



An assessment of body weight perceptions, 'Fluffy' and the impact on psychological wellbeing and physical activity in Jamaica

A thesis submitted for the degree of Doctor of Philosophy

By

Venecia Ordell Pearce
Division of Psychology
College of Health and Life Sciences
Brunel University London
October 31, 2017

Abstract

Body weight perceptions remain an important area of study. Beauty ideals have changed significantly with more emphasis on thinness. According to sociocultural perspectives, the pressure to be thin results in negative psychological consequences in most Western societies. Evidence, however, suggests that certain cultural and ethnic groups retain a traditional preference for plumpness. This thesis aimed to understand cultural perceptions of body weight and its influence on body dissatisfaction, self-esteem, body appreciation and physical activity in Jamaica. The research employed a mixed methodology approach. Qualitative inquiry using thematic analysis unearthed various beliefs about body weight and its health consequences. Specifically, it identified varying body ideals for women in Jamaica. These are the *'fluffy'* body ideal and the slim ideal. The term *'fluffy'* referred to women with larger bodies who were perceived to be confident and attractive. The novel Fluffy Rating Questionnaire (FRQ) was developed and was subjected to both exploratory factor analysis (parallel analysis) in study 2 and later confirmatory factor analysis in study 3. It was determined that the FRQ was best suited to examine impressions of fluffy women's personality which was a significant contribution to knowledge on fluffiness in Jamaica. Data were analyzed using Pearson's correlation, regression analysis, and analysis of variance. There were no relationships between impressions of fluffy women's personality, self-esteem, body appreciation or body dissatisfaction. However, the results support existing knowledge on the relationship between body mass index and body dissatisfaction, self-esteem and body appreciation. Impressions of fluffy were simulated and results suggest impressions of fluffy were related to lower recall of physical activity compared to impressions of obesity and the control. Overall, the findings indicate that there are influences of Western body ideals in Jamaica; however, there is still a traditional preference for plumpness which is conveyed through local expressions such as *'Fluffy.'*

DECLARATION

I hereby declare that this thesis has not been or will be submitted in whole or in part to another University for the award of any other degree. One of the studies (chapter 4) and some of the discussions in this thesis have been published in the following journal:

Pearce, V., Dibb, B., Gaines, S, *jr.* (2014). Body weight perceptions, obesity and health behaviours in Jamaica. *Caribbean Journal of Psychology: Vol. 6, No. 1. 43-61*

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Acknowledgement

I take this opportunity to express my profound gratitude to my supervisory team - Dr. Stanley Gaines Jr (principal supervisor) and Dr. Bridget Dibb (second supervisor). I thank them for their guidance, inspiration, encouragement and unwavering support during the years of writing and development of this thesis. I would also like to thank members of the psychology department and the College of Health and Life Sciences (CHLS) team who provided their support and guidance via feedback from the confirmation event, conference presentations, and the annual reviews. Similarly, I thank my examiners for their time, feedback and recommendations.

This journey was not possible without the support and encouragement of my family and friends. I am extraordinarily grateful for my mother - Barbara Pearce, who undoubtedly believed in me; my dad - Jonah Pearce and grandma 'Madie' who were always praying for me; my siblings Kahmar, Maurice, Nadine, Karen for their emotional and financial support when I needed it most. I am especially indebted to my sister Althea Wray who always took the time to listen to me cry and complain about everything, who read all my papers, who provided reassurance that I can and will complete this journey and who was dedicated to walking this journey with me to the end no matter the circumstance. This thesis is dedicated to her – Althea 'Tee' Wray.

A special thank you to my cousin Nodine Edwards, who opened her home and provided me with accommodation in extremely tough times. Thank you to the Brunel Counselling Centre who provided their support and guidance during challenging times. To one of my fiancé - Lawrence Dunbar who have stuck with me, to Dr. Cristina Stoian who mentored me, to my close friends Dr. Christine Girges, Shanice Douglas, Shari-Ann Baker, Harold Davis, Dr. Solomon Mangyvat and my colleagues in GB265, a massive thank you for your support.

Lastly, I give thanks and praise to God for His strength, provision, and blessings on this challenging journey.

Chapter 1: Introduction

The body is a "site of enormous symbolic work and symbolic production...its deformities are stigmatic and stigmatizing, while at the same time, its perfections, culturally defined, are objects of praise and admiration" (Turner, 1984, p. 190). This thesis examines current conceptualizations of the body in Jamaica, a country considered to be a non-western society. In contemporary American societies and Western cultures, body weight and body shape reflect an investment in the body, where the body is in constant active process of work and image-making (Becker, 1994). The ideal body and physical attractiveness in Western societies equate to thinness (Swami, Buchanan, Furnham & Tovee, 2008) and is often reified via the media. In Jamaica, however, especially in the rural areas, there is a high value on fatness which represents health, fertility, happiness and an indication of social relations as opposed to thinness which represents illness and powerlessness (Sobo, 1993) within this cultural context.

Many theories have been developed in regards to aesthetic preferences for a thin body size and negative psychological consequences. One of the most prominent of these emphasizes the role of western societal values (Thompson et al., 1999). While this theory is well established, research is also yet to consider how differences in body perceptions lead to certain labelling of body sizes and the role those labels play in psychological adjustment to obesity stigma and the thin ideal in certain context. The broad aim of this thesis, therefore, is to investigate current body weight perceptions within the Jamaican context, with particular emphasis on how attitudes to larger body sizes could impact psychological adjustment.

Overview of context

Various studies have indicated that overweight/obesity rates have remained above 70% in the adult population in Jamaica (WHO, 2016; Ragoobirsingh, Morrison, Johnson, & Lewis-Fuller, 2004). Each investigation revealed that Jamaican females were more obese compared to Jamaican men (Jamaica Health & Lifestyle Survey – JHLS-II, 2008; World Health Organization, 2016). Despite these statistics, previous studies in Jamaica report that some obese and overweight adults in their study believed their weight was acceptable or seen as normal (Ichinoche et al., 2004; JHLS-II, 2008). They pointed out that traditionally being overweight was associated with maternity and nurture. This suggests that there is some level of underestimation of body weight and misclassification of body weight in Jamaica. This may be influenced by differences in perceptions of body weight. Underestimation of body weight or misclassification poses a challenge to healthier eating patterns and physical activity within the population. Ichinoche et al., (2004) suggest that low motivation to lose weight, however, may

be due to lack of knowledge of obesity and its related health risk as well as the culture in Jamaica for plump bodies.

According to Sault (1994), in Jamaica, a respected adult is often called a 'big man' or a 'big woman.' Sault (1994) also posits that good relations involve food sharing, and people being on good terms with others. Weight loss is often seen as a signal of social neglect (Sault, 1994). Typically, "a Jamaican seeing someone grow thin wonders about the sorts of life stresses that have caused the weight loss (rather than offering congratulations for it and attributing it to a "good" diet, as many middle and upper-class people in the United States do) (Sault, 1994, p. 136). A full-figured, plump, curvy or voluptuous female was therefore considered more physically attractive compared to others with a slender or thin physique (Savacool, 2009; Sobo, 1993). As it relates to being thin - "the concept of thinness goes hand in hand with ideas antithetical to those associated with "good fat" (Sobo, 1993, p. 35). These ideas about the body in Jamaica opposes the thin Western ideal and seems to contradict the notion that as society becomes modern, there is a general shift to thinness (Becker, Smith & Ciao, 2005).

Body ideals in the West

In Western countries, there is the pursuit of the thin ideal. The ultra-thin female image imported from the United States of America, the United Kingdom, and European countries is portrayed by the media as the ideal form of physical attractiveness (Jackson, Jiang and Chen, 2016). Therefore, there is enormous stress placed on the importance of maintaining a thin body (Tiggemann and Pickering, 1996) to be considered as good and beautiful (Morrison, Kalin & Morrison, 2004). Historically, this standard of beauty has seen changes. Over the past century, records show that there was no uniformity in beauty standards within the western culture. There have been some variations in the ideal female body before this current thin body that is idealized today. For instance, in the Middle Ages, a plump body was seen as fashionable and erotic, and this represented fertility and femininity (Grogan, 2008; Fallon, 1990). This was the ideal of that era. Having a small body, therefore, was associated with poverty or low social status (Grogan, 2008). Appearance ideals however progressively changed to a slender figure (Silverstein, Peterson & Perdue, 1986; Grogan, 2008) and today this slender, thin body remains prominent in the media as the ideal for beauty. As a result, there continues to be an increase in the desire to be extremely thin especially among women.

Attitudes towards larger bodies and health

With the idealization of thinness, it results in the widespread denigration of obesity, where obesity is seen as unattractive (Thompson, Heinberg, Altabe & Tantleff-Dunn, 1999). Typical labels or stereotype of overweight and obese persons include weak-willed, lazy,

sloppy, incompetent, unintelligent, emotionally unstable and even defective as people (Puhl & Heuer, 2010); compared to slender persons who are seen as healthy, confident and attractive (Grogan 2008). The obese are frequently blamed for their weight (Puhl & Heuer, 2010), depicted as gluttonous and unhealthy (Lewis et al., 2011) and considered inept and irresponsible in managing their health behaviours (Brewis, Wutich, Falletta-Cowden, & Rodriguez-Soto, 2011). Such descriptions perpetuate prejudice, discrimination and negative perceptions (Puhl & Heuer, 2010) of persons who are overweight or obese and create a challenging environment for them, at least in western cultures.

Cultural differences in weight perceptions

Despite the pervasive thin ideal in western cultures, research suggests that perception of body weight varies across cultures and body sizes may have different meanings to each group of people. Standards of beauty are often not the same cross-culturally. In western countries, the preoccupation with the thin ideal is juxtaposed to a fuller body that is considered attractive in some traditional non-western cultures (Swami, 2007; Treloar et al., 1999). There are a number of studies that document cultural and ethnic differences in weight perceptions. As such, the thin ideal may not be as universal (Brewis & McGarvey, 2000). Different cultural backgrounds can shape body ideals. What is referred to as obesity today or a higher body mass index was found to be more attractive for social acceptance in countries like Morocco, South Africa, the Mediterranean and the Pacific Islands (Fernald, 2009). In these contexts, research suggests that a heavier body type was preferred (Lahmam et al., 2007); hence, the perception of obesity was different from that of westernized nations where the ideal body is a thin body.

Differences in perception of body weight are therefore important in shaping beauty ideals. Perception is believed to be what we take in through our senses. It is defined as “*a set of processes by which we recognize, organize and make sense of the sensations we receive from environmental stimuli*” (Sternberg, 2006; p. 111). As such, perception varies across groups of people, time and generations and is influenced by culture, environment, and the media, as well as religious beliefs. For that reason, the diversity in perception of body types varies across different groups of people. As a result, some overweight individuals are not aware of the reality of excess weight (Lahmam et al., 2008) while others find larger body types more attractive compared to the thin ideal (Frederick, Forbes & Berezovskaya, 2008; Rguibi & Belahsen, 2006).

Motivations for research

As the world becomes modernized, it is experiencing a shift to a thin or smaller body ideal (Becker, Smith & Ciao, 2005). Substantial research has supported this claim (Swami, 2006; Gordon, 2001; Anderson-Fye & Becker, 2004); however, substantially less research has been directed to the Caribbean, specifically Jamaica in understanding the shift in body ideals and weight perceptions or the pursuit of the thin ideal in these developing countries. Jamaica is a middle-income Caribbean island with a population of 2,723,246 million people (Statistical Institute of Jamaica - STATIN, 2016) and is experiencing a rapid increase in obesity rates. The island of Jamaica is in close proximity to the United States of America which is one of the main societies that promulgate Western ideals. In fact, the United States is one of Jamaica's most important trading partners where hundreds of United States firms sell their products on the local market and where a 'large Jamaican-American community sends billions of dollars in remittances to Jamaica annually' (Bureau of western hemisphere affairs, 2015). Jamaica is also strongly influenced by the American media with the advent of cable and satellite television (Thomas, 2004) as well as increasing number of fast food restaurants such as KFC and Burger King. Hence, the influence of westernized values is nascent.

Jamaica has also experienced shifts in economic development and has seen significant migration from the rural area to more urban areas (STATIN, 2016). Researchers have suggested that in addition to westernization; economic development, modernization and urbanization can lead to cultural changes that may influence body size ideals and the idealization of thinness (Gordon, 2001; Swami, 2006). To date, research examining body weight perceptions in the Caribbean, and specifically Jamaica, has been scarce. The majority of research has focused on ethnic minority groups in the United States of America for example, where only 13.2% of the population identify as African American (Centre for Disease Control and Prevention, 2015). Similarly, in the United Kingdom, only 13% identified as Black/African/Caribbean or Black British (Office for National Statistics., 2015). These samples exclude other blacks outside these nations who are not of African American or British descent such as Caribbean nationals in islands like Jamaica, where over 90% of the population is of African heritage (Encyclopedia of the Nations, 2013).

Sociocultural influences on weight perceptions and the strong influence of the media is an important source which shapes social life and transfer socio-cultural messages about beauty, success and certain cultural belief (Thompson, Heinberg, Altabe & Tantleff-Dunn, 1999). Hence, while Jamaica was traditionally known to prefer the plump or larger body size (Sobo, 1993); with increasing exposure to greater Western influences/values/ideals, preference for the plump body may have been substituted by a preference for a more slender body. This thesis, therefore, sought to examine present-day body weight perceptions in

Jamaica compared to previously held beliefs about the preference for the larger body type as societal ideals may shift over time (Thompson, van den Berg, Roehring, Guarda & Heinberg, 2003).

A thoughtful consideration of beliefs and attitudes among Jamaicans as a whole may expand the knowledge of how body weight perceptions could influence the evaluation of beauty ideals, obesity stigma, psychological well-being and risk of diseases in countries like Jamaica where there is traditionally a social acceptance of larger body types (Sobo, 1993). In addition to examining perceptions of body weight in Jamaica, a secondary aim is to investigate how attitudes toward body ideals impact body satisfaction, positive body image and self-esteem. Understanding how attitudes towards body ideals could impact health behaviour could also inform disease prevention and the cues to action to increase health-enhancing behaviours such as physical activity. The primary purpose of this dissertation, therefore, is to examine body weight perceptions in Jamaica and to understand the role attitudes to body weight among Jamaican impact psychological wellness and health behaviours.

Initial Thesis Statement:

"Body weight attitudes & perceptions are important to psychological well-being and physical activity among Jamaicans."

Research Question:

"What is the role of body weight perceptions and attitudes towards the body in psychological well-being and health behaviour among Jamaicans?"

Initial Research Objectives

- To explore perceptions of body weight and health behaviours (eating behaviour and exercise) in the Jamaican society.
- To investigate the relationship between beliefs about body weight and psychological well-being (self-esteem, body appreciation, body dissatisfaction).
- To investigate the relationship between local perceptions of body weight and health behaviours (physical activity).

This thesis uses a mixed methodology (both qualitative and quantitative) approach to explore body weight perception. The use of qualitative methodologies was appropriate to explore the day-to-day opinions of Jamaicans. A survey was used in the construction and

development of a novel scale, and an experimental design was also employed. An understanding of how sociocultural factors can shape body weight attitudes and the cultural aesthetic evaluation of larger-bodied women in Jamaica is pivotal in the development of knowledge concerning psychological well-being among overweight or obese groups in certain cultural context

Overview of thesis

This thesis consists of six (6) chapters. Chapter 2 discusses further the topics - body image, cross-cultural and ethnic differences in weight perceptions, the Jamaican body and an examination of related theories. Chapter 3 outlines the methodology employed in the thesis, the rationale for the methodology used, the sample characteristics and the various methods used in the thesis.

Chapter 4 presents the first study of the thesis - an exploration of body weight perceptions in Jamaica and health behaviours from the general public in Jamaica. This study identified various body ideals which can be found in Jamaica. The study identified the term 'Fluffy' which was frequently referred to by participants to describe larger-bodied women who presented as confident and attractive. An interesting finding regarding this label 'Fluffy,' was that it did not have a negative stereotypic undertone compared to being labelled 'fat' or 'obese.' Instead, it represented confidence and high self-esteem among some larger bodied women. This finding was found to be an area of study that could make a valuable contribution to body ideals, obesity stigma research and body image research. Further exploration and understanding of the label 'Fluffy' became the new focal point of chapter 5 and for the remainder of the thesis.

Chapter 5, therefore, is a presentation of follow-up studies to study I. It investigates and seeks to assess in more detail the construct of 'fluffy,' attitudes towards fluffy women and its possible relationship (if any) with self-esteem, positive body image and body dissatisfaction. These studies tested the assumptions of whether fluffy was about both the physical and psychological/personality features or whether fluffy was about the physical body only, or the psychological/personality features only. Chapter 5 features the development of the Fluffy Rating Questionnaire (study II). It also presents an experiment to investigate whether simulations of fluffy women versus simulations of stereotypes of obese women using 3D animation would impact recall of physical activity or impact positive and negative affect (study III). This chapter also features the validation of the Fluffy Rating Questionnaire conducted via confirmatory factor analysis.

Chapter 6 concludes the thesis with a culminated discussion of thesis findings, the theoretical and practical implications of the findings, strengths and limitations of the dissertation as well as recommendations for future studies and a final conclusion.

Chapter 2 – Literature Review

Body image, body ideals and weight perceptions

It is estimated that approximately 1.5 billion adults (20 and older) worldwide are overweight and over 500 million of that population is obese (World Health Organization, 2014a). The WHO also reports that more than 40 million children under the age of five were overweight (World Health Organization, 2014a). The WHO (2014) defines overweight/obesity as a condition of abnormal or excess fat that may impair one's health. It is commonly measured by using the body mass index (BMI) which classifies overweight as greater than or equal to 25 kg/m² and obesity as greater than or equal to 30 kg/m². Significant time and efforts have been invested into understanding the etiology of obesity; its correlates with psychological functioning and the consequences both for physical and mental health. This chapter will, therefore, discuss the body, body weight perceptions and body ideals that are key points of interest in developing interventions for weight control and body image disorders.

The Body and Body image

The body today forms an integral part of social interactions due to a significant emphasis on physical appearance. As such, body ideals are driven by core cultural values which shape aesthetic preferences for certain body shapes and sizes (Becker, 1994). How individuals perceive and experience their body weight depends on the image they create of themselves. Historically, body image was conceptualized as the picture of one's own body that is formed in the mind (Schilder, 1950); that is, the way in which the body appears to the self (Grogan, 2008). Body image has also been conceptualized to include a self-component and an affective component which drives behavior. That is, body image involves how one thinks about their size, weight, shape, movement and performance, as well as, how one feels about those attributes (Forrest & Stuhldreher, 2007). As Pruzinsky and Cash (2004) contend, body image is the individual's experience of the physical self. Grogan (2008) sums it up as "a person's perceptions, thoughts and feelings about his or her body" (p. 3).

These definitions of body image position it as a multidimensional construct that encompasses psychological concepts such as perceptions and attitudes that embodies the human experience (Grogan, 2008). The perceptual dimension refers to the accuracy of body size estimations, while the attitudinal dimension involves feelings towards the body, beliefs regarding the body and evading situations where the body is exposed (Thompson, 1996). It also includes a subjective aspect which involves satisfaction, worry or anxiety related to

appearance (Thompson, 1996). It can be argued then that body image is integral to the experience and perception of body weight.

In summary, body image encompasses the physical representation of the body, the mental and emotional experiences of the body as well as evaluations of the body that influences attitudes toward the body and behaviour.

Body image concerns

Body image has been implicated in various psychological disorders such as eating disorders and body image disorders as there is growing dissatisfaction with physical appearance. The rise of the mass media has created a standard of beauty which has had a significant influence on individuals' body image (Jung and Lennon, 2003). Smaller body sizes are shown as more acceptable than fuller bodies (Becker et al., 2005). Hence, there is more preoccupation with appearances and body structures, especially among women. For example, in the United States, many women are, in some way trying to lose weight because they were dissatisfied with their appearance (Bergstrom and Neighbors 2006, p. 977). Several studies have shown where a large proportion of adolescents and women are dissatisfied with their bodies (Bergstrom & Neighbors, 2006; Cachelin, Rebeck, Chung, & Pelayo, 2002; Madanat, Hawks, & Angeles, 2011; Pruis & Janowsky, 2010). With increased exposure to media images, a perceived incongruence between the actual and ideal body image generates body dissatisfaction (Ferreira, Pinto-Gouveia, & Duarte, 2011). With this increasing attention to body weight as a public concern, body dissatisfaction has become more prevalent in a now health and weight focused society (Webb, Butler-Ajibade, & Robinson, 2014).

Body dissatisfaction has been defined as the "cognitive, affective or attitudinal nature of negative body image" (American Psychiatric Association, 1994; p. 976). It has been associated with disordered eating, bulimia and anorexia nervosa (Fairburn & Brownell, 2002; Stice, 2002). Cash & Smolak (2011) contend that body dissatisfaction and the desire to be thin are experienced by most females especially in the American and European setting such that it is now being described as a "normative discontent" (p. 12). Studies have found that body dissatisfaction was comparable in both young and older women; however, the experience of body dissatisfaction may differ between the age groups in terms of degree of anxiety and drive to be thin (Pruis & Janowsky, 2010).

It has been estimated that approximately 40-70% of adolescent girls are dissatisfied with their weight and approximately 50-80% wanted to be thinner (Levine and Smolak, 2002). Other studies have suggested that majority of women experience dissatisfaction. Cash and Henry (1995) for instance, reported that nearly 50% of women in their study had poor evaluations of themselves and that this dissatisfaction was consistent through adulthood. Research has also indicated body dissatisfaction among younger men; however, the majority

of the studies suggests that body dissatisfaction was more of a concern for women (Grogan, 2008). Previous studies have revealed that women often perceive that men find a smaller body size more physically attractive than larger ones (Swami et al., 2010); thus, they become dissatisfied with their bodies when they do not perceive themselves to fit in the 'ideal' category. Contrary to this perception among women, there is evidence to suggest that some men often prefer body types larger than what the women think the men liked (Thompson et al., 1996). These contradictory beliefs between males and females may be due to the different body ideals that are marketed to men versus women (Frederick, Fessler & Haselton, 2005; Swami et al., 2010). That is, the very thin model marketed to women versus a curvier woman that is most appealing to a man (Swami et al., 2010). In addition, Cohn & Adler (1992) posit that there is considerable pressure on a female to maintain a thin ideal and so it increases a preoccupation and concerns about their body weight.

In summary, body dissatisfaction is pervasive among women of all ages. This dissatisfaction is mainly due to notions of not meeting the standards of attractiveness. With increasing importance being placed on physical attractiveness, it is therefore normal to anticipate an increase in body dissatisfaction.

Sociocultural standards of attractiveness in western cultures

The media plays a critical role in shaping cultural ideas of beauty and attractiveness (Jung & Lennon, 2003). The ultra-thin female image imported from the United States of America, the United Kingdom and European countries is portrayed by the media as the ideal form of western physical attractiveness (Jackson, Jiang and Chen, 2016). Western women face increased pressure to conform to this thin ideal of feminine beauty (Harper & Tiggemann, 2008). Malkin et al., (1999) found that approximately 94% of American women's magazines portrayed the image of a thin model or celebrity. This portrayal does remain the same today and sends an implicit message that deviations from this norm are unacceptable (Harper & Tiggemann, 2008). Failure to meet these standards have been reported to result in poor body image outcomes (Botta, 2003; Groesz et al., 2002).

With the pursuit of the thin ideal, there is enormous stress placed on the importance of maintaining a thin body (Tiggemann and Pickering, 1996) to be considered as good and beautiful (Morrison, Kalin & Morrison, 2004). Realistically, this thin ideal is often impossible for most women to achieve by healthy means (Cash & Smolak, 2011). It is estimated that the average fashion model has a BMI of 16.3 which is well below the normal healthy range of BMI 18.5-24.9 (Cash & Smolak, 2011). However, this is desired among some women due to pressures from fashion magazines, Hollywood movies (Bissell & Zhou, 2004) and music videos (Tiggemann & Amy Slater, 2004) that depict a very slender body frame as attractive in Western cultures.

Female body ideals in Western culture

In Western cultures, the standard of beauty as portrayed in the media has changed considerably over time. Over the past century, records show that there was no uniformity in beauty standards. There have been a number of variations in the ideal female body before the current thin body which is idealized today.

In the Middle Ages, for example, females with a plump body were seen as fashionable and erotic which was the aesthetic ideal of that era (Grogan, 2008). A full-figured body, with rounded hips and breasts during this age, represented fertility and femininity (Grogan, 2008; Fallon, 1990). Thinness was then associated with poverty, infertility or low social status (Grogan, 2008). However, by the 1920s, this began to change. Appearance began to shift to a minimal breast, a straight and boy like figure which was referred to as 'flapper' (Silverstein, Peterson & Perdue, 1986; Grogan, 2008). During this period, being slim became fashionable. The 1950's saw a brief return to the fuller, curvy and soft, voluptuous, hourglass silhouette with the likes of Marilyn Munroe (Swami, 2015). However, by the 1960s, the thin, stick figure, androgynous and anorexic looking woman became the prominent ideal (Fallon, 1990). The supermodel Twiggy exemplified the idealized image at that time (Fallon, 1990) and this body ideal has persisted to present day, at least in the mass media. This shift to the thin ideal is regarded to be a result of successful marketing of the fashion industry which has created a standard of beauty in industrialized societies (Gordon, 1990). As a result, there continues to be an increase in the desire to be extremely thin especially among women.

Research has gathered enough evidence of the societal beauty ideal (especially for women) becoming increasingly thinner over the years (Tiggemann, 2011). Garner, Garfinkel, Schwartz & Thompson (1980) examined the beauty ideals over a 20-year period (1959-1978) and found that the average body weight of Miss America contestants and Playboy centerfolds have decreased. During the period 1979 to 1988, Wiseman, Gray, Mosimann & Ahrens (1992) also reported a similar decline in the average body weight of Miss America contestants and Playboy magazines. This demonstrates that the shift to the thin ideal remained pervasive. It also supports the stance that as western cultures become more modernized and more urban, there is a shift to a thin or smaller body ideal (Becker et al., 2005).

While Garner et al., (1980) and Gray, Mosimann & Ahrens (1992) recorded an average decline in body weight among beauty contestants and models, they also reported that the overall average weight in the general population was increasing. In Garner et al., (1980), it increased by 0.14kg per year. So while the ideal was getting thinner among beauty contestants and in the fashion magazines, women in the general public were getting bigger rather than decreasing in size as portrayed in the magazines and beauty pageant (Garner et al., 1980; Wiseman et al., 1992). Based on the obesity rates presented earlier, it would suggest that people are still getting fatter. This creates an ever increasing chasm between the ideal body

and the current body, especially for women who want to attain the thin ideal. This thin ideal propagated by the media helps to create a disparagement for obesity and is a major contributor to increasing body dissatisfaction (Tiggemann, 2002). So while women, in particular, are getting bigger, they desire to be thin, and this discrepancy between the ideal and actual body often results in body image dissatisfaction, body image disorders, eating disorders and other psychological problems (Lemon, Rosal, Zapka, Borg & Anderson, 2009).

In summary, body ideals have changed over several years in western societies. The beauty ideal has decreased in size with much emphasis placed on a slender body as the epitome of attractiveness and beauty. This ideal is promulgated via the media (TV, magazines, music) which has created a standard of beauty that greatly influence individuals' body image (Jung and Lennon, 2003). The media is critical in shaping cultural ideals of beauty and attractiveness via marketing, advertising, retailing, and the entertainment industry (Jung Lennon 2003; p.30). Smaller body types are becoming more acceptable than a fuller body as there is presently a trend of thin, attractive women in the popular women's magazines Thompson (1997). This suggests that body image is relatively subjective and it can be changed by social influence and through new information via these very same media sources (Grogan, 2006). The general population is, however, increasing in body size which creates a chasm between the ideal body and actual body. This chasm is reported to lead to various body image concerns and eating disorders.

The body and culture

Research has evidenced that different cultural backgrounds associate different meanings with thinness (Grogan, 2008). Hence, culture plays an essential role in shaping appearance ideals (Fallon, 1990). Culture has been defined as the unique mutual beliefs, values and practices in a group which can influence the behaviour of individuals by affecting their feelings, thoughts, acceptance and agreement of messages (Draper, Davidowitz, Goedecke, 2014). This suggests that different groups of people may have different attitudes toward different body sizes based on their beliefs and the value they place on the body. Hence, it can be argued that culture plays a significant role in weight perceptions and body image. Body shape and size are driven by core cultural values (Becker, 1994). For instance, Western cultures are mostly considered to be individualistic where the body is seen as a subject of intervention and one body per person (Anderson-Fye, 2011; Becker, 1994). In contrast, some non-Western cultures operate based on more collectivistic practices where the body is shared by two or more people (Anderson-Fye, 2011; Becker, 1994).

The differences in cultural values, that is, the individualism-collectivism distinction, could, therefore, impact views about the body and body ideals. Individualism is defined as a

social pattern where individuals are loosely linked and see themselves as independent of a collective group (Triandis, 1995). They are driven by their own preferences, individual needs, their rights and often give priority to personal goals. Collectivism, on the other hand, sees a tightly knitted group of individuals who view themselves as a collective such as a family, a tribe or a nation and emphasize their connections to this group. Persons in this group are motivated by the norms or duties imposed by the communal group and give priority to the goals of the collective rather than personal goals (Triandis, 1995; p2). Hence, the importance and construction of body ideals could differ based on the society or differences in cultural backgrounds.

Cultural factors in weight perception

While the drive for the thin ideal and its associated consequences such as stigma of obesity, body image disorders and eating disorders are well documented; evidence suggests that cultural groups may differ in how they perceive body weight and may not strive for the thin ideal as observed in affluent industrialized Western cultures. Sault (1994) asserts that the Western culture teaches the individual to think of the body as an object with a material reality that is physically observable. In Westernized countries like the United States of America and Britain, there is an internalization of an ideal body type (Smolak & Levine, 2001) where females are influenced by the socially sanctioned thin-ideal which in most cases, are very difficult to attain (Lemon et al., 2009). However, growing research continues to document cross-cultural and ethnic differences in body ideals (Swami, 2012). Sault (1994) also contends that through anthropology lens, persons are likely to perceive their bodies through a culturally constructed body image which shapes what they see and experience. He states:

“there is no objective physical body that is perceived in the same way by all cultures. Terms such as fat, old, beautiful, strong, pregnant and handsome are defined within particular cultural contexts. Each different language encodes a set of culturally relative premises about body ideals.” (Sault, 1994: p. 12)

Hence, culture may still have an important role to play in body weight perceptions.

Evidence for cross-cultural differences in weight perception

Substantial investigations are documenting cultural and ethnic differences in weight perceptions (Lahmam et al., 2007; Draper, Davidowitz & Goedecke, 2014). As such, the thin ideal may not be as universal for all groups of people (Brewis & McGarvey, 2000). Different cultural backgrounds can shape body ideals. Research has evidenced different meanings associated with thinness as well as being plump; where thinness can be associated with disease and poverty, while plumpness, on the other hand, could signify wealth (Grogan, 2008).

There is evidence for example, that in many developing countries such as India or Cameroon, higher BMI or plumpness may be an indication of higher social class, femininity, fertility and wealth (Treloar et al., 1999) while there are different meanings associated with thinness. This, therefore, makes a higher body mass index (in essence overweight/obesity), more attractive for social acceptance among some groups.

Similarly, what is referred to as obesity today or a higher body mass index was found to be more attractive for social acceptance in countries like Morocco, South Africa, the Mediterranean and the Pacific Islands (Fernald, 2009). In these non-western contexts, research suggests that a heavier body type was preferred (Lahmam et al., 2007); hence, the perception of obesity was different from that of westernized nations where the ideal body is a thin body. Urban Sahraouian women in South Morocco, for example, placed significant value on maintaining their overweight body size (Rguibi & Belahsen, 2004). Similarly, women in certain African and South Pacific traditions engaged in social and cultural activities such as 'fattening farms' or 'milking huts' to maintain their overweight status, especially for young girls who are preparing for marriage (Guerrero, 2013; Pollock, 1995). Lahmam et al., (2007) also found that among a High Atlas Moroccan population, both men and women wanted to gain more weight as excess weight was seen as a sign of beauty, power and prosperity. Research among South Pacific islanders also found that fuller bodies were more attractive compared to Europeans small bodies (Metcalf, Scragg, Willoughby, Finau & Tipene-Leach, 2000; Brewis, McGarvey, Jones, Swinburn, 1998).

There is also empirical record where black South African women preferred a larger body size (Draper, Davidowitz & Goedecke, 2014). Similar findings have been reported among Jamaicans (Sobo, 1993), women of Caribbean descent (Shoneye, Johnson, Steptoe & Wardle, 2011) and Ugandans (Furnham & Baguma, 1994) where there is preference for bigger bodies with less denigration or stigmatization of obesity as found in other groups (Shoneye, Johnson, Steptoe & Wardle, 2011). These studies suggest that there may be certain sociocultural factors that lead to significant value being placed on larger body sizes and other body types or shapes rather than the thin ideal. Similarly, Anderson-Fye (2011) contends that in many non-western cultures such as Latin America, the Caribbean, sub-Saharan African and the Pacific Islands, a more curvaceous figure is desirable.

Anderson-Fye (2004) for example in her work in Belize, found that body shape in contrast to body size was more salient for women. That is, having an hourglass or curvy silhouette which the locals described as the 'Coca-Cola' body shape, was ideal for women in Belize than pursuing the thin ideal. Interestingly, as Anderson-Fye reports, Belize is a country that has had great exposure to western ideals and has experienced significant transitions of industrialization and modernization; so, if a sociocultural model is correct, the pursuit of the thin ideal should be a primary concern, however, this was not the case. Instead, the shape of

the female was more important; body size was not a source of distress. Anderson-Fye (2004) proposes that it was their ethno psychological interpretation where the local women refused to leave behind their identity despite social changes. Her findings, therefore, signified a resistance to the thin western ideal.

These findings reiterate the importance of culture in body weight ideals. According to Anderson-Fye (2011), these differences are based on principles of individualism and collectivism and the role the body plays in these different types of society. Thus, the perception of obesity and weight management in these different cultural contexts may have different meanings. Various investigators have examined the perception of obesity and its role in weight management. For some women, obesity was described in terms of aesthetics, appearance, fit of clothes, culture and is dependent on the ethnicity and way of life for groups of people (Lahmam et al., 2008; Agne et al., 2012; Sikorski et al., 2012). For others, excess weight was seen as a sign of beauty, force and prosperity among women, while on the other hand, obesity can be seen as undesirable and is described by negative stereotypes (Lahmam et al., 2008). It was also believed to be a chronic condition that is harmful to both physical and psychological health.

Results of the study by Lahmam et al. (2008) for instance, indicated that men and women in Morocco were comfortable with their weights or desired to gain more weight even though their BMI would indicate overweight or obesity. They posit that the Moroccan sample had a false perception of their weights and as a result underestimated their weights and believed their weights were low compared to actual body weights. Obesity, therefore, was not perceived to be a problem. In another study, Agne et al. (2012) also investigated perceptions of obesity among a group of Latina women. These women were aware of the obesity problem and wanted to lose weight; however, their prior weight loss attempts were not sustainable. They attributed weight gain to marriage, pregnancy, changes in diet and physical activity, depression, social isolation, stress and decrease in the availability of fresh foods and increase in processed foods, which describes patterns in their way of life. Notwithstanding these factors, interestingly the sample of Latina women was more interested in the short-term benefits of weight loss such as beauty and feeling healthy rather than comorbidities of obesity. Comorbidities were only mentioned when they were prompted and major concerns were mostly related to childhood obesity (Agne et al., 2012).

The inconsistencies in perceptions of large versus small body types as seen in the studies mentioned above, suggests that further research is needed to be able to manage body weight in certain context effectively. Thompson et al. (2008) for instance, contend that there are conflicting results on the relationship between self-image and obesity, especially among black women. Various studies such as Paeratakul et al., 2002 and Herman & Schlundt (2000) contend that black women prefer heavier body types as a sign of beauty, therefore there is

less social pressure to be thin and this may influence their motivations for weight loss activities. A small study by Liburd, Anderson, Edgar & Jack, (1999) suggest black women in their study would prefer a middle to small body type but thought a middle to large looked healthier. The belief in this body type looking healthier was due to its association with strength, stamina and shapeliness among African-American women (Allan, Mayo & Michel, 1993). These descriptions of health are in contrast to the medical perspective where health was determined by having normal BMI, however, due to cultural beliefs; there are different labels/definition of health between African-American women and health professionals (Pickett & Peters, 2015). Hence, the preferred body size was larger than what they thought was the best or the ideal look (Thompson et al., 2008).

Agne et al., (2012) however suggest that there is evidence to counter prior beliefs about cultural acceptance of heavier body types. For instance, they point to Davis et al., (2005) who challenge the cultural tolerance of fatness among African American women. In this study Davis et al., (2005) found that a sample of African-American women was dissatisfied with excess weight. This could, however, be due to the conflict between the cultural message of self-acceptance and messages from the media about the thin ideal (Baturka, Hornsby & Schorling, 2000). Nonetheless, there is still copious evidence to suggest that heavier body types were still pervasive among black populations across the world (Pickett & Peters, 2015; Befort et al., 2008; Furnham & Baguma, 1994; Shoneye, Johnson, Steptoe & Wardle, 2011). The inconsistencies in weight preferences among black women may be due to sociocultural differences or context, which further highlight the role perception plays in the concepts of beauty, a healthy weight and body type preferences in light of the current thin body ideal.

In summary, body ideals vary cross-culturally (Anderson-Fye, 2011). Different body sizes or body shapes can have different meaning depending on the social context. There are non-western cultures that find the slender body less appealing and place more value on excess weight or shape which is significant for that cultural setting. However, in Western cultures, the thin ideal is still pervasive along with growing body dissatisfaction.

Theoretical Perspectives

There are several perspectives that seek to explain the genesis of body image problems that are pervasive in Western cultures today. These include sociocultural models (Stice, 1994; Thompson, Heinberg, Altabe & Tantleff-Dunn, 1999), the cognitive behavioural perspective (Cash & Smolak, 2011) and social comparison (Festinger, 1954) to name a few.

Social Comparison Theory

Historically, Festinger (1954) wrote about the importance of evaluating oneself in comparison to others. The social comparison theory, according to Festinger (1954), proposes that individuals have the drive to evaluate their opinions and abilities. In the absence of objective, non-social criteria, people compare themselves to others they believe to be similar to them or those who share similar values and attitudes (Frisby, 2004). It is a means of gathering information about the social world (Kramer et al., 2008) and gives individuals an understanding of themselves within the context of their social environment. Kramer et al., (2008) argues that social comparison is activated by situational cues and is often associated with uncertainty. It involves continuous judgement of the self through self-evaluation, self-improvement and self-enhancement (Wood, 1989). The theory posits two directional drives that explain the comparison process; these are upward drives and downward drives (Festinger, 1954). The upward drive is when an individual compares themselves with others they believe are better than themselves and downward drive refers to comparison with others who are in a lesser fortunate situation than themselves (Festinger, 1954). The upward drive (Festinger, 1954) is believed to lead to dissatisfaction with the body because the opinions and abilities of similar others are esteemed or desirable. In a culture that idealizes thinness and with sociocultural pressures to maintain certain standards of beauty, it creates an atmosphere for continual comparison to 'fit in.' The reverse may also be true in societies who idealize other esteemed body types. Thus, an inability to achieve the desired images portrayed in the media, for instance, may result in negative consequences. It is suggested that negatively interpreted social comparison may be a vehicle that leads individuals to believe they have not achieved the ideal body (Fitzsimmons-Craft, 2011), thus resulting in body image disorders.

Cognitive-behavioural model

Another framework that has been used in the understanding concept of body image is the cognitive-behavioural model. The cognitive-behavioural model does not reflect a single theory but draws upon the social learning process as well as conditioning processes and the cognitive mediation of behaviours and emotions (Cash & Smolak, 2011; p.39). It holds similar characteristics of the social cognitive theory which originated with Bandura in 1986 where he suggests that human behaviour is based on an interaction between cognition, personal factors and the environment (Bandura, 1991). Cash & Smolak (2011) suggest that cognitive-behavioural model of body image involves a number of factors, namely, interpersonal experiences of the individual; physical characteristics and changes throughout the lifespan; personality factors and attitudes in evaluating body satisfaction or dissatisfaction. These

suggest a triadic interaction as Bandura's 1986 social cognitive theory. It incorporates information processing as well as belief systems and certain stimulus to recall information. Cash (2002) posit that activating appearance-related attitudes may trigger negative emotions. These negative emotions may put vulnerable individuals at risk for body image disturbance.

Sociocultural theory

The sociocultural theory, on the other hand, emphasizes "culturally supported and transmitted appearance standards" (Jung & Forbes, 2007, p. 382). Several researchers have noted the powerful influence of society on body image disturbance in western societies (Fallon, 1990). Sociocultural models date back to Rodin, Silberstein & Striegel-Moore (1985). Its basis is that the high levels of body dissatisfaction, body image disturbance and eating disorders are due to an inordinate emphasis on beauty standards (Tiggemann & Pickering, 1996). The sociocultural theory, therefore, contends that women become dissatisfied with their bodies as current societal standards of beauty in western societies are synonymous with thinness (Thompson, Heinberg, Altabe & Tantleff-Dunn, 1999). The theory provides an explanation for current dissatisfaction with excess weight in modern societies based on the sociocultural influences within Western cultures that reinforce a thin ideal (Stice, 1994; Thompson et al., 1999) or that which glorifies thinness and vilify the overweight (Levine & Murnen, 2009). This theory, therefore, focuses on ideal images of beauty in western cultures and the struggle to achieve these beauty ideals. The theory emphasizes sociocultural influences as major factors in the development of body dissatisfaction. It should be noted that this sociocultural theory differs from a said named sociocultural theory by Vygotsky (1978)¹.

Tiggemann (2011) argues that the sociocultural perspective presents four pillars suggesting that within each culture:

1. There exist societal ideals of beauty.
2. This beauty ideal is transmitted throughout sociocultural channels.
3. These ideals are internalized by the people in the society.
4. Body satisfaction or dissatisfaction will be a function of whether these individuals meet the societal ideal

¹ Vygotsky's (1978) sociocultural theory explains cognitive development, human learning and describes social interaction as fundamental to the development of cognition. An important feature of Vygotsky's work is the belief that cognitive development in children is influenced by others around them and that knowledge, language and consciousness is learned from others who are more knowledgeable (Vygotsky, 1978; Davey, 2004). This theory is less concerned with beauty ideals and the internalization of the thin-ideal in Western cultures and more focused on learning development and cognition.

The ideal of beauty in Western societies is being thin (Thompson, Heinberg, Altabe & Tantleff-Dunn, 1999). The sociocultural theory postulates that the ideal female body is excessively thin which is often unattainable and lead women to experience discontent with their bodies (Slevec & Tiggemann, 2011). There is a 'thin is good' assumption and rewards are accrued by being thin compared to being fat (Morrison, Kalin & Morrison, 2004). Achieving the thin ideal is therefore associated with happiness, social and romantic success and self-control (Bordo, 2003)

The sociocultural influences or channels that transmit these body ideals include the media, family and peers (Cash & Smolak, 2011) but the most powerful of the three is the mass media (Cash & Smolak, 2011). The sociocultural perspective has linked body dissatisfaction and other related body image problems to the media (Levine & Chapman, 2011). The media here includes references to television, magazines, music and the internet. It is a source that is inundated with messages about the ideal body, weight management, attractiveness and self-control (Levine & Chapman, 2011). Hence, repeated exposure to these images emphasizes the rewards of attaining the beauty ideal which can lead to discontent if one is unable to achieve them.

The ideal female body in Western cultures, for instance, is portrayed as an ultra-thin, white female, tall, moderately large-breasted, clear-skinned and young looking (Tiggemann, 2011; Levine & Chapman, 2011; Jackson, Jiang and Chen, 2016). The male body, on the other hand, is chiseled, tall, lean and well-groomed (Levine & Chapman, 2011). Reasonable evidence has suggested that prolonged exposure to these media images is positively correlated to internalization of the thin ideal and body dissatisfaction, especially among females (Grabe, Ward & Hyde, 2008; Tiggemann, 2006). So, when individuals observe the dominant ideal that the media projects, they aspire to be just like them, which may lead to internalization of the thin ideal. This is where individuals 'buy into' societal standards of attractiveness (Slevec & Tiggemann, 2011; pg. 618). Therefore, there is enormous stress placed on the importance of maintaining a thin body (Tiggemann and Pickering, 1996) to be considered as good and beautiful (Morrison, Kalin & Morrison, 2004). This results in widespread scorn of obesity, where obesity is seen as unattractive (Thompson, Heinberg, Altabe & Tantleff-Dunn, 1999).

The Western media does not only present the idealization of the thin ideal, but it also presents a combination of values such as the physical self as malleable, idealization of youthfulness, notions consumerism and that continual work on the body and self-improvement is necessary (Levine & Smolak, 2010; Levine & Smolak, 2006; Swami, 2015). This promotes individualism or an overarching capitalism (Hesse-Biber, 1996) that is characteristic of Western cultures. These principles of individualism, therefore, are the main driving force of media portrayals of women in Western media where the body is thought of as bounded by one

person (Anderson-Fye, 2011). That is, individuals are held accountable for controlling or managing their bodies to meet the societal standards.

The thin ideal promulgated in Western societies is however recognized to be unrealistic for most people (Thompson, Heinberg, Altabe & Tantleff-Dunn, 1999; Tiggemann, 2011). In social environments that promote the thin ideal, these messages are internalized by individuals which lead to body dissatisfaction (Rodgers, 2016; Tiggemann, 2011). The sociocultural theory also suggests that unrealistic standards of beauty can become a comparison point against which women make evaluations of themselves and their physical attractiveness which result in negative psychological consequences such as body image disorders (Overstreet, Quinn, & Agocha, 2010). This may suggest that the sociocultural theory and the social comparison process are interdependent (Morrison et al., 2004) however the idealization of the thin ideal provides the basis for evaluation.

The sociocultural perspective highlights the forces that maintain the ideal of physical attractiveness, with particular emphasis on the importance of the mass media. This, therefore, provides the most suitable basis for understanding current rates of body dissatisfaction with body types that diverge from the ideal, compared to the social comparison perspective and the cognitive-behavioural perspective. Previous research evidence that media exposure was positively correlated with body dissatisfaction and that the sociocultural framework provided an understanding of the relationship between media exposure and disordered eating (Slevec & Tiggemann, 2011). While it did not support a direct relationship with body dissatisfaction, it had significant relationships to the cognitive processes such as the internalization of the thin ideal, that is, buying into media images which were associated with poor body image (Slevec & Tiggemann, 2011). Thus, inability to achieve images portrayed as the ideal or the sociocultural pressures to attain these standards may result in adverse psychological consequences, such as body dissatisfaction and eating disorders.

In summary, the sociocultural perspective emphasizes the importance of a thin ideal in western societies. It explains the body ideal found in Western societies; how this ideal is transmitted via channels such as the media; how they may be internalized by individuals in the society and its impact on body dissatisfaction. It also emphasizes that values and preference with respect to the body are learned socially and formed from cultural influences (Christensen, 2011). The thin ideal has several implications for body weight perception, obesity, body image and self-esteem.

Stigmatization of obesity in Western cultures

The pervasive thin ideal is, therefore, a huge contrast to obesity because obesity is seen as unattractive (Thompson, Heinberg, Altabe & Tantleff-Dunn, 1999). Fairburn and

Brownell (2002) posit that based on today's western culture that denigrates and blame obese people for their physical appearance, it would be logical to assume that these obese persons would experience emotional distress from the bias, negative attitudes and discrimination shown to them. Based on the sociocultural framework, western values predispose women to body dissatisfaction (Warren et al., 2004) with the inability to achieve the thin ideal. Obesity stigmatization is therefore capable of increasing negative psychological and social outcomes for obese individuals (DePierre & Puhl, 2012) who do not meet the thin criteria.

Goffman (1963) defined stigma as "an attribute that is deeply discrediting" (p. 13). It is also described as an attribute that "spoils the identity of its holder by indicating an undesirable distinctiveness from others" (Hebl & Heathron, 1998; p. 417). Stigma may affect individuals through negative treatment and discrimination, stereotype activation, expectancy confirmation (self-fulfilling prophecy) and identity threat (Major & O'Brien. 2005). Numerous studies have documented negative stereotypes or misconceptions of obese individuals that lead to stigmatization. Link & Phelan (2001) contend that stigma exists when labelling, stereotyping, separation, status loss and discrimination occur together in situations that allow for it. Typical labels or stereotype of overweight and obese persons include weak-willed, lazy, sloppy, incompetent, unintelligent, emotionally unstable and even defective as people (Puhl & Heuer, 2010); compared to the slender persons who are seen as healthy, confident and attractive (Grogan 2008). Individuals who are obese are frequently blamed for their weight (Puhl & Heuer, 2010), are depicted as gluttonous and unhealthy (Lewis et al., 2011) and are considered inept and irresponsible in managing their health behaviours (Brewis, Wutich, Falletta-Cowden, & Rodriguez-Soto, 2011).

Such descriptions perpetuate prejudice, discrimination and negative perceptions (Puhl & Heuer, 2010) of persons who are overweight or obese and create a difficult environment for them to function as ordinary/normal weight people. One could, therefore, understand the desire to disassociate from such labels and the need to present themselves as normal. Puhl and Heuer (2010) argue that weight stigma has remained a socially acceptable form of bias and it is a pervasive form of prejudice that is harmful even though Brewis et al., (2011) assert that extreme fat stigmatization and prejudice is not acceptable. Fatness is often associated with ugliness, undesirability, and sexlessness (Brewis et al., 2011) which are anti-modern fashion ideals of thinness and beauty. Therefore, it is regarded as objectionable.

Research evidence has suggested that stigma and discrimination that is related to obesity result in adverse effects on psychological and physical health (Major & O'Brien. 2005; Puhl & Heuer, 2010; Puhl & Brownell, 2012). Overweight and obese persons may be at risk for low self-esteem, body image disorders, depression, anxiety and other psychological related conditions (Puhl & Brownell, 2012; DePierre & Puhl, 2012). Evidence also testify that overweight and obese persons often experience social isolation and exclusions and feelings

of loneliness (Lewis et al., 2011). They are bullied, teased and romantically rejected (Brewis et al., 2011). They are less likely to be married, often earn less and experience higher rates of poverty (Fairburn & Brownell, 2002). It has also been reported that stigmatization due to obesity has resulted in reduced social and economic performance in adult life (WHO EU regional office, 2007).

While some may argue that stigmatization is necessary to motivate weight loss (Puhl & Brownell, 2006), considerable evidence points to the deleterious effects stigmatization has on some overweight individuals. For example, evidence suggests that weight stigma leads overweight/obese individuals to engage in higher caloric diets (Puhl, Luedicke & Peterson, 2013). Other findings indicate that stigma increases the risk for eating disorders such as binge eating, bulimia, avoidance of exercise, poor weight loss treatment and reluctance to using health services which exacerbate poor health conditions (Puhl & Brownell, 2012; Puhl & Heuer, 2010; Lewis et al., 2011).

The adversity that obese and overweight people face, especially during efforts to exercise, can also impede perceived psychological benefits; thus anti-biases and discrimination may perpetuate obesity-promoting behaviours such as overeating and reduced physical activity (Anderson, 2003). This cripples healthy living. Stigma is argued to threaten social identity and produces stress, feelings of rejection and concerns about being devalued (Major, Eliezer & Reick, 2012). This leads to the depletion of self-regulatory systems and undermines weight loss efforts.

Ethnographic studies may highlight some positive attitudes to overweight in some cultures (Brewis et al., 2011). However, pervasive westernization and weight stigmatization endorsed by the media, employers, educators, healthcare providers, family and friends (DePierre & Puhl, 2012) remains a significant challenge in efforts to reduce increasing obesity rates worldwide. Hence, stigmatization of obesity also impacts incidences of psychological disturbances among a large proportion of adults that may impede healthy living and reduce quality of life.

Psychosocial correlates of obesity

Low self-esteem and depression, as well as other problematic interpersonal relationships, have been found to be prevalent among some overweight and obese populations (Lakshman et al., 2012). Various studies have found that psychological problems (such as depression, anxiety, low self-esteem and body image disorders) associated with obesity are related to eating disorders, such as binge eating, bulimia, restrictive diets and weight cycling (Friedman & Brownell, 1995). For this thesis, body image (as reviewed above) and self-esteem are the variables of interest.

Self-esteem

Rosenberg (1965) definition of self-esteem has been the most used in the field of psychology. He posits that self-esteem indicates a positive or a negative attitude or inclination toward an object. He also contends that people who are thought to have high self-esteem do not necessarily mean that they feel superior, that they are full of pride or are contemptuous (Rosenberg, 1965). This only means that people have respect for themselves and consider themselves to be worthy. On the other hand, though, persons with low self-esteem may think they are inadequate, unworthy and lack self-respect (Rosenberg, 1965). Self-esteem, therefore, is considered as the evaluative part of the self-concept, a broader representation of the self that includes cognitive and behavioral aspects as well as the evaluative or the affective features (MacAuthur and MacAuthur, 1999). In summary, self-esteem is a favorable or unfavorable attitude toward the self (MacAuthur and MacAuthur, 1999).

Body size is believed to be an important correlate of how people, especially women, think or feel about themselves (Dalley, Pollet, & Vidal, 2013). Some overweight and obese individuals are often believed to suffer from adverse psychological problems (Hayden, 2011; Roberts & Hao, 2013) such as low self-esteem. This is due to the constant pressure to conform to society's beauty standards, stigma, discrimination and victimization they have to deal with on a daily basis (Hayden, 2011; Vieira et al., 2012). Low self-esteem has also been reported among children and adolescents; however, the results of studies concerning the relationship between overweight and self-esteem have been inconsistent (Quinn & Crocker, 1999; Roberts & Hao, 2013).

Studies have however shown that not all persons with larger body sizes are at risk for low self-esteem (Dalley et al., 2013). For instance, Robert & Hao (2013) found no evidence that self-esteem was negatively impacted by obesity. As it relates to African-Americans, researchers have found that these black women are more likely to be concerned about the physical limitations of their weight, rather than the potential psychological consequences (U.S. News & World Report, 2011). The difference in negative psychological consequences regarding low self-esteem for overweight or obese individuals, therefore, seems to lie in how the individual perceives or internalizes their body weight. For example, low self-esteem has been reported among persons who are seeking treatment for their weight or those who experience difficulty in interpersonal relationships (Lo Coco, Gullo, Salerno, & Iacononelli, 2011).

Ethnic differences in weight perception

Similar to cross-cultural differences in weight perception, extensive research has documented differences in weight perception and body image among different ethnic groups.

The term ethnic is frequently used to refer to groups of people who have a shared identity, similar history and a traditional cultural heritage (Barth, 1969). An ethnic group is understood as a designated population that shares fundamental cultural values, is largely biologically self-perpetuating, has a field of communication and interaction and has a membership that is distinguishable from other groups (Barth, 1969). In the USA for instance, research comparing African-American women, Hispanic women and Asian women with Caucasian women found that they differ in how they view their body weight (Paeratakul et al., 2002; Herman & Schlundt, 2000; Grabe & Hyde, 2006). White women are reported to experience more body dissatisfaction than women from other racial backgrounds (Grabe & Hyde, 2006). Statistically, blacks in the USA were more likely to be overweight or obese than whites (Franko & Roehrig, 2011; Flynn & Fitzgibbon, 1998). Research suggests that black women have a tolerance for larger body sizes (Franko & Roehrig, 2011) compared to white women. They preferred a heavier body type and celebrated a larger body ideal as a sign of beauty compared to their white counterpart; therefore, for black women, there was less social pressure to be thin (Herman & Schlundt, 2000; Franko & Roehrig, 2011; Grabe & Hyde, 2006). Similarly, research has documented that in some Latin American cultures, a full-bodied woman is considered healthy (Gil-Kashiwabara, 2002).

In a meta-analysis, for example, Hispanic and white women reported more body dissatisfaction than black women in the studies (Grabe & Hyde, 2006). Black women were more likely to have larger bodies, be more comfortable with their bodies at higher weights and have a more positive body image (Franko & Roehrig, 2011). It has also been suggested that black women generally have higher self-esteem, and attractiveness for them was more than body shape and body size (Franko & Roehrig, 2011). Some researchers have even argued that body image among black women contribute to their high risk for obesity as it inhibits their motivation for weight control (Flynn & Fitzgibbon, 1998). This indicates that ethnic difference did not only impact on beliefs but behaviour as well, and therefore overall health. For males, some researchers have found that black males had a more positive image and indicated a preference for larger body sizes than White, Hispanic and Asian males (Riciardelli, McCabe, Williams & Thompson, 2007).

While body dissatisfaction is commonly described as an issue among Westernized females and though there may be comparable body dissatisfaction in both black and white women, Caucasian women tend to experience dissatisfaction with the body at lower BMIs than black women (Padgett & Biro, 2003). Black women are believed to be more flexible with their weights and shapes compared to white women (Celio, 2002). While this finding is common amongst investigations, Cachelin et al., (2002) however found that Asian women in their study were reporting less body dissatisfaction than Blacks, Hispanics or whites. While there may be conflicting findings of reports of body dissatisfaction among ethnic groups, the results do

indicate that there are differences in body perceptions which therefore suggest that body image is influenced by ethnic and racial preferences. The ethnic differences in weight perception, therefore, could be due to the close knitted nature of certain ethnic groups, or collectivistic traits and identification with their cultural group. That is people from different ethnic groups may be motivated by the norms of the communal group (Triandis, 1995). For example, the black community who display more comfort with larger body types hence a more positive body image (Franko & Roehrig, 2011).

As body image is influenced by the environment that we live in, Overstreet et al. (2010) suggest thinness may not be the only standard of beauty and that not all women aspire to be thin. The Black community is found to have higher rates of obesity (Ogden, 2009) yet less experience of body dissatisfaction (Padgett & Biro, 2003). Among the Black community, a shapelier and curvaceous ideal is emphasized with proportion and distribution of size in areas such as the waist, bust and buttocks (Overstreet et al., 2010; Kelch-Oliver & Ancis, 2011). Also, other aspects of body image such as skin colour, hair texture or facial features may be more relevant (Kelch-Oliver & Ancis, 2011) to body image which adds other dimensions to self-evaluations. Body dissatisfaction may, therefore, arise if perceptions of specific body features do not meet this ideal of attractiveness and not necessarily the thin ideal.

Black women, as Overstreet et al., (2010) argue, may have a preference for the way their weight is distributed rather than an overall larger body size. They contend that black women may be protected from certain sociocultural pressure to be thin due to cultural acceptance of shapelier figures; however, they may have discrepancies from the curvy ideal that produce dissatisfaction (Overstreet et al., 2010). Whilst the ideals of physical attractiveness may differ for African-Americans and Caucasians, Swami et al. (2010) argues that through global exposure to western media, the thin ideal is becoming an international norm. As a result of this, Kelch-Oliver & Ancis (2011) contend that black women do not have protection from the societal messages about appearance that is portrayed in the media. Hence, they may be at increased risk for poor psychological adjustment concerning their body size like other groups. Despite the evidence of differences in weight perception and body image among Black African-Americans, recent studies are indicating some inconsistencies which challenge body ideals among African-Americans (Franko & Roehrig, 2011). For instance, Grabe & Hyde (2006) found that the difference between blacks and whites are relatively small. Kronenfeld, Reba-Harrelson, Von Holle, Reyes & Bulik (2010) also found that black women were now selecting smaller body silhouettes than whites. Studies have also found that body dissatisfaction exists among black women with increasing presence of eating disorders (George & Franko, 2010) and that black women actually prefer normal weight bodies (Franko & Roehrig, 2011). This suggests that further work is needed to understand the complexities involved in weight perception and body image among blacks from diverse

cultures or populations and age groups which could help in tailoring weight management among certain groups.

Nonetheless, Grabe & Hyde (2006) contends that the difference in body perception and body image among Black women versus white women may be a result of gender roles in the black community. That is, black women were raised to be independent, strong and self-reliant for economic reasons rather than being passive as the white feminine role dictates (Grabe & Hyde, 2006). In addition, the role of black patriarchal preferences for the larger bodied women helps promote acceptance of the black body shape and size (Grabe & Hyde, 2006).

In summary, evidence suggests that some ethnic groups have different ideals other than the thin white ideal. Specifically, black women tend to have more body satisfaction and comfort with themselves at higher body weights than their white counterparts. Some may argue that the difference no longer exists. However, these inconsistencies only suggest that further work is needed to decipher the real differences that exist among ethnic groups in different populations.

Socio-economic differences in weight perception

Socio-economic status (SES) is also a key factor to consider in understanding body weight perception (Cachelin, Montreal & Juanrez, 2006). Evidence has documented that body weight perception varies based on socio-economic status, where a heavier female body is considered more beautiful in low socio-economic contexts compared to the attractiveness of the low waist-to-hip ratio (thin) among higher socio-economic groups (Flynn & Fitzgibbon, 1998; Swami et al., 2010; Swami, 2012). Researchers have reported for example, that higher socioeconomic status (SES) as measured by level of education also influences perception of smaller body types as the ideal which may result in greater levels of dissatisfaction (Gilbert-Diamond et al., 2009). In western societies, research reveals a strong inverse relationship between socio-economic status and obesity (Sobal and Stunkard, 1989). This Taylor (2006) argues may be a result of the availability of health education, limited resources for exercise and availability of cheaper and more energy dense foods which are usually high in carbohydrates in lower socio-economic groups.

Interestingly, evidence suggests that movement from a low socio-economic status to a higher status creates a shift in body size ideals and perceptions of obesity (Swami, 2012). This shift in body ideals corresponded with improved economic conditions (Swami, 2012). In a systematic review of obesity and SES in developing countries, for example, low-income countries, SES and obesity had a positive relationship where affluence and high educational achievement was associated with those who were more likely to be obese (Dinsa, Goryakin,

Fumagalli & Suhrcke, 2012). The poor in these types of societies are often protected from obesity due to food scarcity and higher energy expenditure from doing manual work (Dinsa et al., 2012). Therefore, poor individuals may have larger ideals as a signal of improving social status (Dinsa et al., 2012). In middle-income countries, however, the results were mixed for men, but among women, there was a negative relationship between SES and obesity. Higher levels of obesity were reported among women in the lower socio-economic groups compared to women of higher social class (Dinsa et al., 2012). The shift in the burden of obesity to the lower social groups in the middle to high-income societies may also explain differences in body ideals among different socio-economic groups. Approximately 17% of the Jamaican population is below the poverty line (PAHO, 2012). Fatness therefore in Jamaica, could represent social and economic advancement for certain groups of people. Thinness, on the other hand, could be interpreted as a sign of social neglect (Sault, 1994).

In summary, differences in weight perception may also be found within the same cultural context or group of people based on economic standing in the society. In low SES, women tend to have a larger ideal than women in higher social classes.

Body size in Jamaica

Weight perceptions in Jamaica

As presented above, the bulk of research evidencing cross-cultural and ethnic differences have focused mostly on populations in the United States, Europe and the Pacific. Little research has been recorded in the Caribbean and more specifically, in Jamaica, to document the complexities associated with body weight and body image within this specific cultural context. Research has evidenced the significant value that is placed on larger body types among people of African descent such as blacks or African-Americans. Approximately 97% of the Jamaican population is primarily of African descent (Encyclopedia of the Nations, 2013). Hence, these values are expectedly resonant within the Jamaican culture. Concerns about body weight have been found to be increasing among especially black adolescent females and could be a result of modern shifts in the sociocultural environment (Webb et al., 2013). Investigations concerning the modern shifts in the sociocultural environment (Webb et al., 2013) and its impact on attitudes toward obesity in different cultural contexts like Jamaica, may lead to deeper understanding of psychosomatic processes in combating issues around obesity.

Body size in Jamaica varies, however, research suggests that more than half of the adult population are overweight or obese (JHLS-II, 2008). In 2008, the Jamaica Health and Lifestyle Survey reported that obesity rates stood at 25.3%, while 26.4% of the population was

overweight. Currently, the World Health Organization (2016) reports that 58.4% of the adult population is overweight and 26.8% are obese. This suggests overweight rates specifically, are increasing rapidly. Jamaican females were significantly obese compared to Jamaican men. Obesity rates among women, for example, were 35.3% compared to 18% among men (WHO, 2016). Jackson, Walker, Forrester, Cruickshank & Wilks (2003) contends that the relationship between BMI and lifestyle, diet and socioeconomic factors is complex within this cultural context and also poorly understood. Hence, new research is needed to untwine some of these complexities.

Overweight individuals often experience psychological problems such as body dissatisfaction (Annis, Cash & Hrabosky, 2004), low self-esteem and depression (Friedman et al., 2005). A significant portion of Jamaicans, however, believed their weight was acceptable - 19% of those obese and 42% of the overweight (Ichinohe et al., 2004). Similarly, 20.5% of obese men and 60% of overweight men, in particular, felt their weight was okay (Ichinohe et al., 2004). Jamaicans also tend to separate fat into 'good fat' and 'bad fat' (Sobo, 1993) and tended to have respect for the 'big man' or the 'big woman' (Sault, 1994). Sobo (1993) posit that fatness at its best is associated with qualities of moistness, fertility, and "kindness" (a social and giving nature), happiness, vitality, and bodily health in general. "Fatness connotes fullness and juicy ripeness" (Sobo, 1993, pg. 32). Hence, there is a cultural aesthetic preference for a plump body; specifically, the 'Coca-Cola-bottle-shape' with the larger buttocks and bust compared to an apple shape (Savacool, 2009) among adults.

In Jamaica, where a respected adult is called a 'big man' or a 'big woman,' good relations involves food sharing, and people living on good terms with others are large. Weight loss signals social neglect. A Jamaican seeing someone grow thin wonders about the sorts of life stresses that have caused the weight loss (rather than offering congratulations for it and attributing it to a "good" diet, as many middle and upper-class people in the United States do) (Sault, 1994, pg. 136). A full-figured, plump, curvy or voluptuous female was then considered more physically attractive compared to others with a slender or thin physique (Savacool, 2009; Sobo, 1993) which could explain body satisfaction among Jamaican women. According to Sobo (1993), "the concept of thinness goes hand in hand with ideas antithetical to those associated with 'good fat' (p.35). Consequently, there is low motivation among Jamaicans to lose weight (Ichinohe et al., 2004).

In addition, traditionally, the Jamaican staple is a mixture of mainly starches and proteins (JHLS-II, 2008; Antoine et al., 2012). Studies suggest that ninety-nine percent of the population consumed less than the recommended portion of fruits and vegetables (JHLS-II, 2008). The typical foods groups consumed were starches and protein such as rice, rice and peas, yellow yam, green bananas, chicken, porridges, soups, oranges and ripe bananas (Samuda, Cook, Cook, & Henry, 1998). The national dish, for instance, is 'ackee and saltfish,'

usually eaten with fried dumplings or breadfruit. Ichinoche et al., (2004) reported there was low vegetable consumption. On the other hand, over 60% of the population reported consuming 6-12 servings of staples per day (Samuda et al., 1998). Similarly, almost half the adult population (46%) are also reported to be inactive or engaged in low physical activity (JHLS-II, 2008). Only 22% were engaged in moderate physical activity (JHLS-II, 2008). Thus, the commonly consumed foods are not nutritionally balanced and physical activity is low; hence this could significantly affect body size within the Jamaican context.

Consequently, there are a number of factors such as eating patterns, level of physical activity, socioeconomic status, the African ancestry that could be considered in understanding the Jamaican body. Swami et al., (2010) in an international study, however, found that with increased exposure to western media, there is a preference for the thinner body and an increase in body dissatisfaction among women in developing countries. Jamaica, a developing country has seen shifts in its economic development (STATIN, 2016). The overseas influence on the Jamaican population today is strong, especially from the USA, due to its geographic proximity (Ichinohe et al., 2004). The media via the proliferation of cable and satellite television, especially in the urban areas play a significant role in expanding Western ideals within the Jamaican population. And so, Jamaica has experienced increased exposure to Western way of life (Ichinohe et al., 2004). Long-held cultural beliefs about body weight could, therefore, be changing with pervasive exposure to western ideals. If the sociocultural theory is accurate, then body weight preferences or body ideals in Jamaica, should be shifting to a thinner ideal, especially in more urban areas.

One way to measure the extent of the influence of Western values on body dissatisfaction is therefore to assess current body weight perceptions and appearance-related social standards within the Jamaican context. Internalization of societal ideal is believed to mediate the relationship between pressures to be thin and dissatisfaction with the body (Warren et al., 2004). New research is therefore needed to examine present-day body weight perceptions in Jamaica compared to previously held beliefs about the preference for the larger body type, and to qualify whether there is a general shift to the thin ideal with the influence of westernization. Given the increasing obesity rates, the thin ideal could also influence greater body dissatisfaction which could have psychological implications for Jamaican people. The next chapter begins this inquiry by investigating general opinions of body weight, health, obesity and certain health behaviours in Jamaica.

Chapter 3 - Research Methodology

Introduction

In this chapter, the methodologies employed to answer the research questions in this thesis will be discussed. The studies conducted are cross-sectional and were carried out to ascertain potential relationships between the study variables. The chapter also provides the rationale for the methodology adopted and the analytic strategies that were used. Methodology refers to the strategies, the process or design, plan of action that guides the decision to use particular methods that best answers a research question (Crotty, 2003). The series of studies in this thesis used a mixed methodology, where there is the use of both qualitative and quantitative approaches to the data collection and the data analysis techniques. The thesis sets out to answer the key research question:

“What is the role of body weight perceptions and attitudes in psychological well-being and physical activity among Jamaicans?”

This key research question is broken down into sub-questions, and throughout the thesis, each study will address a sub-question which leads to an answer to the key research question. These sub-questions are:

1. How do Jamaican perceptions of body weight influence their health behaviours?
2. What significant relationships exist between attitudes toward body weight and positive body image, body dissatisfaction, and health behaviours?
3. Do sociocultural attitudes (internalization of thinness/low fat, internalization of muscularity/athletics, pressure from peers, family, and the media) to body weight influence physical activity among Jamaicans?
4. What is the impact of attitudes to body weight on affective states?
5. What is the relationship between attitudes to body weight and level of physical activity?

These questions were answered using three study designs (exploratory design, a cross-sectional design, and an experimental design + correlational design). Hence, the methodology adopted a sequential mixed method design. Studies were conducted in three phases using interviews and surveys.

Rationale for mixed methodology in thesis

Due to the multifaceted nature of the research question, one method alone could not adequately capture the variables that needed to be investigated. Hence, a mixed methodology approach was deemed more suitable to achieve the objectives of this thesis. In general terms, mixed methodology research is considered a synthesis of qualitative and quantitative research (Johnson, Onwuegbuzie & Turner, 2007). Qualitative research is often driven by constructivism or the interpretivist perspective (Creswell & Plano Clark, 2011). This type of research is used to address questions related to meaning-making, socially constructed realities, interpretation and experience (Tashakkori & Teddlie, 2003). It is where knowledge and understanding are based on exploration of interwoven topics about the world and their meaning (Creswell, 2014; Yardley, 2010). Hence, it is a method often used to understand meanings, experiences, to discover or to refine new theory (Yin, 2011; Alvesson & Kärreman, 2011).

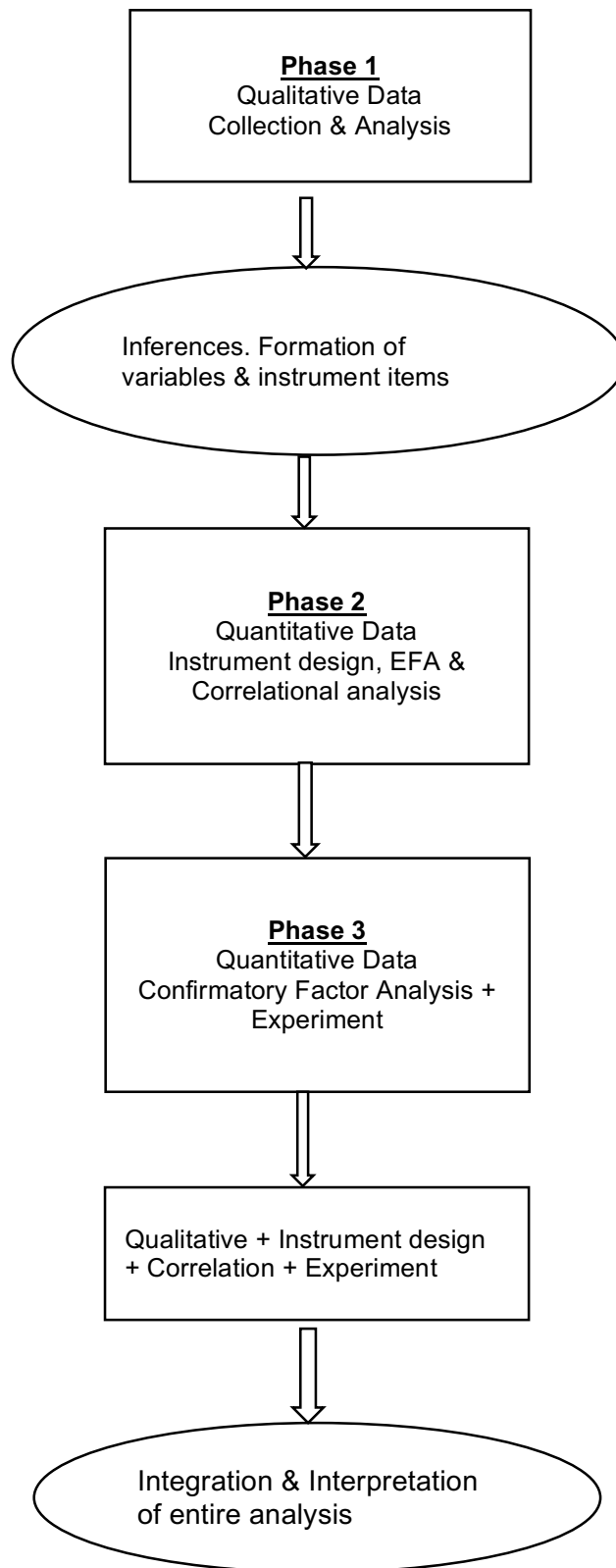
The advantage of this approach is that researchers are able to describe and understand social reality (Karasz & Singelis, 2009); it captures the voices of participants, and it allows experiences to be understood in context (Creswell, 2015). It is therefore mainly concerned with exploring and understanding different perspectives, learning about individual or group experiences, individual differences, and culture (Creswell, 2014; Yardley, 2010; Karasz & Singelis, 2009). It, however, tends to focus more on an intimate smaller group; based in a particular setting and uses data collection strategies such as interviews, focus groups, case studies, ethnography or observation. The drawback with this approach is that it samples a small group of people and is often concerned with issues of subjectivity (Creswell, 2015).

Quantitative researchers, on the other hand, are often guided by a positivist worldview where research is deductive and based on facts (Tashakkori & Teddlie, 2010). Positivists assume that reality is measurable as it is; knowledge about the world is bias-free; research procedures are objective, and the scientific method is central (Creswell, 2014; Tashakkori & Teddlie, 2010). This approach is theory-driven, mainly focuses on empiricism and objectively identifying factors or relationships in larger groups of people; often using limited measures and isolated variables (Yardley, 2010). Quantitative methods are important as they are useful for drawing conclusions about a large population, hypotheses testing, efficient data analysis, examining cause and effect, reliability testing and validity among large populations (Bartholomew & Brown, 2012; Creswell, 2015). Quantitative data collections strategies include surveys and experimentation. The limitation of this method is that it is impersonal, gives a limited understanding of the research context, as it does not describe participant's experiences and is often driven by the research a priori hypothesis (Creswell, 2015).

To fully understand the complex nature of social reality and to get a whole picture, Freshwater (2007) argues that no single method can truly capture these complexities. The dichotomy of qualitative and quantitative research paradigms may be inadequate for today's social inquiry due to the inherent weaknesses in each method (Tashakkori & Teddlie, 2010; Creswell, 2015). Thus, adopting an approach which integrates knowledge from different perspectives or viewpoints is, therefore, useful for a deeper understanding of social phenomena in a programme of study (Johnson, Onwuegbuzie & Turner, 2007).

In using both qualitative and quantitative data, it enriches the results/findings in more ways than any single method could allow (Tashakkori & Teddlie, 2010). For instance, Greene et al., (1989) outlined several benefits of mixing both methods. These include triangulation, complementarity, development, initiation, and expansion (Greene et al., 1989). Hence, using both forms of data collection can complement each other and improve the ability to generalize findings to a population as well as getting an in-depth understanding or insight into the topic of interest (Hanson, Creswell, Clark, Petska, & Creswell, 2005). The use of a mixed methodology approach is to integrate several research methods. That is, using different data collection methods and data analysis strategies to provide an informative, balanced, complete and a useful set of research results to answer research questions (Johnson, Onwuegbuzie & Turner, 2007; Tashakkori & Creswell, 2007; Creswell & Plano Clark, 2007). It should be noted that this approach is not an attempt to nullify quantitative or qualitative approaches; it is instead, an attempt to use the strengths of both methods in social inquiry to improve knowledge (Creswell & Plano Clark, 2011).

Applying this methodological approach first helped the researcher to better frame the research question and secondly to integrate findings to understand better the relationship that may exist between weight perceptions, psychological well-being, and physical activity. This research was carried out in three phases and employed an exploratory sequential design (Creswell & Plano Clark, 2011). That is, qualitative research was conducted in the first phase which was then followed by quantitative research in the second and third phases. This design selection facilitated the exploration of current perceptions of body weight and health in Jamaica. This helped to identify the most important variables to be tested empirically in phases 2 and 3. Figure 1 outlines the methodological approach that was used in this thesis.



(Adapted from Creswell, 2015)

Figure 1 - Showing exploratory sequential mixed method design

Ethical considerations and recruitment

Before any data collection, the work in chapters 4 & 5 received ethical approval from the relevant Research Ethics committee at Brunel University London. Recruitment of participants varied from study to study within the thesis. For the first study in chapter 4, participants were recruited from the general public in Jamaica. After a verbal briefing on the purpose of the study, potential participants were given a chance to volunteer their participation. For studies 2 and 3 (chapters 5), surveys were administered online using Survey Monkey. Participants were recruited by disseminating the survey through social media platforms such as Facebook, Twitter, WhatsApp and email of personal contacts. Facebook friends were also asked to recruit participants by sharing the survey link on their Facebook Timeline and sending the link via email to their contacts.

Sample

The sample targeted adult Jamaicans from the general public; however, the samples varied from study to study. Participants were recruited using convenience sampling. There was an exclusion criterion that was specific to study 2 (chapter 5). Study 2 included only female participants. Male and female participants were recruited for studies 1 and three (3) studies. Chapters 4 and five (5) will outline the demographics of the respective participants. The Jamaicans interviewed in phase 1 (chapter 4) were from various parishes within Jamaica. Jamaica has 14 parishes. The parishes sampled included St. Catherine, Kingston and St. Andrew, St James, St. Thomas, Clarendon and St. Ann. There were several advantages of sampling from different parishes in Jamaica. Recruiting participants from different parishes covered a wider geographic area. It also allowed the researcher to capture data from people living in both urban and rural areas, as well as, sampling people from different socioeconomic groups based on area of residence. The parishes St. Catherine, Kingston, and St. Andrew are considered the urban areas compared to St James, St. Thomas, Clarendon and St. Ann which are more rural areas. The demographics in these areas include participants from various socio-economic groups.

Data collection methods

Phase 1

The study in Phase 1 of the thesis (chapter 4), took a qualitative approach to explore perceptions. This study was exploratory and focused on the sub-question: *How do Jamaican*

perceptions of body weight influence health behaviours? The methods used were semi-structured interviews to explore opinions of body weight; local meanings of a healthy weight and obesity; psychological outcomes of obesity; physical activity and food preferences in Jamaica. The most recent study conducted by Barrett & Huffman (2011) examined self-perceived body size, desired body size, and actual body mass index among adolescents in Jamaica, and the implications they had for disease prevention. They found that the young girls underestimated their weight and did not perceive themselves as overweight. They also concluded that the adolescents needed more knowledge on a healthy weight. Sobo in 1993 also depicted the Jamaican body as fat which has been associated with bodily health, wealth, fertility, and happiness, compared to the slender body which was seen as powerless or ill (Sobo, 1993). It is argued that as society becomes more modern and urban, there is a general shift to the thin ideal (Becker et al., 2005). Hence, it was beneficial to explore the current body weight perceptions in Jamaica to get rich, detailed accounts of their understanding of how weight impacted eating habits and physical activity. It was also useful to assess whether sociocultural factors still shaped Jamaicans perception of body weight or whether this has changed with economic development. There are also increasing concerns about the health consequences of increasing body weight; however, less is known about how Jamaican perceptions of body weight can influence their eating habits and physical activity.

The use of interviews in this instance was therefore advantageous, as the researcher was able to tap into individual viewpoints (Bryman & Bell, 2007). Interviews are also useful in that; it can produce in-depth and complex insight that survey-based approaches fail to achieve (Byrne, 2012). The use of the semi-structured interviews specifically, allowed participants to discuss pre-determined topics related to the research question; it also allowed participants to share new topics that were of interest to them and also allowed participants to share their unique knowledge, thoughts or beliefs openly (Tashakkori & Teddlie, 2003). When this occurs, researchers can follow or probe the new ideas of the participants. In conducting interviews, the researcher is also privy to non-verbal or social cues such as intonation and body language of the interviewee (Opdenakker, 2006). The limitation with interviews is that it only provides a representation from the individual point of view (Silverman, 2011). However, this data collection method used in this study was appropriate to understand the personal experiences, cultural meanings and cultural similarities and dissimilarities in weight perceptions. Both males and females were included in this study as the objective was to garner views from the general public. The methods used in this study are described in further detail in chapter 4.

Phase 2

The study involved in Phase 2 (chapter 5) used a quantitative approach. The study sought to answer the second research sub-question: *What significant relationships exist between attitudes toward body weight, self-esteem, positive body image (body appreciation), body dissatisfaction, and health behaviours?* However, before this could be answered, this study first sought to develop a new culturally appropriate measure that was both valid and reliable to assess the attitudes related to the cultural phenomenon - 'Fluffy' that was identified in Phase 1 as a body ideal in Jamaica (see chapter 4 for more details). It was important to understand this construct, the underlining characteristics and its role in maintaining cultural values related to body weight. This term *fluffy*, therefore, raised a secondary research question: *Can the construct of fluffy be measured in a valid and reliable manner? If so, is this construct best conceived as unidimensional or multidimensional?*

Data for this study was collected using an online survey which is a self-administered questionnaire of measures. Online surveys for data collection have become increasingly popular and have several advantages for researchers (Bryman & Bell, 2007). In using online surveys, it is more convenient for respondents as they can complete the survey in their own time (Mullarkey, 2004). It tends to be inexpensive, produces faster responses and covers a wider geographic space (Bryman & Bell, 2007; Sheenan & McMillan, 1999). In this study, the new measure was assessed for its factor structure, reliability, validity, and correlations with psychological variables (body dissatisfaction, body appreciation and self-esteem). The design, methods and specific hypotheses related to each question are later presented in further details in chapter 5.

Phase 3

This phase involved an experiment and a correlational study. The experimental design was selected to test how simulations of fluffy and simulations of stereotypes of obesity could impact the recall of physical activity and affect. This was also administered online, using random assignment to videos (experimental condition) which was then followed by a self-administered questionnaire. The design consisted of 3 experimental conditions. Further details of the experimental conditions are outlined in chapter 5. In this study, the following sub-questions were addressed:

- *Do sociocultural attitudes (internalization of thinness/low fat, internalization of muscularity/athletics, pressure from peers, family, and the media) to body weight influence physical activity among Jamaicans?*
- *What is the impact of attitudes to body weight on affective states?*
- *What is the relationship between attitudes to body weight and level of physical activity?*

The design, methods and specific hypotheses are presented in further details in chapter 5.

Measures used in Phase 1 and 2

This thesis used an interview schedule in addition to a number of psychometrically valid measures and to meet the objectives of the thesis. Quantitative measures are used in the studies in chapter 5. Details of the measures used in all three studies are provided below:

Phase 1

Interview schedule

A schedule of questions was developed based on a review of studies on weight perceptions. These studies included researchers such as Sikorski et al., (2012), Martinez-Aguillar et al., (2010) and Agne, Daubert, Munoz, Scarinci & Cherrington (2012). Several questions were adapted from themes and questions within these studies while others were specifically developed for the Jamaican context. Discussions of question development were also held with a qualitative researcher at Brunel University. The interview schedule included twenty (20) open-ended questions that were divided into sub-categories such as body weight, eating behaviour and exercise, body size preference, media, psychological issues, ways to address obesity, barriers, and attributes associated with larger body types.

Sample questions in the interview schedule included:

- How would you describe a healthy weight?
- Why do you think some people are overweight or obese?
- How does eating behaviour among Jamaicans influence their body size?
- Why is it so difficult to lose weight?
- What are some of the psychological experiences/outcomes of having a larger body type?
- How do you think Jamaicans perceive their body types/sizes?

(See appendix A for copy of interview schedule)

The use of open-ended questions allows personal reactions to the topic that is being investigated and do not force consistency in respondents' thinking compared to choosing between predefined options from questionnaires; hence, it elicits more information about beliefs, opinions or attitudes (Wilkinson, Joffe & Yardley, 2004) compared to surveys.

Phase 2

Phases 2 and 3 used a number of measures. These measures were selected because they were psychometrically sound and have been validated in adult populations except the Fluffy Rating Questionnaire (FRQ).

Fluffy Rating Questionnaire. A full description of this scale and its psychometric properties are reported in chapter 5, page 92. The scale was subject to both exploratory factor analysis (EFA) and confirmatory factor analysis (CFA).

Rationale for scale development and procedures

This scale was developed to assess attitudes to fluffy women as at the point in time, (early 2014), there was no validated and reliable measure available to evaluate the *Fluffy* construct. Hence, there was a need to develop a new scale to adequately measure the construct in order to examine its relationship with psychological well-being and physical activity. The scale was developed following a series of procedures. It started with a synthesis of the qualitative study in phase 1 and previous literature. That is, the first steps involved generating the scale items (Hinkin, Tracey and Enz, 1997) from descriptions of the term *fluffy* from participants' responses in Study 1. In addition, scale items were generated from the review of the existing literature on the Jamaican body from writers such as Sobo (1993) and Savacool (2009).

Photographic Figure Rating Scale. The Photographic Figure Rating Scale (PFRS) was developed by (Swami, Salem, Furnham, & Tovée, 2008). The scale is used to measure body dissatisfaction and consist of ten (10) photographic images of real women. Body dissatisfaction is measured by computing the difference between current and ideal ratings which gives an indication of actual–ideal discrepancy regardless of the direction of the discrepancy (Swami & Tovée, 2009). Images of the women were captured in a set pose at a standard distance, wearing tight grey leotards and leggings, and had their faces obscured to avoid any impact of facial cues (Swami et al., 2008). The images are presented in grey scale to minimize the impact of ethnicity or skin tone (Swami et al., 2008). Images in the scale increased progressively in size and ranged in BMI from 12.51 to 41.23 kg/m². Two images from each of the five established BMI categories were presented: emaciated (<15 kg/m²), underweight (15–18.5 kg/m²), normal (18.5–24.9 kg/m²), overweight (25.0–29.9 kg /m²), and obese (>30 kg/m²) (Swami et al., 2008). Participants were asked to select images that best matched current body size, the body one would most like to possess, and the body least liked to possess. It also asked participants to rate attractiveness of each image. This scale was included as it used images of real women compared to silhouettes. For the purposes of the

study, the images of the scale were also appropriate to rate the body types that were classified as fluffy in Jamaican context.

Rosenberg Self-esteem Scale. A full description of this scale is reported in chapter 5, page 94. Scores on the Rosenberg Self-Esteem Scale have been shown to demonstrate acceptable internal consistency, validity (Demo, 1985).

Body Appreciation Scale. The Body Appreciation Scale is a 13-item scale developed by Avalos, Tylka, Wood-Barcalow, (2005). The scale measures four qualities of positive body image: (a) favourable opinions of the body regardless of actual physical appearance, (b) acceptance of the body in spite of weight, body shape, and imperfections, (c) respect for the body by attending to its needs and engaging in healthy behaviours, and (d) protection of the body by rejecting unrealistic body images portrayed in the media (Avalos et al., 2005). To obtain an overall body appreciation score, the scale was scored by averaging all 13 items. The scale was rated on a Likert scale ranging from 1 = *never* to 5 = *always*. The scale has demonstrated evidence of reliability and constructs validity for women with reported Cronbach's alpha .92 (Halliwel, 2013).

(Please see Appendix B for measures)

Phase 3

The Sociocultural Attitudes toward Appearance Questionnaire – 4 (SATAQ-4): The Sociocultural Attitudes toward Appearance Questionnaire – 4 was used to assess appearance ideals (Schaefer et al., 2014). A detailed description of this scale is reported in chapter 5, page 110.

Godin Leisure-Time Exercise Questionnaire (GLTEQ): The Godin Leisure-Time Exercise Questionnaire was used to measure leisure-time physical activity. Description of this scale is reported on page 110.

The Positive and Negative Affect Scale (PANAS): The Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988) was developed to evaluate affective states or the moods – positive affect and negative affect. Further details of this scale are provided on page 111.

Experimental conditions: Experimental conditions were created to test simulations of the fluffy label and obese on recollection of physical activity and affect. 3D models were created using Poser Pro 2012 (Smith Micro Software, 2009-2012). To control for size, motion, and a coloured virtual human, two female models were created using the Alyson Izes prototype from the Poser Pro 2012 library database. The default body of Alyson was altered using the “heavy” setting as supplied by the software. The width of the body was morphed to create an obese Alyson. Manipulation of anthropomorphic body measures was completed using Poser’s functions to enlarge and position certain body parts to simulate natural body posture. For face validity, four (4) Jamaicans (living in Jamaica) and one (1) British was shown the model and verbally asked to rate the model as obese or normal. The body size was altered using the “heavy” setting until all respondents rated the model as obese. Further description of the experimental conditions is outlined in chapter 5.

(Please see Appendix C for measures)

Data analyses

Qualitative data analysis – Phase 1: Thematic analysis

The recorded interviews were first transcribed verbatim into text and collated into a Microsoft Word document. The thematic analysis used in chapter 4 to identify the emerging themes followed a systematic process by employing the Five-Phased Cycle as proposed by Yin (2011). The cycle involved:

- Compiling the data (Transcribing)
- Disassembling of data (Coding)
- Reassembling of data (Identifying themes)
- Interpreting the Data
- Concluding

Further details of this process are provided in the methods section of chapter 4.

The purpose of using thematic analysis in this study was to identify core meanings that are relevant to the objectives of this study (Thomas, 2006). Thematic analysis is a qualitative method that is often used to identify, to analyze, to report patterns within a dataset and to interpret the data to answer a research question (Braun & Clarke, 2006). Compared to discourse analysis, grounded theory or using case studies, this analysis technique was

selected as a means to identify dominant themes emerging from the data (Braun & Clarke, 2006). It was also selected because this analytic technique allows researchers to give rich descriptions of participants' experiences, especially, in an under-researched area (Braun & Clarke, 2006).

While it may be argued to be an inductive approach, it is theoretically flexible; that is, it is not attached to any specific theoretical position; so, it can be used to answer different types of questions (Braun & Clarke, 2006). Braun & Clarke (2006) contend that it "matches what the researcher wants to know" (p.80). The thematic analysis also provides a sense of what themes are predominant and important (Blacker, 2009). As this was an exploratory study, it did not have a hypothesis, and the aim was not to test a theory. Instead, it sought to explore views, beliefs and local perceptions on health, weight and selected health behaviours. Hence, thematic analysis was deemed especially useful in identifying important themes, highlighting the meanings Jamaicans gave to certain terms and a rich description of experiences of a Jamaican (living in Jamaica). This creates a picture of the local scene and views on body weight and their health behaviours (eating habits and physical activity).

Quantitative data analysis in Phase 2 and 3

The quantitative analyses were conducted using Statistical Package for the Social Sciences (SPSS) version 20 and Analysis of Moment Structures (AMOS) version 20. Prior to data analysis, the data was examined for missing data and outliers. Initial data analysis began with descriptive statistics such as means and standard deviations. The data was also examined for normality of distribution.

The quantitative analysis in study 2 involved the use of Pearson's correlations which was used to examine the relationship between the variables. Standard regression analyses were conducted to test relationships between the study variables. These hypotheses are later outlined in Chapter 5. It also involved the psychometric evaluation of the FRQ scale. Exploratory factor analysis (EFA) was conducted to determine the viability of the scale (Hinkin, Tracey & Enz, 1997). This was a preliminary test to refine the new measure. The scale was later subject to confirmatory factor analysis. After each of these procedures, reliability and validity assessments were conducted.

Exploratory factor analysis (EFA) is a data reduction procedure that is used to "identify the factor structure or model for a set of variables" (Bandalos, 1996, p. 389). Thus, the reason for conducting the EFA was to determine to what extent the items used to describe or characterize some overweight, and obese women in Jamaica captured the different aspects of the *Fluffy* construct. Some factor extraction methods used in EFA however, has been criticized for being overly lenient to the presence of factors (Hayton, Allen, & Scarpello, 2004). Parallel analysis was therefore used to determine the presence of factors. This method of

analysis has been observed to be more precise in deciding the number of factors than different techniques, such as determining eigenvalues more than or equivalent to one (Kaiser, 1960; Tabachnick & Fidell, 2014). Such strategies are argued to be vague, subjective or cause over-retention of factors (Hayton, Allen, and Scarpello, 2004). Hence, parallel analysis was conducted using a syntax written in SPSS. Parallel analysis is a method used to extract number of factors based on a comparison of eigenvalues of actual data and that of a randomly simulated data (O'Connor 2000). Factors from the raw data are retained if their eigenvalues are higher than the eigenvalues from the simulated data (Hayton et al., 2004; O'Connor, 2000).

In study 3, Pearson's correlation was first used to assess the relationships between the study variables. Multivariate analysis of variance (MANOVA) was used to test the specific hypotheses for this study. This technique was used to assess differences in the experimental groups. The specific tests used in phase 2 and 3 were selected based on the nature of the dependent variables and the independent variables. For example, regression analysis was used when the independent variable was a continuous variable and when the dependent variable was also a continuous variable. This study also reports the confirmatory factor analysis of the FRQ.

Confirmatory factor analysis (CFA) is a procedure which is used to qualify the factor structures from the general model of the EFA (Hinkin, Tracey and Enz, 1997). It uses structural equations analysis to assess goodness-of-fit and is conducted using statistics such as the chi-square statistic (Hinkin, Tracey and Enz, 1997). The CFA was performed using AMOS, version 20. This is important for any scale that was developed using EFA (Churchill, 1979). Thus, the rationale for conducting this procedure was to determine whether there are one or more latent variables that correspond with items (observed variables) of the scale (Slocum-Gori & Zumbo, 2011).

Summary

This chapter described the methodology employed in this thesis. It also addressed the data collection strategies used, such as interviews and surveys. In addition, it described the analytical techniques used, namely, thematic analysis, factor analysis and a selection of parametric tests. The methodology used in this thesis aimed to answer the key research question and develop an elaborate picture of Jamaican body weight perceptions and its influence on psychological well-being and physical activity. The next chapter presents the first study which explored general perceptions Jamaicans hold about body weight. It also assesses the perceptions of current levels of physical activity, eating patterns and psychosocial problems that may be experienced due to body weight concerns.

Chapter 4 - Study I

Introduction

As mentioned earlier, the majority of the Jamaican population is primarily of African descent (Encyclopedia of the Nations, 2013), where significant value is placed on plump body types which often signifies wealth and prosperity. Some of these values can be traced back to the African heritage (Savacool, 2009) and today are still reminiscent of the traditional Jamaican culture. In Jamaica, the prevalence of overweight and obesity has increased over the years.

Prevalence of obesity in Jamaica

Over 70% of the Jamaican population is either overweight (58.4%) or obese (26.8%) (WHO, 2016). Jamaican females were reported to be more obese compared to Jamaican men. Obesity rates among women were 35.3% while only 18% of men were obese (JHLS-II, 2008). Overweight rates among men and women were 51.2% and 65.5% respectively (WHO, 2016). The overweight rate was slightly less among the men. The JHLS-II survey indicates that reports of overweight and obesity were most common among the 35-74 year old age group. Ragoobirsingh et al. (2004) identified two main types of obesity found in Jamaica. These are truncal obesity and gynoid obesity. They report that these rates in Jamaica were 36% and 34% respectively. Truncal obesity is body fat that is accumulated around the midsection of the abdomen (Wood, 2006). It is also commonly referred to as central obesity. Gynoid obesity, on the other hand, is excess adiposity in thighs, buttocks, and legs (Wiklund et al., 2008). Overweight and obesity rates among adolescents living in Jamaica is also of growing concern since it has implications for higher body weights in adulthood. The Youth survey (Jamaican Youth Risk and Resiliency Behaviour Survey, 2006) for example reported that 25% of Jamaican youths between the ages of 15-19 years were overweight or obese. Such rates place the Jamaican population at risk for preventable illnesses that are associated with obesity.

In traditional developing societies, being overweight was associated with maternity and nurture; thus, it was acceptable to have larger body types among the women. More than half of the Jamaican population (55%) felt they were at the right weight, even though there were high rates of overweight or obese (JHLS-II, 2008). Less than 10% perceived themselves as overweight, and 24% felt they were a bit overweight. Ichinioche et al., (2004) also report that 19% of obese persons in their study and 42% of overweight adults in their study believed their weight was acceptable; men, in particular, believed overweight body types were normal.

Similarly, among Jamaican adolescents (15-19 years), while 25% were overweight/obese, more than half of this sample perceived themselves as normal and within a healthy range. Only 14% perceived themselves as overweight or obese (Jamaica Youth Risk and Resiliency Behaviour survey, 2006). Other data also indicate that the adolescents believe their weights are acceptable even if they are obese or overweight (Barrett & Huffman, 2011). Similar to investigations in the adult population, male adolescents found both a plump appearance and small body frames to be attractive (The Jamaican Youth Risk and Resiliency Behaviour Study, 2006). This may indicate that there is some level of underestimation of body weight and misclassification of weights. These findings may be influenced by perceptions. Excess weight can be a potential risk factor for several health conditions (Wyatt et al., 2006). Hence, underestimation of body weight or misclassification poses a challenge to healthier eating patterns, physical activity and overall health within the population. Understanding perception of body weight among Jamaicans is therefore essential to improve healthier lifestyles. Thus, accurate assessments of body weight are crucial (Christensen, 2011).

In today's society, where there is much emphasis on beauty ideals, being overweight may impact sentiments one holds about appearance (Darlow & Lobel, 2010). However, if some overweight ladies, for instance, do not internalize the thin ideal, they are less likely to feel negative about their appearance (Low et al., 2003) or experience any psychological disturbances. Similarly, some obese and overweight men tend to underestimate their weight or have a less accurate categorization of their weight (Gardner, 2014). Cultural difference in weight perception is, therefore, an essential factor to consider in understanding body ideals (Grogan, 2008; Draper, Davidowitz & Goedecke, 2014).

The purpose of this current study, therefore, is first to explore current perceptions Jamaicans hold about body weight. It also assesses the perceptions of current levels of physical activity, eating patterns and psychosocial problems that may be experienced due to body weight concerns. This study is exploratory and was used to give insight into the meanings associated with body types, and the everyday lived experiences of Jamaicans. It was also used to inform the direction of the research in this thesis. Through a series of semi-interviews, these specific questions were addressed:

1. How do Jamaican people view body weight?
2. What body size is preferred in Jamaica?
3. What are the psychological outcomes of having a larger body size?
4. What are the health risks for larger body sizes?
5. What attributes are associated with larger body size?

Method

Participants

A total of 52 interviewees were recruited to participate in this study. Participants were recruited using a convenience sampling technique. This recruitment and sampling technique was used as it offered the advantage of gathering data from members of the public who were available, it improved the ability to collect data within a limited time frame and was cost-effective. Five interviews were however excluded from the study because they were under 10 minutes. Therefore, a final total of 47 interviews were considered for analysis. Participants were fifteen (15) males and thirty-two (32) females. Interviewees were required to be over the age of 18 and of Jamaican nationality. Ages ranged from 18 to 63 years. Median age was 31 years.

Research Design

An exploratory research design was employed in this study. In this first study, there were no a priori theories underpinning the study. This was designed to be data-led and gather opinions from the general public to help lay the foundation for further investigations into how perceptions of body weight may mediate psychological effects of a larger body type and the consequences for public health. This design was appropriate to gather opinions and insight into body weight perceptions from a convenient sample of Jamaicans. It also assists in the generation of new ideas for further research (Iacobucci & Churchill, 2010).

Interview

Participants responded to an interview schedule (Appendix A) that was created by the interviewer. The interview schedule was open-ended and encouraged discussions on perceptions of different body weight, psychological impact and health behaviours. The questions were developed by review of existing qualitative research on weight perceptions and existing literature on the Jamaican body. It covered a range of topic areas such as body weight, eating, and exercise, body size preferences, the media, psychological issues and attributes associated with larger body types.

Semi-structured interviews were the preferred data collection tool as this method allows a rapport to develop between the interviewer and interviewee which facilitate the depth of discussion (Rubin & Rubin, 2005, Kallio et al., 2016). It urges the interviewee to share rich descriptions of the phenomena under investigation (DiCicco-Bloom & Crabtree, 2006). Open-ended questions were used which encourage more in-depth answers from participants that provide more in-depth understanding of how people feel and think by asking questions that elicit an account as opposed to 'yes or no' responses (Wilkinson, Joffe & Yardley, 2004).

Procedure

Prior to data collection, ethical approval was granted by the Department of Psychology Ethical Review committee at Brunel University, London, United Kingdom (See Appendix D). Semi-structured interviews were conducted in the parishes of Kingston & St. Andrew, St. Catherine, St. James, St. Elizabeth, Clarendon and St. Thomas during August to September 2013 and July 2016. The participants were informed of the nature of the study through an information participation sheet. Participants gave their permission to participate in the study by signing the informed consent sheet. All interviews were face-to-face. Participants were interviewed at their homes, at their workplace, on the campus of the University of the West Indies, or at the residence of the researcher²All participants were informed in the consent sheet that responses would be kept confidential, they had the right to withdraw at any time and that they were not obligated to answer questions which they were unwilling to answer. The duration of the interviews used lasted from a minimum of approximately 10 minutes: 10 seconds to a maximum of 1hr: 12 minutes: 37 seconds. Average interview length was 27 minutes: 49 seconds. Each interview was digitally recorded. Interviews were continued until data saturation was accomplished; that is, interviews were carried out until no new or additional information was emerging. The recorded interviews were then transcribed verbatim for data analysis³After each interview, participants were debriefed and provided with links to resource information that may have been of interest. These resources included the Jamaica Health and Lifestyle Survey -II (2008) report and a study on obesity and lifestyle in Jamaica (Ichinohe et al., 2004). Participants were not offered any incentive for participation in the study.

Data Analysis

Thematic analysis was selected to analyze the interview data (Braun & Clarke, 2006). The thematic analysis was completed using a combination of manual procedures and the NVivo 10 (qualitative data analysis software), to code data into emerging themes. This Word document became the primary database for analysis. The researcher read each interview text several times to become immersed in the data. The data was first coded by assigning labels that summarized participants' main ideas in each line or paragraph. These labels (codes) were handwritten on the margins of each transcript. The transcripts were re-read and repeatedly re-examined for additional codes. Using NVivo 10, the data was imported into the software and

². Interviews (4) conducted at the residence of the researcher were convenient for those interviewees within the neighbourhood who indicated this preference. No coercion was used.

³. The accuracy of transcription was monitored by repeated review of the written text and digital recordings.

was sorted based on initial codes from the manual process. The data was then reassembled. The initial codes were clustered into themes by organizing them into similar topics or perspectives to represent beliefs, current thoughts, and language used within the cultural context. Links were created to indicate relationships between codes and themes. The themes were then considered based on possible meanings and interpretation of the lived experiences and then categorized in broader overarching themes that resulted in the final themes. In the process of rearranging the data in the emerging themes, responses were compared for similarity as well as difference or opposition or conflict. As each theme was developed, direct quotations were used to illustrate the core theme. Themes from the analysis were then interpreted to give meaning to the views of participants.

Findings

Thematic analysis yielded three (3) main themes. These themes are *Body Size*, *Perceptions of being healthy* and *Social attitudes to body weight*. Each theme had various sub-themes which are present in table 1 below.

Table 1 - *Main themes and sub-themes*

| Main Themes | Sub-themes |
|---------------------------------|--|
| Body Size | <ul style="list-style-type: none"> • Body ideals in Jamaica • Male preferences • Fashion and clothes • Terminologies |
| Perceptions of being healthy | <ul style="list-style-type: none"> • Interpretations of healthy weight • Understanding of overweight and obesity • Causes of overweight and obesity • Perceived effects of obesity • Tackling obesity • Barriers |
| Social attitudes to body weight | <ul style="list-style-type: none"> • Attitudes to being slim versus overweight • Culture • Media • Socioeconomic status |

Theme 1 - Body size

This main theme was developed by grouping participants' discussions on body size. Desirable body sizes were based on body proportions; associations made with different body sizes and attractiveness of the female body to the opposite sex. This theme contains four sub-themes - *body ideals*, *male preferences*, *fashion and clothes* and *terminologies used for certain body types*. The theme, therefore, summarizes Jamaicans' acuties about body shapes and sizes.

Sub-theme 1.1 - Body ideals in Jamaica

This sub-theme provides a discourse on the body sizes that captured the aesthetic preferences and physical attractiveness within Jamaican society. Participants' views suggest that there may be more than one body ideal within the Jamaican context, especially as it relates to the female body. There are preferences for both a thin body and a plump body. For instance, this participant expressed:

"I think the world is diverse, and all of us can't be six feet and have this...the so-called ideal, the "model shape." (Int. 32, p. 2, F)

There is, therefore, a belief that everyone was not meant to be the same size. This suggests that having a model or the thin ideal shape is not necessary to be seen as attractive or to be accepted. Views from participants indicated that a slim body was only one of the body ideals in Jamaica. This thin ideal corresponds to the western beauty ideal of a slender female body. Some participants stated:

"generally people seem to be conscious of their image and is concerned about being fat or slim and generally I think women want to be slim, not fat or obese." (Int. 31, p. 8, F)

"Well, I think Jamaica, in general, they love to have a small body." (Int. 36, p. 10, F)

"For some people, they'll love their ladies very trim, very slim.....i know many persons find where if ladies very much overweight, fat to be unattractive, but it all depends on persons perception. Everybody have their unique features that they look for, for some, it's very small,". (Int. 28, p. 2, M)

"Ahm, hmm, Jamaicans..well I can say for Jamaican men, the attractive body type would be ahm..slim built or what ahm, some people may call..thick but not fat...yea...so those would be the more...most Jamaicans would be more attracted to that type of figure." (Int. 2, p. 2, M)

This would suggest that there are some Jamaicans who are less fond of larger body sizes or less patriotic to the traditional body ideals and instead embraced the thin western ideal. It was however noted, that being slim in Jamaica did not equate to beauty:

“people don’t feel that they have to be skinny and that’s beautiful. Like there’s an allowance for all different types of body sizes so. People are less apt to want to starve themselves or less apt to think that they have to be a stick figure in order to [have] an ideal body weight or body size. Ahm, so I think yea. So that definitely opens up different the area for women or different people, to do what they want (laughs)..they don’t have to...so yea, eat what they want.” (Int. 11, pp. 1-2, F)

While the thin body was an ideal, it was thought to be childish or weak for some, and that one might not be taken seriously if they were too small. It was also associated with illnesses in some instances. Here participants have identified a physical characteristic from two socially discriminated groups (children and old people that they did not want to be associated with - that is, being small. Therefore, to avoid negative associations, some participants did not want to be small bodied. A little weight was required to be considered a mature adult. For example, participants explained:

“I think, personally for me, I don’t like to be, I don’t want to be slim. I think that people don’t tek yuh serious when yuh too small, and yuh old. Cause they see you as a child, so, I like a little meat on the bone.” (Int. 32, p. 3, F)

“Is like saying your skinny in Jamaica is like a frownish kinda thing and oh yuh mawga [you’re slim], yuh [you] have disease, or yuh a suffer from supmn [you are suffering from something] or yuh anaemic or yuh a suffer [you are suffering] from malnutrition or yuh nuh have nuh food fi [you don’t have anything to] eat and life hard...yuh nuh...is like it’s, is like is something bad yuh nuh. So yuh wouldn’t want to...ahm Jamaicans don’t want to define themself, even if they are not yuh nuh, fat, not, not really to say...I’m mawga [slim] and skinny...is either fluffy or mi healthy.” (Int. 14, p. 8, F)

In addition to the thin ideal as expressed above, others expressed that a body size that was ‘not too fat,’ ‘not too skinny’ was also ideal. A body size that was ‘medium,’ ‘plump’ and ‘thick’ were some common descriptions given by the participants, (both males and females) as a desirable or ideal body size for women. This supports the quote above regarding diversity in body sizes that were attractive for Jamaicans. Below are some of the various comments on the medium body as attractive or the ideal body size as:

“Nuff people don’t like slim people and some people like fat people. So, mi think it vice versa. But most people would a go fi di medium size.” (Int. 42, p. 6, F)

“I think when you are as...for ladies, when you’re on the plumper side, a mean medium, not very, very large but in between, then they, they think you’re attractive. Ahm they...from the opposite sex that’s what I’m talking about. Ahm, the men always think if you have some, more body, you know, flesh as we call it, then they will like that.....I think we are, the medium persons are more acceptable.” (Int. 22, p. 2, F)

“Some like it medium” (Int. 52, p. 3, F)

“So is like you, like are in between. You’re not too mawga [slim] but you're not too big. But you got, you got shape and, you see me, you can see that [inaudible] you weighty but the weight's not in like the wrong places, you see me.” (Int. 35, p. 6, M)

The medium body here was described in terms of dimensions or shape of the body. That is, having the right body proportions, with body fat in the right places - the big breast, small waist, and wide hips. In essence, an hourglass body shape or otherwise known as the 'coca-cola bottle' shape. Some also referred to this body as the 'slim-thick.'

“Ahm for the most part, women with bigger bodies and them ahm, bigger breast measurement, smaller hip measurement...I mean smaller waist measurement and bigger hip ahm, measurement and not necessarily on the skinnier side. More, more of what ahm, medically would be overweight. That’s more acceptable or more ahm, women in our society and, and even in some areas ahm, in Jamaica, if you not of a certain weight then you’re not healthy. If you’re not fat, if you’re not plump, then you not healthy and you need to be eating some food...and ahm, yea.” (Int. 10, p. 2, F)

“The coca cola bottle shape, or in better terms, hourglass.....That’s what they find attractive because even the songs that they sing about...[.....].when you think about Jamaicans you think about thick and the big bottom and having meat on your bones and stuff like that. But as it relates to overweight, when a person is definitely fat fat, I think ahm, that person is put down because they're saying yuh too fat and stuff like that. So you can see where the difference there plays out with being overweight and being slim thick or being fluffy” (Int. 50, p. 3 & p. 7, F)

This shows that having a medium built body size or a body with big breast, big bottom, big hips and small waist was a commonly accepted body type for women based on participants' responses. One's body size was also linked to behaviour, where if one was not plump it meant they need to eat more food as a means to achieve this plump, healthy-looking ideal. It was felt the Caribbean region also shared similar views. For example:

“Well, not only Jamaicans but from a West Indian perspective ahm, big butt and big breast really are what men go for or most men in the West Indian,.. {Inaudible}.. the slim, slimmer body type is mostly European, American {Inaudible}.. persons who are slim..” (Int. 27, p. 3, F)

This may also support findings in other developing countries with women from black ethnic groups such as some African nations with the preference for plumper bodies (Guerrero, 2013; Pollock, 1995; Draper, Davidowitz & Goedecke, 2014). While the slim, slender or a small body size was an ideal, there was an aesthetic tolerance from both men and women for the medium body size in women as it represented beauty for this group of people. Hence, a commonly accepted body size for women was the body with big breasts, small waist, and a big bottom or the medium-built body.

For males, the ideal male body was described as one that was lean and muscular. Descriptions included:

“I think many women would like their men tall, lean, and handsome.” (Int. 50, p. 4, F)

“You see fi ii [for the] man mi [I] think dem.... mi nuh know why people prefer mawga man over everybody else.” (Int. 42, p. 6, F)

“The man is attractive....eehm...persons would want the big shoulder and the big, I think.. the big shoulder with di ...wey yuh call it? [what do you call it?...]six pack..ever hear dem talk bout di 6 pack? Di belly...mhmm, so their belly must have this muscles” (Int. 36, p. 11, F)

“A male can go up to 170.” (Int. 34, p. 1, F)

When speaking about the body and the Jamaican ideal it was evident that body size and shape were gender specific, that is, body ideals discussions were more noticeable for the woman. Body descriptions were less about the male body. Ideas about the body instead were

influenced by ideas about how males in the society saw the female body. In summary, this sub-theme reveals the body ideals that are represented in Jamaica and the body shapes that are perceived as attractive by both male and females.

Sub-theme 1.2 - Male preferences

The above sub-theme highlighted the different body ideals in Jamaica. In addition to these body ideals, participants often mentioned the body size that they thought men wanted. Hence, body ideals in Jamaica could be influenced by male preferences. That is, the female body ideals were based on the perception of what men in that society liked to see. This theme highlights views participants held on the body type that was preferred by males. These include:

“In Jamaica, it is being said that men like women who are not skinny but who are but who are plump, not necessarily obese but they have a well-developed breast and bottom; they have a good shape in terms of wide hips” (Int. 31, p. 4, F)

“To be honest, I cannot speak for others but personally, I tend to go for.... ladies that fall in the middle, not too skinny, and not with a lot of weight.” (Int. 46, p. 6, M)

“You have Jamaican men that like..well..I think most body types but I realize girls that are just like skinny...I realize Jamaican men don't really care for them like some models and stuff like the ones that are really skinny and ahm....but ahm...you have some women that..the curvy women is yuh nuh...I think that, stereotypical..dream woman for a Jamaican man...You have people of, women of my size that are desirable and, and I think it..but I think at the end of the day it really depends on the...your figure...as in, yuh nuh, the shape of your body. The whole hourglass thing is what a lot, you know, men try to get in terms of women” (Int. 47, p. 7, F)

“It doesn't really like, disgust me in any way you know, but it's like, I don't really like to see people [inaudible] extra weight worse, I just don't like to see them when they have too much weight, I don't know why miss” (Int. 35, p. 2, M)

“I think men who generally are attracted to plus size women are attracted to what is called a slim thick, meaning your bust is big, your hips and thighs, you have that large ratio but you also have that flat stomach. You know, that ever so elusive body type.” (Int. 49, p. 6, M)

These comments suggest that most participants believed that males generally like to see women who were well proportioned - having too much weight but yet, not being too skinny. They should hold a good figure. This could, therefore, explain the different body ideals that exist in Jamaica. The thin Western ideal is not an hourglass body shape. This body is often stick like and anorexic looking (Fallon, 1990) which might not be as physically attractive for the Jamaican man compared to Western ideals.

Sub-theme 1.3 - Fashion and clothes

This sub-theme represents the association participants made with finding the right clothes to fit the body nicely, current fashion and body size. The main issue participants highlighted was the difficulty in finding the right clothes to fit a larger body type and the affordability when they found suitable clothes that could fit. Participants had three major concerns as it related to fashion and clothes. The first concern was that clothing for overweight or obese persons was expensive. For example, participants explained:

"I can't afford what they wear, cause you know that fluffy diva clothes are very expensive because look at the size, we can tek up a jeans and buy it and fit into it but they look at....sey I know, the bigger the size is the more expensive." (Int. 33, p. 9, F)

"when you are slim, you.... certain clothes...you have to take in consideration of certain clothes that can fit and I think persons wid over...wid obese their clothes are more expensive" (Int. 36, p. 2, F)

"when you do find a distributor that cater to your size the clothing is hella expensive." (Int. 49, p. 8, M)

Therefore, having enough money buying certain clothes was important to looking attractive.

Another concern was that clothes to fit larger body sizes were hard to find. Retailers, they believed, mainly catered for smaller body sizes. Some of the concerns included:

"when you go to the store to get clothes, don't expect to find..a mean...but just go anyways like say you and yuh friend go shopping and yuh friend just buying up everything, can find such nice clothes and stuff and you're, yuh end up just being the one who gives your opinion on it cause you can't find anything to fit you." (Int. 47, F)

"I can tell you that from first-hand experience that, like, shirts don't fit, pants don't fit. People don't really cater to your size." (Int. 49, p. 8, M)

This was interesting as smaller participants felt when they 'had on weight,' their clothes tend to fit and look better on them. The medium-sized bodied was also thought to be able to fit in any clothes. For instance:

"I find myself more confident the more weight I have on or the closer I am to 160lbs. I look better, my clothes fit better" (Int. 46, p. 2, M)

"I had actually had a son two years ago and after having him, I was feeling fitted in my clothes, so like my jeans and pants. Most of the clothes I was wearing them when I was pregnant, so they kinda stretch. Now I've gone back to my normal weight, everything just feels extra loose. So I would want to gain a little more so that I can feel comfortable in what I currently have" (Int. 31, p. 9, F)

"the medium size person, because I think dem did ave sumpm like that pon Facebook a show. The medium built person dem put on anything and it look nice. Which in the skinny ones would a just affi find something, pick and choose wah would a suit dem." (Int. 42, p. 6, F)

Thus, fit of clothes was important for persons of various body size. Once there were clothes available to make them look nice or feel good in their clothes, they were okay with their body size.

A third concern participants expressed was having a body that was ready for the summer. They referred to this as the 'summer body' as this was the time for the beach and beach parties. So having a good looking body to fit into the swimsuit was most desirable. Participants explained:

"well generally speaking, to be honest with yuh, from the other day I notice that persons are trying to lose weight because they say lawd I have to get di summer body..... person who are overweight would like.. no man mi haffi tek off weight fi go a ATI⁴ because I want to look good." (Int. 33, p.16, F)

⁴ ATI is a week of summer parties that are held on beaches in Negril – a popular tourist destination in Jamaica.

“The summertime, they go to beach, wear skinny clothes...” (Int. 39, p. 1, F)

“if you listen to average Jamaican when it’s coming on a summer they say they want a summer body. So the summer body would mean a slim body to go in their swimsuit. Dem no want any heavy body for di, for di swimsuit....” (Int. 36, p. 6, F)

What the body looked like during the summertime was, therefore, a big concern as it could affect their ability to socialize. While participants so far have discussed the plump body as ideal an ideal, this theme suggests that some desired a smaller body to ‘look good.’ This is interesting as attending these summer beach parties, Jamaicans are more aware of the international influence or the thin ideal is more pervasive as this area is known to attract tourist with western ideas of beauty. Hence, embodiment of the thin ideal is more prevalent. This theme, therefore, summarized the main concerns participants had about not being able to afford the nice clothes and being able to fit the clothes that will make them look good or ready for summer.

Sub-theme 1.4 – Terminologies

While the above views suggest that there was more than one Jamaican ideal, Jamaicans developed terminologies to describe the larger body sizes they were fond of. Throughout the interviews, the term ‘*fluffy*’ was mentioned in at least twenty-six (26) interviews. *Fluffy* was a used to describe women who were overweight/obese but whose appearance was acceptable to the general public. Hence, this colloquial term in Jamaica was often used to describe a medium to large bodied woman. One participant defined fluffy as:

“So when you’re fluffy it means you own your fat and you are confident and you’re, you feel sexy. You exude this sexiness about you, so your body type doesn’t force you to be insecure.” (Int. 18, p. 3, F)

Others explained:

“I think we as Jamaicans perceive our body size to be you know...more in the fluffy type kinda thing. Ahh, even if we not fat, but I think on a socializational perception, I think we are more prone to accept or define ourselves more from a, a ahm,..on, on the fluffier side as opposed to being skinny.” (Int. 14, p. 8, F)

“The majority of people think that the fluffier type, whether it’s the big bottom, the big belly, or the big breast. Those are the more attractive type. Ahm, why? It’s just the culture I guess. Yea.” (Int. 15, p. 2, F)

This suggests that the use of terms such as 'fluffy' serves an important function in normalizing and maintaining aesthetic preferences or acceptance of the medium to large body type for females. Other participants reiterated the impact fluffy has on women in reducing fat shaming and acceptance of larger-bodied women. For instance, participants explained:

"Miss Kitty come up with the whole fluffy idea, fluffy diva, and then they're saying I'm not fat, I'm fluffy. So more persons from watching that, you'd see that Jamaicans start to use that word now. They don't use fat now or overweight, they say I'm fluffy, I'm not fat I'm fluffy. And I'm thick, and this is the in thing now because it's sexy and this is what Jamaican man want cause I am sexy and when yuh slim nuttin nah gwan fi yuh." (Int. 50, p. 4, F)

"Definitely the fluffies. Like, plus size women are, I wouldn't say they're attractive. I think they're a novelty that everyone enjoys" (Int. 49, p. 6, M)

Miss Kitty is a radio/TV personality, an entertainer, and MC who has gained prominence over the past few years. Miss Kitty herself is a full-bodied lady with a flamboyant personality and is famous for coining the term 'fluffy diva.'

An interesting note, however, was that use of the term may be influenced by ones' socioeconomic status. That is, people of the lower classes are more likely to use this label to describe women. For example, participants explain:

"Well, it differs with different ahm, parts of the society, because, sometimes in the inner city, fluffy...that is fat, is in. And in the upper St. Andrew where they are known..., slim is in...so. On the scale, it depends on where, where in Jamaica you live." (Int. 4, p. 2, F)

"It depends on your circle. If you hang with thick people, you think you're sexy. It really depends. Because we can get enough people to affirm that you are fine, and you just call yourselves the Fluffy Diva Club." (Int. 32, p. 13, F)

Terminologies such as 'fluffy' could relay a socially desirable message of confidence, lack of insecurity, a sense of control or strength and resilience for women with larger body sizes. It may serve to maintain positive evaluations of self and reduce the effects of stigma associated with obesity or the inability to achieve the slim body. Some participants explained:

“So, the Fluffy Divas, one time they said they’re not fat, they’re fluffy, or them nuh fat, them thick. So, them create them world, and them exist, and them survive.” (Int. 32, p. 7, F)

“I think the whole fluffy thing, actua..., in my opinon, I think it gave overweight persons more confidence in themselves. Because they have something to say now ok I'm not fat, I'm fluffy. So they're more confident with it, more confident within themself because there's a bigger head out there promoting it. She's she's she's thick, she's fat and she's ok with it. She's confident so this is my role model. So if she can do that then I'm not fat either, I'm fluffy and I'm confident and I'm gonna be like this. So I think, using that as a cover up would give them more confidence in themselves.” (Int. 50, p.5, F)

“If yuh fluffy, true dem say, dem say when you call dem fat yah disrespect them, yuh understand. Suh when you call dem fluffy now dem say dem body, yuh nuh, dem body fluffy. Dem body nuh fat, dem body just fluffy yuh nuh. Huge. Yuh know wah I mean? Say dem prefer it dah way deh. Dem prefer yuh call dem fluffy than yuh call dem fat. Is like yuh wuda say, "Aye, fluffy, wah happen?" Dem nuh wah yuh say, "Aye, fatty!" Dem feel embarrass when you call dem fatty yuh nuh.” (Int. 43, p. 8, M)

The use of the term ‘Fluffy’ could, therefore, be important for psychological adjustment to obesity stigma, especially among lower socioeconomic groups. ‘Fluffy’ was representative of high self-esteem and love for self among larger-bodied women. Obesity is often associated with lack of personal control and weakness; however, the term ‘fluffy’ could be reflecting the ability of the Jamaican overweight or obese woman to assert herself as strong and as capable as any other woman. These findings are important for previous research related to anti-fat attitudes. Resistance to anti-fat attitudes or the framing of obesity or fatness as a weakness is still pervasive in some cultures, however, in other cultures, they favour fortifying strengths rather than accepting stereotypes or weight stigma. Hence, developing terminologies that reduce negative connotations may serve as a protective factor that maintains positive evaluations of self. Positive evaluations of self could then augment body appreciation and positive body image. The use of specific terms could potentially cushion the effects of anti-fat attitudes associated with obesity by certain cultural groups or more so, western ideals.

Theme 2 – Perceptions of being healthy

This theme was developed by grouping views of participants which were related to their understanding of a healthy weight and their views on eating habits and exercise. The theme summarizes the meaning Jamaicans' gave of a healthy weight, opinions on eating behaviors and level of physical activities. Sub-themes included *interpretations of healthy weight, understanding of overweight and obesity, causes of overweight and obesity, perceived effects of obesity, tackling obesity and barriers.*

Sub-theme 2.1 - Interpretations of healthy weight

A healthy weight is important in maintaining a good quality of life. This theme draws attention to the meaning these Jamaicans gave to a healthy weight. Participants' beliefs about what constitutes a healthy weight were mixed. Interviewees suggested that a healthy weight may involve maintaining 'some kind of weight,' being fit, how the body is proportioned, being free from illnesses, a normal body mass index or 'not having a large body.' For instance, participants defined a healthy weight as:

“Being healthy in Jamaica is having on weight.” (Int. 14, p. 8, F)

“Mmm, a weight that ahm, doesn't adversely affect your life. Ahm as in... not causing any medical issues. Ahm, and a weight that ahm, is socially acceptable as normal.” (Int. 7, p. 1, M)

“A healthy weight is one that is in keeping with one's height. Ahm, pretty much not too...not overly fat, just average, depending on the person's size and age.” (Int. 12, p.1, F)

These views on a healthy weight were not consistent. Hence, there seems to be no consensus on the meaning of a healthy weight. Not all participants felt that a healthy weight was 'having on some weight.' Some believed a healthy weight was being within the normal body mass index (BMI) range for height and age. A participant defined a healthy weight as:

“A healthy weight would be ahm, anybody...well to me, it'll be anybody who is ahm, who is really in the normal range of the BMI. Ahh, between like 18 to twenty...nine...or 29. Yea...29 is overweight...to 24.5...sorry. That's a healthy ahm, weight. If you're within your BMI” (Int. 9, p. 1, F)

Other participants pointed out that a large body type was generally not considered to be healthy. For example:

“Personally, I, I don’t think it’s healthy to have a large body type.” (Int. 19, p.1, M)

These quotes show that the idea of a healthy weight varied among Jamaicans within this sample. There was no standard definition of what constitutes a healthy weight. It was interesting to note that BMI as an objective measure of weight was not frequently mentioned. There were references to the body mass index (BMI) however, the meanings associated with a healthy weight were mostly related to ‘absence of illness,’ ‘fitness’ and ‘weight that is right for height and age.’ Descriptions were less aligned with standard definitions of a healthy weight based on normal body mass index guidelines (which are most commonly used by health professionals), but more related to physical appearances. This highlights the significance of health beliefs and interpretations of illness in cultures and how different groups of people hold different conceptions of health and body weight.

Sub-theme 2.2 – Understanding of overweight and obesity

This sub-theme highlights how Jamaicans defined overweight and obese. In general, overweight was thought to be heavier than required for normal weight, while obesity was generally described as excessively big. Participants described overweight as:

“somebody who is overweight is somebody that ahm...they might be a little bit over the required weight for their height and stuff like that..and their age.” (Int. 1, p. 2, M)

“overweight in my mind is ahm, somebody who has on too much weight that, that...to much weight for their age, for their height. Ahm, what you call it now...BMI? a not too sure how that go again, the body max index, but it might not be in proportion.” (Int. 12, p. 5, F)

“I think overweight are the same whole body mass thing and your height. I think when you’re at a, over a certain amount of pounds, maybe not at a critical level of maybe getting a heart attack or stroke yuh nuh. You have on more weight than you should have on based on your height and body mass but it’s not at a critical level that would you know cause you to get a disease, a lifestyle disease” (Int. 14, p. 8, F)

Being overweight was not necessarily seen as bad thing in certain context, i.e., the West Indian context:

"I think in the West Indian context, based upon ahm, we look at overweight as being sexy and if you are the right weight or underweight then you are meager. That's how we look at it in Jamaica and that's why most persons don't really watch their weight. Cause in Jamaica, when you're, when, when, if you're extremely overweight then maybe, excessively overweight the your known to be the big mama kind of thing or big daddy but I mean once you are within certain range, you feel sexy, maybe 10lbs overweight, 20lbs overweight, no problems" (Int. 27, p. 3, F)

This finding is similar to that of some African nations where fatness or plumpness is associated with health and wealth. Participants', on the other hand, description of obesity included the following:

"I would say obese is ahm..someone that's very...very...ahhh..(let me try find the right word)..ahm..very out of shape, very..let me say...this word might be a bit harsh but ill-shaped" (Int. 1, pp. 1-2, M)

"..Obesity now is when you have such weight you can't basically, it's out of control" (Int. 28, p. 5, M)

"I'd think that somebody who is obese...obese is somebody who just in a sense cannot help themselves ahm, like, like those who are born that way and, and, and no matter what they do with their diet..." (Int. 19, p. 5, M)

These comments illustrate that the Jamaican ideas of obesity and overweight do not necessarily correlate with BMI indicators. The definitions could suggest that there is some acceptance of overweight, on one hand; however, there were negative psychological attitudes associated with obesity. Obesity was more related to shape, size and psychologically - the lack of control. Few, nonetheless, believed that overweight and obesity were synonymous:

"I don't really see much difference per se. Overweight, obese, same kettle of fish." (Int. 25, p. 6, M)

"I thought, I thought that was the same thing...overweight and obesity. Isn't that the same thing? I believe it's the same thing. I don't differentiate." (Int. 16, p. 4, M)

In most cases, participants were able to give physical descriptions of differences between overweight and obesity. Hence, classifications of overweight and obesity were mostly subjective. A small number of participants described overweight or obesity in terms of pounds or kilograms or accurately described overweight and obesity in terms of the body mass index indicators. This shows that the idea of being overweight or obese among participants was not aligned with the biomedical perspective of body weight. Most interviewees were aware of the body mass index, however, did not define overweight or obese in terms of BMI. This suggests that Jamaicans mainly judged body weight or size based on visual appearances or body shape. In general, most participants believed being overweight was above the normal range but was not a major problem once it did not pose a health risk; however, obesity was clearly not accepted. Obesity represented lack of control and negative attributes such as “ill-shaped” were used to characterize the obese which has deleterious effects on one's health compared to overweight that could be equated to the medium built described as most acceptable.

Sub-theme 2.3 - Causes of overweight and obesity

The causes of overweight and obesity were perceived to be the result of a number of factors. Participants were cognizant that the main causes of obesity were linked to genetics/hereditary factors, unhealthy diet, lifestyle factors, lack of exercise and poverty. For example, participants stated that:

“Well for one, some people are overweight for genetic reasons. Some people have this hereditary predisposition to being overweight. So, in that case they really cannot ahm, control their weight. Ahm, some persons they overeat, overindulge and because of that they're overweight. Ahm, some other persons I guess because of some emotional or psychological issue, psychological reasons. So there're varying reasons” (Int. 7, p. 1, M)

“I think a lot of that has to do with ahm, poor diet. In our societies these days we don't eat healthy food and on top of that, there's a lot of inactivity or not enough activity. So we're not getting enough activity and we're eating poorly and that contribute a lot to being overweight and obese.” (Int. 6, p. 1, F)

Others held similar views that:

“partly because of what their eating is and partly because of a lack of exercise and sometimes it is ahm, biological” (Int. 16, p. 1, M)

While beliefs about causes of overweight and obesity suggest genetic influences as a significant factor, the main causes reflected behavioural patterns such as lifestyle, eating patterns and lack of physical activity. The behavioural causes would suggest that overweight and obesity were controllable; but influences of the culture such as the food, the music, socioeconomic factors and body norms impacted current body weights which made weight difficult to manage.

Sub-theme 2.4 – Perceived effects of Obesity

Obesity seen as a result of intrapersonal factors may have negative repercussions for individuals as it may perpetuate stereotypes that lead to negative psychological and social outcomes individuals (DePierre & Puhl, 2012). Participants believed that the obesity could affect psychological well-being. Participants indicated a few psychological correlates associated with overweight/obesity. Participants identified low self-esteem, low confidence, depression, eating disorders – binge eating, purging, bulimia and stress as psychological problems perceived to be associated with larger body types. Low self-esteem and depression were believed to be the most common psychological problem seen among persons who are overweight or obese. For instance:

“so I think, depression, low self-esteem, withdrawal I think is a part of depression as well. They become withdrawn, maybe suicidal, could, could possibly become extreme yuh nuh [you know], when they can’t lose the weight and trying everything and it could impact on them maintaining stable relationships as well and friendships because they don’t feel good enough or whatever.” (Int. 14, p. 5, F)

“Ahm, depression ahm, low self-esteem ahm, low self-confidence, ahm, maladaptive, ahm what’s the term I’m looking for...image of what your body should be. It can also contribute to eating disorders. It can contribute to suicide ahm and based on your psychological health, it affects your, it affects your ahm...for high school, for persons who are in high school, it affects they...how they perform in school and also how...even for adults, how you perform in your workplace. So it, it has...I don’t see how it has any positive psychological effect, so to speak. A mean, yes if you feel sexy and confident in your body, you’ll feel happy, you should feel happy but because there is this constant pressure to be in a box, it, it can force you to, to become unhappy or unsettled or uncertain of what you should feel or should be experiencing based on the changes your body will be going through.” (Int. 18, p. 4, F)

“1, self-esteem, low self-esteem and self-confidence. 2, you tend, if you...you, you'd be introverted.that's when you probably eat a lot and binge and just go into to depression as well.” (Int. 22, pp. 3-4, F)

Hence, the obese may be less psychologically adjusted. Other participants, however, felt there was no psychological impact of having a large body:

“well seeing that ahm, having a larger body type is a personal....I think for the most part, it's a personal preference. Ahm, I don't think there's a psychological impact.” (Int. 15, p. 2, F)

“I dont think psychologically it affecting persons. It might affect a few but not the majority” (Int. 26, p. 3, F)

This shows that majority of the participants are cognizant of psychological problems associated with larger body sizes. The majority believed low self-esteem and depression are major psychological problems that may threaten performance and functioning of individuals who may be overweight or obese. Disturbances in psychological well-being may increase the likelihood of maladaptive behaviours. However, participants did not state whether these psychological issues were major problems among women in Jamaica.

Participants' also spoke about illnesses or health risks that are believed to be associated with overweight/obesity. Health consequences of obesity included cardiovascular diseases, hypertension, diabetes, and cancer. For instance, participants' views on the health consequences of overweight/obesity included:

“So being overweight or obese predisposes you to many illnesses, ahm, that can adversely affect your life. Ahm, can predispose you to diabetes, can be a potential risk factor for cancer. Ahm it can predispose you to heart disease, cardiovascular diseases and also many other diseases that basically affect how you, how you feel physically. So it impairs ahm, your health in the long term and ahm the, the risk of being overweight and will significantly ahm, great ahm, when it, when it, when you speak about longlivity....longevity.” (Int. 7, p. 1, M)

“It has a lot of health consequences. Ahm in terms of ahm, other co morbidities such as diabetes, hypertension and well cardiac...they can develop cardiac problems as well.” (Int. 15, p.1, F)

“Health, ahm, the different ahm, diseases. Hypertension, heart diseases ahm, ahm diabetes and just lethargy. You just not being your usual self when you’re overweight so, I think...having, being overweight is not good” (Int. 22, p. 1, F)

Other illnesses as expressed by the participants include angina, chest pains, respiratory problems, anaemia, blocked arteries, high cholesterol, muscle & joint pains and even death. These opinions indicated that the participants understood the link between obesity and illnesses.

Contrastingly, participants also felt that illness was associated with smaller body types as well. Being thin was perceived to indicate illness depending on socioeconomic status. For instance, participants' stated:

“Is like saying your skinny in Jamaica is like a frownish kinda thing and oh yuh mawga [you’re slim], yuh [you] have disease, or yuh a suffer from supmn [you are suffering from something] or yuh anaemic or yuh a suffer [you are suffering] from malnutrition or yuh nuh have nuh food fi [you don’t have anything to] eat and life hard...yuh nuh...is like it’s, is like is something bad yuh nuh. So yuh wouldn’t want to...ahm Jamaicans don’t want to define themself, even if they are not yuh nuh, fat, not, not really to say...I’m mawga [slim] and skinny...is either fluffy or mi healthy.” (Int. 14, p. 8, F)

This suggests participants felt that being overweight or obese may put you at risk for many controllable health conditions; however, being too thin also had health implications such as malnutrition or anaemia. Again, this shows the belief that being too thin can result in serious illnesses. Thus, there should be a balance between the two extremes to prevent illness. Hence, maintaining a normal weight not only reduces the risk of diseases but it can impact the individual’s health behaviour.

Sub-theme 2.5 - Tackling obesity

This sub-theme includes suggestions to control body weight. The majority of the participants generally agreed that controlling overweight and obesity will involve eating healthy meals, diet, and exercise. For instance, participants suggested:

“watch what you eat, ahh. Watch what you eat, exercise. Not excessively but exercise ahm, as often as you can or at least three times per week ahm, in ways.. watching what you eat. Eat a lot of fruits, eat a lot of vegetables, cut down on the amount of sugars and ahm, yea and yea, the amount of starches. Drink a lot of water and so on. And don’t do anything...don’t do any fad diet or

anything that will not or anything that is not ahm, long term. Aim for long term goals.” (Int. 10, p. 5, F)

“Reducing the amount of calories that one takes in and exercising. I’m not into too much dieting. Eat healthily, must eat healthily. Ahh, you must remember the fruits and vegetables, your dietary fibre, very, very important in wanting to lose weight because you see, what dietary fibre does, it, it has bulk so it gives you a feeling of being full but it doesn’t have the calories because it’s really not digested by the body. So including dietary fibre, fruits, vegetables, not too many of the starch vegetables will greatly assist, along with exercise” (Int. 20, pp. 3-4, F)

Like the recommendations from the biomedical perspective, diet and exercise are integral in tackling obesity. Changing behaviour to integrate recommendations into daily lifestyles may be a challenge. Participants’ noted the importance of getting involved in group activities.

“Ahm, the best way? I would say, the...exercising. You know..like in Jamaica now, you’re seeing more, we now have more..a increase of, of..ahm, what you call it...runs, no..corporate runs and so on and ahm, a lot of people... persons who are perceivably fat are actually entering in these competitions and for charity and so I think we Jamaicans are making a good step in fighting obesity. Ahm, you know... exercise, good eating habits. For the ones that ahh..that don’t have a health issue but good eating habits. Yuh nuh [you know], eat on time, don’t eat around the clock. That can...that can prevent the, the increase in obesity” (Int. 2, p. 5, M)

Social support was then critical in developing healthier lifestyles. Family, friends, and co-workers can be a source of motivation to facilitate health-enhancing behaviours.

“it, it’s much better if you have somebody to work with you, somebody that will make you get to that goal. They’ll encourage you as you go...you know...so that you can get there. Yea, because it can be difficult otherwise. If you’re doing it on your own...it can be very very difficult. You need positive influences...to get you going.” (Int. 5, p. 4, F)

“Some persons cannot be self-motivated and so it might be necessary to get the help of others to motivate them to exercise” (Int. 11, p. 4, F)

Social support was therefore helpful in encouraging, criticizing and placing more value on healthier lifestyles. Participants also felt tackling obesity required discipline, as well as education, especially from childhood. For example:

"I would think that people need to, certainly from...certainly in the case where children and, and teach them at that early age that, that obesity is not good. Ahm, certainly if it's the case where you just get fat because you eat a lot, you have to discipline yourself, knowing the ill effects of, of overweight and, and, and, and discipline yourself to do it. It requires and a lot of discipline and sticktoitiveness" (Int. 19, p. 4, M)

"I think healthy living is the best way to do it. Ahm, and it's...it will be a matter of teaching people how to eat well and how to live a healthy lifestyle in order to maintain a body weight that is healthy for them." (Int. 6, p. 4, F)

The recommendations to tackle obesity were however perceived as challenging to implement, as there were a number of obstacles that impeded efforts to reduce body weight.

Sub-theme 2.6 - Barriers

The 'barriers' sub-theme identifies the challenges people faced while trying to reduce body weight. Participants highlighted that the main hindrances in controlling weight were economic factors such as lack of money and time. For instance, participants explained:

"Some of it is economic reasons. Persons cannot afford to, to really purchase ahm, weight loss items or food that is, tend to be more healthier and ahm, they don't have the time to exercise cause they probably always working long hours and then they come back and having a family life to tend to. Some of the time they don't have and then some are just lazy" (Int. 30, p. 3, F)

"persons don't take time to really eat healthy and also economics ah, problems again, the unhealthy things are cheaper and the healthy things are really [inaudible] the person work within their budget. So the household now, you don't really...you don't really buy for health, you just buy what you can afford and just eat to survive" (Int. 27, p. 2, F)

"Partly the challenges has to do with the poverty level of a lot of people because ahm, a lot of Jamaicans are below the poverty line" (Int. 19, p. 4, M)

“Alright. Time. Time is one, time is a major factor. Depends on you work hours, work schedule, ahm...because we’re living in a fast paced society” (Int. 26, p. 4)

Others explained that foods that are unhealthy often taste better than healthier options and are usually more affordable:

“From my personal perspective, I can tell you that food taste good. And unhealthy food taste even better and that makes it a bit difficult” (Int. 6, lines p. 4, F)

“persons don’t take time to really eat healthy and also economics ah, problems again, the unhealthy things are cheaper and the healthy things are really (Inaudible) the person work within their budget. So the household now, you don’t really...you don’t really buy for health, you just buy what you can afford and just eat to survive” (Int. 27, p. 2, F)

They also believed that many persons lacked discipline, determination, commitment, and persistence:

“So many persons don’t have the discipline” (Int. 12, p. 4, F)

“Hmm, determination, persistency, lacking all those two. Cause it’s a lot of work. It’s not easy. For most people, it’s not easy.” (Int. 15, p. 3, F)

This shows that there were several barriers to controlling body weight. There is evidence to suggest that the economic situation in Jamaica impedes the ability to afford healthier food options. Lack of time was also significant barrier. Interestingly, the barriers which were identified were more related to external factors. Barriers were not a result of any personal factors. The hindrances, with the exception of the economic status, could then be argued to be largely behavioural.

Views in this theme *Perceptions on being healthy* suggest that obesity in Jamaica, apart from genetics, may be mainly a result of lifestyle choices. There could, therefore, be some implicit agreement with the argument that obesity is a result of lack of personal responsibility. That is, if Jamaicans made changes to individual lifestyles such as increasing levels of physical activity and changing their consumption patterns to healthier diets; as well

as finding ways of overcoming the 'external' barriers; this could potentially reduce the incidences of obesity.

This could be addressed with some adjustment and help in creating innovative ways to improve health habits. Based on the current levels of physical activity that were reported, along with the eating patterns mentioned, weight gain is inevitable if changes are not made to improve the current health behaviours in Jamaica. These results have given insight into possible areas that need to be addressed to tackle the problem of overweight and obesity and to help reduce non-communicable diseases in Jamaica (and the Caribbean at large).

Theme 3 - Social attitudes to body weight

The theme *social attitudes to bodyweight* was developed based on views that indicated the social influences that impacted beliefs held about body weight. Sub-themes for this theme included *attitudes to being slim versus overweight*, *culture*, *the media* and *'socio-economic status*.

Sub-theme 3.1 - Attitudes to being slim versus overweight

This theme represents participants' view on thinness and being overweight or obese. This theme indicates that slimness and being overweight or obese can have different meaning for different persons. Being slim, thin or skinny was associated with being ill or being unattractive in some instances as indicated in the body ideals theme discussed above. Other participants however, had a more positive attitude to towards a slimmer body. For example, some participants thought that slimness represented being sick:

"in Jamaica when you are skinny, you are considered dry. Jamaican people would consider you dry or sick or something is wrong with you or you're unhealthy if you're skinny. So skin and bone in Jamaica is not attractive." (Int. 31, p. 4, F)"

"Well, traditionally, like, slim people were considered sickly" (Int. 49, p. 7, M)

Being overweight for some was less desirable for various reasons. A few of these comments included:

"And dancing. To go on headtop. You know you wouldn't be able to do what the slim people do...go on their headtop, and wouldn't be able to do because you big and fat..... they'll say you're 'mawga', you're not eating any food. When you're

slim you have a problem at times, but when you fat they have MORE problems.” (Int. 39, p. 2 & p. 6, F)

“Bear in mind enuh, when you’re a larger body type enuh, remember you can’t do everything yuh nuh cause if I give you 6 items....for example, if I give you 6 items to do and you are...I’m a littler, lighter weight than you, I can do my 6 in no time enuh. You still can do your 6 but there is a time span that I might do it faster than you.” (Int. 33, p.13, F)

This suggests that there is a perception that having a heavier body weight can limit ones in performance in certain activities. Hence, it was deemed undesirable. Nonetheless, being overweight in Jamaica was not perceived a major problem:

“It’s a different, it’s a different culture. So I don’t...let me think. I don’t see where the Jamaican culture there’s a attitude that being overweight or being bigger, is so much of a big problem. I can’t think of one isolated situation right now.” (Int. 11, p. 3, F)

“Well, I think they perceive it depending as I said the context that they are in. If for example a Jamaican is fat, that person will try to view their body size as something positive. Alright, because they will say they are not fat, especially ladies who say that they are fluffy. Alright, so they will perceive their body type according to their situation. Alright, and a lot of the time, as a matter of fact, we perceive it as good. Alright, and, and another thing too also, person who are fat, persons might say that wow...you alright man, everything is ok, you living a good life alright, and if you’re slim, they’ll say, wow, bwoy tings nah gwaan fi yuh, you suffering..”(Int. 26, pp. 4-5, M)

With these sentiments, some participants expressed that one’s body size should not determine how they go about their daily activities. In essence, some believed that body size should not matter as persons with various body sizes face similar challenges and one body size should not be better than the other:

you being oversize doesn’t mean you can’t do the thing I am a small body cannot do. (Int. 33, p.3, F)

“Why am I going to let the system get me down if I am big? I am big for a reason. Mi nah go lock up in mi house [I will not lock myself indoors], mi a go out... mi a nuh duppy, mi nuh dead [I am not a ghost, I am not dead]”. (Int. 34, p. 11, F)

“persons with smaller body types... just because they're smaller, and I've seen this many times, it doesn't mean they are more fit or better able to handle their daily routine than someone with a larger body type. As I said, I know people who exercise regularly and they are very thick, and they can run up the staircase, they can do a full exercise routine, go to class and still study at nights... and you have persons who are slim and they can barely stay awake in class. Everyone should be more active” (Int. 46, p. 11, M)

“Everyone is encouraged to workout though. From the slim to the medium regular built, to the slim thick and the fluffies. Everyone is encouraged to workout. Everyone is encouraged to maintain their bodies.” (Int. 49, p. 6, M)

This evidences that some participants did not believe that being big will negatively impact on how active one was. Persons of various body weights should, therefore, be equally invested in managing their health and bodies. It should be noted however that favourable attitudes to different body types may change based on what is popular in the society. For example:

“...if slim is wearing, you will find that people will want to be thin. And if fat is wearing,...there was a time when women used to buy chicken pill.” (Int. 32, p. 8, F)

“Jamaican body weight fluctuates miss. You can't make a determination” (Int. 34, p. 13, F)

In summary, this theme expressed the mixed attitude various persons had towards being obese versus being thin. Some participants seemed to hold favourable views of a slender body, others expressed that body size was not a major problem, while others held the view that being obese or overweight could have several limitations. It was also evident that sociocultural messages from the media and the music played a important role in preferences for certain body sizes and shapes. Hence, attitudes to body weight may change based on what is popular on the local scene.

Sub-theme 3.2 – Culture

The theme ‘*culture*’ embodies cultural views on factors that influence Jamaicans’ social attitudes to body weight. Culture often consists of a set of learned beliefs, values and traditions that influence behaviour. Many participants were of the opinion that culture was the main influence on the outlook of Jamaicans concerning body size and eating behaviour. Due to the culture, body size was not a major issue. For example, participants explained:

“from a Jamaican cultural perspective, to an extent, like yuh nuh, as men would say, woman, strong body woman or woman wid [with]weight, and stuff, dem [they] look sexy. So, sometimes women actually try to maintain a certain weight even if it’s overweight and it’s not healthy for them because it’s attractive to males and if they feel like they’re skinnier and don’t have on a certain amount of weight they are not attractive” (Int. 14, p. 1, F)

“It’s a different, it’s a different culture. So I don’t...let me think. I don’t see where the Jamaican culture there’s a attitude that being overweight or being bigger, is so much of a big problem. I can’t think of one isolated situation right now.” (Int. 11, p. 3, F)

These quotes would suggest that the societal perception of ‘sexy’ in Jamaica was related to a woman ‘with weight’ and its influences on behaviour especially among women. Allusions made to the African heritage also suggested the influence of cultural or societal values. For example:

“Sometimes I wonder if maybe our African heritage has to do with that because from what I’ve heard, there are many African cultures that appreciate different sizes and different types of women. Ahm, so that might have something to do with it” (Int. 6, p. 2, F)

“I don’t know if it’s our culture from Africa. Because, a mean, especially for women, when they, when they are heavier, they seem to be more attractive to Jamaican men. So I don’t know if it’s a inheritance, is a retention from slavery, or from Africa.” (Int. 30, p. 2, F)

This suggests that participants believed the African heritage still permeated the Jamaican culture and influenced how Jamaicans think about their bodies. These cultural practices, however, put Jamaicans at risk. For example:

“So, and that’s just culture, that’s what we’ve learn growing up and stuff. It’s not really the individual thought for indulging in these cultural practices but these cultural practices actually increase the changes of Jamaicans becoming obese with the rice and peas every Sunday and the carbohydrates. In the mornings, you want a good hearty breakfast. So I think that, increases the risk of Jamaicans being obese. The cultural practices.” (Int. 9, p. 2, F)

The culture, therefore, shapes the social attitudes Jamaicans hold toward body weight and their health behavior, specifically, the eating habits.

Sub-theme 3.3 - Media

The media is a standard medium which expresses and permeates social views within a society. When asked about the influence of the media, participants believed the media, especially the international media projected a slender and lean body as the accepted body type and larger body types as unattractive. Some of the comments included:

"The media for one. Ahm, we're constantly bombarded with north Ameri...north American ideals as to body images and body weight and all of that and they, they basically ahm, project to us that ahm, the leaner ahm, body type are more you know.. socially, you know, acceptable. And we have bought into that. So the media for one ahm, influence perception." (Int. 7, p. 3, M)

"Alright, well I think the media shows you that you should be of a smaller body size because most of the commercials are...you see, they always promoting weight loss and they always promoting a slimmer built for models. They always the beautiful type and they tend, tend to be slimmer." (Int. 9, p. 3, F)

The comments support the sociocultural perspective about the pervasiveness of the thin ideal and the media as the main source that spread these values. In Jamaica, however, the traditional preference for the plump body was being maintained. The difference is that today the preference has been labelled with the term fluffy which aids in the larger body ideal becoming more recognized due to the media personality Miss Kitty. According to participants, her influence has helped with normalizing acceptance of larger body types:

"What I think have changed though especially for the ahm, negative perception of being fat, is this young lady Ms. Kitty who is ahm, one of the media persons. She came up with this term fluffy. So she put a twist on being fat. She, I think she is the one who conceptualise the term of fluffy, so persons now are looking at persons who are fat as sexy, you know I think she has a very high self-esteem, maybe she had struggled to get it but she is there...so I think she's one of the persons who are really, influence the, the, the plus size person now to feel good about themselves and to look beyond the physical." (Int. 27, p. 4, F)

“I think even if they’re obese or even if they are overweight, they love it because Miss Kitty come and shi sey [she says] “fluffy to di worl” [fluffy to the world] and they getting a lot of attention from the males and yuh [you] feel like yuh nuh [you know].... this what you supposed to be, this is how you supposed to look so, you don’t feel like there’s anything wrong with you actually.” (Int. 9, p. 6, F)

These quotes suggest that a person believed, Miss Kitty, despite her size was confident in herself and displayed positive attitudes that were admirable. Hence, this encourages people (specifically those with larger bodies) to look ‘beyond the physical’ invalidating oneself. This may help in reducing social anxiety about obesity, and so, it augments societal acceptance of larger body types. While the sociocultural perspective emphasizes western society’s focus on the thinness as the ideal for beauty; it may be equally useful in explaining how other ideals can exist in other settings like Jamaica. The channels such as the local media, family, and peers as well as the local music had a strong influence on how the body was viewed. Below are thoughts from participants on the impact of the music for instance:

“...our music dictates a lot of how we think about our body” (Int. 18, p. 7, F)

“Well, we, our reggae music, our dancehall music, the good thing about it we big up big body women. We big up obese women. We don’t hold the view that, they’re not, you know, they’re not attractive or they don’t look good in public based on what they wear. Our music allows, the media, music allows us to say that it is ok, whether you’re slim, medium or fat, it doesn’t matter, we accept and no matter how you take it persons from the opposite sex will (Inaudible) good relationship that, yuh nuh, promote the normal thing to happen, so I think the media really gives a positive outlook on how we see women of this type” (Int. 25, p. 6, M)

While this may contradict previous ideas on the role of the media in stigmatizing larger bodies, the local media was not believed to be discriminatory to any particular body size/weight as opposed to international media. The medium built and ‘fluffy’ types were perceived to be somewhat an attractive feature among Jamaicans for both males and females and such body types were associated with psychological attributes such as control and self-esteem. As a result, the social attitudes of Jamaicans, in general, tend to be more relaxed or accepting of varying body weights.

Sub-theme 3.4 - Socio-economic status

This theme highlights how socio-economic factors are perceived to account for the foods Jamaicans consumed or were able to afford and its impact on body size. Individuals from lower socioeconomic groups were thought to face difficulties in maintaining healthy diets. For instance, participants explained:

“for a poor person it’s easier for them to feed themselves with cheap food and cheap food is most times unhealthy” (Int. 31, p. 7, F)

“most Jamaicans is only persons who are like middle class or upper class will eat plenty vegetable or the Rastafarian or Adventist will eat vegetable.....[.] some persons dem just eat for belly full...so they will eat everything their eyes can see if they can afford it. But the average, like the middle class and those persons on the upper class they are more conscious about healthy eating but the lower class they don’t really conscious about what they eat” (Int. 36, p. 3, F)

“just like the people who can afford it dem keep them body type pon a regular..... Not everyone in Jamaica can afford.... for a fact. Not everyone in Jamaica can keep dem body type pon a normal level. Yuh ave people who have a tendency fi go all dem bed most of the time without meal and that’s rough..... That’s why mi say the upper class people dem. When mi say upper class mi mean like....[.]...Live in a di scheme type areas like Bolt. Dem people deh try fi keep dem body pon a normal body level, yuh nuh”. (Int. 43, p. 14, M)

Therefore, the inability to afford healthy food limits the ability to manage body weight compared to persons in the upper class who can afford healthier options. Maintaining a plump body weight may, therefore, indicate for persons of the lower class the lack of illness and signify that they are healthy. Hence, one's socioeconomic status may be an important factor to consider in understanding weight perceptions in Jamaica, in addition to eating habits and level of physical activity.

Discussion

This study aimed to explore the perceptions of body weight and health behaviours among a sample of Jamaicans. In general, participants had different notions of a healthy weight. Thematic analysis yielded three main emerging themes – *Body size, Perceptions of being healthy and Social attitudes body weight*. Each theme was further broken down in sub-themes that gave insight into Jamaicans' beliefs about body weight in regards to body ideals, health beliefs, views on overweight and obesity, colloquial terms used to describe full figured bodies and social attitudes toward the body.

For some, a healthy weight meant 'having on weight.' A few participants made mention of the BMI; however, a healthy weight for most, was more about the absence of illness, fitness and having on some amount of weight. A healthy weight based on the standard BMI guidelines falls within the normal range of 18.50 to 24.99 (WHO, 2006) for height and age. BMI is the most commonly used measure to assess weight (WHO, 2014a; Wing & Phelan; 2012). Nevertheless, the data would suggest that BMI was not a significant indicator for Jamaicans in assessing their weight. The average Jamaican was thought to be outside the normal range of 18.50 to 24.99 on the BMI index and instead fell into the overweight category (as expressed by suggestions of participants of a preference for a medium to large body size – Int. 10). This supports previous findings from the last Jamaica Health and Lifestyle Survey (2008) and the World Health Organization (2016) where more than half of the Jamaican population was above the 24.99 BMI index.

There was the common belief that overweight in Jamaica was considered normal; in fact, while some endorsed the thin ideal, there were preferences for the medium to large or plump body size. This supports previous findings from Ichinohe et al., (2004) where such body types were acceptable, as well as other research that found there was a cultural aesthetic preference for a plump body among Jamaicans (Savacool, 2009). The term 'fluffy' was therefore important to convey this social message that a fuller bodied woman was normal. 'Fluffy' therefore was the local term used to describe females with BMIs that would equate to being overweight or obese, but also a female who was considered confident, sexy and secure despite her body size.

Fluffy, therefore, signaled positive attitudes toward full-bodied women, confident women. This finding supports previous work by Barned and Lipps, (2014)⁵. For Barned and Lipps, (2014), fluffy was not just about the physical body but also a charismatic, confident and

⁵ This study was published after data collection and analysis of data in this thesis. Similarities in objectives were discovered; however, the work in this thesis went beyond the stated goals of said research and had taken up where Barned & Lipps left off. This piece of work is now included to support the developing knowledge on the concept of 'Fluffy.'

bubbly personality which made larger-bodied women likeable. The term 'Fluffy' therefore involved both a psychological and physical component. Fluffy is therefore defined in this thesis as an overweight, thick, full-figured woman who displays high self-confidence, high self-esteem, and good mental well-being. It should be noted that the term fluffy was only used for females who were of a larger body type. In juxtaposition, being described as obese or fat was associated with lack of control, negative attributes, stigma or discrimination. Obesity was perceived to result in psychological problems such as low self-esteem, depression as well as physical/health issues such as hypertension, diabetes and cardiovascular diseases. Being overweight nonetheless, was not perceived to be a major problem if it did not pose a health risk as opposed to being obese or fat. It would, therefore, suggest that adopting a 'fluffy' identity could be significant in preserving a positive body image.

Variations in preferred body size have been documented among different ethnic groups (Grogan, 2008). Previous studies have suggested that among a black population, individuals tend to see heavier bodies as more attractive and they often received less social pressure to be thin (Thomas et al., 2008; Paeratakul et al., 2002). For example, Liburd, Anderson, Edgar & Jack (1999) interviewed 33 black women with Type 2 diabetes and found that these women had a preference for a middle to small body size; however, they felt a middle to large body was healthier. Hence, the preference for a medium to large or a plump body or the 'fluffy' in this study, reasserts differences in perceptions of beauty among different groups of people. It is important to note that the 'fluffy' body type does not draw parallel with the North American/European thin ideal that is portrayed as the most ideal or healthy body type. In this specific context, as Grogan (2008) contends, value was placed on the plumper and voluptuous woman as she represents power and sexiness.

The plump figure or in this case, the 'fluffy', not only represents feminine beauty and health. Similar to a study by Treloar et al., (1999) conducted in countries such as India, Cameroon, and Australia; terms such as 'fluffy' found within the Caribbean context may signify lack of insecurity among overweight women, psychological strength and positive evaluations of self. These qualities are important in maintaining healthy mental and emotional states. Gillen & Lefkowitz (2011) for example, reasoned that people who grow up in cultures that are more accepting of larger body sizes tend to have a more flexible body ideal which is often more achievable than the thin ideal that is portrayed in Western media. Reflecting on these preferences as found in this study, they indicate the social force of the culture in light of dominant demands for thinness. The salience of 'fluffy' in the Jamaican socio-cultural context may evidence resistance to beliefs that European/American standards of beauty are superior.

Ichinohe et al., (2004) argued that obesity in Jamaica was influenced by the environment and African genetic ancestry. The current investigation suggests that the influence of the African heritage is still evident. The concept of the 'fluffy' body as a symbol of

confidence and sexiness, echoes the socio-cultural influence that drives Jamaicans to separate fat into 'good fat' and 'bad fat' (Sobo, 1993). The dancehall culture and the media for instance, create a platform for overweight/obese women to redefine and assert their notions of beauty as legitimate. Lyrics from artists such as Damian Marley:

- *"pon dah one yah, mi want a mampi, nuttin less dan 170 odd pound...keep me whining enuh...firmas...eehee.."* ("All Night" written by Damian and Steven Marley)

Busy Signal:

- *"love how yuh sexy yuh roun an fat up..."* ("Bedroom Bully", sung by Busy Signal)

Evidence of glorifying a large and curvy female shape can also be found in other Caribbean islands, for example in lyrics of popular soca songs such as "I want a Rolly Polly" by Mr. Killa:

*"God dat mek you, so tell dem doh touch yuh size,
When you dress up sexy, tell dem nuh criticize,
Tell dem yuh welded, yuh smelling nice,
Tell dem yuh healthy, dats why yuh round and nice,
I love dem fat gyal cause yuh thick and warm."*

(Second verse, "I want a Rolly Polly" by Mr. Killa)

Consequently, stigmatization of larger-bodied women was not a major concern especially among this group of participants. The stigma of obesity has negative repercussions for the self-concept (Hebl & Heathron, 1998) which can severely impair psychological health. Jamaicans, however, seemed to find creative ways to reduce threat to the self-concept by attributing some positive descriptions to overweight/obese. The term 'fluffy' was juxtaposed to negative stereotypes of obesity such as ugly, fat, lazy or weak-willed (Puhl & Heuer, 2010) and instead referred to confidence, high self-confidence and attractiveness. Women from black ethnic groups such as African Americans are generally believed to have more flexible preferences for body types compared to Caucasian women (Celio et al., 2002; Parker et al., 1995) and greater acceptance of larger body sizes (Aruguete, Nickleberry & Yates, 2004). The findings in this study support the notion that some black women are more flexible with beauty ideals and further adds support for different beauty ideals in the Caribbean, specifically, Jamaica.

As mentioned above, individuals with higher BMI are often victims of stereotype and discrimination. The stigmatization has resulted for some, in poor psychological adjustments such as low self-esteem, body dissatisfaction and poor body image (Friedman & Brownell,

1995; Hayden, 2011). Mounting evidence, however, seems to suggest that some black women are not less vulnerable to body dissatisfaction as was previously believed (Keltch-Oliver & Ancis, 2011). Concerns about body weight have been found to be increasing among especially black adolescent females (Webb et al., 2014) and could be a result of modern shifts in the sociocultural environment (Webb et al., 2013). Investigations concerning the modern shifts in the sociocultural environment (Webb et al., 2013) and its impact on attitudes toward obesity in different cultural contexts may lead to deeper understanding of psychosomatic processes in combating issues around obesity and body weight.

While there is a proliferation of studies in America and Europe, there is less work concerning the relationship between body image, self-esteem and body weight among Caribbean individuals (Celio et al., 2002). This chapter investigated the perceptions of body weight in Jamaica and identified the term 'Fluffy' as a key description of a fuller bodied woman. This finding suggests that this concept may act as a possible cultural safeguard for larger bodied Jamaican women. Adopting the term 'Fluffy' could then foster body appreciation. This, in turn, may lead to or encourage higher self-esteem and good psychological well-being. There is, however, no empirical support for this assumption.

While this study was initially atheoretical, the findings highlighted different body ideals in Jamaica. The sociocultural theory is one that discusses the significance of internalization of societal beauty ideals, specifically, the internalization of Western appearance standards – the thin ideal and the negative consequences on psychological well-being. With the Western thin ideal, the socio-cultural theory would predict several negative psychological outcomes, including body dissatisfaction (Thompson, Heinberg, Altabe & Tantleff-Dunn, 1999) which is often related to low self-esteem (Grogan, 2008). If this analysis is correct, with the fluffy ideal, the pressure to be thin is removed which may reduce the likelihood of body dissatisfaction. The fluffy ideal could, therefore, be related to positive body image and high self-esteem. However, this is currently unknown. Interestingly, the fluffy ideal, similar to the thin ideal, is believed to be transmitted by the same channels - that is, the media, peers, and family. Investigating how other body ideals impact on psychological health in this particular Jamaican context, could add to knowledge the impact of sociocultural influences on body ideals in certain cultural context.

Reflexivity

A discussion of the researcher's impact on the data collection, analysis, and interpretation of the data is discussed in the general discussion section in chapter 6, on pages 131-132.

Limitations of study

There are a few limitations that should be acknowledged. Even though this study involved 47 participants, the sample size was small to make generalizations regarding the general population in Jamaica. A larger sample may help to support the themes identified in this study or identify other themes that would add to a better understanding of weight perceptions in Jamaica. In addition, themes that were less prevalent may not have been fully explored and may require a deeper understanding than what was presented in this thesis.

Implications of study

This study provides some important implications for larger-bodied women. In regards to the fluffy ideal, overweight/obese women may be less likely to engage in activities to reduce body weight that predisposes them to hypertension, diabetes and other non-communicable diseases. The implications do not only apply to larger-bodied women but are also important for health care professionals who provide treatment to overweight and or obese women who are at risk for certain health conditions. The ideas about fluffy provide insight into how ascribing a fluffy label can impact on body weight perceptions, which can provide clinicians with information on how to approach and encourage such clients to improve health-enhancing behaviours.

Revised focus of thesis

This thesis initially set out to investigate how differences in weight perceptions in Jamaica affected health behaviours that were important for reducing non-communicable diseases. However, with the finding that the term fluffy was integral to body perception and body image of larger-bodied women in Jamaica, the thesis will now focus on deconstructing the 'Fluffy' concept and examine its relationship with psychological well-being and later physical activity. The ability to tap into this construct of 'Fluffy' will improve understanding of how such terms are incorporated into sociocultural ideals of beauty in local versus western cultures and its role in maintaining positive self-evaluations among overweight/obese women. This study contributed insight into how the term 'Fluffy' shape sociocultural perceptions of the body within the Jamaican context and its perceived usefulness in psychosocial well-being.

The next chapter, therefore, seeks to further understand the concept of fluffy and its relationship with psychological well-being such as self-esteem, positive body image and body satisfaction. The characteristics of 'Fluffy' suggest positive evaluations of larger-bodied women who may be otherwise susceptible to negative stigma of obesity in western settings. Hence, the Fluffy Rating Questionnaire (FRQ) will be developed and assessed for its factor structure and its ability to measure this construct of fluffy on both the physical and psychological dimensions.

Chapter 5 - Studies II & III

Study II

Introduction

The first study conducted in chapter 4, explored body weight perceptions in Jamaica along with local meanings and interpretation of health, being overweight and obesity. Chapter 4 revealed that there were various body ideals in Jamaica. Among these body ideals, the term 'Fluffy' was used frequently to describe larger bodied females who were perceived to be confident and attractive in the Jamaica context. As mentioned in the previous chapter, the expression 'Fluffy' has been characterized as the physical make-up and a confident attitude of ladies with a larger body type in Jamaica. The attitude of these fluffy women, (that is, the perceived level of confidence and high self-esteem) speaks to a positive assessment of women of a larger body type in Jamaica. Hence, 'Fluffy' was operationalized to include both a mental and physical component and characterized as an overweight, thick, full-figured and shapely lady who shows self-confidence, high self-esteem, and great mental strength. The fluffy female would, however, fall into the overweight or obese category on the BMI index. This would mean they are at risk for certain non-communicable diseases and obesity stigma. While being fluffy meant that the woman was overweight or obese, it was perceived to be different from being 'fat' (a more derogatory term). This difference was credited to the personality attributes or disposition associated with women who identify as fluffy (Barned & Lipps, 2014).

In the previous research by Barned & Lipps (2014), they set out to develop a measure to assess attitudes toward fluffy women. They reported expectations of a factor related to the personality of fluffy women, as it is a key feature that differentiates fluffy from fat, obese or overweight (Barned & Lipps, 2014). They also expected a factor related to the physical make up of larger-bodied women. Results of their study suggested a 5-factor solution which was related to 1) lifestyle factors, 2) self-esteem, 3) attractiveness, 4) appearance and 5) negative stereotypes. Their results failed to report any evidence of personality attributes or the physical make up of fluffy women as they anticipated. Thus the research in this study sets out to extend the work by Barned & Lipps (2014) by examining both the personality and physical characteristics of the fluffy woman. This piece of work, therefore, anticipates making a major contribution to insights on what fluffy represent in Jamaica.

In examining women from black ethnic groups, African Americans women tend to have more flexible preferences for body types compared to Caucasian women. That is, they are less likely to adhere only to the thin ideal (Celio et al., 2002; Parker et al., 1995) and often show greater acceptance of larger body sizes (Aruguete, Nickleberry & Yates, 2004). The

findings in the previous chapter 4 have corroborated more flexible preferences for different body sizes in Jamaica, evidencing different body types which are seen as attractive. While ample research has been conducted in the USA and Europe about African Americans and ethnic minorities, there is less current and empirical evidence about body preferences in Jamaica and the wider Caribbean. The Caribbean is made up of people with multiple cultural influences; however, it is mostly influenced by the African heritage where traditionally, there is less emphasis on thinness compared to Western influences and the American media that favour thinness (Gray, 2012).

As mentioned in chapter two, individuals with higher BMI or those considered overweight or obese are often victims of stereotype, stigma or discrimination. Such stigmatization has resulted for some in poor psychological outcomes such as low self-esteem, body dissatisfaction and poor body image (Friedman & Brownell, 1995; Hayden, 2011). Mounting evidence is now suggesting that black women in America may be more vulnerable to body dissatisfaction than was previously believed (Keltch-Oliver & Ancis, 2011). Nonetheless, from what was learned from study 1, the concept of 'Fluffy' could have an impact on body satisfaction among women in Jamaica and could play a role in a positive body image among Jamaican women. The research in this thesis could also contribute to understanding how the term 'Fluffy' shapes sociocultural perceptions of the body within the Jamaican context as well as how adopting this term may contribute to good psychosocial well-being among women.

Positive body image

Among Blacks, extreme body dissatisfaction is seen to be associated with assimilation of the thin ideal as attractive (Kelch-Oliver & Ancis, 2011). Recent burgeoning research has indicated that there is an inverse relationship between body dissatisfaction and positive body image (Swami & Tovee, 2009; Halliwell, 2013) where, as body dissatisfaction goes up, individuals become less appreciative of their bodies. Holding positive views about the self is therefore vital for psychological well-being.

Research on body image has primarily focused on the negative expressions of body image (Cash, 2002) such as body dissatisfaction and body distortion. Recently, however, more focus has turned to examining the predictors and outcome of having a positive body image (Avalos et al., 2005). Avalos et al., (2005) identified four qualities that are indicative of positive body image. These four qualities include i) respect for the body by engaging in healthy behaviours, ii) favourable opinions of the body, iii) acceptance of the body regardless of weight shape or imperfection and iv) rejecting unrealistic body ideals as portrayed in the media. Developing a positive body image, therefore, is not just about body acceptance and the absence of a negative body image but includes loving oneself, confidence and respecting the

body in spite of imperfections (Wood-Baraclow et al., 2010). Hence, positive body image has been commonly operationalized and measured as having body appreciation (Avalos, Tylka & Wood-Baraclow, 2005; Andrew, Tiggemann & Clark, 2016).

A key feature of the cognitive processes involved in body appreciation is the protective role it plays in processing sociocultural messages about appearance (Halliwell, 2013; Wood-Barcalow et al., 2010). Western sociocultural messages about appearance project the thin is good assumption and that thin is beautiful as proposed by Thompson et al., (1999) sociocultural theory. Body appreciation has been found to be positively linked to self-esteem, body esteem, body satisfaction, physical activity and intuitive eating (Avalos et al., 2005; Homan & Tylka, 2014; Avalos & Tylka, 2006) hence, there is considerable evidence to suggest its role in psychological adjustment for overweight individuals. Body appreciation, for example, was found to moderate the impact of body dissatisfaction among a sample of UK women who reported high internalization of the thin female models (Halliwell, 2013). In essence, a body appreciation might serve as a buffer against body dissatisfaction. Thus, women who scored high on internalization and low on body appreciation had a greater appearance discrepancy (i.e., wanting to change aspects of their appearance) than women who scored high on both internalization and body appreciation (Halliwell, 2013).

Whilst the sociocultural theory mainly focuses on the thin ideal, it would be useful to understand the influence of other favourable body types in other cultures. It is important to note that fluffy represent a competing ideal in Jamaica's media compared to the dominant thin ideal in western media. The local media in Jamaica is the main channel that projects the idea of the fluffy woman as confident, sexy and having high self-regard through TV hosts, music videos, and talk shows. Through such channels, Jamaicans seem to have bought into this ideal to the extent that they generally develop an attitude toward fluffy women. An attitude is usually defined as a psychological tendency that is communicated by evaluating a specific entity with some level of favour or disfavor (Eagly & Chaiken, 2007). Attitudes may involve both conscious and unconscious tendencies (Hitlin & Pinkston, 2013). Hence, with more than one ideal existing in Jamaica, an evaluation of sociocultural attitudes towards the fluffy ideal could provide knowledge on the effect of internalization of local beauty ideals such as fluffy versus western beauty standards.

'Fluffy' is a key description of a fuller bodied woman with high confidence and high self-esteem. This suggests that this concept may act as a possible cultural safeguard for overweight and obese Jamaican women from the thin ideal, body dissatisfaction and obesity stigmatization. Hence, adopting the term 'Fluffy' may foster body appreciation among larger-bodied women. This, in turn, may encourage the perceived higher self-esteem, body satisfaction, and good psychological well-being. The ability to tap into this construct of 'Fluffy' would, therefore, improve understanding of how such terms are incorporated into sociocultural

ideals of beauty and its role in maintaining positive self-evaluations among larger-bodied women in Jamaica.

Aims of studies

Thus, this chapter has three primary goals. The *first* goal seeks to assess what does fluffy represent? This is achieved by evaluating the psychometric properties of a new measure that was developed (Fluffy Rating Questionnaire - FRQ). It evaluates the extent to which the fluffy construct referred to i) the physical qualities (desirability, size, and shape) and/or ii) the psychological qualities (personality). Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) will be performed. The *second* goal is to determine whether attitude to fluffy is related to other psychological constructs, such as body dissatisfaction, body appreciation, and self-esteem. The *third* goal is to evaluate whether *manipulating fluffy and obesity would affect scores on variables that represents a reflection on the self or attitudes to others and behaviour such as positive affect, negative affect, sociocultural attitudes to appearance, and physical activity*. Adopting the term fluffy could play a protective role in processing sociocultural messages about the pervasive thin ideal. Therefore, the aims of the following studies in this thesis seek to address the revised research questions:

- A). What does fluffy represent? (*is this construct best conceived as unidimensional or multidimensional*)
- B). To what extent is fluffy related to individual's attitudes about themselves in general (i.e. body satisfaction, body appreciation, self-esteem)?

Method II

Participants

Two hundred and six (206) participants completed the online survey. Participants were selected through a convenience sampling. The final sample consisted of 198 Jamaican women, living in Jamaica. An *a priori* power analysis using G*Power 3.0 (Faul et al., 2009) indicated that assuming a medium effect size, $p = 0.5$, power = .80, and two predictor variables, a sample size of 68 participants was sufficient to detect statistical significance. The sample size met the participant-to-parameter ratio of 5-10:1, which is required for an adequate estimate of the factor structure of a given scale (Bentley, 1990). This means there were at least 5 participants per FRQ item. In this study, the participant-to-parameter ratio was approximately 9:1. Age range for participants were 18-25 (63.1%), 26-35 (23.7%), 36-45 (7.6%), 46-55 (4.5%) and 55 & over (1%) respectively. Participants were of Afro-Caribbean descent (Black Caribbean -77.8%), 2.5 % were Asian Caribbean, White Caribbean (.5%), and mixed raced (19.2%). This generally reflected the island's ethnic demography. Approximately 92.9% of participants indicated their level of education as tertiary level education and 7.1% had secondary level education.

Materials

Body Mass Index. Participants self-reported their weight in pounds and height in inches. This was converted to kg/m² and used to calculate participants' BMI.

Fluffy Rating Questionnaire. The Fluffy Rating Questionnaire (FRQ) was created to reflect aspects of Fluffy that were identified in Study I in chapter 4. It consists of 21 items. The items on this scale were designed to measure attitudes toward the attributes of fluffy women in terms of the *body type*, *body size*, *physical dimensions of being fluffy*, the *psychological dimensions of fluffy* and *health*. Items on the scale included "A large body size is considered desirable in Jamaica", "A fluffy female has a medium body type", "A fluffy female has an hourglass shape" and "A fluffy female has low self-esteem". Items were rated on a Likert scale from 1 = Strongly disagree to 5 = Strongly agree. Two items were reverse coded. A complete version of the 21 items is presented in table 2. The psychometric properties of this scale will be elaborated in the results section.

Photographic Figure Rating Scale. The Photographic Figure Rating Scale (PFRS) consisted of ten (10) photographic images of real women in front-view and was used to measure body dissatisfaction. The Photographic Figure Rating Scale has shown good evidence of construct

Table 2 - Fluffy Rating Questionnaire initial items

| No. | FRQ Items |
|-----|--|
| 1. | A large body type is considered DESIRABLE in Jamaica |
| 2. | A medium body type is considered DESIRABLE in Jamaica |
| 3. | A small body type is considered DESIRABLE in Jamaica |
| 4. | A large body type is considered ATTRACTIVE in Jamaica |
| 5. | A medium body type is considered ATTRACTIVE in Jamaica |
| 6. | A small body type is considered ATTRACTIVE in Jamaica |
| 7. | A 'fluffy' female has a small body type |
| 8. | A 'fluffy' female has a medium body type |
| 9. | A 'fluffy' female has a large body type |
| 10. | A 'fluffy' female has a pear shape |
| 11. | A 'fluffy' female has a apple shape |
| 12. | A 'fluffy' female has a hourglass shape |
| 13. | A 'fluffy' female has a rectangular shape |
| 14. | 'Fluffy' is considered the ideal body for women |
| 15. | A 'fluffy' female is Secure |
| 16. | A 'fluffy' female is Attractive |
| 17. | A 'fluffy' female is Sexy |
| 18. | A 'fluffy' female has Low self-esteem* |
| 19. | A 'fluffy' female has No self-control* |
| 20. | A 'fluffy' female is Confident |
| 21. | A 'fluffy' body type is: - extremely unhealthy, unhealthy, neutral, healthy, extremely health |

*items reversed coded

validity and remained reliable after a five-week interval (Swami et al., 2012). Cronbach alpha scores ranged from .85 - .90 (Swami et al., 2012; 2008). Cronbach alpha in this study was .63. An additional question was added to rate how 'Fluffy' each figure was. Overall Cronbach alpha of the PFRS including this item was .68.

Rosenberg Self-esteem Scale. The Rosenberg Self-Esteem Scale (Rosenberg, 1965) contains ten items rated on a scale ranging from 1 (strongly disagree) to 4 (strongly agree). This scale was used to measure self-esteem. Self-esteem indicates a positive or a negative attitude or inclination toward the self (Rosenberg, 1965). Items on the scale are averaged to produce a final score. Example of scale items are – "I feel that I am a person of worth, or at least on equal plane with others" "on a whole, I am satisfied with myself" and "At times, I think I am no good at all". In this study, Cronbach alpha showed good reliability $\alpha = .86$.

Body Appreciation Scale. The Body Appreciation Scale was used to measure positive body image. Sample items include "I respect my body" and "Despite my imperfections, I still like my body". Higher scores indicated greater body appreciation and a positive body image. In this study, $\alpha = .88$.

Procedure

The development of the Fluffy Rating Questionnaire process began by generating items related to the construct 'Fluffy.' These items were first developed from descriptions of fluffy from participants in study one (chapter 4). Descriptions of the term fluffy for example included 'confident' 'having high self-esteem'. The items generated were also based on a review of existing literature. This included review of work by Sobo (1993) and Savacool (2009) on the Jamaican body. Items were constructed using a 5-point Likert scale. The items used simple language and avoided the use of double-barreled items.

Ethical approval was received from the School of Social Sciences Psychology Research Ethics committee at Brunel University (See Appendix E). After the approval, the survey was administered online to an appropriate sample using Survey Monkey.

Participants were recruited by disseminating the survey through social media such as Facebook, Twitter, WhatsApp and email of personal contacts. Facebook friends were asked to recruit participants by sharing the survey link on their Facebook Timeline. The online survey consisted of a participant information sheet and a consent form. Participants who did not agree to terms of consent were not allowed to proceed to the survey and were automatically directed to a thank you page. Males and those who failed to indicate their gender were not included in the analysis. Data were collected during July 2014 and August 2014.

Results – II

Data analysis

Statistical analyses in this study were conducted using SPSS version 20. First, to determine the number of factors or to identify the underlining construct of the Fluffy Rating Questionnaire an Exploratory Factor Analysis was conducted. This involved the use of parallel analysis (Horn, 1965). The process of performing the parallel analysis in this study included using a syntax written in SPSS by O'Connor (2000); where to determine the number of factors, 1000 iterations of random data (at 95 percentile) were analyzed alongside the raw data from the 198 participants in the study. The next step included a Reliability analysis by calculating the Cronbach alpha value. Following these procedures, Pearson's correlation analysis was conducted to examine the relationships between fluffy, body dissatisfaction, self-esteem and body appreciation. Regression analysis was also performed to assess the ability of the fluffy to predict body dissatisfaction, self-esteem and body appreciation.

Preliminary analysis

Before data analysis, the data was examined for missing data and outliers. Of an initial two hundred and forty (240) participants who accessed the online survey, only 206 completed the informed consent. Through the process of trimming, three participants who did not indicate their gender were excluded. All males (5) were also excluded. A total of 198 participants reported their gender as female; hence, only responses from the 198 women were included in the final dataset for analysis. The data was also examined for normality of distribution.

Psychometric analysis of Fluffy Rating Questionnaire

The psychometric properties of the Fluffy Rating Questionnaire (FRQ) were evaluated before examining it as a measure of Fluffy in the main analysis. The scale sought to assess whether or not Fluffy was about physical qualities (*body size desirability and attractiveness, body size, body shape*) or psychological qualities/attributes. Items 18 and 19 of the scale were first reverse coded. Before psychometric testing, skewness and kurtosis scores were first inspected for normality and to determine whether items should be deleted. This inspection identified two items (items 7 & 9) with high skewness and kurtosis; hence these items were eliminated from the scale. See Appendix F for skewness and kurtosis scores of scale items.

Exploratory factor analysis

Exploratory factor analysis was applied to the Fluffy Rating Questionnaire (FRQ) using SPSS version 20. Before performing the exploratory factor analysis, the suitability of the data

was assessed. The Kaiser-Meyer-Olkin measure of sampling adequacy indicated that the remaining 19 items had a value of .70. This was above the recommended common variance value of .6 (Kaiser, 1970, 1974). The Bartlett's Test of Sphericity (Bartlett, 1954) reached statistical significance, showing that the correlation matrix was factorable $X^2(171) = 1091.39$, $p < .001$. Hence, factor analysis could be performed on the Fluffy Rating Questionnaire.

An initial exploratory factor analysis was conducted on the FRQ using maximum likelihood along with varimax rotation to detect the number of factors. The maximum likelihood method was used as it estimates population values for factor loading by computing the loading that maximizes the observed correlation matrix (Tabachnick & Fidell, 2014). That is, it identifies and calculates the best set of values for a model that will most likely be observed. Varimax rotation was also selected as it simplifies factors by maximizing the variance within factors and across variables and also tells which variables correlate with the factor (Tabachnick & Fidell, 2014). Based on recommendations from Tabachnick & Fidell (2014), the number of factors was determined by eigenvalues exceeding 1 and any noticeable changes in the scree plot. A scree plot is a graphical display that shows eigenvalues indicated on the y-axis that is related to the number of factors on the x-axis, usually in decreasing order (Cattell, 1966). This maximum likelihood identified a six-factor structure. Results of the initial exploratory factor analysis are presented in Appendix G. For a rigid determination of factors; close examination was made by looking at the scree plot (Cattell, 1966). See scree plot in Appendix H. Exploratory factor analysis, however, has been criticized for being overly lenient to the presence of factors (Hayton, Allen, and Scarpello, 2004). Parallel analysis was therefore conducted to supplement the exploratory factor analysis.

Parallel analysis was then conducted using a syntax written in SPSS to supplement the exploratory factor analysis of the Fluffy Rating Questionnaire. The result of the parallel analysis indicated that the first three (3) factors of the actual data had eigenvalues that were greater than the eigenvalues of the simulated data. Maximum likelihood was then repeated and extracted the three factors to obtain the factor loadings for the 3-factor solution. The Fluffy Rating Questionnaire was determined to have a 3-factor structure which could explain 37.10% of the common variance. Results of the parallel analysis are presented in Table 3. The number of factors was also supported by examining the scree plot from the parallel analysis presented as presented in figure 2. It can be seen that the first three factors of the actual data indeed had higher eigenvalues than the simulated data. The criterion for retaining factor loadings was those factors with at least a value of .30 (Brown, 2006).

Table 3 - Eigenvalues of actual data and simulative data

| Factor | Eigenvalues of actual data | Eigenvalues of simulative data |
|---------------|-----------------------------------|---------------------------------------|
| 1 | 4.25 | 1.78 |
| 2 | 2.29 | 1.60 |
| 3 | 2.09 | 1.42 |
| 4 | 1.38 | 1.40 |
| 5 | 1.21 | 1.32 |
| 6 | 1.02 | 1.26 |

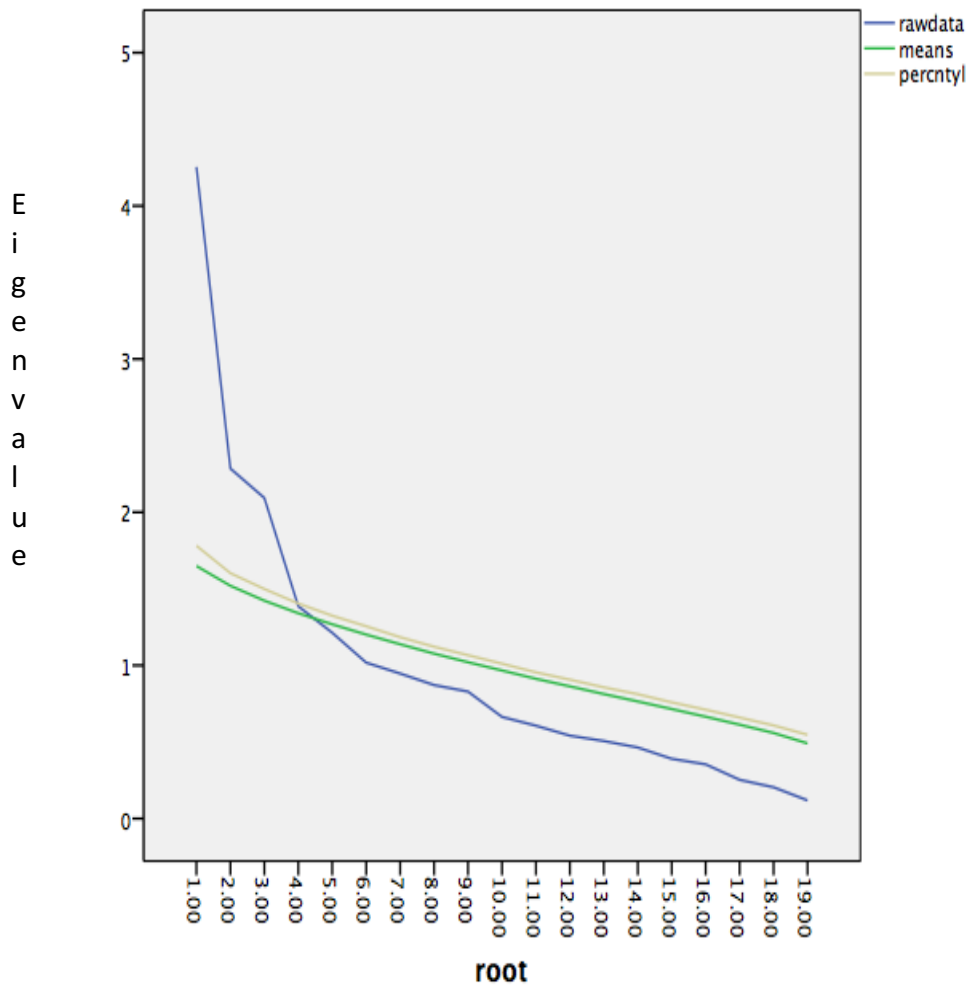


Figure 2 - Scree plot of actual data and simulative data

Table 4 show results of factor loadings for each item in factor 1, factor 2 and factor 3. Positive qualities and psychological well-being items loaded strongly on factor 1, for example, high self-esteem, self-control, attractiveness and confidence, hourglass shape. This factor was therefore labelled *impressions of fluffy women*. Majority of the items related to a body size loaded on both factor 2 and factor 3. These were labelled *impressions of body ideals* because these items indicated body sizes that could be considered desirable or attractive.

This result supports findings from study 1 that there is a range of body sizes or body ideals that are accepted and considered beautiful in Jamaica. These items, however, do not adequately reflect attitudes toward the specific female body size/type of interest; namely, the fluffy body. These items were therefore excluded from further analysis.

Items that loaded to Factor 1 – *impressions of fluffy women* were therefore retained for the Fluffy Rating Questionnaire. Items in the correlation matrix with a value less than .30 were deleted. Six of the eight items loading on factor 1 best-reflected personality impressions of fluffy women. Items 12 and 21 were therefore removed because these items were not related to impressions of personality. The final FRQ scale was consequently reduced to a six (6) items scale which measures *impressions of personality of fluffy women* (See table 5).

Scoring of final FRQ

Scores on the Fluffy Rating Questionnaire may range from six (6) to thirty (30). Lower scores represent anti-fluffy impressions, and higher scores represent pro-fluffy impressions. Items 4 and 5 are reverse coded.

Internal consistency for FRQ

Reliability analysis was conducted on the final items of the Fluffy Rating Questionnaire using Cronbach alpha. This showed a Cronbach alpha of .77.

Table 4 - Fluffy Rating Questionnaire items and rotated factor loading from maximum likelihood method

| Items | Factors | | |
|---|---------|-----|-----|
| | 1 | 2 | 3 |
| 1. A large body type is considered DESIRABLE in Jamaica | | .77 | |
| 2. A medium body type is considered DESIRABLE in Jamaica | | .48 | |
| 3. A small body type is considered DESIRABLE in Jamaica | | | .86 |
| 4. A large body type is considered ATTRACTIVE in Jamaica | | .76 | |
| 5. A medium body type is considered ATTRACTIVE in Jamaica | | .52 | |
| 6. A small body type is considered ATTRACTIVE in Jamaica | | | .87 |
| 8. A 'fluffy' female has a medium body type | .29 | | |
| 10. A 'fluffy' female has a pear shape | | .23 | |
| 11. A 'fluffy' female has a apple shape | | | .00 |
| 12. A 'fluffy' female has a hourglass shape | .40 | | |
| 13. A 'fluffy' female has a rectangular shape | | | .03 |
| 14. 'Fluffy' is considered the ideal body for women | | .29 | |
| 15. A fluffy female is Secure | .38 | | |
| 16. A 'fluffy' female is Attractive | .89 | | |
| 17. A 'fluffy' female is Sexy | .92 | | |
| 18. A 'fluffy' female has Low self-esteem | .30 | | |
| 19. A 'fluffy' female has No self-control | .37 | | |
| 20. A 'fluffy' female is Confident | .51 | | |
| 21. A 'fluffy' body type is: | .55 | | |

Table 5 - Final FRQ items

| Item No | Final FRQ items |
|---------|--------------------------------------|
| 1. | A fluffy female is secure |
| 2. | A 'fluffy' female is Attractive |
| 3. | A 'fluffy' female is Sexy |
| 4. | A fluffy female has low self-esteem* |
| 5 | A fluffy female has no self-control* |
| 6. | A fluffy female is confident |

*items reversed coded

The body of fluffy women

While items loading onto factors 2 and 3 were deleted from the final FRQ, they indicated different body ideals in Jamaica. A manipulation check was therefore conducted to verify the perceived body size of a fluffy woman. The Photographic Figure Rating Scale used to measure body dissatisfaction in this study, captures images of women, and these images increased in size to represent an objective rating of the various BMI categories and body sizes. The images from the PFRS was therefore used as an objective measure to test whether there would be a difference in how participants rate body sizes that are considered fluffy. Hence, participants were asked to rate the 10 images from the Photographic Figure Rating Scale on a scale 1 - *not at all* to 9 - *extremely fluffy*. The mean scores and standard deviations for fluffy rating of the Photographic Figure Rating Scale images are presented in Appendix I.

Fluffy Body Size Manipulation Check

A repeated measures ANOVA was conducted on the images of the Photographic Figure Rating Scale (10 levels) as a within-subject variable to evaluate whether there was a difference in rating of fluffiness of the PFRS images. That is, whether participants would rate the larger figures as fluffy compared to smaller figures. The repeated measures ANOVA indicated that there was a significant effect in ratings of fluffy on each of the 10 Photographic Figure Rating Scale images, Wilks' Lambda = .09, $F(9, 156) = 165.67$, $p < .001$, $\eta^2 = .91$. Thus, there is significant evidence to support that larger images were rated as fluffier than smaller images. Since the analysis of variance indicated statistically significant results, a follow up post-hoc comparison using Bonferroni test indicated that each pairwise difference was significant ($p < .05$) except image 1 and image 2. See Appendix J. There were no significant differences in rating of fluffy between image 1 and image 2 of the Photographic figure rating scale ($p = 1.00$). However, after image 2, the means increased significantly for each image that followed and levelled off by image 9 and 10. On average, figures 8 to 10 were generally rated as 'Fluffy'. Compared to the ratings in the original Photographic Figure Rating Scale, figures 8 to 10 matches the overweight to obese body types.

The within-subject analysis identified that there was a linear effect (see Appendix I) which suggests that participants could accurately distinguish between body types that were perceived as 'Fluffy' and those not 'Fluffy'. Figure 3 shows participant's rating of fluffy seen beyond image 3 of the Photographic Figure Rating Scale. These images, therefore, represented an objective check of perceptions of what a fluffy body size looks like in reality compared to a less fluffy body. This suggests that participants had no difficulty in visually distinguishing a fluffy female body.

A follow-up 5x2 within-subjects ANOVA was also conducted in response to examiner's comments to evaluate whether there was an interaction effect of BMI categories on ratings of

fluffy of the PFRS images. The ANOVA indicated a significant interaction effect of BMI categories and images, Wilks' Lambda = .27, $F(4, 161) = 111.60$, $p = .00$. The test suggests there was a linear interaction effect in addition to other various non-linear effects (see Appendix K). Simple effects analysis on BMI categories 2 to 5 (underweight to obese) showed significant differences in ratings of fluffy ($p = .00$), but there was no difference in ratings of fluffy for BMI category 1 (emaciated) - Wilks's Lambda = .99, $F(1, 164) = 1.91$, $p = .277$. Essentially, the second image in each BMI category was generally rated fluffier than the first, specifically in BMI category 4 (overweight), where major changes in rating of fluffy begin to appear. See Appendix J for graphical display.

An additional within-subject repeated measures ANOVA was conducted to evaluate whether impressions of personality of fluffy women scores influenced differences in the objective rating of fluffiness. There was a significant difference in the ratings of the images based on impressions of personality of fluffy women $F(9, 146) = 1.98$, $p < .05$, $\eta^2 = .11$. A linear effect in the rating of images based on impressions of fluffy women was however not evident $p > .05$. A quadratic effect was however noted ($p < .05$).

Further Analyses

Descriptive statistics

The variables' mean and standard deviations were calculated and are presented in table 6. The BMI distribution of the sample was as follows:

Underweight – 8.2%, Normal weight – 57.3%, Overweight – 22.2%, Obese – 12.3%.

The mean scores for 'impressions of personality of fluffy women' suggest that participants on average had neutral views on the concept of "fluffy". Impressions of personality of fluffy women were categorized into three groups – anti-fluffy impressions; neutral impressions; pro-fluffy impressions. Percentages of these impressions are presented in appendix L. Also, mean scores suggest that generally, participants scored average levels of self-esteem scores as measured by the Rosenberg self-esteem scale. A further breakdown of levels of self-esteem among participants is reported in Appendix M. Body appreciation scores fell between *sometimes* and *often* which suggests the participants had reasonably positive attitudes towards their bodies, however, some degree of body dissatisfaction was recorded among the participants. Approximately 30.7% of the sample indicated no body dissatisfaction. However, 49% felt their actual body weight was larger than their ideal body. Body dissatisfaction scores ranged from positive six (6) to negative three (-3). Table 7 presents the percentage of body dissatisfaction among this sample of females.

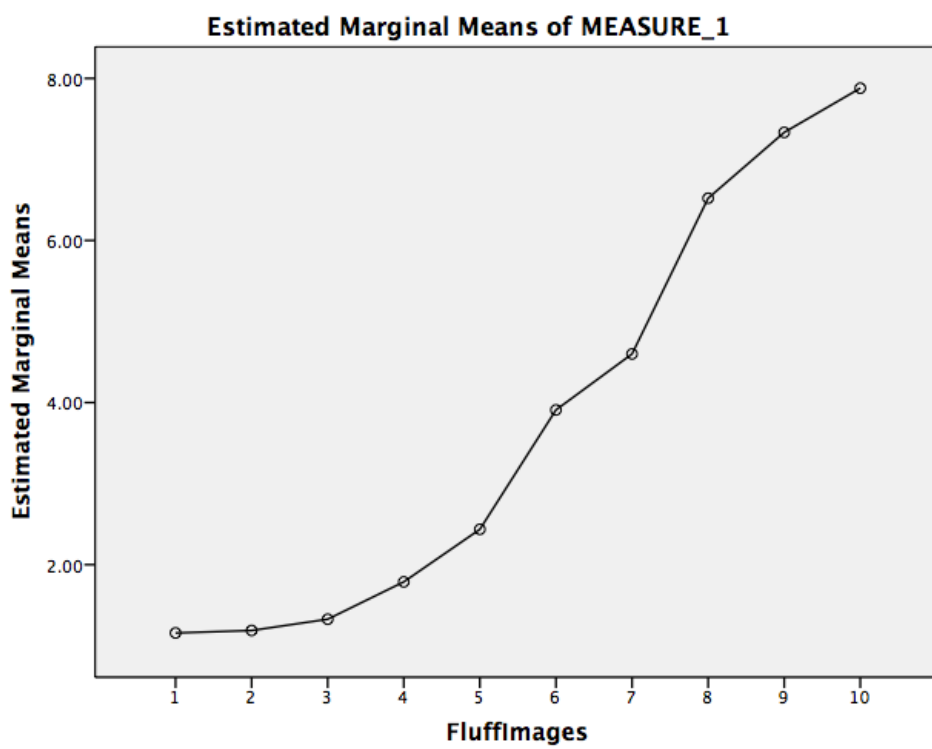


Figure 3 - Means for ratings of fluffy for Photographic Rating Scale images

Table 6 - Study variables' mean and standard deviations

| | Fluffy Scores | Body Appreciation | Body Dissatisfaction | Self- esteem |
|----------------|--------------------------|------------------------------|---------------------------------|-------------------------|
| Mean | 19.46 | 3.91 | .55 | 21.85 |
| Std. Deviation | 3.24 | .64 | 1.33 | 4.98 |
| Valid | 177 | 156 | 176 | 160 |
| Missing | 21 | 42 | 22 | 38 |

Table 7 - Body dissatisfaction scores

| Valid | Frequency | Percent | Valid Percent |
|--------------|------------------|----------------|----------------------|
| -3 | 1 | .5 | .6 |
| -2 | 6 | 3.0 | 3.4 |
| -1 | 29 | 14.6 | 16.5 |
| 0 | 54 | 27.3 | 30.7 |
| 1 | 48 | 24.2 | 27.3 |
| 2 | 26 | 13.1 | 14.8 |
| 3 | 10 | 5.1 | 5.7 |
| 5 | 1 | .5 | .6 |
| 6 | 1 | .5 | .6 |
| Total | 176 | 88.9 | 100 |
| Missing | 22 | 11.1 | |
| Total | 198 | 100 | |

Correlation of study variables

Pearson r correlations of the variables are presented in table 8. As shown, impressions of personality of fluffy women were not correlated with body dissatisfaction, body appreciation, self-esteem or body mass index. Therefore, in response to research question B, there is no evidence for a relationship between impressions of fluffy women and having a positive body image or between impression of fluffy women and self-esteem. Similarly, no significant relationship between fluffy and body dissatisfaction has been identified. This suggests that among this sample of Jamaican women, their impressions of fluffy women were not related to self-esteem, level of body satisfaction or body appreciation.

The relationship between BMI (IV) and body dissatisfaction (DV)

The correlation coefficient matrix, however, indicated that there was a positive correlation between body mass index and body dissatisfaction. A simple linear regression was conducted to assess its ability predict body dissatisfaction among this sample of Jamaican women. The regression model was significant $F(1, 154) = 141.88, p < .001$. The regression model (body mass index) was able to explain 47.8% of the variance in body dissatisfaction. This means that changes in BMI can impact the women's satisfaction with their body among this sample of women. This supports previous research which suggests that body mass index is a significant predictor of body dissatisfaction (Yates, Edman & Aruguete, 2004). Table 9 presents findings from the multiple regression analysis, including beta weight.

Impact of BMI categories (IV) and Personality impressions of fluffy women (DV in this instance)

A one-way between groups analysis of variance was conducted with BMI (Underweight = < 18 ; Normal = 18-24, Overweight = 25-30; Obese = > 30) as a between-subject factor to explore the impact of the females' BMI on their impressions of fluffy women as measured by the 6 item Fluffy Rating Questionnaire. There was no main effect for personality impressions of fluffy women scores for the different BMI categories $F(3, 148) = 1.06, p < .05$. Hence, participants' body weight also did not have an impact on their impressions of the personality of a fluffy woman.

Table 8 - Pearson product-moment correlation matrix between measures and BMI

| Variables | Personality impressions of fluffy | Body Appreciation | Body Dissatisfaction | Self- Esteem |
|--|---|----------------------|-------------------------|-----------------|
| 1. Personality Impressions of Fluffy women | 1.00 | | | |
| 2. Body Appreciation | .11 | 1.00 | | |
| 3. Body Dissatisfaction | .04 | -.19* | 1.00 | |
| 4. Self-esteem | .00 | .61** | -.03 | 1.00 |
| 5. Body Mass Index | .15 | -.08 | .69** | .01 |

p<.05; **p<.01

Table 9 - Regression model analysis of body dissatisfaction by predictor variable (BMI)

| | Unstandardized Coefficient | | Standardized Coefficient | t | Sig. |
|-----------------|---------------------------------------|-------------------|-------------------------------------|----------|-------------|
| Model | B | Std. Error | β | | |
| Constant | -3.831 | .375 | | -10.223 | .000 |
| Body mass index | .18 | .015 | .694 | 11.911 | .000 |

Study III

Following the above exploratory factor analysis, a confirmatory factor analysis is needed for the FRQ to validate the new scale further. Previous research tells us that exposure to thin images or fashion models could result in body dissatisfaction, eating disorders, or it may induce a negative mood (Cattarin, Thompson, Thomas & Williams, 2000; Hausenblas, Janelle & Ellis, 2004; Pinhas, Toner, Ali, Garfinkel & Stuckless, 1999). Similarly, research has investigated the impact of 'real women' or 'average-sized' women on psychological well-being and found that it also can have a deleterious effect (Swami & Smith, 2012; Anschutz, Engels, Becker & van Strien, 2008). While there were no relationships between impressions of fluffy women and some psychological constructs, the affective consequences of exposure to the image of fluffy women and obese women in Jamaican are unknown.

A high BMI is well known to have several health implications (Carr, Friedman & Jaffe, 2007). Impressions of fluffy (by both males and females), could, therefore, influence engagement in certain health behaviours to reduce any health risks associated with being obese; where holding positive attitudes toward fluffy could impact levels of physical activity that is necessary for a healthy lifestyle to reduce the risk of non-communicable diseases. Simulating the impressions of fluffy women's personality versus obesity, for example, could add to knowledge, the extent to which the sociocultural attitudes to fluffy is relevant within the Jamaican context and the significance of using different labels in describing larger bodies. This next study, therefore, assesses whether *manipulation of a fluffy stimulus could affect scores on variables such as positive affect, negative affect, sociocultural attitudes to appearance. It also seeks to examine whether* exposure to positive and negative labels of larger-bodied women, that is, 'fluffy' versus 'obese' could affect engagement in physical activity. The following hypotheses were tested:

H1. Type of stimulus will be a significant predictor of affect and physical activity, such that:

- a) Individuals presented with the fluffy stimulus will score significantly higher on positive affect compared to individuals presented with the obese stimulus and those in the control group
- b) Individuals presented with the obese stimulus will score higher on negative affect compared to the fluffy group and the control group
- c) Individuals presented with the fluffy stimulus will report significantly lower levels of physical activity than will individuals presented with the obese stimulus and the control group.

Method - III

Participants

A total of 275 participants participated in this study. Due to missing data, a final sample of 179 participants was included. Participants included Jamaicans living in Jamaica (71.9%), the USA/Canada (19.7%) and the United Kingdom (8.4%). Of the total participants, 113 were females, and 65 were males. The average age of participants was 30.44 years (SD = 10.62). 96 participants did not complete the study. There may be several reasons for attrition in this experiment. As the study was internet based, some participants may have had difficulty with internet connectivity. In addition, some participants may not have had the required browser plug-in to watch the videos, and because no researcher was present, there were no opportunities to clarify questions or concerns (Smith, Wilde & Brasch, 2012). Participants may have also lacked the motivation to carry on because the questionnaire was too long.

Materials

Stimuli videos: Experimental conditions were created by morphing a 3D image to create an obese model. Weight-related descriptions of the female models were matched across all conditions. Poser's functions were also used to simulate two facial expressions "happy" and "sad". The models of Alyson were clothed in black shorts plus a white and green sports bra from the clothing line available from the library. The walk designer function in Poser was used to simulate two types of walking to represent a "sexy and confident" walk and to represent a "non-confident" walk. The models were videoed walking against a grey background in frontal view. Each walking video was then rendered and made into a mp4 movie. The movies were then edited by using the captions "Fluffy diva Alyson" for the Fluffy condition - the target woman was obese but described as a 'fluffy' diva, who was attractive, fabulous, funny, curvy, has high self-esteem based body movement. The "Obese Alyson" represented stereotypes of obesity condition - the target woman was also obese, sad and not confident. The control condition consisted of a nature time-lapse video "Sun and Clouds". Participants were randomly assigned to watch one of the three videos (experimental conditions).

Fluffy Rating Questionnaire: This scale was developed in the previous study 2 which measures *Impressions of personality of fluffy women*. The layout of the questions on this scale was edited to ask participants to rate a 'fluffy' female's - "Attractiveness," "sexiness", how "secure' they were, "self-esteem," "self-control" "confidence." Items were rated on a 5- point Likert scale. For example - from 1 = Extremely attractive to 5 = Extremely unattractive. The scale showed adequate internal consistency of $\alpha = .77$ in the previous study. Scores on the

Fluffy Rating Questionnaire may range from six (6) to thirty (30). Lower scores represent negative impressions of fluffy and higher scores represent positive impressions of fluffy. A confirmatory factor analysis will be performed on this scale. Reliability analysis will be reported in the results section.

The Sociocultural Attitudes toward Appearance Questionnaire – 4 (SATAQ-4): The Sociocultural Attitudes toward Appearance Questionnaire – 4 is a 22 item scale and was used to assess societal appearance ideals (Schaefer et al., 2014). It also expands on the measurement of sociocultural pressures involved in body dissatisfaction (Schaefer et al., 2014). The scale consists of five dimensions which include - Internalization: Thin/Low Body Fat, Internalization: Muscular/Athletic, Pressures from Family, Pressures from the Media and Pressures from Peers. These dimensions are believed to be important sources that shape perceptions of attractiveness. Responses were measured on a 5-point Likert scale ranging from definitely disagree (1) to definitely agree (5). The SATAQ-4 has demonstrated good internal consistency with Cronbach's alpha scores ranging from .84 or higher (Schaefer et al., 2014). The *Internalization: Thin/Low Body Fat* and the *Internalization: Muscular/Athletic* dimensions of the scale consist of 10 items. Questions include - "*It is important for me to look athletic,*" "*I want my body to look like it has little fat*" and "*I spend a lot of time doing things to look more muscular.*" Cronbach's alpha scores range from .75 to .92. The *Pressures from Family* dimension consists of four items which include questions such as "*I feel pressure from family members to look thinner*" (Cronbach's $\alpha = .85$ or higher). *Pressures from Peers* and *Pressures from the Media* also consist of 4 items. Sample questions include - "*I feel pressure from my peers to look in better shape*" and "*I feel pressure from the media to decrease my level of body fat*" respectively (Cronbach's $\alpha = .88$ or higher). The SATAQ-4 has also demonstrated very good convergent validity (Schaefer et al., 2014). Cronbach alpha in this study showed good reliability $\alpha = .90$.

Godin Leisure-Time Exercise Questionnaire (GLTEQ): The Godin Leisure-Time Exercise Questionnaire was used to assess leisure-time activity with minimal effort to strenuous efforts. Participants were asked to complete a brief four-item query of their usual leisure-time exercise habits. The three questions on the questionnaire asked respondents to record weekly frequencies of exercise that is divided according to three types of intensities - strenuous, moderate or low. For instance, participants are asked to how many times during a typical 7-day period they participate in strenuous exercise such as running, jogging, football where the heart beats rapidly; moderate exercise that is not exhausting and mild exercise which require only minimal effort. These frequencies are then multiplied by nine (9), five (5) and three (3),

respectively. The total weekly leisure activity is calculated by summing the products of the separate components, as shown by the following formula (Godin & Shephard, 1997):

$$\text{Weekly leisure activity score} = (9 \times \text{Strenuous}) + (5 \times \text{Moderate}) + (3 \times \text{Light})$$

Participants were then asked to rate how often they participated in any regular activity “*long enough to work up a sweat.*” This question is evaluated on a 3-point Likert scale where “1 = *often*, 2 = *sometimes* and 3 = *never/rarely*”. A reliability coefficient of .82 has been reported by Sallis et al., (1993) and content validity with 5th, 8th and 11th graders (Chung & Phillips, 2002).

The Positive and Negative Affect Scale (PANAS): Positive affect is characterized by pleasure, enthusiasm, alertness; high activity, while negative affect reflects distress, fear, anger, guilt, disgust et cetera (Watson et al., 1988). The PANAS consists of 20 items, where 10 items reflect positive emotions (1,3,5,7,9,11,13,15,17,19) such as “*excited*” and where 10 items reflect negative emotions (2,4,6,8,10,12,14,16,18,20), for example, “*hostile*”. Respondents are generally asked to rate on a 5-point Likert scale the extent to which they experience the emotion listed. The scale responses ranged from “1 - *Very Slightly or Not at All*” to “5 - *Extremely*”. The scale is scored by adding scores for each item for positive affect and negative affect respectively. Scores may range from 10 - 50, with higher scores representing higher levels of positive affect and lower scores representing lower levels of negative affect (Watson et al., 1988). The PANAS has demonstrated good internal consistency with Cronbach’s alpha scores ranging from .86-.90 for positive affect and scores ranging from .84 to .97 for negative affect (Watson et al., 1988). Cronbach alpha in this study showed good reliability $\alpha = .85$.

Body Mass Index: Participants self-reported their weight in pounds and height in inches. This was used to calculate BMI which was converted to kg/m².

Procedure

Ethical approval was granted from the Psychology Research Ethics committee at Brunel University (see Appendix N). After receiving the approval, the survey was administered online using Survey Monkey online survey software which provided a hyperlink to the online questionnaire. Participants were recruited by disseminating the survey link through social media such as Facebook, Twitter, WhatsApp and email of personal contacts. Facebook friends were asked to share the survey link on their Facebook Timeline. The online survey consisted of a participant information sheet and a consent form before access to the survey.

Participants who did not agree to terms of consent were not allowed to proceed to the survey and were automatically directed to a thank you page. Participants were asked to complete the demographic section of the questionnaire. They were then randomly assigned to one of three conditions:

1. The obese condition
2. The Fluffy condition
3. Control condition

A short video of the experimental condition (see Appendix O) or a nature time-lapse video – "Sun and Clouds" (control) was shown. Participants were then asked to fill in the survey after being exposed to a condition (see Appendix P). At the end of the survey, participants were directed to a debriefing page that provided them with full debrief of the study. They were presented with links to resource information that may have been of interest. These resources included articles such as Sobo, (1993) - One blood: The Jamaican body; Savacool (2009) - The world has curves: The global quest for the perfect body, and Pearce, Dibb & Gaines (2014) - Body weight perceptions, obesity and health behaviours in Jamaica. Participants were not offered any incentive for participation in the study. Data was collected from April to September 2015.

Results - III

Preliminary analysis

Prior to data analysis, the data was examined for missing data and outliers. A total of 179 participants were included in the final dataset for analysis. An *a priori* power analysis using G*Power 3.0 (Faul et al., 2009) indicated that assuming a medium effect size, $p = 0.05$, power = .80, a sample size of 159 was sufficient to detect statistical significance. A medium effect size refers to a moderate magnitude of the relationship or a modest difference between experimental groups (Cohen, Cohen, West & Aiken, 2013). The variables used in the study involved 3 dependent variables (D.Vs) and 1 independent variable (I.Vs). The data was examined for normality of distribution.

Descriptive statistics

The means and standard deviations for the study variables are presented in table 10. BMI scores among participants ranged from 16.97 to 55.47. The mean BMI score was 26.84 (S.D = 7.07). The BMI of participants according to the standard BMI Index were as follows:

Underweight – 4.3%, Normal – 45.4%, Overweight – 30.7%, Obese – 19.6%

Participants were randomly assigned to an experimental group. There were at least 50 participants in each experimental group. Participants' were asked to describe the experimental condition (video) they saw. These results are presented in table 11.

Correlations

Pearson r correlation analysis was conducted with the study variables. There were no correlations between impressions of fluffy women personality scores and positive affect scores, as well as negative affect scores. There was also no correlation between impressions of fluffy women personality scores and physical activity scores ($p > .05$). There was, however, an inverse correlation between internalization of thinness and positive affect and a positive correlation between internalization of thinness and negative affect. Similarly, there was an inverse correlation between pressure from family and positive affect and a positive correlation between pressure from family and negative affect. These were the only two dimensions of sociocultural attitudes towards appearance that had significant correlations with affective states. The correlation matrix with the study variables is presented in table 12.

Table 10 - Variable means and standard deviations

| Variables | N | Mean | Std. Deviation |
|-------------------------------------|----------|-------------|-----------------------|
| FRQ | 173 | 18.40 | 1.83 |
| Positive Affect | 168 | 29.54 | 9.28 |
| Negative Affect | 165 | 16.13 | 6.87 |
| Physical activity | 158 | 38.73 | 34.24 |
| Internalization thin/low fat scores | 176 | 13.72 | 4.02 |
| Internalization muscular/athletic | 176 | 12.83 | 5.67 |
| Pressure from family | 177 | 8.50 | 4.33 |
| Pressure from peers | 177 | 8.33 | 4.32 |
| Pressure from Media | 175 | 10.83 | 5.46 |

Table 11 - Participants in experimental conditions

| Experimental Condition | Number of Participants | Percentage |
|-------------------------------|-------------------------------|-------------------|
| Fat stimulus | 57 | 31.8% |
| Fluffy stimulus | 53 | 29.6% |
| Nature (control condition) | 57 | 31.8% |
| Did not watch video | 11 | 6.1% |

Participants' impressions of fluffy women's personality varied among the sample. Results indicated that 24.6% of the sample had negative impressions of fluffy women's personality. Approximately 27.9% had non-aligned impressions of the fluffy personality, that is, they were neutral. However, 44.1% of the sample reported having positive/favourable impressions of fluffy women's personality.

Confirmatory Factor analysis

In the previous study II, an exploratory factor analysis was conducted on the Fluffy Rating Questionnaire (FRQ). A three-factor model was specified in which secure, attractive, sexy, self-esteem, confidence and control are loading onto the latent variable of 'Impressions of fluffy women's personality'. These observed variables were retained for the final version of the FRQ. Thus, in this study, a confirmatory factor analysis (CFA) was conducted on the final FRQ using AMOS, version 20 and the maximum likelihood function, to complement the previous EFA. Before the CFA was performed, the data was observed for missing data. Six cases had incomplete data. Thus, the CFA was administered to a sample of 173 participants.

To evaluate the goodness of fit for the impressions of fluffy model, there were some indices that were inspected. These include – *i*) chi-square goodness of fit (χ^2) – where a non-significant chi-square statistic was required; *ii*) the comparative fit index (CFI) – this should be equal to .95 or greater; *iii*) The root mean square of approximation (RMSEA) – this should be equal to .06 or less; and *iv*) the standardized root mean residual (SRMR) – this should be close to .08 or below (Brown, 2006). Several indices were used to evaluate the model fit they provide a conservative and reliable evaluation (Brown, 2006).

An initial confirmatory factor analysis revealed that the FRQ model did not adequately fit the data [χ^2 (9) = 79.16, p = .00, CFI = .86, RMSEA = .21, SRMR = .08]. The modification indices for covariance were therefore inspected to determine why the model was a misfit. Modification indices are an estimate or suggested ways of how to reduce the overall model χ^2 if the fixed or constrained parameter were freely estimated (Brown, 2006). Inspection of the modification indices indicated that the model was not a good fit due to correlated measurement error. Correlated measurement error is when there is shared variance between two of the observed variables that are not accounted for by the latent variable (Brown, 2006). The model was therefore corrected for correlated measurement error.

Table 12 - Pearson's product-moment correlation matrix

| | PA | NA | Physical Activity | Int. thin/low fat | Int. musc/athl | Pressure family | Pressure peers | Pressure media | FRQ | BMI | Age |
|---|--------|-------|-------------------|-------------------|----------------|-----------------|----------------|----------------|------|-------|-----|
| Positive Affect (PA) | | | | | | | | | | | |
| Negative Affect (NA) | .02 | | | | | | | | | | |
| Physical Activity | .02 | -.08 | | | | | | | | | |
| Internalization thin/low fat | -.20** | .25** | -.05 | | | | | | | | |
| Internalization muscular/athletic | -.11 | .07 | .20* | .55** | | | | | | | |
| Pressure from Family | -.18* | .16* | -.23 | .32** | .06 | | | | | | |
| Pressure from peers | -.10 | .08 | .04 | .28** | .21** | .58** | | | | | |
| Pressure from media | -.13 | -.00 | -.05 | .22** | .10 | .54** | .55** | | | | |
| Impressions of Fluffy women's personality | .08 | -.06 | .04 | -.04 | -.03 | .01 | -.04 | .08 | | | |
| BMI | .05 | -.04 | -.19* | -.16* | -.29** | .33** | .22* | .24** | .08 | | |
| Age | .38** | -.02 | -.19* | -.20** | -.25** | -.06 | -.09 | -.05 | -.01 | .33** | |

* $p > .05$; ** $p > .01$

The results of the first modification for correlated measurement error was $\chi^2 (8) = 53.10$, $p = .00$, CFI = .91, RMSEA = .18, SRMR = .06. This showed some improvement in the model however it was not enough. A 2nd modification was conducted but the model was not yet adequate [$\chi^2 (7) = 42.08$, $p = .00$, CFI = .93, RMSEA = .17, SRMR = .06]. Another modification was performed – [$\chi^2 (6) = 16.79$, $p = .01$, CFI = .98, RMSEA = .10, SRMR = .04]. The final modification to the model for the FRQ measure provided a good fit where $\chi^2 (5) = 8.76$, $p = .12$, CFI = .99, RMSEA = .07, SRMR = .03. Figure 4 displays results of the CFA. To test improvement in the model fit, a chi-square difference test was conducted. The difference in the χ^2 from the initial model to the χ^2 of the final modified model was significant [$\chi^2 (4) = 70.4$, $p < .05$]. This suggests that the concept of fluffy were related to impressions of high self-esteem, impressions of self-control, impressions of confidence, being secure as well as being sexy and attractive. Reliability analysis of this final version of the FRQ indicated a Cronbach alpha of .87.

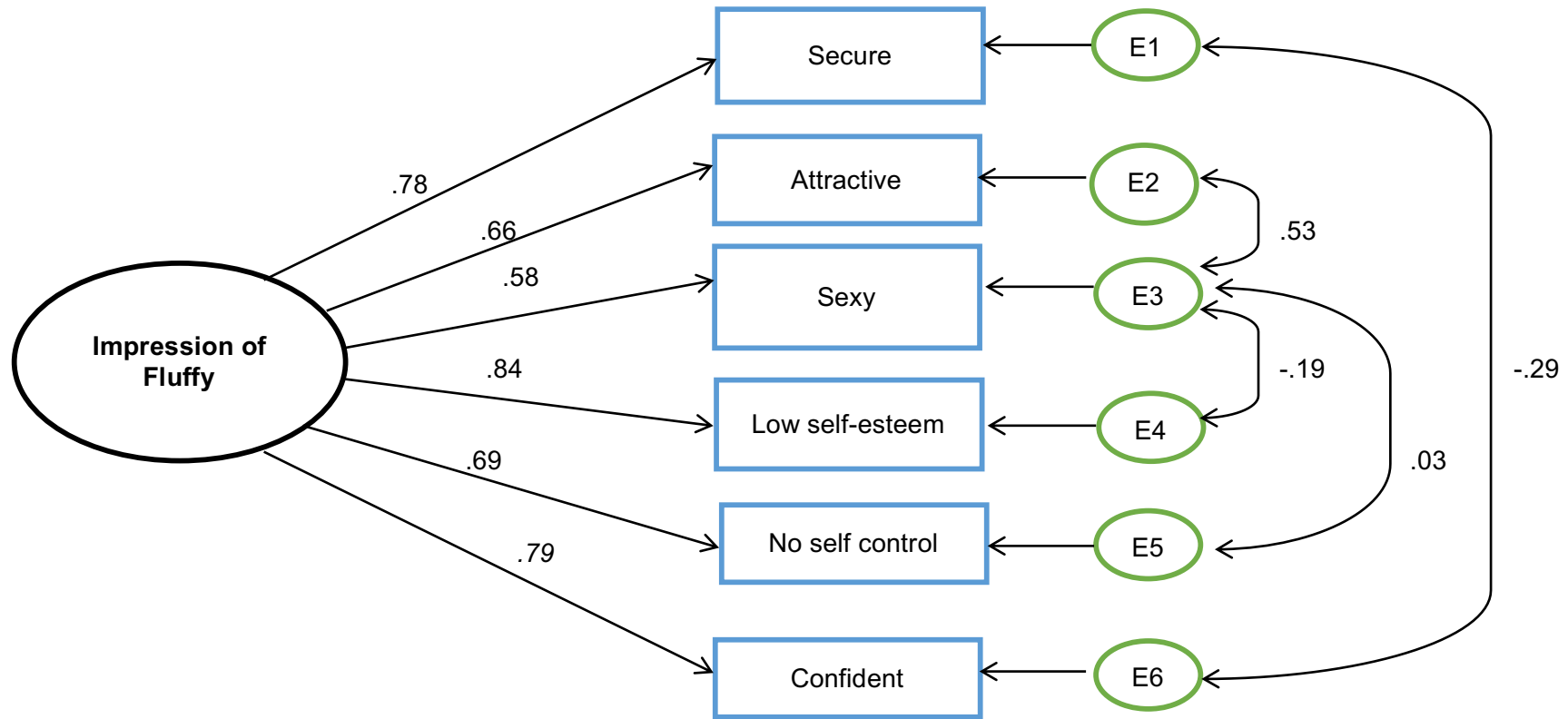


Figure 4 - CFA model for Fluffy Rating Questionnaire

Hypotheses testing

To test the hypothesis that type of stimulus will be a significant predictor of positive affect, negative affect and recall of physical activity, a multivariate analysis of variance (MANOVA) was performed. The results of the MANOVA suggest that there was a statistically significant difference between the experimental groups and recall of physical activity, Wilks' Lambda [$F(3, 133) = 2.11, p = .03$]. Mean scores for positive affect, negative affect and physical activity are presented in table 13.

Univariate results suggests that there was a significant effect for physical activity scores [$F(3, 135) = 3.64, p < .05, \eta^2 = .08$]. Positive affect scores were significant [$F(3, 135) = 2.84, p < 0.05, \eta^2 = .06$]. Negative affect scores were non-significant [$F(3, 135) = .08, p > .05$]. The scheffe post-hoc test, however, revealed that there were significant differences between viewing the control (nature video) and the fluffy stimulus ($p = .03$). There were no differences between viewing the fluffy stimulus and the obese stimulus ($p > .05$), and there were no significant differences between those presented with the obese video and those in the control group who viewed a nature video ($p > .05$). The scheffe post-hoc test also revealed that the experimental conditions did not have an effect on the participants' mood, that is, whether negative or positive (See Appendix Q). Therefore, there is no support for hypothesis H1a and H1c.

Mean scores for total physical activity in experimental conditions are presented in table 14. Reports of physical activity were lower among participants exposed to the fluffy condition group compared to the other experimental groups. This finding was therefore consistent with hypothesis H1c. Hence, the hypothesis that being exposed to the fluffy stimulus would be a significant predictor of lower recall of physical activity compared to other experimental groups was supported.

Table 13 - Mean scores for variables in MANOVA

| Variables (DV) | Experimental condition (Stimuli - IV) | N | Mean | Std. Deviation |
|-----------------------|--|----------|-------------|-----------------------|
| Positive Affect | Nature | 42 | 29.10 | 9.24 |
| | Fluffy | 42 | 26.83 | 9.63 |
| | Obese | 45 | 30.38 | 9.13 |
| | Did not watch video | 10 | 35.70 | 6.68 |
| Negative Affect | Nature | 42 | 16.10 | 7.49 |
| | Fluffy | 42 | 16.40 | 7.72 |
| | Obese | 45 | 16.18 | 6.62 |
| | Did not watch video | 10 | 15.20 | 7.13 |
| Physical Activity | Nature | 42 | 47.21 | 50.80 |
| | Fluffy | 42 | 24.88 | 20.64 |
| | Obese | 45 | 41.91 | 26.33 |
| | Did not watch video | 10 | 49.93 | 19.55 |

Table 14 - Mean scores for total physical activity

| Experimental condition (Stimuli) | N | Mean | Std. Deviation |
|---|----------|-------------|-----------------------|
| Nature | 50 | 45.56 | 47.63 |
| Fluffy | 47 | 25.26 | 20.73 |
| Obese | 50 | 42.96 | 27.05 |
| Did not watch video | 10 | 49.70 | 19.55 |
| Total | 157 | | |

(Listwise)

Discussion

The studies in this chapter aimed to develop and explore the psychometric properties of a measure to broaden the scholarly understanding of the term 'Fluffy' that is used in Jamaica to describe some overweight and obese women. The studies also evaluated whether there was any relationship between use of the term 'fluffy' and psychological well-being. From previous findings, participants thought 'Fluffy' reflected positive psychological well-being which would manifest confidence, high self-esteem and attractiveness among women who would be otherwise labelled as fat or be at risk for obesity stigmatization due to their weight. Hence, there was the development the Fluffy Rating Questionnaire (FRQ) to assess the nature of the fluffy construct. To date, research has mainly focused on the relationship between body dissatisfaction and body image, body appreciation and BMI but was yet to examine how cultural terminologies may be associated with psychological well-being of larger-bodied women compared to the current Western thin ideal. The Fluffy Rating Questionnaire was therefore developed to assess this specific cultural term used in Jamaica and its association with specific psychological constructs.

The results of the factor analysis of the Fluffy Rating Questionnaire indicated some support for the conceptual model of Fluffy. The first dimension or factor was mainly related the personality characteristics of fluffy women. The second and third factors were related physical attractiveness of women with different body size and indicated a unique dimension to sociocultural attitudes to appearance. The factors that reported physical attractiveness, support findings from study 1 that there were various body ideals in Jamaica and indicated the importance of cultural influences on different body ideals. The final scale was reduced to six (6) items as there were different body sizes that were considered attractive and these did not align precisely with the body size of a fluffy woman. The total scores of the final FRQ indicated that they were reliable for measuring impressions of personality of fluffy women.

The women participants in study 1 were of various body types, with the average woman having a healthy BMI (24.16). Women in the study were not asked to rate themselves as fluffy. The final items of the scale could therefore only refer to the personality attributes or qualities such as self-control, attractiveness and confidence that may be seen in fluffy women and thus could only assess impressions about the personality of fluffy women in Jamaica.

Regarding the validity of the scale, discriminant validity of the Fluffy Rating Questionnaire was examined by looking at whether the scores on the FRQ were correlated with other study variables. As shown in table 8 above, a lack of correlation between the total fluffy scores, the total body appreciation scores and self-esteem scores provide evidence of discriminant validity in this sample. A measure is thought to have discriminant validity on the off chance that it has low correlations with a measure that is as far as anyone knows, is not

measuring the same construct (Campbell & Fiske, 1959). Ratings of fluffy of the PFRS images indicated that as BMI increased, ratings of fluffy also increased. This suggests the term fluffy among this sample was most often used in relation to or was associated with women with larger body sizes. This may indicate evidence of predictive validity where BMI could predict ratings of how fluffy a woman is.

Further validation of the scale was conducted in the follow-up study using confirmatory factor analysis. The main aim was to confirm the factor model of the Fluffy Rating Questionnaire (FRQ) which used both male and female participants. The confirmatory factor analysis provided support for the factor structure (the impressions of fluffy women's personality model) of the FRQ. It also indicated that the impressions of fluffy women held by both male and female participants were generally related to high confidence, self-esteem, attractiveness and being secure. The FRQ, therefore, provides a way of defining what the term 'Fluffy' means for big-bodied women in Jamaica.

In the Jamaican society, the 'fluffy' body/ideal is in stark contrast to the western slender and lean ideal. The thin western ideal has been linked to a number of psychological problems such as low self-esteem, body dissatisfaction, negative affect et cetera (Thompson, Heinberg, Altabe & Tantleff-Dunn, 1999; Cattarin, Thompson, Thomas & Williams, 2000; Hausenblas, Janelle & Ellis, 2004). It was of interest, therefore, to evaluate whether there is any relationship between ideas of fluffy and poor psychological outcomes. The results of the two studies in this chapter did not show any significant relationship between ideas fluffy and the psychological variables. This may be because impressions people hold of fluffy women are not necessarily related to evaluations of the self, their psychological state or physical appearances. Similarly, another plausible explanation of non-significant finding could be that the stimuli used in study 3 were not forceful enough to stimulate affective responses, as larger-bodied women are traditionally accepted within this culture where it was the norm to associate full-figured women or plumpness with social affluence. There could be other factors affecting individual self-esteem, satisfaction with the body and level of positive body image such as one's socio-economic status, level of education and even shade of skin colour. Further investigations are therefore recommended.

The studies in this chapter nonetheless made a major contribution to understanding how impression of fluffy women could influence the recall of self-reported levels of physical activity. Participants reported higher levels of physical activity when exposed to stereotypic ideas of an obese woman and when exposed to the nature stimulus (control). This is inconsistent with previous research suggesting that stigma of obesity results in avoidance of physical activity (Vartanian & Shaprow, 2008; Seacat, 2009). Exposure to fluffy – a more positive label, however, saw lower reports of physical activity. This suggests that attitudes towards fluffy women are likely to influence how people think of their level of physical activity

compared to one's impressions of being obese. Exercise or level of physical activity might, therefore, be based on the perception of the body in certain cultural contexts. That is, when it comes to larger bodies, exercise might be considered as mainly for weight loss rather than a health-enhancing activity. The effect of an outdoor environment could also impact how much individuals engage in physical activity as exposure to the nature condition showed higher reported physical activity.

Internalization of muscularity and an athletic body was the only sociocultural attitude toward appearance dimension that had a significant positive relationship with physical activity. This could be interpreted as having a muscular or defined body was a better ideal than being slim. Attraction to curves compared to a stick figure was more appealing, especially for males; hence this could explain why this physique was related to more physical activity.

While it is important to maintain good psychological well-being, it is equally important to be engaged in health-enhancing activities such as exercise to reduce the risk of chronic illnesses such as diabetes, hypertension and cardiovascular diseases that could severely impact health and impact quality of life. The fluffy stimulus was designed to characterize a female with an overweight/obese BMI but displaying animated, happy features, confidence and being sexy which represented disassociation from negative stereotypes of obesity (such as being ugly, sad and lazy) within the Jamaican cultural context. While it did not impact moods or disposition, the most noticeable result was that it significantly influenced self-reported physical activity. It should be noted that being fluffy do not change the physical structure or the BMI of the body but is instead a change in attitude towards the body. Hence, relabeling and using more positive descriptions or portrayals of larger body types may influence how people think about their level of physical activity.

Physical activity has significant benefits for reducing that risk of co-morbidities associated with obesity, improving quality of life and reducing health care costs (Sallis et al., 2012). These findings, therefore, could lead to a debate of how Jamaicans perceive or think about the role of physical activity in everyday life. Based on the findings, it may suggest that higher reported physical activity among people exposed to stereotypes of obesity could be associated with efforts to control weight to discredit the stereotypes or discrimination. This could also be telling of the growing impact the westernized thin ideal has in developing countries. And so, physical activity could be a tool to cope with the stigma of obesity by efforts to lose weight if a fluffy persona is not adopted. Positive attitudes/impressions of fluffy could have significant health consequences for larger bodied individuals if certain levels of activity are not maintained.

An increase in physical activity is often associated with weight loss (Donnelly et al., 2009; Herrmann et al., 2015). Regular physical activity is also beneficial for reducing the risk for diseases (Sallis et al., 2012), improving sleep (Foti et al., 2011) and health status

(Warburton et al., 2006). This results in an overall improvement in quality of life. Therefore, while, there may be benefits for women who adopt the fluffy identity or use other favourable metaphors to describe the self; increasing levels of physical activity is equally vital to improving health behaviours.

Internalization of the thin ideal had a significant impact on both affective states, with a stronger influence on negative affect. While the variance in negative affect was small, this could indicate that some Jamaicans were unhappy with their efforts to achieve the thin ideal. It may also suggest that some Jamaicans are actively buying into the thin Western ideal which is consistent with the sociocultural theory regarding social pressure from the media, family and peers to conform to certain beauty ideals, specifically the thin ideal (Thompson, Heinberg, Altabe & Tantleff-Dunn, 1999). This finding also supports other correlational findings that portrayal of the thin images in the media increased mood disturbance (Pinhas, Toner, Ali, Garfinkel & Stuckless, 1999; Cattarin, Thompson, Thomas & Williams, 2000). Hence, exposure to the western ideals can impact on the psychological well-being of Jamaicans, despite having other ideals within the culture.

Limitations

There were some limitations to this study that could have impacted on the results. A major limitation was that the study did not sample women who consider themselves to be fluffy. In study 1, the sample consisted of women with a range of body sizes. This was however beneficial as it captured attitudes toward fluffy women from different BMI groups. The data collection relied on participants on social media. This may limit the ability to make generalizations as access to social media may be limited to some groups or may only represent individuals from the middle to upper-class socio-economic groups. Also, the measures used were self-reports. Using more objective measures of body weight and height could improve the validity of responses.

Experimenting online and outside of a control laboratory setting may introduce various extraneous variables that could not be controlled for. It was not possible to assess long-term effect of the stimuli on the participants' mood as the video clips were very short. Another important limitation to be considered is the measurement of physical activity. It was measured using the Godwin Leisure-Time Exercise Questionnaire which is based on the recollection of physical activity over a period of seven days rather than actual level of physical activity. Exposure to the experimental stimuli could inflate or deflate reports of engagement in exercise, which suggests there could be a social desirability effect. Future research could, therefore, benefit from controlling for social desirability effect on reports of physical activity and measuring actual levels of physical activity pre and post-experimental conditions. Similarly, administering a pre-test questionnaire on mood before exposure to experimental stimuli and

then a post-test questionnaire to evaluate any changes in affective states could improve our understanding of how different perceptions of body weight may impact affective states. Last but not least, this study inferred but did not directly test the extent of exposure to impressions of fluffy.

Summary

In summary, the cultural expression 'fluffy' refers to perceptions of confidence, high self-esteem and attractiveness of some larger bodied women in Jamaica. It signals the importance of considering cultural terminologies that may encourage acceptance of different beauty ideals which include seeing larger body types equally attractive as a thin person. Such cultural terminologies may provide a protective filter against current negative labels of obesity and the western thin ideal, which, could in turn help to maintain certain body sizes within this cultural context. These studies developed and evaluated the Fluffy Rating Questionnaire used to assess individuals' impressions of fluffy women. It also examined relationships between impressions of fluffy women's personality, self-esteem, body dissatisfaction and body appreciation (positive body image) among Jamaican women.

Confirmatory factor analysis indicated that the Fluffy Rating Questionnaire was a good fit for the impressions of fluffy model. Being exposed to fluffy or obese stimuli did not have any significant effect on psychological well-being. Nonetheless, internalization of thinness has shown some impact on affective states. This may suggest that while there was a general attitude toward fluffy women, the thin-idealization was influential. Exposure to various labels of women's body could, however, impact the way an individual think about their level of physical activity. It can be concluded then that perceptions of body weight, therefore, play an important role in the engagement of regular physical activity.

Chapter 6 – General Discussion

Overview

This thesis initially set out to examine body weight perceptions in Jamaica. The objectives were 1) to explore how body weight perceptions and attitudes toward the body influenced psychological well-being and physical activity in Jamaica, 2) to investigate the relationship between beliefs about body weight and psychological well-being (self-esteem, body appreciation, body dissatisfaction) and 3) to examine the relationship between local perceptions of body weight and physical activity. However, following the results of study one, the objectives of the thesis were revised to understanding the local construct 'Fluffy' (used to describe some larger bodied women) and to evaluate whether there were any relationships between impressions of fluffy women among Jamaicans, psychological well-being, and levels of physical activity. The investigations in this thesis employed a mixed methodology approach and involved an experiment using visual representations of a fluffy woman versus an obese woman. This final chapter, therefore, will provide a summary of the research findings, interpretation of the thesis findings, assess applicability the sociocultural theory, the implications for the research, a reflective analysis of the researcher's influence, limitations of the research, recommendations, and conclusion.

Summary of research findings

This thesis documented Jamaicans' interpretations of several body weight - a healthy weight, an overweight body and an obese body. It draws attention to different body ideals that exist in the Jamaican society. More specifically, it focuses on the local term 'Fluffy' used to describe the larger bodied women in more positive ways. Fluffy was the word used to describe females who would be otherwise considered overweight or obese by BMI standards. These women nonetheless, were considered confident, sexy and secure despite their body size. This finding was important as it embodied positive associations with a larger body type compared to the denigration of larger bodies women in Western societies. The fluffy ideal could, therefore, be considered a competing ideal with Western thinness in the Jamaican setting. Fluffy could then be argued to be a term which further normalizes the fondness for plump, curvy women in Jamaica and extends the appreciation some Jamaicans have for larger women. Consequently, the novel Fluffy Rating Questionnaire was developed and assessed using both exploratory and confirmatory factor analysis. This scale is best suited to measure Jamaican's impressions of the personality of a fluffy woman. Hence, in regards to research

question A, the scale was a uni-dimensional measure. The impressions of fluffy women did not show any relationship with body dissatisfaction, self-esteem, body appreciation or affect among the sample. Thus, impressions of fluffy was not related to individuals' attitudes about themselves. Visual cues of fluffy women however; that is, positive portrayal of fluffy was related to lower recall of physical activity over a 7-day period. Results suggest that having a fluffy body size did not trigger concerns about health risk and the need to engage in frequent physical activity. It is well known that exercise is critical to maintaining a healthy lifestyle and is considered to play a pivotal role in reducing body weight and improving healthy living (Jackson et al., 2007). The findings that visual cue of fluffy women is related to lower recall of physical activity provided a new understanding of how weight perceptions (impressions of women as fluffy or obese in this instance) could inhibit physical activity.

Interpretation of research findings

As mentioned previously, Grogan (2008) summarized body image as people's perceptions, thoughts, and feelings about their body. Hence, how a person thinks about their own body or how they experience their own body could help them form either a positive or a negative evaluation of others who are similar or dissimilar to them. As it pertains to fluffy women in Jamaica, a person's body image could, therefore, influence whether they have a positive or negative perception of other fluffy women or their evaluation of larger-bodied women who show high self-confidence. It is important to note that the impression of fluffy women in this thesis is an evaluation of another woman who has a large body. Previous research in Jamaica suggests that larger bodies were acceptable (Ichinohe et al., 2004) and that Jamaicans would separate good fat from bad fat (Sobo, 1993). Hence, a larger body size, having 'good fat' and being 'fluffy' in Jamaica can have essential meaning for locals as it may represent health, happiness or gain one a certain level of respect. However, as Jamaicans experience an increased influx of western influence via the media and urbanization, there is more exposure to the thin body as an ideal which could change the general appreciation of plumpness.

The results presented in this thesis mostly support the proposed model that impressions of fluffy include confidence, self-esteem, sense of control and attractiveness. This finding corresponds with Barned and Lipps (2004) study which outlined the ideas Jamaican held about fluffy women. Barned and Lipps (2014) contended that attitudes others held about fluffy could serve to either encourage or discourage overweight or obese women from losing weight. What is noteworthy about the findings in this thesis and improves the literature on Jamaicans' attitudes to fluffy women beyond Barned and Lipps study (2014), is that this piece

of research provides empirical support that positive perceptions of fluffiness impacted recall of physical activity. This finding is important as it suggests that impressions of fluffiness are likely to impact how much individuals consider engaging in physical activity versus with one's impressions of being fat. Exercise or level of physical activity, therefore, is likely to be affected by the impression of the body in particular social settings. That is, with regards to bigger bodies, exercise may be considered, for the most part, for weight reduction instead of a wellbeing improving action. Hence, those women who do not feel stigmatized or ridiculed for their weight may not engage in adequate levels of physical activity to keep them healthy and minimize the risks associated with several non-communicable diseases.

Also, the findings in this thesis provide support for the personality dimension of fluffiness in women that Barned & Lipps (2014) proposed was a critical feature that differentiates fluffiness from fat, obese or overweight women. The use of the term fluffiness suggests that an attractive body is not just about the size of the physical body or thinness, but, the appearance of a larger bodied woman involved a confident personality and general presentation. It is reasonable to ask then, why these results did not show a relationship between impressions of fluffiness and body image? It is possible that this is because Jamaicans are bigger in body, so they viewed or perceived an attractive body as larger than the thin western ideal. The woman's personality and how she carries herself impacted whether she is labeled or stigmatized as fat, overweight or obese. Thus, having a positive outlook and multiple views of beauty may create a protective advantage which weakens the emphasis placed on achieving one limited body ideal. As a result, perceptions of fluffiness did not trigger body image concerns. This piece of research provides evidence and extends knowledge on the personality dimensions of being fluffiness and how it separates denigration of bigger bodies from endearment of plump, thick, big women.

While almost half the sample of women from study 2 indicated some form of dissatisfaction with their body, there is evidence, for example, to suggest that the use of local terms such as fluffiness (by both men and women) indicated that some Jamaicans still held on to traditional beliefs about the attractiveness of women. There were positive impressions of the fluffiness woman and her personality. Similarly, participants were more likely to express a neutral view of fluffiness women's personality than expressing negative ones. This could indicate that even though the thin western ideal is pervasive, there is value in appreciating women of other sizes or a reluctance to devalue women with a larger body. Despite the non-significant results in the relationship between impressions of fluffiness and psychological constructs, there were findings within this thesis that supported existing literature and have extended knowledge on body image within the Jamaican context. For example, body dissatisfaction does exist among some Jamaican women. Nonetheless, Jamaicans still found plumpness as attractive and assigned positive attributes to some larger bodied women. Notwithstanding the global

messages that beauty equates to thinness; in the Jamaican context (where there is more than one ideal), the impact of thin images on psychological distress may be less for some women compared to other American or European samples.

Sociocultural influence on body weight in Jamaica

The term fluffy is a term that is popular among all Jamaicans. It does not carry a negative stigma as does the word fat. The concept as mentioned previously was driven by media channels and has had a major impact on how Jamaicans think about some larger bodied women. The sociocultural theory allocates culture a noteworthy influence in establishing body ideals. It suggests that each culture creates particular social standards of beauty or appearance which are transmitted through social channels (Tiggemann, 2011). Individuals then internalize these ideals and may experience disappointment with their bodies or body satisfaction based on how much they meet the prerequisites for beauty in the particular context. Most of the research using this theory have focused on sociocultural influences to achieve thinness. Most, especially women, are often unable to meet this body goal. Thus, internalization and the inability to achieve this revered ideal may result in body dissatisfaction and/or negative affect (Thompson & Stice, 2001). The fluffy body in Jamaica is, however, a contrast to the thin, slender figure which is considered attractive in Westernized countries (Swami, Antonakopoulos, Tovée, & Furnham, 2006). This brings into question the relevance of the sociocultural theory in this particular cultural context. According to the sociocultural theory, the internalization of the thin ideal is central to the development of body image disturbance among women. It focuses particular attention on media communications of Western beauty ideals in Western societies.

While there is an influx of western media in Jamaica, the local media was effective in transmitting other body ideals. In this case - 'Fluffy,' which essentially endorses traditional preference for plumpness; highlights other characteristics of larger-bodied women such as their personality that are considered important. Use of the term fluffy indicates that Jamaicans showed some appreciation for different body sizes and are not fixated on being skinny. Miss Kitty, for instance, has a major media presence in Jamaica – on both television and radio, yet her mantra does not promote Western body ideals. A possible interpretation is that western ideals may be unrealistic for the Jamaican woman. Therefore, the thin ideal may not be a model some women aspire for as would women in American or European societies. As pervasive as thinness is in western cultures, body ideals are not static and fluctuate between different sizes based on specific cultural factors.

The premise of the sociocultural theory is that each culture has its societal ideal. Thus, testing the theory could improve knowledge on the relevance of other ideals in non-western settings. When the theory was tested regarding the fluffy ideal, however, there was little evidence to support the sociocultural theory in understanding how other cultural ideals could impact body dissatisfaction. The sociocultural approach in this instance failed to explain how variances in other representation of body ideals and internalization of these ideals could affect body satisfaction in different social context. While the results of this study seem to support the tripartite influences of the media, family, and peers (Neagu, 2015) that are in play in western cultures in transmitting a cultural body ideal; the results of the studies challenge the sociocultural theory. The challenge, it narrowly defines beauty to the western culture of thinness (Thompson, et al., 1999) rather than other cultural ideals. The theory is lacking in explaining other cultural ideals that show appreciation for beauty and attractiveness in different body sizes. Overweight or obese women are often seen as unattractive, lazy or undesirable (Puhl, 2010). However, women who fit this description but are considered as 'fluffy' in the Jamaican context are believed to hold positive personality characteristics that make them attractive or likable despite their body size. Hence, achieving the fluffy ideal may be a reality for some women.

While the research in this study did not examine how internalization of the fluffy ideal could affect body dissatisfaction, it demonstrates that other body ideals could be important for understanding the psychological impact of body size that is different from the Western ideal. Thus, more research is needed on specific cultural ideals to enhance the relevance of the sociocultural theory in different societies with different ideals. While other theories may be more suitable to understand the complexity of body ideals in Jamaica fully; the sociocultural theory was a good predictor of adverse psychological consequences from the internalization of a particular ideal. Hence, it was considered the best fit to initiate scholarship on the effects of the fluffy ideal. However, currently, the theory focuses on the physical body and is inadequate to explain the impact the personality of an ideal model could have.

Strengths of research

In the Caribbean and specifically Jamaica, the literature that currently exists mainly focuses on examining body image among adolescents and has a dearth of research on body image and weight perceptions among adults. The effect of mass westernization of body ideals is well documented in several regions. Thus, this thesis has added to knowledge body weight perceptions among Jamaican adults. The findings in this thesis have improved our knowledge on the salience of the colloquial term 'Fluffy' and the notable differences in views on beauty

ideals. Much of the literature that was reviewed assumes that white, western body ideals and norms govern or regulate body perceptions of blacks or women of African descent. However, in the Jamaican context, the term 'fluffy' echoed the admiration of some overweight women, and the positive attitudes or impressions held about fluffy women despite any perceived imperfections based on Western standards (Wood-Barcalow et al., 2010).

The results highlight that body dissatisfaction does exist among the adult population; however, local expressions of approval for larger body sizes, show the ubiquitous influence culture still has despite having direct exposure to western ideals. Some would argue that socioeconomic factors play an essential role in this finding. However, the results suggest that the term fluffy for Jamaicans represented less stigmatization of overweight or obese women. This result, however, indicates that increased exposure to the fluffy ideal could have consequences for health behaviours such as physical activity. This is an important finding as accepting the fluffy label in cases of extreme weight could put one at risk for chronic illnesses associated with obesity due to low performance in health-enhancing behaviours such as physical activity.

In addition to the lifestyle factors, appearance and attractiveness of the fluffy woman as previously found by Bamed & Lipps, (2014); this study is the first to identify the personality characteristics that fluffy women are believed to possess. Examining terminologies or local dialect that help to maintain certain traditional sociocultural attitudes to the body are important in understanding the process in evaluation of body image and certain health behaviours. This could, therefore, inform strategies at the local and governmental level to improve health behaviour interventions among overweight and obese persons.

Reflexive analysis

Given this thesis employed a multi-method approach with the use of interviews and interpretation of emerging themes, it is important to acknowledge how the researcher's experience, biases, and position may impact on the research process. Researchers ought to be sensitive to their biases when conducting qualitative research (Lincoln & Guba, 1985). As a Jamaican, the concept of fluffy was known. However, the possibility to be viewed as fluffy did not present itself. To be Jamaican, being overweight female as well as being the principal investigator, could have played a role in the interview and the interpretation of the data processes. It is possible that some participant's impressions of the researcher could foster certain biases in their responses. For instance, answers could have been influenced by whether participants felt some level of similarity with the researcher. For instance, there may be instances when the researcher may have (consciously or unconsciously) nodded more or

responded warmly to participants who shared similar opinions. This may have caused them to feel the researcher understood what they meant when they used certain terms, hence, they did not feel they needed to elaborate on certain points or experience.

To overcome these biases, a few steps were taken to be transparent in the methods that were used. First, the interview schedule was created based on a review of related existing literature. The interview guide was also reviewed by supervisors and a qualitative researcher to avoid leading questions. Next, interviews were conducted with both male and females of varying ages and various body sizes to garner general views among Jamaicans. Efforts were made to remain as neutral as possible such as not nodding or smiling to show agreement with participants' responses and also to avoid giving opinions during the interviews. Participants were encouraged to give accounts of their unique experiences and/or beliefs.

Additionally, in the interpretation of the emerging themes, the experience of the researcher could have influenced the relevance of the meanings extracted from the data. All the data was therefore coded systematically, and then the themes were developed were from all the codes. Discussions with supervisors regarding the coding and development of themes processes later followed. The methodology employed also helped in reducing researcher bias as further studies used existing validated measures to assess the variables of interest in the thesis. Findings within the thesis could then be compared with the extant literature to identify similarities and dissimilarities. While efforts were made to minimize the personal impact on the research process, individual characteristics may have had some inevitable effects. This discussion therefore openly acknowledges the impact of the researcher and the measures taken to minimize potential biases.

Triangulation of study methods and findings

The research in this thesis employed a mixed methods approach to address the research questions. No single plan can adequately map or provide a deep understanding of a particular phenomenon (Tashakkori & Teddlie, 2010). Therefore, using more than one method to investigate body weight perceptions and its impact on psychological well-being among Jamaicans enabled the benefits of triangulation. In using qualitative methods, it garnered opinions and views from both males on females on body size preferences, health behaviours and cultural influences on body perceptions and allowed for the identification of some main issues such as various body ideals which exist in Jamaica. Findings from the qualitative interviews also led to and informed the development and validation of a novel measure via quantitative methods (online surveys) to provide a more holistic grasp on the construct of fluffy. The scale assessed impressions of fluffy women's personality which involved a full-figured

woman having high confidence, being attractive, sexy and secure which corroborated the views of participants from the qualitative interviews.

This new measure was also used alongside existing measures to test study variables. The use of different data collection techniques and different sources was beneficial, conversely, using more than one research design and analytic strategies also aided in improving knowledge about fluffiness in this study. For example, in addition to interviews, the thesis employed correlational explorations, attempted experimental manipulation and performed multiple factor analytic strategies. Hence using various data sources, techniques and types of analysis provided a rounded view of body weight perceptions in Jamaica and helped to improve understanding or insight into how attitudes to fluffiness may or may not impact psychological well-being and physical activity.

Limitations

A number of limitations should be acknowledged. The research in this thesis was cross-sectional; hence results and conclusions of this study cannot be generalized to the entire Jamaican population and causality cannot be assumed. Methodological errors may have influenced the ability to evaluate the fluffiness ideal efficiently. The lack of significant results may reflect the characteristics of the sample of women. Based on the premise of this theory, poor psychological outcomes are a function of similarity with a perceived ideal. Alternatively, it could be considered that unlike the process of internalization, where individuals 'buy into' a particular ideal; building impressions may not be substantial to influence body image disturbance or psychological distress. This suggests that there must be some form of internalization of societal attitudes towards fluffiness women rather than just being aware that fluffiness women have a flamboyant personality for it to have an effect on one's body image or self-esteem. The study did not assess whether women identified as fluffiness or whether they internalized the fluffiness ideal versus the thin ideal.

Another limitation is that participants were asked to report of their weight and height to calculate BMI. Hence, there was a substantial reliance on self-reports. While self-reports are often correlated to actual scale weight (Stunkard & Albaun, 1981), participants could have underestimated their body weight due to a cultural preference for a medium or plump body. Similarly, level of physical activity was assessed based on self-reported recollection of physical activity. The recollection of physical activity could have been affected by the stimuli and social desirability bias among pro-fluffiness individuals thereby resulting in over-reporting or under-reporting of levels of physical activity.

The Fluffy Rating Questionnaire is new; however, it was a measure that assesses perceptions of another female rather than the self. Therefore, it limits the ability to find correlations with measures of the self. It is possible that the FRQ is useful only for women of specific body weight and size. Also, the average age of participants in the sample was close to 30 years, and so they may hold more traditional views than younger adults. In the development of the FRQ, differences in the measurement units may have affected the outcome of the exploratory analysis. The maximum likelihood factor extraction method was therefore used as a proxy to explore a potential model fit. Despite the limitations highlighted, the series of studies in this thesis provides an important springboard for future research investigating body weight, types of labels and positive psychological outcomes for larger-bodied women.

Study implications and directions for future research

There are a few implications that could develop research on body weight perceptions and body image in Jamaica and the wider Caribbean. In relation to body image and the sociocultural theory, results presented in chapters 4 and 5 add to existing evidence that body dissatisfaction is a predictor of low self-esteem and that internalization of the thin ideal exist among Jamaicans. However, findings also suggest that there are competing local ideals to the thin model that permeates modern Western societies. This indicates that research using the sociocultural perspective should consider competing body ideals that may influence psychological distress among some groups. For example, how does pressure to achieve an hourglass silhouette, achieving the flat stomach or internalization of an hourglass figure (particularly for females of African descent), could impact body image disturbance and body appreciation in certain context.

In addition, the new measure on impressions of fluffy women's personality does not adequately map the physical component of the concept of fluffy. The construct fluffy was initially conceptualized to involve both a physical and psychological element. Hence, it lacked the ability make associations between the personality and body size/shape of a fluffy woman. Future studies would benefit from evaluating whether internalization of the fluffy ideal impact on self-esteem, body appreciation and body dissatisfaction by sampling women who ascribe the fluffy label to themselves. Future studies would benefit from including assessment of physical attractiveness in Jamaica to objectively evaluate the different body ideals. Future studies should also assess the Fluffy Rating Questionnaire along with the *Attitudes Toward Fluffy Women* scale developed by Barned and Lipps (2014) to establish convergent validity of this new scale.

Future research could also benefit from exploring body image concerns that may exist among women who call themselves fluffy and the barriers/challenges they experience during exercise. Additionally, measuring physical activity pre and post-experimental stimuli could improve assessment of the actual effect of impressions of fluffy on frequency of exercise. Such design would also be useful in assessing how much (and if at all), the fluffy label influences behaviour change. The next steps could also make clinical assessment of body mass index instead of self-reports and include evaluation of other health behaviours such as eating habits. This would extend and improve knowledge on the effect of the term fluffy on other health behaviours within this cultural context. Similarly, future research could employ more methodologically rigorous control designs that control for social desirability effects and other extraneous variables such as age and socioeconomic status.

Finally, if the thin ideal becomes more pervasive within this cultural context and the term 'Fluffy' is only a defense mechanism to deal with negative evaluations of having a large body; it could mean that real issue of body dissatisfaction is not treated or addressed if it is passed off as confidence and acceptance of their body size. This may have other long-term deleterious psychological impact and place some women at risk for body image or eating disorders. Developing a more practical approach to represent alternate and achievable body ideals may prove beneficial for women of various body sizes.

Conclusions

This thesis has highlighted the complex nature of body perceptions and various body ideals that exist in Jamaica. From the results of studies, the term fluffy has important meaning for larger-bodied women in the Jamaican context. This research found that personality was key to identifying fluffy women. It could mean then that if individuals can focus on more positive aspects of a woman despite her body size, there could be less damage to psychological well-being. On the other hand, positive perceptions of fluffy women could impact how physically active individuals were. This suggests that perception of body weight in Jamaica can have implications for health behaviours such as physical activity. Thus, it underscored the importance of acknowledging local sociocultural influences on perception of body weight as well as global body ideals. Theoretical understanding of the thin ideal and its associated negative consequences are well known. However, it could also be extended to examine internalization of other cultural body ideals and its effect, especially among lower socioeconomic groups. Nonetheless, if value can be picked up from these findings, it would be that helping ladies to value the positive components of their body's appearance may serve to make women stronger or resilient to glorified media images of thinness. After examining the results

of the studies in this thesis, the key message is -although the influences of Western body ideals on developing countries are increasing; some important traditional ideals are retained in certain cultural context. This could be manifested via local expressions which help to maintain conventional views on body ideals.

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Appendices

APPENDIX A

Interview Schedule

Body weight

1. How would you describe a healthy weight?
2. Why do you think some people are overweight or obese?
3. How do you feel about larger body types?
4. What are the risks in being overweight or obese?

Eating behavior and exercise

5. How does eating behavior among Jamaicans influence their body size?
6. How does exercise or levels of physical activity among Jamaicans influence body size?
7. What influences the decision to exercise or not to exercise?

Body size preference

8. In the Jamaican context, what body types or sizes are attractive? Why?
9. What influence these preferences?

Media

10. How much does the media influence attitudes toward the larger body sizes?
11. Do the media create any problems for people Jamaicans as it relates to body size?

Psychological Issues

12. What are some of the psychological experiences/outcomes of having a larger body type?
13. How would you describe the everyday experiences of having a larger body type?
14. How do you think ambivalence (both positive and negative feelings simultaneously affecting decisions) influence healthy decisions? E.g. The conflict of wanting to lose weight versus the difficulty of losing weight.

Ways to address obesity?

15. How would you describe the best way to reduce overweight/obesity?

Barriers

16. Why is it so difficult to lose weight?
17. What are the challenges of everyday life in weight loss attempts?

Attributes associated with larger body types

18. How would you describe someone overweight versus someone who is obese?
19. How do you think Jamaicans perceive their body types/sizes
20. Would you like to gain or lose weight? Why?

APPENDIX B**Research Participant Information Sheet**

I am Venecia Pearce, a PhD psychology student conducting a study on perceptions of body weights, body dissatisfaction and health-related behaviours among Jamaicans.

This study involves an interview that will be recorded.

As far as is possible, please complete all questions, however, if you are not comfortable answering a particular question, it can be skipped. Your participation is voluntary and you may withdraw at any time.

Apart from the time it takes to complete this interview, no harm will come to you as a result of your participation. Your participation will help psychologists better understand how perceptions of body weights influence psychological health and health protective behaviours.

The information collected will be used for research purposes only. All information will be kept confidential. On completion, I may publish my findings however no identifying information will be linked to your responses.

Please keep a copy of this form for your records. For further information you may contact me at venecia.pearce@brunel.ac.uk or my supervisor Dr. Stanley Gaines, in the Department of Psychology, Brunel University (stanley.gaines@brunel.ac.uk).

Thank you for agreeing to participate in this study. Please read the form below to indicate your consent.

INFORMED CONSENT SHEET**PERCEPTION OF BODY WEIGHT, BODY DISSATISFACTION AND HEALTH BEHAVIOURS
AMONG JAMAICANS**

The Department of Psychology at Brunel University requires that all persons who participate in psychology studies give their written consent to do so. Please read the following and sign it if you agree with what it says.

I freely and voluntarily consent to be a participant in the research project entitled "PERCEPTION OF BODY WEIGHTS, BODY DISSATISFACTION AND HEALTH BEHAVIOURS AMONG JAMAICANS" to be conducted at Brunel University, with VENECIA PEARCE as principal investigator. The broad goal of this research program is to explore the everyday social and psychological experiences in relation to overweight and obesity and health protective behaviours. Specifically, I have been told that I will be asked to answer questions in an interview that will be recorded for research purposes. The session should take no longer than forty-five minutes (45mins) to complete.

I have been told that my responses will be kept strictly confidential. I also understand that if at any time during the session I feel unable or unwilling to continue, I am free to leave without negative consequences. That is, my participation in this study is completely voluntary, and I may withdraw from this study at any time. My withdrawal would not result in any penalty, academic or otherwise. My name will not be linked with the research materials, as the researchers are interested in Jamaicans' perceptions in general -- not any particular individual's perception in particular. I have been given the opportunity to ask questions regarding the procedure, and my questions have been answered to my satisfaction. I have been informed that if I have any general questions about this project, or ethical issues relating to the project, I should feel free to contact Venecia Pearce at venecia.pearce@brunel.ac.uk or my supervisor, Dr. Stanley Gaines at stanley.gaines@brunel.ac.uk. If I have any concerns or complaints regarding the way in which the research is or has been conducted I may contact the Chair of the Psychology Research Ethics Committee Dr Achim Schuetzwohl at achim.schuetzwohl@brunel.ac.uk.

I have read and understand the above and consent to participate in this study. My signature is not a waiver of any legal rights. Furthermore, I understand that I will be able to keep a copy of the informed consent form for my records.

Participant's Signature

Please Print

Date

I have explained and defined in detail the research procedure in which the above-named has consented to participate. Furthermore, I will retain one copy of the informed consent form for my records.

Principal Investigator Signature

Please Print

Date

APPENDIX C**Body weight and Body Image Study among Jamaican Women****Participant Information Sheet**

PARTICIPANT INFORMATION SHEET

Study title: PERCEPTION OF BODY WEIGHTS, BODY DISSATISFACTION AND HEALTH BEHAVIOURS AMONG JAMAICANS

You are invited to complete this survey, carried out by Venecia Pearce, a PhD Psychology candidate at Brunel University, London. The purpose of the study is to evaluate body image, body weight perceptions, body appreciation and self-esteem among Jamaican women.

As far as is possible, please complete all questions, however, if you are not comfortable answering a particular question, it can be skipped. Your participation is voluntary and you may withdraw at any time.

Apart from the time it takes to complete this survey, no harm will come to you as a result of your participation. You will be asked to complete an online survey. This knowledge will help psychologists better understand weight perceptions and in the future understand how body weight influence psychological health and health behaviours.

The information collected will be used for research purposes only. All information will be kept confidential. On completion, I may publish my findings however no identifying information will be linked to your responses.

For questions/discussions and further information you may contact me at venecia.pearce@brunel.ac.uk or my supervisor Dr. Stanley Gaines, in the Department of Psychology, Brunel University (stanley.gaines@brunel.ac.uk).

If you have any concerns or comments regarding the ethics or procedures of this study, you may contact the Chair of the Psychology Research Ethics Committee Dr Achim Schuetzwohl: achim.schuetzwohl@brunel.ac.uk or Dr Bridget Dibb: bridget.dibb@brunel.ac.uk

Thank you for agreeing to participate in this study. Please read the form below to indicate your consent.

INFORMED CONSENT SHEET

INSTRUCTIONS: The participant should answer every question

*** 1. I have read the Research Participant Information Sheet.**

Yes

No

*** 2. I understand that I am free to withdraw from the study:**

- at any time (Please note that you will be unable to withdraw once your data has been included in any reports, publications etc)

Yes

No

*** 3. I understand that I am free to withdraw from the study:**

- without having to give a reason for withdrawing

Yes

No

*** 4. I understand that I am free to withdraw from the study:**

- without it affecting my future care

Yes

No

*** 5. I understand that I will not be referred to by name in any report/publications resulting from this study**

Yes

No

*** 6. I agree that my comments can be quoted as long as they do not directly identify me when the study is written up or published**

Yes

No

*** 7. I agree to take part in this study**

Yes

No

Demographics

8. Gender

Male

Female

9. Age range

18-25

26-35

36-45

46-55

55 & over

10. Weight in lbs

11. Height in inches

12. Nationality - Jamaican

- Yes
 No

13. Ethnicity

- Black Caribbean
 White Caribbean
 Asian Caribbean
 Mixed Race

Other (please specify)

14. Level of education

- Primary
 Secondary
 Tertiary

Fluffy Rating Questionnaire

INSTRUCTIONS: Please read each of the following statements and rate to what extent you believe the statement is true.

15. A large body type is considered DESIRABLE in Jamaica

- Not at all true
 Somewhat true
 Neutral
 True
 Very true

16. A medium body type is considered DESIRABLE in Jamaica

- Not at all true
 Somewhat true
 Neutral
 True
 Very true

17. A small body type is considered DESIRABLE in Jamaica

- Not at all true
 Somewhat true
 Neutral
 True
 Very true

18. A large body type is considered ATTRACTIVE in Jamaica

- Not at all true
 Somewhat true

- Neutral
 - True
 - Very true
- 19. A medium body type is considered ATTRACTIVE in Jamaica**
- Not at all true
 - Somewhat true
 - Neutral
 - True
 - Very true
- 20. A small body type is considered ATTRACTIVE in Jamaica**
- Not at all true
 - Somewhat true
 - Neutral
 - True
 - Very true

Fluffy Rating Questionnaire

INSTRUCTIONS: Please read the following statements about a 'fluffy' female and rate to what extent you agree with the following statements.

- 21. A 'fluffy' female has a small body type**
- Strongly disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly agree
- 22. A 'fluffy' female has a medium body type**
- Strongly disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly agree
- 23. A 'fluffy' female has a large body type**
- Strongly disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly agree

Fluffy Rating Questionnaire

INSTRUCTIONS: Please read the following statements about 'fluffy' body shape and rate to what extent you agree with the following statements

24. A 'fluffy' female has a pear shape

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

25. A 'fluffy' female has a apple shape

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

26. A 'fluffy' female has a hourglass shape

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

27. A 'fluffy' female has a rectangular shape

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

28. 'Fluffy' is considered the ideal body for women

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Fluffy Rating Questionnaire

INSTRUCTIONS: Please read the following statements and rate to what extent you agree with the following statements about a 'Fluffy' female.

29. A 'fluffy' female is Secure

- Strongly disagree

Disagree

Neutral

Agree

Strongly agree

30. A 'fluffy' female is Attractive

Strongly disagree

Disagree

Neutral

Agree

Strongly agree

31. A 'fluffy' female is Sexy

Strongly disagree

Disagree

Neutral

Agree

Strongly agree

32. A 'fluffy' female has Low self-esteem

Strongly disagree

Disagree

Neutral

Agree

Strongly agree

33. A 'fluffy' female has No self-control

Strongly disagree

Disagree

Neutral

Agree

Strongly agree

34. A 'fluffy' female is Confident

Strongly disagree

Disagree

Neutral

Agree

Strongly agree

Fluffy Rating Questionnaire

INSTRUCTIONS: Please rate the extent to which you believe each the following statement best describes your feelings about a 'Fluffy' body type.

35. A 'fluffy' body type is:

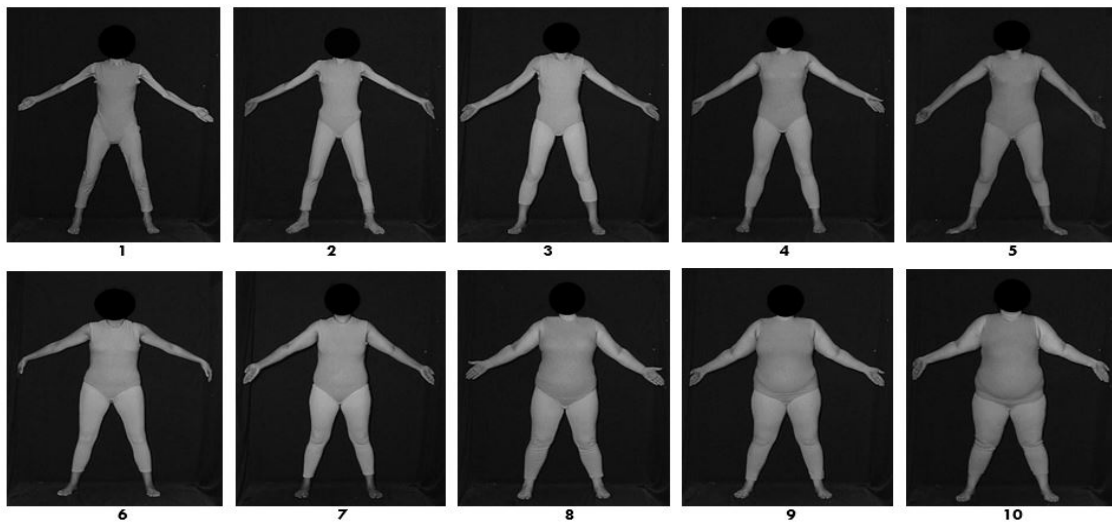
- Extremely unhealthy
- Unhealthy
- Neutral
- Healthy
- Extremely healthy

Photographic Figure Rating Scale

Part 1.

INSTRUCTIONS: Please answer the following questions based on the numbered figures below:

The Photographic Figure Rating Scale (PFRS)



36. Which figure do you find the most physically attractive?

37. Which is the largest figure that you consider physically attractive?

38. Which is the thinnest figure that you consider physically attractive?

Photographic Figure Rating Scale

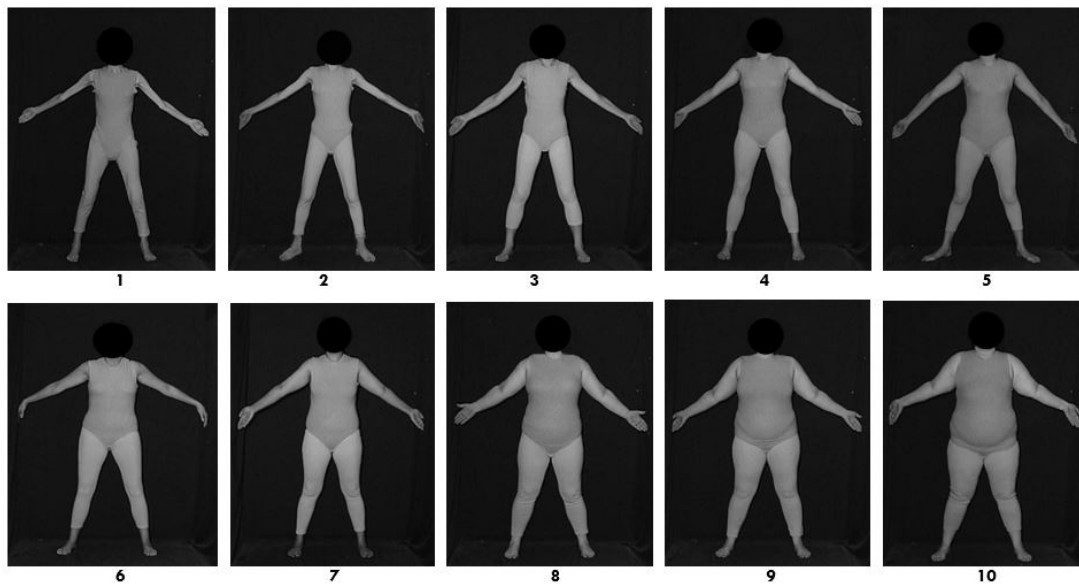
Part 2.

INSTRUCTIONS: Please use the following scale to answer the question below:

1-----2-----3-----4-----5-----6-----7-----8-----9

Not at all A little Somewhat Very Extremely

The Photographic Figure Rating Scale (PFRS)



39. How physically attractive do you consider each woman above?

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|--------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Fig1 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | Fig1 1 | Fig1 2 | Fig1 3 | Fig1 4 | Fig1 5 | Fig1 6 | Fig1 7 | Fig1 8 | Fig1 9 |
| Fig2 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | Fig2 1 | Fig2 2 | Fig2 3 | Fig2 4 | Fig2 5 | Fig2 6 | Fig2 7 | Fig2 8 | Fig2 9 |
| Fig3 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | Fig3 1 | Fig3 2 | Fig3 3 | Fig3 4 | Fig3 5 | Fig3 6 | Fig3 7 | Fig3 8 | Fig3 9 |
| Fig4 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | Fig4 1 | Fig4 2 | Fig4 3 | Fig4 4 | Fig4 5 | Fig4 6 | Fig4 7 | Fig4 8 | Fig4 9 |
| Fig5 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | Fig5 1 | Fig5 2 | Fig5 3 | Fig5 4 | Fig5 5 | Fig5 6 | Fig5 7 | Fig5 8 | Fig5 9 |
| Fig6 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | Fig6 1 | Fig6 2 | Fig6 3 | Fig6 4 | Fig6 5 | Fig6 6 | Fig6 7 | Fig6 8 | Fig6 9 |
| Fig7 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | Fig7 1 | Fig7 2 | Fig7 3 | Fig7 4 | Fig7 5 | Fig7 6 | Fig7 7 | Fig7 8 | Fig7 9 |
| Fig8 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | Fig8 1 | Fig8 2 | Fig8 3 | Fig8 4 | Fig8 5 | Fig8 6 | Fig8 7 | Fig8 8 | Fig8 9 |
| Fig9 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | Fig9 1 | Fig9 2 | Fig9 3 | Fig9 4 | Fig9 5 | Fig9 6 | Fig9 7 | Fig9 8 | Fig9 9 |
| Fig10 | | | | | | | | | |

Photographic Rating Scale

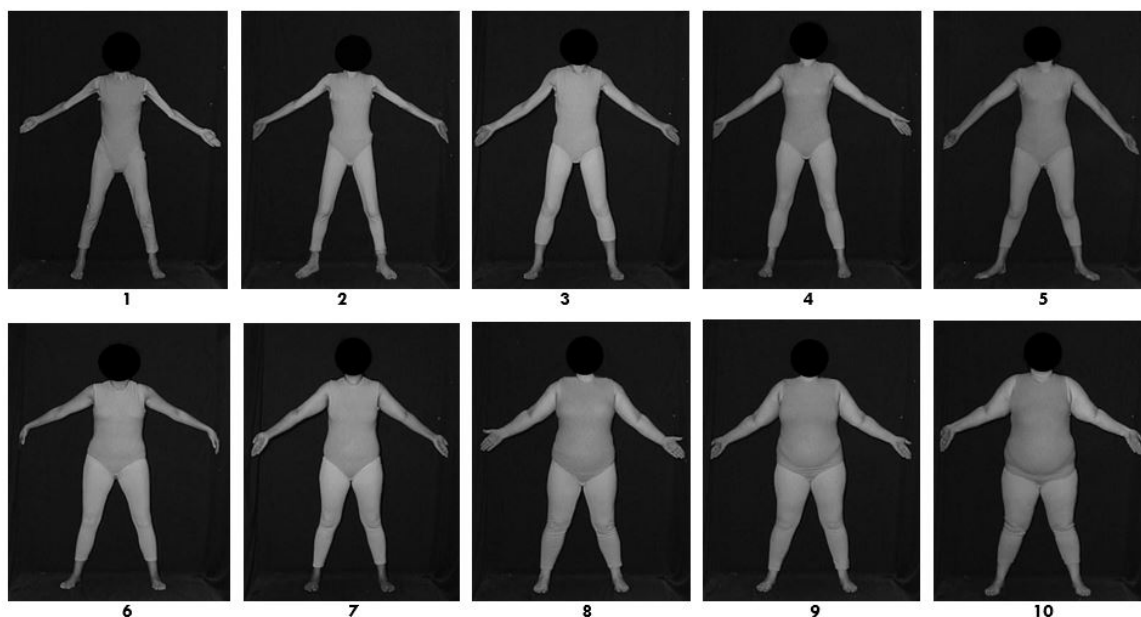
Part 2.

INSTRUCTIONS: Please use the following scale to answer the question below:

1-----2-----3-----4-----5-----6-----7-----8-----9

Not at all A little Somewhat Very Extremely

The Photographic Figure Rating Scale (PFRS)

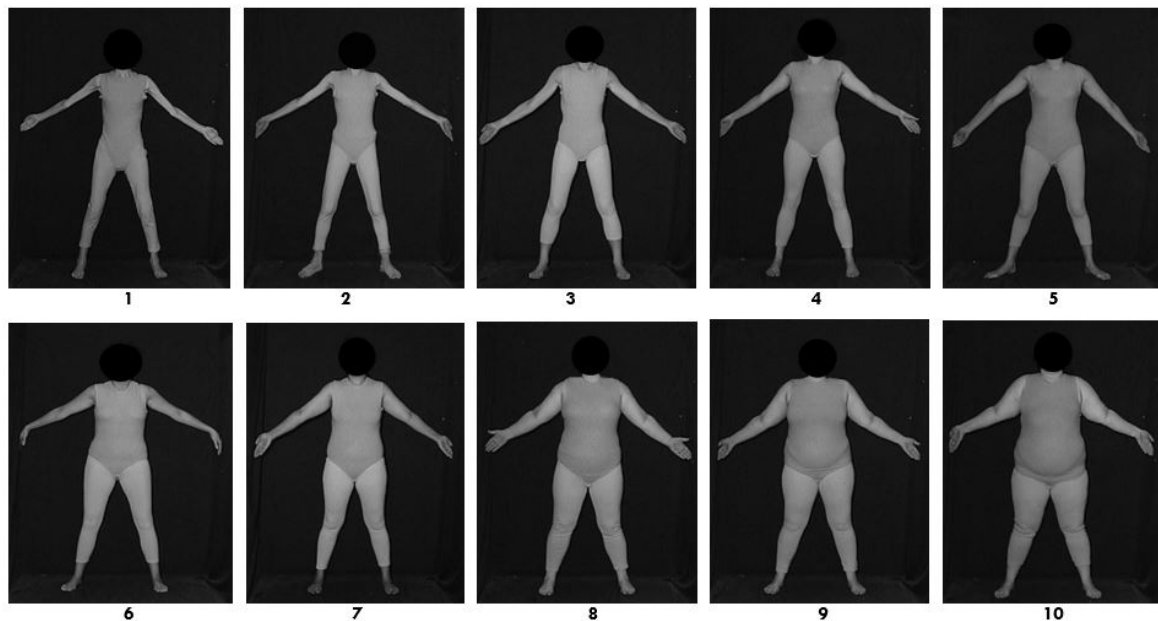


40. How 'Fluffy' do you consider each woman above?

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|--------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Fig1 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | Fig1 1 | Fig1 2 | Fig1 3 | Fig1 4 | Fig1 5 | Fig1 6 | Fig1 7 | Fig1 8 | Fig1 9 |
| Fig2 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | Fig2 1 | Fig2 2 | Fig2 3 | Fig2 4 | Fig2 5 | Fig2 6 | Fig2 7 | Fig2 8 | Fig2 9 |
| Fig3 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | Fig3 1 | Fig3 2 | Fig3 3 | Fig3 4 | Fig3 5 | Fig3 6 | Fig3 7 | Fig3 8 | Fig3 9 |
| Fig4 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | Fig4 1 | Fig4 2 | Fig4 3 | Fig4 4 | Fig4 5 | Fig4 6 | Fig4 7 | Fig4 8 | Fig4 9 |
| Fig5 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | Fig5 1 | Fig5 2 | Fig5 3 | Fig5 4 | Fig5 5 | Fig5 6 | Fig5 7 | Fig5 8 | Fig5 9 |
| Fig6 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | Fig6 1 | Fig6 2 | Fig6 3 | Fig6 4 | Fig6 5 | Fig6 6 | Fig6 7 | Fig6 8 | Fig6 9 |
| Fig7 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | Fig7 1 | Fig7 2 | Fig7 3 | Fig7 4 | Fig7 5 | Fig7 6 | Fig7 7 | Fig7 8 | Fig7 9 |
| Fig8 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | Fig8 1 | Fig8 2 | Fig8 3 | Fig8 4 | Fig8 5 | Fig8 6 | Fig8 7 | Fig8 8 | Fig8 9 |
| Fig9 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | Fig9 1 | Fig9 2 | Fig9 3 | Fig9 4 | Fig9 5 | Fig9 6 | Fig9 7 | Fig9 8 | Fig9 9 |
| Fig10 | | | | | | | | | |

**Photographic Rating Scale
Part 3.**

INSTRUCTIONS: Please answer the following questions based on the numbered figures below:

The Photographic Figure Rating Scale (PFRS)

41. Which figure most closely matches your current body?

42. Which is the body that you would most like to possess?

43. Which is the body that you would least like to possess?

44. Which figure do you think men your age find the most physically attractive?

45. Which figure do you think represents the typical body for a woman of your age?

Health Behaviour

46. How often do you eat healthily?

- Hardly ever
- Sometimes
- Neutral
- Often
- Very often

47. How often do you exercise?

- Hardly ever
- Sometimes
- Neutral
- Often
- Very often

Rosenberg Self-esteem Scale

INSTRUCTIONS: The next questions ask about your current feelings about yourself. For each of the following, please select the answer that best describes how strongly you agree or disagree with the statement about yourself now.

48. I feel that I am a person of worth, or at least on an equal plane with others.

- Strongly agree
- Agree
- Disagree
- Strongly disagree

49. I feel that I have a number of good qualities

- Strongly agree
- Agree
- Disagree
- Strongly disagree

50. All in all, I'm inclined to feel that I am a failure

- Strongly agree
- Agree
- Disagree
- Strongly disagree

51. I am able to do things as well as most other people

- Strongly agree
- Agree
- Disagree
- Strongly disagree

52. I feel I do not have much to be proud of

- Strongly agree
- Agree
- Disagree
- Strongly disagree

53. I take a positive attitude toward myself

- Strongly agree
- Agree
- Disagree
- Strongly disagree

54. On a whole, I am satisfied with myself

- Strongly agree
- Agree
- Disagree
- Strongly disagree

55. I certainly feel useless at times

- Strongly agree
- Agree
- Disagree
- Strongly disagree

56. I wish I could have more respect for myself

- Strongly agree
- Agree
- Disagree
- Strongly disagree

57. At times, I think I am no good at all

- Strongly agree
- Agree
- Disagree
- Strongly disagree

Body Appreciation Scale

INSTRUCTIONS: For each item, please select the answer that best characterizes your attitudes or behaviours.

58. I respect my body

- Never
- Seldom
- Sometimes
- Often
- Always

59. I feel good about my body

- Never
- Seldom
- Sometimes
- Often
- Always

60. On a whole, I am satisfied with my body

- Never
- Seldom
- Sometimes
- Often

- Always
- 61. Despite its flaws, I accept my body for what it is**
- Never
- Seldom
- Sometimes
- Often
- Always
- 62. I feel that my body has at least some good qualities**
- Never
- Seldom
- Sometimes
- Often
- Always
- 63. I take a positive attitude toward my body**
- Never
- Seldom
- Sometimes
- Often
- Always
- 64. I am attentive to my body's needs**
- Never
- Seldom
- Sometimes
- Often
- Always
- 65. My self-worth is independent of my body shape or weight**
- Never
- Seldom
- Sometimes
- Often
- Always
- 66. My feelings toward my body are positive, for the most part**
- Never
- Seldom
- Sometimes
- Often

Always

67. I engage in healthy behaviours to take care of my body

Never

Seldom

Sometimes

Often

Always

68. I do not allow unrealistically thin images of women presented in the media to affect my attitudes toward my body

Never

Seldom

Sometimes

Often

Always

69. Despite its imperfections, I still like my body

Never

Seldom

Sometimes

Often

Always

Debrief Sheet

THANK YOU!!!!

**PERCEPTION OF BODY WEIGHT, BODY DISSATISFACTION AND HEALTH BEHAVIOURS
AMONG JAMAICANS**

Thank you for your time and participating in my study. Data from this survey forms a part of study 2 of my research dissertation in partial fulfillment of a doctorate in Psychology at Brunel University, London.

The aim of this study is to examine the concept of 'Fluffy', body image, body appreciation and body dissatisfaction among Jamaican women.

Subsequent studies will seek to test psychological theories and relationships between Jamaican perception of body weights and its impact on their health behaviours.

The information collected will be used for research purposes only. All information will be kept confidential. On completion, I may publish my findings however no identifying information will be linked to your responses.

The following studies might be of interest to you:

1. Ogden, J. (2012). Health psychology; Chapters 5, 6 & 15. 5th Edition. Open University Press, McGraw Hill, England

Once again, thank you for taking part in this study.

APPENDIX D**Research Ethics Application Form****A1 Project Details**

A1 Project short title

Weight perceptions in Jamaica

A2 Project full title

Perception of body weight, body dissatisfaction and health related behaviours among Jamaicans

A3 Proposed Start Date

11/07/2016

NOTE: If you are using human participants, their data or their tissue, you must ensure you have research ethics approval BEFORE you commence your research.

A4 Proposed End date:

31/12/2016

Applicant Details

A5 Applicant Details

| Title | First Name | Surname |
|----------------------|-----------------------------|---------|
| Ms | Venecia | Pearce |
| College | Health and Life Sciences | |
| Department | Life Sciences | |
| Telephone | 07944642167 | |
| Brunel Email address | venecia.pearce@brunel.ac.uk | |

This application form requires you to enter your College/Department details both here at A5 and also at A8 - this is to enable retention of your contact details as well as correct routing of your application.

A6 Are there other researcher(s) who will work on the research project?

- Yes
 No

A8 Applicant Status: Please select the capacity in which you are carrying out the research:

Doctoral

A8-1 Please select your College (If you do not belong to a College, please select 'No College'):

College of Health and Life Sciences

A8-2c Please select your Department:

Life Sciences

A8-3 Please select your Institute (if you do not belong to an Institute, select 'No Institute'):

No Institute

Student Details

A9 Student Number

1200405

A11 Supervisor Details

| Title | First Name | Surname |
|---------------------------------|--|-------------------------------------|
| <input type="text" value="Dr"/> | <input type="text" value="Stanley"/> | <input type="text" value="Gaines"/> |
| College | <input type="text" value="Health and Life Sciences"/> | |
| Department | <input type="text" value="Life Sciences"/> | |
| Telephone | <input type="text" value="01895 265485"/> | |
| Brunel Email address | <input type="text" value="stanley.gaines@brunel.ac.uk"/> | |

Risk Factors

A12 Are you submitting an application which will involve recruitment of NHS patients?

- Yes
 No

A13

Does your research fit into any of the following security-sensitive categories?

- Commissioned by the military;
- Commissioned under an EU security call;
- Involve the acquisition of security clearances;
- Concerns terrorist or extreme groups.

None of the above

A13 Does this research involve human participants, their data and/or their tissue? N.B. This includes any data obtained from or about human participants, including questionnaires or surveys.

- Yes
- No

Project Description

A14 Please provide a short description of your project with particular reference to any ethical considerations and how you intend to address these. Please ensure you include information on how you intend to recruit participants, inclusion/exclusion criteria etc.:

The aim of this study is to use a qualitative method to explore Jamaicans' everyday social and psychological experiences in relation to overweight and obesity; and how these feelings influence eating behaviour and exercise behaviour. The study seeks to interview participants who are Jamaicans by birth, 18 years and older. Participants should be Jamaicans who have lived in Jamaica for at least 5 years. Participant will be recruited by convenience sampling. All interviews will be recorded. Participants will be given a research participant information sheet that provides an overview of the study. Participants will then be asked to sign an informed consent form. Each interview will last no longer than one hour. After each interview, the participant will be provided with a debriefing sheet. Participant will be given the opportunity to indicate whether they need a copy of the transcribed interview.

Research Checklist

A15 Please answer each question by ticking the appropriate box:

- Are you using Sports, Health & Exercise Sciences Approved Procedures? See information icon for further details.
- Does the project involve participants who are particularly vulnerable or unable to give informed consent (e.g. children/young people under 18, people with learning disabilities)? N.B. If you are Brunel staff recruiting Brunel students this may also apply - see Information icon.
- Will the research involve people who could be deemed in any way to be vulnerable by virtue of their status within particular institutional settings (e.g. students at school, residents of nursing home, prison or other institution where individuals cannot come and go freely)?
- Will it be necessary for participants to take part in the study without their knowledge and consent (e.g. covert observation)?
- Will the study involve discussion of sensitive topics (e.g. political extremism, bereavement, sexual activity, criminal activity, domestic violence etc.)? N.B. You do not need to tick this option if you are using ONLY secondary data.
- Will the study involve work with participants engaged in breaking the law?
- Will the publications/reports resulting from the study identify participants by name or in any other way that may identify them, bring them to the attention of the authorities, or any other persons, group or faction?
- Are drugs, placebos or other substances (e.g. food substances, vitamins) to be administered to the study participants or will the study involve invasive, intrusive or potentially harmful procedures of any kind?
- Will the study involve the use of human tissue or other human biological material?
- Will blood or tissue samples be obtained from participants?
- Is pain or more than mild discomfort likely to result from the study?
- Could the study induce psychological stress or anxiety or cause harm or negative consequences beyond the risks encountered in normal life?
- Will the study involve prolonged or repetitive testing?
- Will financial inducements (other than reasonable expenses and compensation for time) be offered to participants?
- None of the above

A16 Will the study require the co-operation of another individual/organisation for initial access to the groups or individuals to be recruited?

- Yes
- No

A17 Will you be undertaking this research as part of a work placement or in conjunction with an external organisation?

- Yes
- No

A18 Additional Documents

Please note that you must have the following approved by your college research ethics committee before you start your research and approach participants.

- Consent form (where relevant)
- Participant information sheet
- Any other materials used in recruitment or data collection (for example text of introductory emails, posters, surveys, interview guides or letters of permission). If you are using a survey please upload it here along with introductory text (you do not need a consent form for surveys). If you are using a Debrief Form please upload it here.

Do you have any of these documents to attach?

- Yes
- No

Please attach them here:

| Type | Name | Date | Version | Size |
|--------------------------|-----------------------------------|--|--------------|---------|
| Low Risk Study Documents | Participant%20Information%20Sheet | Participant%20Information%20Sheet.docx | 03/06/2016 1 | 39.8 KB |
| Low Risk Study Documents | Informed%20Consent | Informed%20Consent.docx | 03/06/2016 1 | 40.6 KB |
| Low Risk Study Documents | Interview%20Schedule | Interview%20Schedule.docx | 03/06/2016 1 | 29.9 KB |
| Low Risk Study Documents | Debrief%20Form | Debrief%20Form.docx | 03/06/2016 1 | 30.2 KB |

Research Integrity

A19 Have you completed the Research Integrity Online Training relevant to your field of research (via Blackboard Learn - Brunel Graduate School Research & Teaching Courses - Research Integrity)?

- Yes
 No

A20 Have you completed any other form of training linked to research integrity?

- Yes
 No

Please provide details

Researcher Development Series 1, 2 & 3
Qualitative Research: Qualitative Interviewing; Qualitative Analysis 1 & 2

Researcher/Applicant

J1 Researcher/Applicant Signature

- I understand that I cannot commence my research until full research ethics approval has been granted by the relevant research ethics committee.
- I confirm that the research will be undertaken in accordance with the [Brunel University London Ethical Framework](#), [Brunel University London Code of Research Ethics](#), and [Brunel University London Research Integrity Code](#).
- I shall ensure that any changes in approved research protocols are reported promptly for approval by the relevant University Research Ethics Committee.
- I shall ensure that the research study complies with the law and Brunel University London policies on the use of human material (if applicable) and health and safety.
- I am satisfied that the research study is compliant with the Data Protection Act 1998, and that necessary arrangements have been, or will be, made with regard to the storage and processing of participants' personal information and generally, to ensure confidentiality of such data supplied and generated in the course of the research.

(Note: Where relevant, further advice is available from the Information Access Officer, e-mail data-protection@brunel.ac.uk).

- I will ensure that all adverse or unforeseen problems arising from the research project are reported in a timely fashion to the Chair of the relevant Research Ethics Committee.
- (For members of staff and PhD students) I will undertake to provide notification to the Chair of the relevant Research Ethics Committee when the study is complete, or if it fails to start or is abandoned.

Signed: This form was signed by Venecia Pearce (Venecia.Pearce@brunel.ac.uk) on 03/06/2016 19:52

Supervisor

Signature of Supervisor

- I have met and advised the student on the ethical aspects of the study design and his/her responsibilities in relation to the submission of this application and the research.
- The student has been made aware of and advised to read the University's Code of Research Ethics and other relevant documentation.
- The topic merits further research.
- The student has the skills to carry out the research.
- The consent form is appropriate (where relevant).
- The participant information sheet is appropriate.
- The procedures for recruitment and obtaining informed consent are appropriate.
- An initial risk assessment has been completed (where relevant).
- If there are issues of risk in the research, a full risk assessment has been undertaken and a risk assessment is attached.
- A DBS check has been obtained (where appropriate).

Signed: This form was signed by Stanley Gaines (Stanley.Gaines@brunel.ac.uk) on 03/06/2016 23:34

College of Health and Life Sciences Research Ethics Committee (DLS)
Brunel University London
Kingston Lane
Uxbridge
UB8 3PH
United Kingdom
www.brunel.ac.uk

14 June 2016

LETTER OF APPROVAL

Applicant: Ms Venecia Pearce
Project Title: Weight perceptions in Jamaica
Reference: 3182-LR-Jun/2016- 3138-1

Dear Ms Venecia Pearce

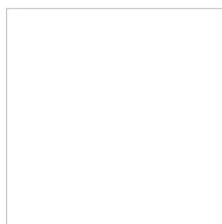
The Research Ethics Committee has considered the above application recently submitted by you.

The Chair, acting under delegated authority has agreed that there is no objection on ethical grounds to the proposed study. Approval is given on the understanding that the conditions of approval set out below are followed:

- A18 – Consent Form – why do you feel it necessary to include a witness statement when you are only recruiting over 18 year olds with capacity to consent? You can leave or remove as you see fit.
- A18 - Consent Form – Please delete Clinical Sciences from the heading along with '(Delete as appropriate)'
- A14 – You have not stated where your interviews will take place. If you are considering doing these off campus please talk through with your supervisor and also ensure that you read the University guidance on Lone Working found at <https://intra.brunel.ac.uk/chls/research/Pages/Guidance-and-Forms.aspx>
- The agreed protocol must be followed. Any changes to the protocol will require prior approval from the Committee by way of an application for an amendment.

Please note that:

- Research Participant Information Sheets and (where relevant) flyers, posters, and consent forms should include a clear statement that research ethics approval has been obtained from the relevant Research Ethics Committee.
- The Research Participant Information Sheets should include a clear statement that queries should be directed, in the first instance, to the Supervisor (where relevant), or the researcher. Complaints, on the other hand, should be directed, in the first instance, to the Chair of the relevant Research Ethics Committee.
- Approval to proceed with the study is granted subject to receipt by the Committee of satisfactory responses to any conditions that may appear above, in addition to any subsequent changes to the protocol.
- The Research Ethics Committee reserves the right to sample and review documentation, including raw data, relevant to the study. You may not undertake any research activity if you are not a registered student of Brunel University or if you cease to become registered, including abeyance or temporary withdrawal. As a deregistered student you would not be insured to undertake research activity. Research activity includes the recruitment of participants, undertaking consent procedures and collection of data. Breach of this requirement constitutes research misconduct and is a disciplinary offence.



Professor Christina Victor

Chair

College of Health and Life Sciences Research Ethics Committee (DLS)
Brunel University London

APPENDIX E



SSS Research Ethics Review Checklist – Part 1

Section I: Project details

| | |
|---|------------------------------------|
| 1. Project title: DESCRIPTION OF BODY WEIGHT, BODY DISSIPATION AND FACTOR BEHAVIOUR AMONG JAMAICANS | 3. Proposed end date: October 2018 |
| 2. Proposed start date: July 2018 | |

Section II: Applicant details

| | |
|------------------------------------|------------------|
| 4. Name of researcher (legal name) | Yvonne Pearce |
| 5. Student Number | 1200405 |
| 6. Status | PhD Student |
| 7. Department | Psychology |
| 8. Email address | lyp@brunel.ac.uk |
| 9. Telephone number | 0794 464 2167 |

Section III: For students only

| | | |
|--|----------------------------|-----|
| 10. Module name and number | | |
| 11. Supervisor's name | Dr Stanley George | PhD |
| 12. Research supervisor's email address: | s-andy.george@brunel.ac.uk | |

| | | |
|---|--------------------------|-------------------------------------|
| 13. Does this research involve human participants? | Yes | No |
| 14. Does this research raise any ethical or risk concerns as set out in the University Code of Research Ethics or relevant disciplinary code? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 15. Does assessment – are there any elements of risk related to the proposed research? (See Risk Assessment – FAQs) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

If you have answered Yes to any of questions 13-15, you must complete Part 2 of this form.

Students: If you have answered No, please email this document to your supervisor who will confirm that the research does not involve ethical issues. Once electronically signed by your supervisor, please submit Part 1 of this form via BBL within 1 week. Please keep a copy for yourself and send it into your dissertation/training as appropriate.

Staff: If you have answered No, please sign below and submit your form via BBL. Please keep a copy for yourself.

If your research methodology changes significantly, you must submit a new form.

For Supervisor/Staff to Signature:

I confirm that there are no ethical or risks, as relating to this research and the applicant can proceed with the proposed research.

Signature: DANIEL WISEMANLEY C. SA. VICS. JMS. JLV. 2014

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SSS Research Ethics Review Checklist – Part 2

Section IV: Description of project

Please provide a short description of your project:

This study aims to measure the construct 'body' based on physical qualities (size and shape) and psycho-optical qualities. It also seeks to determine internal consistency of the Body Rating Questionnaire. In addition, the study will measure body image, body appreciation and self-esteem among Jamaican women. Hence, there will be associations of correlations between Body Image, positive body image, correlations between body dissatisfaction and associations between Body Image and self-esteem.

Recruitment:

Data will be collected using a convenience sampling technique. Participants will be recruited using SurveyMonkey. The survey will be distributed using social media – Facebook and email contacts. Participants will be asked to send link and refer others to survey link.

Demographics of participants:

- 1. 180 females
- 2. Age range - 19 & over
- 3. Diverse race/ethnicity and other ethnic groups

Instruments include:

- 1. Body Rating Questionnaire developed by author (Pearce 2018)
- 2. Psychographic Figure Rating Scale (Swami, Sillim, Furnham, & Loken, 2008)
- 3. Body Appreciation Scale - 2 (Laxton, Tylia & Wood-Barcalow, 2005)
- 4. Rosenberg Self-esteem Scale (Rosenberg, 1965)

Section V: Research checklist

Please answer each question by ticking the appropriate box.

| | | |
|---|--------------------------|-------------------------------------|
| 1. Does the project involve participants who are particularly vulnerable or unable to give informed consent (e.g. children/young people under 16, people with learning disabilities, your own students)? | YES | NO |
| 2. Will the research involve people who could be deemed in any way to be vulnerable by virtue of their status within particular institutional settings (e.g. academic staff, residents of nursing home, prison or other institution where individuals cannot come and go freely)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Will it be necessary for participants to take part in the study without their knowledge and consent (e.g. covert observation of people in public places)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 4. Will the study involve discussion of sensitive topics (e.g. sexual activity, drug use) where participants may not give prior consent to do so? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Will the study involve work with participants engaged in making the survey? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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Applicant (Principal Investigator) Name: Veneca Pearce
 Applicant's e signature: V.Pearce
 Date: July 5, 2014

| | | |
|---|------------------------------|--|
| 6. Will the publication's reports resulting from the study identify participants by name or in any other way that may identify them, bring them to the attention of the authorities, or any other persons, groups or bodies? | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |
| 7. Are drugs, pesticides or other substances (e.g. food substances, vitamins) to be administered to the study participants or will the study involve invasive, intrusive or potentially harmful procedures of any kind? | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |
| 8. Will the study involve the use of human tissue or other human biological material? | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |
| 9. Will blood or tissue samples be obtained from participants? | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |
| 10. Is pain or more than mild discomfort likely to result from the study? | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |
| 11. Could the study induce psychological stress or anxiety or cause harm or negative consequences beyond the risks encountered for normal life? | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |
| 12. Will the study involve prolonged or repetitive testing? | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |
| 13. Will financial inducements (other than reasonable expenses and remuneration for travel) be offered to participants? | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |
| 14. Will the study require the co-operation of another individual/organisation for initial access to the groups or individuals to be recruited? If yes please attach the letters of permission from them. | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |
| 15. Will you be undertaking this research as part of a work placement or arrangement with an external organisation? If yes and the organisation has conducted its own research ethics review, please attach the ethical approval. | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |

If you have answered 'yes' to any of questions 1-13, you will need to complete the University Application Form for Research Ethics Approval.

Students: If you have answered 'No' to all of questions 1-13, please sign below and submit this completed checklist, consent form, information leaflet and any other documents and attachments for your supervisor's approval by email. Once you have received it back from your supervisor you will be able to submit via RSL. Forms that do not have your supervisor's approval will be rejected.

Staff: If you have answered 'No' to all of questions 1-13, please sign below and submit this completed Checklist, consent form, information sheet and any other documents and attachments via RSL.

Please note that it is your responsibility to follow the University's Code of Research Ethics and any relevant academic or professional guidelines in the conduct of your study. This includes providing appropriate information sheets and consent forms, and ensuring confidentiality in the storage and use of data. Any significant change in protocol over the course of the research should be notified to the Departmental Ethics Coordinator and may require a new application for ethics approval.



Departmental Ethics Coordinator section:

| | |
|---|--|
| This request for expedited review has been: | |
| <input checked="" type="checkbox"/> Approved (An additional ethics form is necessary) | |
| <input type="checkbox"/> Decline (Full University Ethics Form is necessary) | |
| <input type="checkbox"/> Decline (Please give reason below) | |

| |
|---|
| Departmental Ethics Coordinator Name: Achim Schurzowski |
| E-signature: <i>Achim Schurzowski</i> |
| Date: 23/07/2014 |

Supervisor Section (for students only)

Please tick the appropriate boxes. The study should not be submitted until all boxes are ticked.

| | |
|---------------------------------------|--|
| <input checked="" type="checkbox"/> F | The student has read the University's Code of Research Ethics |
| <input checked="" type="checkbox"/> B | The topic merits further research |
| <input checked="" type="checkbox"/> S | The student has the skills to carry out the research |
| <input checked="" type="checkbox"/> R | The consent form is appropriate |
| <input checked="" type="checkbox"/> C | The participant information leaflet is appropriate |
| <input checked="" type="checkbox"/> T | The procedures for recruitment and obtaining informed consent are appropriate |
| <input checked="" type="checkbox"/> A | An initial risk assessment has been completed |
| <input checked="" type="checkbox"/> L | If there are issues of risk in the research, a full risk assessment has been undertaken in line with the School of Social Sciences Risk Assessment - HAZOP document and a risk assessment is attached. |
| <input checked="" type="checkbox"/> P | A DBS check has been obtained (where appropriate) |
| <input checked="" type="checkbox"/> P | The defecating form is appropriate (N/A for psychology only - please refer to BBU) |

| |
|--|
| Any comments from supervisor: |
| <input checked="" type="checkbox"/> I support this innovative study. |

| |
|--|
| Supervisor or module leader (where appropriate): |
| E-signature: <i>DR STANLEY D GAMES JR</i> |
| Date: 5 JULY 2014 |

Supervisors: Please email this form to the student who will then need to submit it and related appendices via BBU.

Students: Once you have received the form back from your supervisor, submit this completed checklist, consent form, information sheet and any other documents and attachments via BBU.



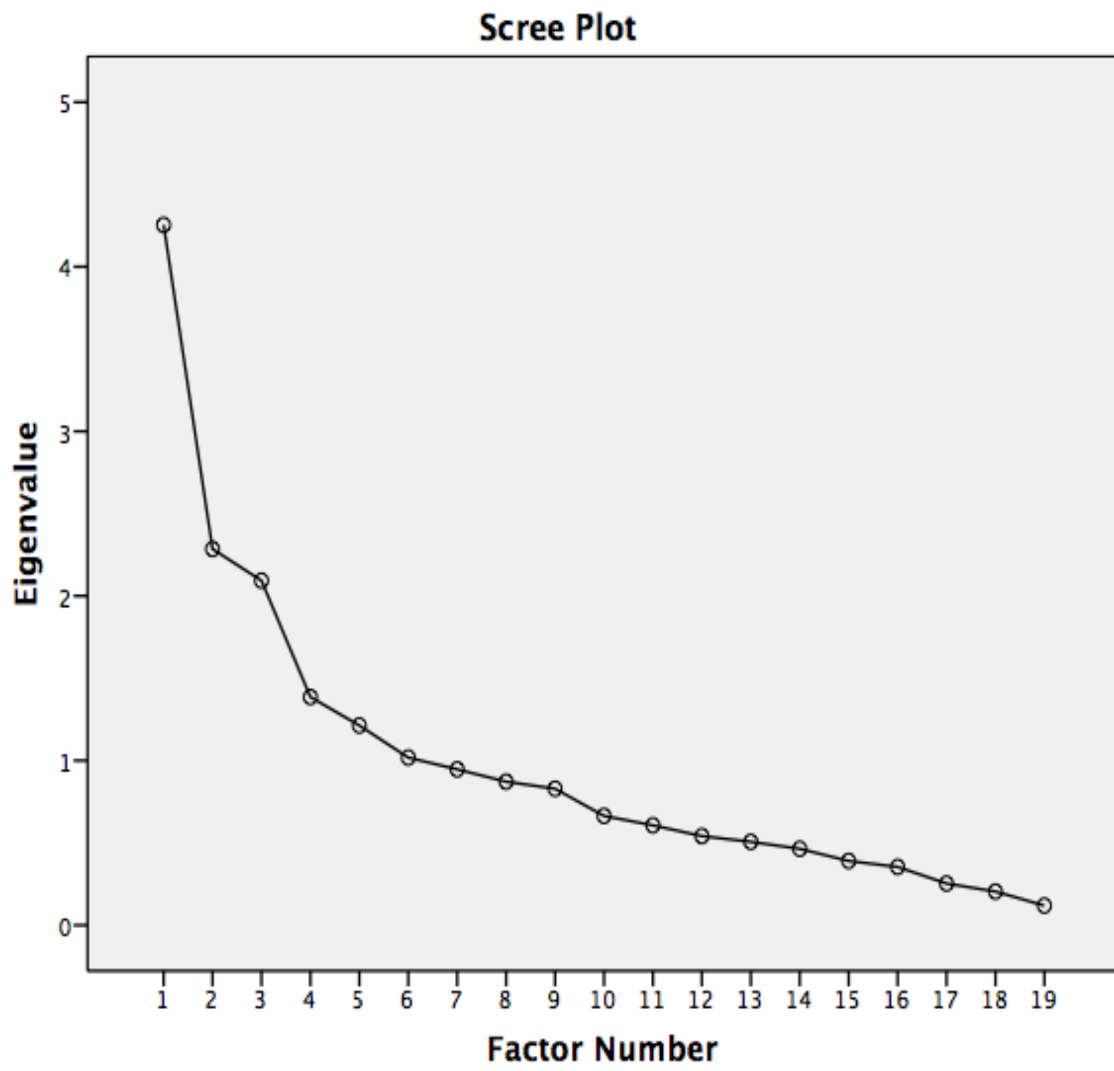
APPENDIX F**Skewness and Kurtosis Scores for Fluffy Rating Questionnaire**

| | N | Skewness | | Kurtosis | |
|--|-----------|-----------|------------|-----------|------------|
| | Statistic | Statistic | Std. Error | Statistic | Std. Error |
| A large body type is considered DESIRABLE in Jamaica | 195 | .429 | .174 | -.394 | .346 |
| A medium body type is considered DESIRABLE in Jamaica | 195 | -.375 | .174 | -.887 | .346 |
| A small body type is considered DESIRABLE in Jamaica | 192 | -.035 | .175 | -1.097 | .349 |
| A large body type is considered ATTRACTIVE in Jamaica | 195 | .310 | .174 | -.829 | .346 |
| A medium body type is considered ATTRACTIVE in Jamaica | 196 | -.317 | .174 | -1.135 | .346 |
| A small body type is considered ATTRACTIVE in Jamaica | 195 | -.142 | .174 | -1.120 | .346 |
| A 'fluffy' female has a small body type | 192 | 2.483 | .175 | 9.802 | .349 |
| A 'fluffy' female has a medium body type | 193 | .816 | .175 | -.259 | .348 |
| A 'fluffy' female has a large body type | 194 | -2.217 | .175 | 6.510 | .347 |
| A 'fluffy' female has a pear shape | 190 | -.123 | .176 | -.835 | .351 |
| A 'fluffy' female has a apple shape | 192 | -.092 | .175 | -.607 | .349 |
| A 'fluffy' female has a hourglass shape | 190 | -.056 | .176 | -.889 | .351 |
| A 'fluffy' female has a rectangular shape | 191 | .236 | .176 | -.675 | .350 |
| 'Fluffy' is considered the ideal body for women | 191 | .533 | .176 | .231 | .350 |
| A 'fluffy' female is Secure | 185 | .004 | .179 | .361 | .355 |
| A 'fluffy' female is Attractive | 184 | -.519 | .179 | .994 | .356 |
| A 'fluffy' female is Sexy | 183 | -.320 | .180 | .706 | .357 |
| A 'fluffy' female has Low self-esteem | 183 | -.366 | .180 | .720 | .357 |
| A 'fluffy' female has No self-control | 186 | -.536 | .178 | .505 | .355 |
| A 'fluffy' female is Confident | 185 | .561 | .179 | .600 | .355 |
| A 'fluffy' body type is: | 186 | -.116 | .178 | .108 | .355 |
| Valid N (listwise) | 166 | | | | |

APPENDIX G*Initial exploratory factor analysis of Fluffy Rating Questionnaire*

| Factor | Initial Eigenvalues | | | Extraction Sums of Squared Loading | | |
|---------------|----------------------------|---------------|------------|---|---------------|------------|
| | Total | % of Variance | Cumulative | Total | % of Variance | Cumulative |
| 1 | 4.25 | 22.39 | 22.39 | 1.73 | 9.10 | 9.10 |
| 2 | 2.29 | 12.03 | 34.42 | 1.91 | 10.03 | 19.14 |
| 3 | 2.09 | 11.02 | 45.44 | 3.22 | 16.95 | 36.09 |
| 4 | 1.39 | 7.29 | 52.73 | 1.17 | 6.13 | 42.22 |
| 5 | 1.21 | 6.39 | 59.12 | .89 | 4.71 | 46.92 |
| 6 | 1.02 | 5.36 | 64.47 | .94 | 4.93 | 51.86 |

APPENDIX H



Scree plot for EFA

APPENDIX I

| FluffyImages | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|---------------------|--------------------------------|-----------|--------------------|----------|-------------|----------------------------|
| Linear | 9714.49 | 1 | 9714.49 | 1321.94 | .000 | .89 |
| Quadratic | 444.94 | 1 | 444.94 | 81.04 | .000 | .33 |
| Cubic | 157.09 | 1 | 157.09 | 20.68 | .000 | .29 |
| Order 4 | 35.64 | 1 | 35.64 | .09 | .000 | .11 |

APPENDIX J**Post-Hoc Comparisons (Bonferonni)**

Measure: MEASURE_1

| (I) | (J) | Mean Difference (I-J) | Std. Error | Sig. ^b | 95% Confidence Interval for Difference ^b | |
|-----|-----|--------------------------|-------------------|-------------------|--|-------------|
| | | | | | Lower Bound | Upper Bound |
| 1 | 2 | -.030 | .028 | 1.000 | -.122 | .062 |
| | 3 | -.170 [*] | .049 | .031 | -.333 | -.007 |
| | 4 | -.630 [*] | .110 | .000 | -.995 | -.266 |
| | 5 | -1.279 [*] | .146 | .000 | -1.762 | -.796 |
| | 6 | -2.752 [*] | .182 | .000 | -3.355 | -2.148 |
| | 7 | -3.442 [*] | .192 | .000 | -4.079 | -2.806 |
| | 8 | -5.364 [*] | .191 | .000 | -5.996 | -4.731 |
| | 9 | -6.176 [*] | .191 | .000 | -6.810 | -5.541 |
| | 10 | -6.721 [*] | .204 | .000 | -7.398 | -6.044 |
| | 2 | 1 | .030 | .028 | 1.000 | -.062 |
| 3 | | -.139 [*] | .033 | .002 | -.250 | -.029 |
| 4 | | -.600 [*] | .102 | .000 | -.939 | -.261 |
| 5 | | -1.248 [*] | .140 | .000 | -1.714 | -.783 |
| 6 | | -2.721 [*] | .177 | .000 | -3.310 | -2.132 |
| 7 | | -3.412 [*] | .188 | .000 | -4.035 | -2.789 |
| 8 | | -5.333 [*] | .182 | .000 | -5.937 | -4.730 |
| 9 | | -6.145 [*] | .181 | .000 | -6.748 | -5.543 |
| 10 | | -6.691 [*] | .193 | .000 | -7.333 | -6.049 |
| 3 | | 1 | .170 [*] | .049 | .031 | .007 |
| | 2 | .139 [*] | .033 | .002 | .029 | .250 |
| | 4 | -.461 [*] | .091 | .000 | -.762 | -.159 |
| | 5 | -1.109 [*] | .130 | .000 | -1.539 | -.679 |
| | 6 | -2.582 [*] | .170 | .000 | -3.148 | -2.016 |
| | 7 | -3.273 [*] | .180 | .000 | -3.872 | -2.674 |
| | 8 | -5.194 [*] | .180 | .000 | -5.792 | -4.595 |
| | 9 | -6.006 [*] | .181 | .000 | -6.608 | -5.404 |
| | 10 | -6.552 [*] | .193 | .000 | -7.192 | -5.911 |
| | 4 | 1 | .630 [*] | .110 | .000 | .266 |
| 2 | | .600 [*] | .102 | .000 | .261 | .939 |
| 3 | | .461 [*] | .091 | .000 | .159 | .762 |
| 5 | | -.648 [*] | .087 | .000 | -.938 | -.359 |
| 6 | | -2.121 [*] | .151 | .000 | -2.623 | -1.620 |
| 7 | | -2.812 [*] | .165 | .000 | -3.359 | -2.266 |
| 8 | | -4.733 [*] | .181 | .000 | -5.333 | -4.133 |

| | | | | | | |
|----|----|---------|--------|------|--------|--------|
| | 9 | -5.545* | .188 | .000 | -6.169 | -4.922 |
| | 10 | -6.091* | .202 | .000 | -6.761 | -5.421 |
| 5 | 1 | 1.279* | .146 | .000 | .796 | 1.762 |
| | 2 | 1.248* | .140 | .000 | .783 | 1.714 |
| | 3 | 1.109* | .130 | .000 | .679 | 1.539 |
| | 4 | .648* | .087 | .000 | .359 | .938 |
| | 6 | -1.473* | .139 | .000 | -1.934 | -1.011 |
| | 7 | -2.164* | .150 | .000 | -2.661 | -1.667 |
| | 8 | -4.085* | .188 | .000 | -4.708 | -3.462 |
| | 9 | -4.897* | .199 | .000 | -5.557 | -4.236 |
| | 10 | -5.442* | .218 | .000 | -6.165 | -4.720 |
| | 6 | 1 | 2.752* | .182 | .000 | 2.148 |
| 2 | | 2.721* | .177 | .000 | 2.132 | 3.310 |
| 3 | | 2.582* | .170 | .000 | 2.016 | 3.148 |
| 4 | | 2.121* | .151 | .000 | 1.620 | 2.623 |
| 5 | | 1.473* | .139 | .000 | 1.011 | 1.934 |
| 7 | | -.691* | .097 | .000 | -1.015 | -.367 |
| 8 | | -2.612* | .180 | .000 | -3.208 | -2.016 |
| 9 | | -3.424* | .221 | .000 | -4.158 | -2.690 |
| 10 | | -3.970* | .244 | .000 | -4.779 | -3.160 |
| 7 | | 1 | 3.442* | .192 | .000 | 2.806 |
| | 2 | 3.412* | .188 | .000 | 2.789 | 4.035 |
| | 3 | 3.273* | .180 | .000 | 2.674 | 3.872 |
| | 4 | 2.812* | .165 | .000 | 2.266 | 3.359 |
| | 5 | 2.164* | .150 | .000 | 1.667 | 2.661 |
| | 6 | .691* | .097 | .000 | .367 | 1.015 |
| | 8 | -1.921* | .158 | .000 | -2.445 | -1.397 |
| | 9 | -2.733* | .204 | .000 | -3.411 | -2.056 |
| | 10 | -3.279* | .236 | .000 | -4.061 | -2.497 |
| | 8 | 1 | 5.364* | .191 | .000 | 4.731 |
| 2 | | 5.333* | .182 | .000 | 4.730 | 5.937 |
| 3 | | 5.194* | .180 | .000 | 4.595 | 5.792 |
| 4 | | 4.733* | .181 | .000 | 4.133 | 5.333 |
| 5 | | 4.085* | .188 | .000 | 3.462 | 4.708 |
| 6 | | 2.612* | .180 | .000 | 2.016 | 3.208 |
| 7 | | 1.921* | .158 | .000 | 1.397 | 2.445 |
| 9 | | -.812* | .131 | .000 | -1.247 | -.377 |
| 10 | | -1.358* | .177 | .000 | -1.945 | -.770 |
| 9 | | 1 | 6.176* | .191 | .000 | 5.541 |
| | 2 | 6.145* | .181 | .000 | 5.543 | 6.748 |
| | 3 | 6.006* | .181 | .000 | 5.404 | 6.608 |
| | 4 | 5.545* | .188 | .000 | 4.922 | 6.169 |

| | | | | | | |
|----|----|--------|------|------|-------|-------|
| | 5 | 4.897* | .199 | .000 | 4.236 | 5.557 |
| | 6 | 3.424* | .221 | .000 | 2.690 | 4.158 |
| | 7 | 2.733* | .204 | .000 | 2.056 | 3.411 |
| | 8 | .812* | .131 | .000 | .377 | 1.247 |
| | 10 | -.545* | .108 | .000 | -.904 | -.187 |
| 10 | 1 | 6.721* | .204 | .000 | 6.044 | 7.398 |
| | 2 | 6.691* | .193 | .000 | 6.049 | 7.333 |
| | 3 | 6.552* | .193 | .000 | 5.911 | 7.192 |
| | 4 | 6.091* | .202 | .000 | 5.421 | 6.761 |
| | 5 | 5.442* | .218 | .000 | 4.720 | 6.165 |
| | 6 | 3.970* | .244 | .000 | 3.160 | 4.779 |
| | 7 | 3.279* | .236 | .000 | 2.497 | 4.061 |
| | 8 | 1.358* | .177 | .000 | .770 | 1.945 |
| | 9 | .545* | .108 | .000 | .187 | .904 |

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

APPENDIX K

| BMICat*ImageOrder | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|--------------------------|--|-----------|------------------------|----------|-------------|--------------------------------|
| Linear | 51.19 | 1 | 51.19 | 73.09 | .000 | .31 |
| Quadratic | 102.75 | 1 | 102.75 | 123.91 | .000 | .43 |
| Cubic | 47.76 | 1 | 47.76 | 34.48 | .000 | .17 |
| Order 4 | .02 | 1 | .02 | .009 | .924 | .00 |

APPENDIX L

Fluffy attitudes among participants

| Attitude to Fluffy | N | Valid Percent |
|---------------------------|------------|----------------------|
| Anti-Fluffy | 34 | 19.2 |
| Neutral | 125 | 70.6 |
| Pro-Fluffy | 18 | 10.2 |
| Total | 177 | 100.0 |

APPENDIX M

Levels of self-esteem among participants

| Self-Esteem | N | Valid Percent |
|---------------------|------------|----------------------|
| Low self-esteem | 17 | 10.6 |
| Average self-esteem | 101 | 63.1 |
| High self-esteem | 42 | 26.3 |
| Total | 160 | 100.0 |



APPENDIX N

SSS Research Ethics Review Checklist – Part 1

Section I: Project details

| | |
|---|-----------------------------------|
| 1. Project title: Exploring body attitudes, affective states and health behaviour | |
| 2. Proposed start date: March 2015 | 3. Proposed end date: August 2015 |

Section II: Applicant details

| | |
|-----------------------------------|---------------------|
| 1. Name of researcher (applicant) | Veronica Pearce |
| 2. Student Number | 1203426 |
| 3. Status | PhD Student |
| 4. Department | Psychology |
| 5. Brunel e-mail address | hpa201@brunel.ac.uk |
| 6. Telephone number | 01924 642157 |

Section III: For students only

| | |
|--|-----------------------------|
| 10. Module name and number | PhD Psychology |
| 11. Supervisor's name | Dr Stanley Gaines |
| 12. Brunel supervisor's e-mail address | stanley.gaines@brunel.ac.uk |

| | | |
|---|-------------------------------------|--------------------------|
| 13. Does this research involve human participants? | Yes | No |
| 14. Does this research raise any ethical or risk concerns as set out in the University Code of Research Ethics or relevant disciplinary code? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 15. Risk Assessment – are there any elements of risk related to the proposed research? (See Risk Assessment – I-RAE) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

If you have answered Yes to any of questions 13-15, you must complete Part 2 of this form.

Students: If you have answered No, please email this document to your supervisor who will confirm that the research does not involve ethical issues. Once electronically signed by your supervisor please submit Part 1 of this form via BIL within 1 week. Please keep a copy for yourself and bind it into your dissertation/thesis as an appendix.

Staff: If you have answered No, please sign below and submit your form via BIL. Please keep a copy for yourself.

If your research methodology changes significantly, you must submit a new form.

For Supervisor/Staff e-signature

Version 2013 - V1

Page 1

I confirm that there are no ethical or risk issues relating to this research and the applicant can proceed with the proposed research.

e-signature of Dr: DR STANLEY GAINES 10/25/10/2015

SSS Research Ethics Review Checklist – Part 2

Section IV: Description of project

Please provide a short description of your project:

This study aims to investigate obesity stereotype threat and positive attitudes of body by stimulating a real life walking obese woman (3.12 animated). This study will investigate the relationship between attitudes to body, physical activity and affective states among Jamaicans living in different nations. Participants will approach 500 men and women (18 years & over). Participants will be recruited through convenience sampling via social media (Facebook, Twitter, MySpace). Initial contact between participants and friends will also be used to share the link for the survey via all social media outlets. Participants will be asked to click on a link to the electronic questionnaire powered by SurveyMonkey. They will be required to read the participant/information sheet and then to indicate their consent to complete the questionnaire. Only after they have confirmed their consent will they be able to access the rest of the questionnaire. This study will involve 3 specific enticement conditions where participants will be randomly assigned to one of the following stimuli (short video clip) - "Stimulus of obesity" - an obese woman walking with a sad face titled "Obese Affect", "Acceptance of obesity" - an obese woman walking confidently, easy and with a happy face titled "Happy Obese Affect"; "Control condition where no stimulus is presented.

Participants will then be asked to complete the following questionnaire: The Body Attitude Questionnaire, the Sociocultural Attitudes toward Appearance Questionnaire – 4, the Good in Late-life Time Lapses Questionnaire and the Positive and Negative Affect Scale. After completion of the questionnaire, participants will be directed to a thank you page where debriefing information will be presented to them.

If anyone in experimental conditions is by induce some anxiety due to stereotypes of obesity in reality, however it does not exceed depression as per normal life. No harm should come to participants.

Section V: Research context

Please answer each question by ticking the appropriate box:

| | | |
|--|--------------------------|-------------------------------------|
| 1. Does the project involve participants who are particularly vulnerable or unable to give informed consent (e.g. children, young people, cancer, etc. people with learning disabilities, your own students)? | YES | NO |
| 2. Will the research involve people who could be deprived in any way to be vulnerable by virtue of their status within particular institutional settings (e.g. students at school, residents of nursing homes, prison or other institution where no visitors cannot come and go freely)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Will it be necessary for participants to take part in the study without their knowledge and consent (e.g. covert observation of people in non-public places)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Version 2013 - V1

Page 2



Please note that it is your responsibility to follow the University's Code of Research Ethics and any relevant academic or professional guidelines in the conduct of your study. This includes providing appropriate information sheets and consent forms, and ensuring confidentiality in the storage and use of data. Any significant change in protocol over the course of the research should be notified to the Departmental Ethics Coordinator and may require a new application for ethics approval.

Applicant (Principal Investigator) Name: **Wenanda Pearce**
 Applicant's e-signature: **V.Pearce**
 Date: **23 February 2015**

Supervisor Section (for students only)

Please tick the appropriate boxes. The study should not be submitted until all boxes are ticked.

| | |
|-------------------------------------|--|
| <input checked="" type="checkbox"/> | The student has read the University's Code of Research Ethics |
| <input checked="" type="checkbox"/> | The topic merits further research |
| <input checked="" type="checkbox"/> | The student has the skills to carry out the research |
| <input checked="" type="checkbox"/> | The consent form is appropriate |
| <input checked="" type="checkbox"/> | The participant information leaflet is appropriate |
| <input checked="" type="checkbox"/> | The procedures for recruitment and obtaining informed consent are appropriate |
| <input checked="" type="checkbox"/> | An initial risk assessment has been completed |
| <input checked="" type="checkbox"/> | If there are issues of risk in the research, a full risk assessment has been undertaken in line with the 'School of Social Sciences Risk Assessment - TROD' document and a risk assessment is attached |
| <input checked="" type="checkbox"/> | A DBS check has been obtained (where appropriate) |
| <input checked="" type="checkbox"/> | The debriefing form is appropriate (NB for psychology only - please refer to BBU) |

Any comments from supervisor:



| | YES | NO |
|--|-------------------------------------|--------------------------|
| 4. Will the study involve discussion of sensitive topics (e.g. sexual activity, drug use) where participants have not given prior consent to this? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5. Will the study involve work with participants engaged in breaking the law? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. Will the publications/reports resulting from the study identify participants by name or in any other way that may identify them, bring them to the attention of the authorities, or any other persons, group or nation? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 7. Are drugs, alcohol or other substances (e.g. food substances, vitamins) to be administered to the study participants or will the study involve invasive, intrusive or potentially harmful procedures of any kind? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 8. Will the study involve the use of human tissue or other human biological material? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 9. Will blood or tissue samples be obtained from participants? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 10. Is pain or more than mild discomfort likely to result from the study? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 11. Could the study induce psychological stress or anxiety or cause harm or negative consequences beyond the risks enumerated in normal life? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 12. Will the study involve prolonged or repetitive testing? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 13. Will financial inducements (either than reasonable expenses and compensation for time) be offered to participants? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

| | YES | NO |
|--|-------------------------------------|--------------------------|
| 14. Will the study require the co-operation of another individual/organisation for initial access to the groups or individuals to be recruited? If yes please attach the letters of permission from them. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 15. Will you be undertaking this research as part of a work placement or in conjunction with an external organisation? If Yes and the organisation has conducted its own research ethics review, please attach the ethical approval. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

If you have answered 'yes' to any of questions 1-13, you will need to complete the University Application Form for Research Ethics Approval.

Students: If you have answered 'no' to all of questions 2-13, please sign below and submit this completed Consent, consent form, information leaflet and any other documents and attachments for your supervisor's approval by email. Once you have received it back from your supervisor you will be able to submit via BBU Forms that do not have your supervisor's approval will be rejected.

Staff: If you have answered 'no' to all of questions 1-13, please sign below and submit this completed Consent, consent form, information sheet and any other documents and attachments via BBU.



Departmental Ethics Coordinator section:

This request for expedited review has been:

Approved (No additional ethics form is necessary)

Declined (Full University Ethics Form is necessary)

Declined (Please give reason below)

Departmental Ethics Coordinator Name: Martina Reynolds

E- signature: Martina Reynolds

Date: 05/02/15

Supervisor or module leader (where appropriate): DR STANLEY O GAINES JR

Signature: DR STANLEY O GAINES JR

Date: 25 FEB 2013

Supervisors: Please email this form to the student who will then send to student and send appendices via BIL.

Student: Once you have received this form back from your supervisor, submit this completed Checklist, consent form, information sheet and any other documents and attachments via BIL.

APPENDIX O

Screenshot of Experimental Condition 1 – Stereotypes of Obesity



Screenshot of Experimental Condition 2 – Attitudes of Fluffy



APPENDIX P

Research Participant Information Sheet Exploring body attitudes, affective states and health behaviour

You are invited to take part in this study. Before you decide whether you would like to take part in this study, it is important that you understand why this research is being conducted and what it will involve. Please take some time to carefully read the following information below. If there is anything that is not clear; you wish to discuss this project more or if you need more information, please email me at venecia.pearce@brunel.ac.uk. Please take the time to decide if you wish to take part.

Who is carrying out the research?

This study is being carried out by Venecia Pearce, a PhD Psychology Candidate based at Brunel University London, London, United Kingdom.

What is the purpose of this study?

The purpose of this study is to investigate body weight attitudes, affective states and health behaviour.

What do I have to do?

If you decide to participate in the study you will be required to complete an online survey. The survey will take approximately 15 minutes of your time.

You will be randomly assigned to an experimental condition or a control condition. In the experimental condition, you will be shown a short video clip. You will be then asked a few questions about yourself e.g. demographic questions - age, height, weight. You will also be asked questions about body weight attitudes, mood and physical activity. It is very important that you are honest.

What about confidentiality?

The information collected will be used for research purposes only. Responses are anonymous. All information will be kept **confidential**.

What will happen to the results of the research study?

On completion, results will be included on the final thesis or my PhD. I may also publish my findings in academic journals or elsewhere, however no identifying information will be linked to your responses.

Do I have to take part?

As far as is possible, please complete all questions, however, if you are not comfortable answering a particular question, it can be skipped. Your participation is entirely **voluntary** and you may withdraw at anytime.

What are the possible disadvantages or risks of taking part?

Participation in research may raise sensitive issues or negative emotions. I do not expect that your participation in this study will have any detrimental effects. There are no wrong or right answers and no judgments will be made.

If you have any concerns or comments regarding the ethics or procedures of this study, you may contact the Chair of the Psychology Research Ethics Committee Dr Achim Schuetzwohl: achim.schuetzwohl@brunel.ac.uk or Dr Bridget Dibb: bridget.dibb@brunel.ac.uk

What are the benefits of taking part?

By completing this survey, you will aid understanding important areas of research regarding body weight attitudes, psychological well-being and health behaviour. Findings from this study may contribute to interventions to promote positive body image and improved health behaviours. Please feel free to contact me with any questions that you may have.

Contact for researcher:

Miss Venecia Pearce

Brunel University London
College of Health and Life Sciences
Department of Life Sciences
Division of Psychology
Gaskell Building
UB8 3PH, United Kingdom

venecia.pearce@brunel.ac.uk

INFORMED CONSENT FORM

Before you participate in the survey, I would like to ensure you understood the information provided. Please answer each question honestly.

| | YES | NO |
|---|--------------------------|--------------------------|
| 1. I have read the Research Participant Information Sheet. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. I was given an opportunity to contact researcher to ask questions and discuss this study. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. I understand that I am free to withdraw from the study: | | |
| - at any time (Please note that you will unable to withdraw once your data has been included in any reports, publications etc) | <input type="checkbox"/> | <input type="checkbox"/> |
| - without having to give a reason for withdrawing | <input type="checkbox"/> | <input type="checkbox"/> |
| - without it affecting my future care | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. I understand that I will not be referred to by name in any report/publications resulting from this study | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. I agree that my comments can be quoted as long as they do not directly identify me when the study is written up or published | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. I agree to take part in this study | <input type="checkbox"/> | <input type="checkbox"/> |

| |
|---------------------------------|
| Research Participant Name: |
| Research Participant signature: |
| Date: |

| |
|-----------------------------------|
| Principal Investigator name: |
| Principal Investigator signature: |
| Date: |

One copy to be kept by the participant and one by the researcher

Debriefing information

Thank you for completing my survey.

Aims of the study

This study aimed to investigate whether there are any differences in attitudes to fluffy among Jamaicans based on the experimental condition you were exposed to.

The concept of fluffiness is prevalent in Jamaica and commonly used for plump or larger bodied women and has become well-known, thanks to Miss Kitty – The Fluffy Diva, Radio & TV Personality and Author.

Previous research indicates that adopting this term as a description is significant in maintaining positive body image in light of obesity stereotypes among Jamaican women.

This study also sought to evaluate:

- Differences in attitudes to fluffy among Jamaicans living in different regions of the world
- How attitudes to fluffy influence positive and negative affect (moods)
- The relationship between attitudes to fluffy and level of physical activity.

Findings from this study will contribute to knowledge that will help psychologists better understand weight perceptions and body attitudes which aim to improve psychological well-being and health behaviours.

The following studies might be of interest to you and provide some background to the current work: Sobo, E. J. (1993). *One blood: The Jamaican body*. New York, USA: State University of New York Press, Albany.

Savacool, J. (2009). *The world has curves: The global quest for the perfect body*. New York: Rodale.

Pearce, V; Dibb, B; Gaines, S. (2014). Body weight perceptions, obesity and health behaviours in Jamaica. *Caribbean Journal of Psychology: Vol. 6, No. 1*.

If you have any questions, please feel free to contact me at venecia.pearce@brunel.ac.uk.

Once again, thank you for taking part in this study!

Fluffy Rating Questionnaire

Instructions: Please read the following statements and rate the extent to which you believe each statement best describes your feelings about a 'Fluffy' female.

1). A 'fluffy' female is:

Extremely insecure
 Insecure
 Neutral
 Secure
 Extremely secure

2). A 'fluffy' female is:

Extremely unattractive
 Unattractive
 Neutral
 Attractive
 Extremely attractive

3). A 'fluffy' female is:

Extremely unsexy
 Not sexy
 Neutral
 Sexy
 Extremely sexy

4). A 'fluffy' female has:

Extremely low self-esteem
 Low self-esteem
 Neutral
 High self-esteem
 Extremely high self-esteem

5). A 'fluffy' female has:

No self-control
 Low self-control
 Neutral
 Self-control
 High self-control

6). A 'fluffy' female is:

Extremely timid
 Timid
 Neutral
 Confident
 Extremely confident

Godin Leisure-Time Exercise Questionnaire

During a typical 7-Day period (a week), how many times on the average do you do the following kinds of exercise for more than 15 minutes during your free time (write on each line the appropriate number).

Times Per
Week

a) STRENUOUS EXERCISE
(HEART BEATS RAPIDLY)

_____ (e.g., running, jogging, hockey, football, soccer, squash, basketball, cross country skiing, judo, roller skating, vigorous swimming, vigorous long distance bicycling)

b) MODERATE EXERCISE
(NOT EXHAUSTING)

_____ (e.g., fast walking, baseball, tennis, easy bicycling, volleyball, badminton, easy swimming, alpine skiing, popular and folk dancing)

c) MILD EXERCISE
(MINIMAL EFFORT)

_____ (e.g., yoga, archery, fishing from river bank, bowling, horseshoes, golf, snow-mobiling, easy walking)

2. During a typical 7-Day period (a week), in your leisure time, how often do you engage in any regular activity long enough to work up a sweat (heart beats rapidly)?

OFTEN

SOMETIMES

○ NEVER/RARELY

○

○

PANAS Questionnaire

This scale consists of a number of words that describe different feelings and emotions. **Read each item and then check the appropriate answer in the columns to the right.**

Indicate to what extent you feel this way right now, that is, at the present moment

| | 1 | 2 | 3 | 4 | 5 |
|-----------------|-----------------------------|----------|------------|-------------|-----------|
| | Very Slightly or Not at All | A Little | Moderately | Quite a Bit | Extremely |
| 1. Interested | | | | | _____ |
| 2. Distressed | | | | | _____ |
| 3. Excited | | | | | _____ |
| 4. Upset | | | | | _____ |
| 5. Strong | | | | | _____ |
| 6. Guilty | | | | | _____ |
| 7. Scared | | | | | _____ |
| 8. Hostile | | | | | _____ |
| 9. Enthusiastic | | | | | _____ |
| 10. Proud | | | | | _____ |
| 11. Irritable | | | | | _____ |
| 12. Alert | | | | | _____ |
| 13. Ashamed | | | | | _____ |
| 14. Inspired | | | | | _____ |
| 15. Nervous | | | | | _____ |
| 16. Determined | | | | | _____ |
| 17. Attentive | | | | | _____ |
| 18. Jittery | | | | | _____ |
| 19. Active | | | | | _____ |
| 20. Afraid | | | | | _____ |

Sociocultural Attitudes Towards Appearance Questionnaire – 4

Directions: Please read each of the following items carefully and indicate the box that best reflects your agreement with the statement.

1. It is important for me to look athletic.

Definitely Disagree Mostly Disagree Neither Agree Nor Disagree Mostly Agree Definitely Agree

2. I think a lot about looking muscular.

Definitely Disagree Mostly Disagree Neither Agree Nor Disagree Mostly Agree Definitely Agree

3. I want my body to look very thin.

Definitely Disagree Mostly Disagree Neither Agree Nor Disagree Mostly Agree Definitely Agree

4. I want my body to look like it has little fat.

Definitely Disagree Mostly Disagree Neither Agree Nor Disagree Mostly Agree Definitely Agree

5. I think a lot about looking thin.

Definitely Disagree Mostly Disagree Neither Agree Nor Disagree Mostly Agree Definitely Agree

6. I spend a lot of time doing things to look more athletic.

Definitely Disagree Mostly Disagree Neither Agree Nor Disagree Mostly Agree Definitely Agree

7. I think a lot about looking athletic.

Definitely Disagree Mostly Disagree Neither Agree Nor Disagree Mostly Agree Definitely Agree

8. I want my body to look very lean.

Definitely Disagree Mostly Disagree Neither Agree Nor Disagree Mostly Agree Definitely Agree

9. I think a lot about having very little body fat.

Definitely Disagree Mostly Disagree Neither Agree Nor Disagree Mostly Agree Definitely Agree

10. I spend a lot of time doing things to look more muscular.

Definitely Disagree Mostly Disagree Neither Agree Nor Disagree Mostly Agree Definitely Agree

Answer the following questions with relevance to your Family (include: parents, brothers, sisters, relatives):

11. I feel pressure from family members to look thinner.

Definitely Disagree Mostly Disagree Neither Agree Nor Disagree Mostly Agree Definitely Agree

12. I feel pressure from family members to improve my appearance.

Definitely Disagree Mostly Disagree Neither Agree Nor Disagree Mostly Agree Definitely Agree

13. Family members encourage me to decrease my level of body fat.

Definitely Disagree Mostly Disagree Neither Agree Nor Disagree Mostly Agree Definitely Agree
14. Family members encourage me to get in better shape.

Definitely Disagree Mostly Disagree Neither Agree Nor Disagree Mostly Agree Definitely Agree

Answer the following questions with relevance to your Peers (include: close friends, classmates, other social contacts):

15. My peers encourage me to get thinner.

Definitely Disagree Mostly Disagree Neither Agree Nor Disagree Mostly Agree Definitely Agree
16. I feel pressure from my peers to improve my appearance.

Definitely Disagree Mostly Disagree Neither Agree Nor Disagree Mostly Agree Definitely Agree
17. I feel pressure from my peers to look in better shape.

Definitely Disagree Mostly Disagree Neither Agree Nor Disagree Mostly Agree Definitely Agree
18. I get pressure from my peers to decrease my level of body fat.

Definitely Disagree Mostly Disagree Neither Agree Nor Disagree Mostly Agree Definitely Agree

Answer the following questions with relevance to the Media (include: television, magazines, the Internet, movies, billboards, and advertisements):

19. I feel pressure from the media to look in better shape.

Definitely Disagree Mostly Disagree Neither Agree Nor Disagree Mostly Agree Definitely Agree
20. I feel pressure from the media to look thinner.

Definitely Disagree Mostly Disagree Neither Agree Nor Disagree Mostly Agree Definitely Agree
21. I feel pressure from the media to improve my appearance.

Definitely Disagree Mostly Disagree Neither Agree Nor Disagree Mostly Agree Definitely Agree
22. I feel pressure from the media to decrease my level of body fat.

Definitely Disagree Mostly Disagree Neither Agree Nor Disagree Mostly Agree Definitely Agree

Appendix Q

Multiple Comparisons

Scheffe

| Dependent Variable | (I) Video watched | (J) Video watched | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|--------------------|-------------------|-----------------------|-----------------------|------------|-------|-------------------------|-------------|
| | | | | | | Lower Bound | Upper Bound |
| Positive Affect | Nature (Control) | Fluffy Alyson | 2.2619 | 2.00389 | .736 | -3.4113 | 7.9351 |
| | | Obese Alyson | -1.2825 | 1.97021 | .935 | -6.8604 | 4.2953 |
| | | Did not watch a video | -6.6048 | 3.23117 | .248 | -15.7525 | 2.5430 |
| | | Nature | -2.2619 | 2.00389 | .736 | -7.9351 | 3.4113 |
| | | Obese Alyson | -3.5444 | 1.97021 | .360 | -9.1223 | 2.0334 |
| | | Did not watch a video | -8.8667 | 3.23117 | .061 | -18.0144 | .2810 |
| | Obese Alyson | Nature | 1.2825 | 1.97021 | .935 | -4.2953 | 6.8604 |
| | | Fluffy Alyson | 3.5444 | 1.97021 | .360 | -2.0334 | 9.1223 |
| | | Did not watch a video | -5.3222 | 3.21039 | .435 | -14.4111 | 3.7667 |
| | | Nature | 6.6048 | 3.23117 | .248 | -2.5430 | 15.7525 |
| | | Did not watch a video | 8.8667 | 3.23117 | .061 | -.2810 | 18.0144 |
| | | Obese Alyson | 5.3222 | 3.21039 | .435 | -3.7667 | 14.4111 |
| Negative Affect | Nature (Control) | Fluffy Alyson | -.3095 | 1.57246 | .998 | -4.7613 | 4.1422 |
| | | Obese Alyson | -.0825 | 1.54603 | 1.000 | -4.4595 | 4.2944 |
| | | Did not watch a video | .8952 | 2.53552 | .989 | -6.2830 | 8.0735 |
| | | Obese Alyson | | | | | |

| | | | | | | | |
|------------------------------|-----------------------|-----------------------|-----------|----------|-------|----------|---------|
| | | Nature | .3095 | 1.57246 | .998 | -4.1422 | 4.7613 |
| | | Obese | .2270 | 1.54603 | .999 | -4.1500 | 4.6039 |
| | Fluffy | Alyson | | | | | |
| | Alyson | Did not watch a video | 1.2048 | 2.53552 | .973 | -5.9735 | 8.3830 |
| | | Nature | .0825 | 1.54603 | 1.000 | -4.2944 | 4.4595 |
| | | Fluffy | -.2270 | 1.54603 | .999 | -4.6039 | 4.1500 |
| | Obese | Alyson | | | | | |
| | Alyson | Did not watch a video | .9778 | 2.51921 | .985 | -6.1543 | 8.1099 |
| | | Nature | -.8952 | 2.53552 | .989 | -8.0735 | 6.2830 |
| | Did not watch a video | Fluffy | -1.2048 | 2.53552 | .973 | -8.3830 | 5.9735 |
| | | Alyson | | | | | |
| | | Obese | -.9778 | 2.51921 | .985 | -8.1099 | 6.1543 |
| | | Alyson | | | | | |
| | | Fluffy | 22.3333* | 7.44706 | .033 | 1.2501 | 43.4166 |
| | | Alyson | | | | | |
| | Nature (Control) | Obese | 5.3032 | 7.32189 | .913 | -15.4257 | 26.0320 |
| | | Alyson | | | | | |
| | | Did not watch a video | -2.4857 | 12.00802 | .998 | -36.4814 | 31.5100 |
| | | Nature | -22.3333* | 7.44706 | .033 | -43.4166 | -1.2501 |
| | | Obese | -17.0302 | 7.32189 | .150 | -37.7590 | 3.6987 |
| | Fluffy | Alyson | | | | | |
| | Alyson | Did not watch a video | -24.8190 | 12.00802 | .239 | -58.8147 | 9.1766 |
| | | Nature | -5.3032 | 7.32189 | .913 | -26.0320 | 15.4257 |
| | | Fluffy | 17.0302 | 7.32189 | .150 | -3.6987 | 37.7590 |
| | Obese | Alyson | | | | | |
| | Alyson | Did not watch a video | -7.7889 | 11.93079 | .935 | -41.5660 | 25.9882 |
| | | Nature | 2.4857 | 12.00802 | .998 | -31.5100 | 36.4814 |
| | Did not watch a video | Fluffy | 24.8190 | 12.00802 | .239 | -9.1766 | 58.8147 |
| | | Alyson | | | | | |
| | | Obese | 7.7889 | 11.93079 | .935 | -25.9882 | 41.5660 |
| | | Alyson | | | | | |
| Total Leisure Activity Score | | | | | | | |

Based on observed means.

The error term is Mean Square(Error) = 1164.631.

*. The mean difference is significant at the