0.5681
QC3	26.934	40.4145	0.0506	0.1422	0.6288
QC4	28.448	35.4702	0.3943	0.308	0.5581
QC5	28.65	36.1197	0.4169	0.4497	0.5576
QC6	27.782	41.0245	0.0173	0.1721	0.6345
QC7	27.64	36.0024	0.3373	0.2086	0.5696
QC8	27.72	34.9315	0.4138	0.2586	0.5529
QC9	27.838	38.8895	0.1698	0.0668	0.6035
QC10	28.304	36.192	0.3372	0.2205	0.57
QC11	28.422	35.5911	0.3995	0.3061	0.5578
QC12	27.462	41.1148	-0.0018	0.2664	0.6418

Reliability Coefficients 12 items
Lambda 1 = .5566 Lambda 2 = .6527 Lambda 3 = .6072
Lambda 4 = .6868 Lambda 5 = .6251 Lambda 6 = .6624

Table 35: Factor Analysis of the Validity of the Irrational Beliefs

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.455	6.455	6.455	6.455	6.455	6.455	4.114	4.114	4.114
2	5.178	5.178	11.632	5.178	5.178	11.632	2.397	2.397	6.511
3	3.806	3.806	15.438	3.806	3.806	15.438	2.200	2.200	8.711
4	2.150	2.150	17.588	2.150	2.150	17.588	2.100	2.100	10.811
5	2.087	2.087	19.675	2.087	2.087	19.675	1.940	1.940	12.751
6	2.014	2.014	21.688	2.014	2.014	21.688	1.926	1.926	14.677
7	1.933	1.933	23.622	1.933	1.933	23.622	1.925	1.925	16.601
8	1.831	1.831	25.453	1.831	1.831	25.453	1.920	1.920	18.522
9	1.795	1.795	27.248	1.795	1.795	27.248	1.784	1.784	20.306
10	1.763	1.763	29.012	1.763	1.763	29.012	1.781	1.781	22.087
11	1.697	1.697	30.709	1.697	1.697	30.709	1.762	1.762	23.848
12	1.641	1.641	32.350	1.641	1.641	32.350	1.758	1.758	25.606
13	1.624	1.624	33.974	1.624	1.624	33.974	1.733	1.733	27.340
14	1.580	1.580	35.554	1.580	1.580	35.554	1.699	1.699	29.039
15	1.547	1.547	37.101	1.547	1.547	37.101	1.687	1.687	30.726
16	1.488	1.488	38.589	1.488	1.488	38.589	1.684	1.684	32.410
17	1.428	1.428	40.017	1.428	1.428	40.017	1.679	1.679	34.089
18	1.393	1.393	41.409	1.393	1.393	41.409	1.664	1.664	35.753
19	1.377	1.377	42.786	1.377	1.377	42.786	1.633	1.633	37.386
20	1.360	1.360	44.146	1.360	1.360	44.146	1.631	1.631	39.018
21	1.337	1.337	45.483	1.337	1.337	45.483	1.620	1.620	40.638
22	1.324	1.324	46.807	1.324	1.324	46.807	1.611	1.611	42.249
23	1.281	1.281	48.087	1.281	1.281	48.087	1.584	1.584	43.833
24	1.256	1.256	49.343	1.256	1.256	49.343	1.580	1.580	45.413
25	1.240	1.240	50.583	1.240	1.240	50.583	1.535	1.535	46.948
26	1.212	1.212	51.794	1.212	1.212	51.794	1.527	1.527	48.476
27	1.178	1.178	52.972	1.178	1.178	52.972	1.522	1.522	49.997
28	1.163	1.163	54.135	1.163	1.163	54.135	1.518	1.518	51.516
29	1.126	1.126	55.262	1.126	1.126	55.262	1.498	1.498	53.014
30	1.113	1.113	56.375	1.113	1.113	56.375	1.467	1.467	54.480
31	1.092	1.092	57.466	1.092	1.092	57.466	1.463	1.463	55.943
32	1.089	1.089	58.556	1.089	1.089	58.556	1.447	1.447	57.391
33	1.038	1.038	59.594	1.038	1.038	59.594	1.432	1.432	58.823
34	1.028	1.028	60.622	1.028	1.028	60.622	1.412	1.412	60.235
35	1.021	1.021	61.643	1.021	1.021	61.643	1.407	1.407	61.643

Table 36: Comparison of Extraction and Rotation Methods (N = 500) for All Scales

Component	Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1.	9.656	7.603	7.603
2.	5.536	4.359	11.962
3.	4.117	3.242	15.204
4.	3.214	2.531	17.735
5.	2.337	1.840	19.575
6.	2.265	1.784	21.359
7.	2.199	1.731	23.090
8.	2.168	1.707	24.797
9.	1.972	1.553	26.350
10.	1.930	1.520	27.870
11.	1.854	1.460	29.330
12.	1.816	1.430	30.760
13.	1.802	1.419	32.179
14.	1.765	1.390	33.569
15.	1.720	1.354	34.923
16.	1.685	1.327	36.250
17.	1.613	1.270	37.520
18.	1.568	1.234	38.754
19.	1.536	1.210	39.964
20.	1.490	1.174	41.138
21.	1.474	1.160	42.298
22.	1.459	1.149	43.447
23.	1.431	1.126	44.573
24.	1.426	1.123	45.696
25.	1.408	1.109	46.805
26.	1.367	1.076	47.881
27.	1.349	1.062	48.943
28.	1.331	1.048	49.991
29.	1.309	1.031	51.022
30.	1.272	1.002	52.024
31.	1.233	.971	52.994
32.	1.224	.964	53.958
33.	1.205	.949	54.907
34.	1.179	.929	55.836
35.	1.176	.926	56.762
36.	1.157	.911	57.673
37.	1.136	.895	58.568
38.	1.108	.873	59.441
39.	1.094	.861	60.302
40.	1.069	.842	61.144
41.	1.052	.829	61.972
42.	1.043	.821	62.794
43.	1.012	.797	63.590

Print Close

RE: Ethics submission

From: **David Bunce** (David.Bunce@brunel.ac.uk)
Sent: 17 November 2008 09:48:56
To: Mr AL-Moteri (almoteri@hotmail.com)
Cc: Devinder Saggi (Devinder.Saggi@brunel.ac.uk); Dany Nobus (Dany.Nobus@brunel.ac.uk)

Dear Jahaz,

'The effectiveness of a counselling programme in relaxing the anxiety related to irrational thinking among Saudi college students'.

Thank you for your message below relating to the above submission. Conditional upon amendments to study procedures agreed in our earlier communications, and the also the amendment to informed consent detailed in the message below (15 Nov 08), I am happy to confirm ethics approval for the above research project.

Good luck with your research.

David Bunce
Chair PsyREC

From: Mr AL-Moteri [mailto:almoteri@hotmail.com]
Sent: Sat 11/15/2008 11:07
To: David Bunce
Subject: RE: Ethics submission

Dear PsyREC Committee Members,

Thank you so much for your comments. As you have adeptly remarked, confidentiality contradicts the possible exposure of any procedures or results of the study to parents of next of kin. In this case, I think it would be appropriate to clarify this on the consent forms indicating that the information provided during therapy sessions may be, upon request, be discussed with parents or next of kin.

Thank you again.

Jahaz

> Subject: Ethics submission
> Date: Tue, 4 Nov 2008 14:58:11 +0000
> From: David.Bunce@brunel.ac.uk
> To: almoteri@hotmail.com
> CC: Nicholas.Pound@brunel.ac.uk; Martina.Reynolds@brunel.ac.uk; Toby.Robertson@brunel.ac.uk; Bridget.Dibb@brunel.ac.uk; Devinder.Saggi@brunel.ac.uk; Dany.Nobus@brunel.ac.uk
>
> Dear Jahaz,
>
> Re. : 'The effectiveness of a counselling programme in relaxing the anxiety related to irrational thinking among Saudi college students'.
>
> Thank you for your responses to the concerns raised in relation to the above ethics submission. These have now been considered by all PsyREC committee members. While there is agreement that the procedures for informed consent etc are much improved over those previously, there is still a remaining concern that I would like you to address as follows:
>
> It is stated that "next of kin" will have "opportunities to ask questions and to see further information about the procedures and results of this study". But it is also stated that data will be treated as confidential. So, what will actually happen? Either the data are confidential, in which case parents/next of kin do not have access, or parents/next of kin are entitled to find out what was discussed during therapy sessions. If the latter, this has to be made absolutely clear on the consent forms - i.e. the forms would need to say "The information you provide during the therapy sessions may be discussed with your parents/next of kin".
>
> Please clarify what exactly will happen here by return email.
>
> Many thanks
>
> David Bunce
> Chair PsyREC
>
>
>
>