

Article submitted to *International Review for the Sociology of Sport*, March 2009.

## Sexual abuse risk in sport: Testing the 'stage of imminent achievement' hypothesis

Celia Brackenridge<sup>1</sup>, Iain Lindsay<sup>1</sup> and Hamish Telfer<sup>2</sup>

1. Brunel University, UK
2. Cumbria University, UK

Address for correspondence:

Celia Brackenridge  
School of Sport and Education  
Brunel University  
Uxbridge  
Middlesex  
UB8 3PH  
Tel: 07815 881329  
[celia.brackenridge@brunel.ac.uk](mailto:celia.brackenridge@brunel.ac.uk)

**Words:** 5824

## BIOGRAPHICAL NOTE

Celia Brackenridge is Director of the Centre for Youth Sport and Athlete Welfare at Brunel University, UK. She has completed work for both UNICEF and the IOC Medical Commission on abuse and harassment prevention in sport.

### Abstract

The purpose of this study was to assess the hypothetical model outlined by Brackenridge and Kirby in *IRSS* in 1997 (32(4): 407-418) which suggested that athlete susceptibility to grooming and sexual abuse in sport coincides with a defined stage of athletic development just prior to peak success: this period they called the 'stage of imminent achievement' (SIA). The model was assessed by investigating 83 cases of criminally-defined child sexual abuse within the sport context that had been reported in the print media over a period of 15 years. SIA-related hypotheses were examined in relation to athlete performance level, sex and early- and late-specialisation sport types. The majority of cases of child abuse in the sample occurred below the SIA for both males and females and with sexually abused males being three times more likely to be aged below the SIA than their female athlete victim counterparts. Age *below* the SIA thus appears to be a stronger predictor of the timing of sexual abuse among male athletes than females: this suggests that much more research is needed on both age and gender differences in sport-related sexual victimisation. Several limitations of the data are discussed. It is recommended that the SIA be reconceived as both a relational *and* a developmental construct and examined more closely in relation to the increased dependence of the athlete on their coach just as they approach a performance goal.

**Key words:** Age, sexual abuse, risk, SIA

Research about sexual abuse has been conducted predominantly within the family context (Fergusson and Mullen, 1999; Cawson et al., 2000; Whealin et al., 2002; Parton 2005). Cawson et al. (2000), for example, found that 16% of children under the age of 16 have encountered sexual abuse. It has been postulated that less attention has been paid to sex offending within professional, recreational or institutional settings where authority structures inhibit reporting by victims (Brackenridge and Kirby, 1997; Woolfe et al., 2003). Traditional conceptions of sport, with associated assumptions of safety, also reinforce the view that whilst child sexual abuse may be a problem for general society it is not a sport-related problem (Donnelly, 1999; Brackenridge, 2001). In recent years, however, following numerous high profile scandals and convictions, research into sexual abuse has encompassed institutional and community settings, including sport (Gallagher, 2000; Wolfe et al., 2003).

A number of studies since the 1990s have demonstrated that sport cannot be considered immune to sex offending. Research into sport-related sexual abuse began with prevalence studies (Kirby and Greaves, 1996; Leahy, Pretty and Tenenbaum, 2002) and qualitative analyses of the processes and experiences of athlete sexual abuse (Brackenridge, 1997; Cense and Brackenridge, 2001; Toftegaard Nielsen, 2001). Findings from this research have subsequently been applied in both abuse prevention and education programmes in sport (Cense, 1997; Boocock, 2002; Canadian Red Cross/Respect Ed, 2004; Slinn, 2006). The study reported here tests the SIA hypothesis in relation to athlete performance level, sex and early- and late-specialisation sport types, using a sample of 83 cases of criminally-defined child sexual abuse within the sport context, reported in the print media over a period of 15 years.

## The Stage of Imminent Achievement

Despite the growing literature on this subject, few studies have thus far contributed to theory-building in ways that might lead to predictive models and thereby assist effective abuse prevention in the context of sport. One study which has is Brackenridge and Kirby's 1997 paper in *IRSS* - 'Playing Safe' - which promoted a hypothetical model of abuse related to the athlete's 'sport age' (Kirby, 1986) rather than chronological age. The logic underpinning this model was initially derived from qualitative analysis of athlete victim accounts of sexual abuse by their sport coaches, also reported in *IRSS* (Brackenridge, 1997). According to the model, talented athletes may be more susceptible to the grooming process which precedes actual sexual abuse when they have most at stake in terms of their sporting careers, that is, when they have reached a pre-elite standard of performance but have not yet broken through into elite level competition. Brackenridge and Kirby (1997) call this the 'stage of imminent achievement' (SIA).

Further, the authors argued that an athlete at this stage would find it harder to walk away from an uncomfortable, harassing or abusive situation than an athlete who had invested less in the sport in terms of time, emotion or resources, such as those at club or recreational level. In short, it was hypothesised that the athlete at the SIA judges that the benefits of staying in the sport (elite success) outweigh the costs (sexual victimisation). It might further be hypothesised that the SIA, and its associated vulnerability to abuse, could be defined by the *relative* investment that has been made in the athlete's career rather than the *absolute* goal of, say, an Olympic medal. If this latter notion has currency, then some athletes will experience repeat SIAs at different milestones in their sport career.<sup>1</sup>

[Insert Table 1 about here – estimated SIAs]

The estimated ages for the SIA were calculated by Brackenridge and Kirby (1997), hypothetically, as the three years prior to the bottom of the normal age range for the elite squad or team in a given sport plus the first/lowest year; for example, the lowest-aged national team competitor in men's gymnastics was 17, thus giving an estimated SIA of 14-17 yrs. Sample data for both sexes were given in the original paper and are expanded in Table 1 to include additional estimated SIAs for a range of other sports. These data showed that the SIA varies from sport to sport, in other words that age of peak performance is sport-specific. This is because the athlete's progress through the training stages under the model of Long Term Athlete Development (LTAD) (Balyi, 1990, 1999 and 2001; Balyi and Hamilton, 2004; Stafford and Balyi, 2005) also varies somewhat from sport to sport, depending on the physical and technical demands involved. Indeed, Balyi and Hamilton advise that Peak Height Velocity be used as a predictor of appropriate transitions through the various LTAD stages. However, Côté and colleagues (Côté, Baker and Abernethy, 2003; Côté and Fraser-Thomas, 2007), advocate a Developmental Model of Sport Participation instead of LTAD and are critical of the exclusive approach to training advocated by proponents of the 10,000 hours thesis (that to reach the elite performance level requires 10,000 hours of deliberate practice). Further, it might be argued that concentration on 'deliberate practice' (Erickssen, Krampe and Tesch-Romer, 1993) as precursor to elite sport success could well increase risk of sexual grooming of the young athlete since it requires exclusive concentration on performance goals at the expense of social and emotional awareness and development. Indeed, recent advice from elite sport science is that the biopsychosocial model of athlete development should be adopted to avoid the shortcomings of models such as LTAD which appear to favour the biological at the expense of the athlete's psychosocial needs and development (Leahy, 2008). Also critical of LTAD as a model of athletic success are the authors of a major sports development website

([http://www.sportdevelopment.org.uk/html/rg\\_ltad.html](http://www.sportdevelopment.org.uk/html/rg_ltad.html) , 2004) who point to a lack of scientific evidence and a mixture of domain assumptions underlying Balyi's work.

Despite criticisms of the LTD model, the notion of 'early and late-specialisation' sports (Balyi, 1999) has entered everyday discourse in sports coaching and talent identification. Whether this is a useful or relevant construct for identifying age-related risk hotspots for sexual abuse in sport is an open question. It has certainly not been possible yet to align these descriptions, nor the phases of LTAD, with such risks. If the SIA hypothesis can be supported empirically, however, then this would justify differentiating preventative child protection programmes according to stage-related risk, thereby making them more resource efficient, focussed and relevant to given sports than are one-size-fits-all programmes. The study reported here was therefore designed to test Brackenridge and Kirby's 1997 hypothesis about the risk of sexual abuse and the SIA. It was also intended to explore further some of the possible links between sport type and risk of sexual abuse that have been the subject of speculation since this topic first appeared in the sport science and policy literature (Myers and Barrett, 2002; Fasting et al., 2004;). In addition to sex (male v female), key variables for the analysis were identified as performance level (elite v non-elite) and sport discipline. The research expectations prior to analysis were that:

1. More abused athletes will be within the SIA than outside it
2. More elite abused athletes than non-elite abused athletes will be within the SIA
3. There will be no sex differences in relation to SIA and experience of sexual abuse
4. There will be no differences between sport disciplines in relation to SIA and experience of sexual abuse

As explained below, however, it was found necessary to revise these expectations once the analysis commenced because of limitations in the data.

## **Method**

### *Procedure*

The methodology originally intended for this study was to examine 548 cases of sexual abuse in sport contexts.<sup>2</sup> These cases had been reported in the print media over a period of 15 years. They were divided into separate sport disciplines and further sub-divided by athlete/victim's sex and performance level, in accordance with Leahy, Pretty and Tenenbaum's (2004) classification protocol. The classification of the elite sample was intended to be based upon international representation and associated sporting competitions. The club sample was intended to comprise competitive sporting achievements that fell short of international level, including competition down to, and inclusive of, recreational level.

The screening criteria adopted for the study required each case to provide data for the sport, sex, age and performance level of the sexually abused athlete. Due to the incomplete nature of the data in the case archive, however, the majority of the cases did not meet these screening criteria and therefore had to be discarded. Of a potential 106 cases from the first level of screening, a further 23 had to be dropped because age-related data of abused athletes could not be disaggregated and therefore could not be assigned to the categories 'within' or 'before' the SIA for their given sports. The total number of cases remaining (n=83) was insufficient to place any confidence in statistical testing across or within several of the sports so only visual inspection could be used. It also proved impossible to divide many of the cases by performance level (elite v non-elite) because the reports



were non-specific on these issues. The original expectations were therefore revisited and the elite/non-elite distinction was adjusted.

[Insert Table 2 about here – Distribution of cases ...]

In order to progress the analysis, data from the usable cases were aggregated under the categories of early- and late-specialisation sports (Balyi, 1999; Balyi and Hamilton, 2004) (see Table 2). We made the assumption that these categories would also align with early- and late-peaking (performance success) in elite sport, from which the SIAs for different sports could be calculated. Interestingly, Balyi and Hamilton (2006) report data from Dick (1997) showing that the overall peak age for elite performance success rose about three years between 1976 and 1996. This, again, means that risk analysis should focus on relative training and competing stage rather than age per se. Puberty/menarche was suggested by Brackenridge and Kirby in 1997 as a possible factor that might compound risk of sexual abuse for elite athletes at the SIA. Interestingly, as peak age appears to be rising, so mean age of menarche/puberty in girls appears to be dropping slightly (Wincup et al., 2005; Cambridge Encyclopedia, u/d). Puberty was not, however, considered as a variable in the current study.

## **Results**

[Insert Figure 3 about here – Percentage of sexual abuse cases ...]

The proportion of cases of abuse in sport as a whole, for males and females together, which occurred below the SIA, 78% (65/83), far outweighing that occurring outside it (Table 3). This figure masks some interesting gender differences, however. For male victims, 92% (36/39) of cases occurred below the hypothesised SIA, whereas for female victims the proportion was 66% (29/44).

Abused females in early specialisation sports are more than three times as likely to experience their abuse below the SIA than during it. The same does not apply for females in late specialisation sports, where the risk appears to be about equal (Table 3). For abused males, the type of sport specialisation has no bearing on sexual abuse risk but this risk is nine times more likely to occur below the SIA than during it.

With reference to the expectations set out above, we conclude as follows:

1. More abused athletes will be within the SIA than outside it: this is rejected.
2. More elite abused athletes than non-elite abused athletes will fall within the SIA: this could not be tested because of insufficient data.
3. There will be no sex differences in relation to SIA: for both males and females specialisation type and risk of sexual abuse age and SIA appear to be related, with the *increased* risk applying *below* the SIA but this risk being three times greater for males.
4. There will be no differences between sport disciplines in these patterns: there were too few data for statistical testing of this but Table 2 indicates some potential trends for further exploration, notably the gender differences in risk for males and females in swimming and athletics.

## **Discussion**

Risk during the life course is a well-researched theme within general youth studies research (Cebulla, 2009) and has become more prominent as the pressures and uncertainties of late modernity bear down on young people (Furlong and Cartmel, 1997; Green, Mitchell and Bunton, 2000; Leccardi, 2007). The study reported here aimed to test the SIA hypothesis about risk of criminally-

defined sexual abuse in sport, first outlined by Brackenridge and Kirby (1997). The results show that the majority of cases of child abuse in the sample occurred below the SIA for both males and females and with sexually abused males being three times more likely to be aged below the SIA at the point of abuse than their female athlete victim counterparts. Notwithstanding several forceful personal and journalistic accounts of the sexual abuse of males in sport (Robinson, 1998; Kennedy, 2006) relatively little scientific research literature has focussed on male victims of abuse in sport: the work of Michael Hartill is an exception (Hartill, 2005, 2008). In this study, age below the SIA does appear to be a stronger predictor of the timing of sexual abuse among male athletes than females: this suggests that much more research is needed on both age and gender differences in sport-related sexual victimisation.

In terms of risk within individual sport disciplines, too few data were available for any strong patterns to emerge. However, athletics (track and field) and swimming raise some potential issues in that the trends they show, albeit it that they are small, indicate age-related gender differences. At this stage of our scientific endeavours on this subject it would be unwise to speculate on the reasons for these trends.

Rather than there being a solitary SIA that occurs solely before one key event (such as a World Championship or an Olympic Games) it may be that an athlete will encounter multiple SIAs throughout their sporting career each time they approach a major sporting goal: their susceptibility to grooming and sexual abuse *may* increase at each of these points but the data in this paper do not support the view that the SIA predicts risk of such abuse. However, it does seem reasonable to consider that, in support of Brackenridge and Kirby's theory, elite competition provides greater external pressures and increased risk-reward scenarios than those obtained at lower performance levels. Indeed, since the original paper on the SIA, a number of empirical studies have been

published that support the proposition that the higher one ascends the performance ladder in sport, the higher the risk of sexual exploitation. These studies include: Fasting, Brackenridge and Sundgot Borgen in Norway (2000, 2004); Leahy, Pretty and Tenenbaum in Australia (2001, 2002); Fasting and Knorre in the Czech Republic (2005); Chroni and Fasting in Greece (2008); and vanden Auweele and colleagues in Belgium (2008). Similar results have been found in a recent empirical study of emotional abuse in sport (Gervis, in press), that is that child athletes (i.e. under 18) at the highest elite performance level experience more emotional abuse and report more serious emotional impacts than child athletes at lower performance levels.

It is clear, then, that there is something especially risky about the elite child athlete performance environment. One clue to understanding this is in the increased emotional investment required, from both the athlete and the coach, as an athlete makes the transition from 'training to train' to the 'training to compete' and 'training to win' stages (Balyi and Hamilton, 2004). At this point, the culture of power in this relationship alters. In every sense, the game becomes more serious and the stakes higher for both parties. The athlete is now the vehicle both for their own and their coaches' success, and thus becomes both commodity and capital in the process of sexual/athletic career trading (Fowler, 1997). The power balance shifts to one of 'power over' the athlete (Gervis, in press) and the abusive coach has a vested interest in maintaining power over the athlete and eradicating any sense of empowerment that might lead to the athlete challenging them.

It has previously been argued that the sex abuser in sport – the 'spoilsport' - deliberately or otherwise, sabotages the athlete's prospects of elite success in order to retain control over him or her (Brackenridge, 2001). This accords with the testimonies of the sexually abused athletes interviewed by Brackenridge (1997) and Cense (1997). But it also seems logical that an elite coach would want their athlete to achieve elite success in order to reinforce his or her reputation as a coach: this would

thus suggest that emotionally abusive coaching behaviour might be normalised at the elite performance level in the service of success but that sexual abuse might be used as a mechanism for retaining sexual control, regardless of the negative impact this has on elite performance. If so, then the motivations of the emotionally abusive and sexually abusive coach are distinct. Such a proposition begs close inspection from a clinical psychology perspective.

### **Limitations**

This study had many limiting factors, all of which can be expected when dealing with messy data and purposive samples such as those derived from media reports. However, it is only through such attempts that slow progress is made with theory development. As with any study based on such texts, the quality of reporting and accuracy of the information used here could not be guaranteed. Further, in reports where a solitary abuser was a multiple perpetrator, each case was assessed individually and consequently the number of cases did not necessarily match the number of abusers.

Using a criminal definition as a screening criterion for sample selection excludes many, or perhaps even most, cases of sexual abuse in sport that go unreported and are, therefore, undetected and un-punished by the criminal justice system (Brackenridge, 2001). We cannot know how these cases and the attrition in the reporting process (Brackenridge, Bringer and Bishopp, 2005) might have influenced the patterns detected here.

The reports assessed in this study had their origins in a variety of countries and so the SIAs considered were a best fit for all as opposed to a bespoke model for each sport from each nation. SIAs may even vary from country to country due to the diverse nature of cultural and political sporting environments: for example, the ages of some of the Chinese women gymnasts at the Beijing Olympics were challenged as they appeared to be too young to be at the minimum age for the sport

(16) (Beech, 2008). Conversely, in youth soccer, age fraud by older players pretending to be younger is monitored through the use of wrist bone X-Rays since birth certificates have proved so easy to forge (Dvorak, 2008).

Another limitation in this research is the method of calculating the SIA and its chronological exactitude. This cannot be calibrated precisely since there are frequent exceptions where young athletes show prodigious talent in their sport careers and thus advance to the next performance level comparatively early. British diver Tom Daley is a case in point, having (controversially) taken part in the Beijing Olympics at the age of only 14 (Slot, 2008) . To avoid a skew caused by such cases, one might perhaps assess the SIA at a normative level by taking the 25<sup>th</sup> percentile of the age range for elite athletes in a given sport as marking the *end* of the SIA (i.e. highest exposure to risk) and the *start* of the protective factors associated with reaching the elite achievement level. In order to provide an informed judgement of the complexities of the SIA, an expert panel made up of elite coaches and specialists within each sport could judge exactly where the SIA lies and compare their judgements against the age records available from governing body archives.

The sample was purposive and individual sports sub-sample sizes were relatively small for such a statistical enquiry: Tabachnick and Fidell (2001) suggest that to ensure robustness each group should have a sample size of at least 20. Because of this, sports were classified broadly and aggregated in this analysis. An additional problem with the sample was that the performance level of athletes in some cases of reported abuse proved difficult to distinguish: no analysis could be conducted on elite versus non-elite sport and risk of sexual abuse. Despite all these limitations, it was necessary for us to make some assumptions in order to conduct this initial analysis. Clearly, a great deal more could be learned on this topic if larger datasets, court reports, age-related data and sport-specific expert panels were available.

## Conclusions

The purpose of this study was to examine, in relation to child sexual abuse, the concept of sport-specific athlete development or 'sport age' as a predictor of susceptibility to sexual abuse in sport. As reported within Brackenridge and Kirby's 1997 paper, the chronological age of an athlete is a poor predictor of athlete development and, consequently, a weak indicator for risk assessment. As a solution to this problem they suggested categorising the period prior to high-level performance, or Stage of Imminent Achievement, as the period during which a child athlete will be most vulnerable to sexual abuse within the sport context. However, the data in this study show that most cases fall *below* the SIA. The SIA appears to be a relative rather than an absolute concept, varying sport by sport because the technical and developmental demands of athletes also vary at different chronological ages. From the analysis presented here it appears that the SIA should thus be reconceived as both a relational *and* a developmental construct and examined more closely in relation to the increased dependence of the athlete on their coach just as they approach a performance goal.

Notwithstanding the limitations of this analysis, sport organisations do need to find ways of ameliorating the risks of sexual abuse highlighted in the research studies reported earlier. Many of these organisations have obligations under health and safety legislation and other laws. All of them have obligations associated with athletes' human rights (Department for Constitutional Affairs, 2006) and medical welfare (IOC Medical Commission, 2006, 2007) to undertake robust risk assessments. Risks of sexual abuse in sport settings arise from a number of contingencies associated with the vulnerability of the athlete/victim, the inclination of the coach/abuser and the organisational opportunities (Brackenridge, 2001). The collation of empirical data on sexual abuse of male and

female athletes is a necessary, but not sufficient, condition for developing effective athlete protection policies.

## Notes

1. We are grateful to Keith Kaufman, President of the American Association for the Treatment of Abusers (ATSA), for first pointing out this possibility.
2. The cases were collected by the first author over the fifteen year period from print media (mainly newspapers but also some magazines), internet Press reports, occasional court reports and (some) overseas sources. In the nature of media reporting, some accounts were as short as a couple of paragraphs and others came from feature articles.

## References

- Boocock, S. (2002) 'The Child Protection in Sport Unit', *Journal of Sexual Aggression* 8(2): 99-106.
- Balyi, I. (1990) *Quadrennial and Double Quadrennial Planning of Athletic Training*. Victoria BC.: Canadian Coaches Association.
- Balyi, I. (2001) *Sport System Building and Long-term Athlete Development in British Columbia*. Canada: SportsMed BC.
- Balyi, I. (1999) 'Coaching in the New Millennium: The key to athletic excellence = Long-term Athlete Development', Conference Proceedings, Professional and National Coaches Conference, Australian Coaching Council,  
<http://fulltext.ausport.gov.au/fulltext/1999/acc/pance/balyi.htm> retrieved 9 Mar 2009.



- Balyi, I. and Hamilton, A. (2004) *Long-Term Athlete Development: Trainability in childhood and adolescence. Windows of opportunity. Optimal trainability*. Victoria: National Coaching Institute British Columbia & Advanced Training and Performance Ltd.  
<http://www.sportdevelopment.org.uk/bayli20041.pdf> Retrieved 23 Feb 2009.
- Beech, H. (2008) 'The Chinese gymnasts: Age questions remain'. *New York Times*, Wednesday 13<sup>th</sup> August. <http://www.time.com/time/world/article/0,8599,1832312,00.html?imw=Y> Retrieved 23<sup>rd</sup> February 2009
- Brackenridge, C.H. (2001) *Spoilsports: Understanding and Preventing Sexual Exploitation in Sport*. London: Routledge.
- Brackenridge, C.H. (1997) "'He owned me basically": Women's experience of sexual abuse in sport', *International Review for the Sociology of Sport* 32(2): 115-130.
- Brackenridge, C.H., Bringer, J.D. and Bishopp, D. (2005) 'Managing cases of abuse in sport', *Child Abuse Review* 14: 259-274.
- Brackenridge, C.H. and Kirby, S. (1997) 'Playing safe: Assessing the risk of sexual abuse to elite young athletes', *International Review for the Sociology of Sport* 32(4): 407-418.
- Cambridge Encyclopedia (u/d) 'Menarche - Physiologic aspects, changes over time in the average age of menarche, cultural aspects of menarche', Vol. 50.  
<http://encyclopedia.stateuniversity.com/pages/14885/menarche.html> Retrieved 27th Feb 2009.
- Canadian Red Cross/Respect Ed. (2004) *Respect in Sport*. <http://www.respectinsport.com> Retrieved 23<sup>rd</sup> Feb 2009.
- Cawson, P., Wattam, C., Brooker, S. and Kelly, G. (2000) *Child Maltreatment in the UK: A Study of the Prevalence of Child Abuse and Neglect*. London: NSPCC.

- Cebulla, A. (2009) 'Risk through the years: A statistical portrait of young people's risk perceptions and experiences relative to those of older generations', *Journal of Youth Studies* 12(1): 39-56.
- Cense, M. (1997) *Red Card or Carte Blanche. Risk Factors for Sexual Harassment and Sexual Abuse in Sport. Summary, Conclusions and Recommendations*, Arnhem: Netherlands Olympic Committee\*Netherlands Sports Federation/TransAct.
- Cense, M. and Brackenridge, C.H. (2001) 'Temporal and developmental risk factors for sexual harassment and abuse in sport', *European Physical Education Review* 7(1): 61-79.
- Chroni, S., and Fasting, K. (2007) 'Forms of sexual harassment experienced by female sport students in the Czech Republic, Greece and Norway', paper presented at the FEPSAC 12<sup>th</sup> European Congress of Sport Psychology, Halkidiki, Greece, 4-9<sup>th</sup> Sep.
- Côté, J., Baker, J. and Abernethy, B. (2003) 'From play to practice: A developmental framework for the acquisition of expertise in team sport', in J. Starkes and K.A. Ericsson (Eds.) *Recent Advances in Research on Sport Expertise*. Champaign, IL: Human Kinetics. pp. 89-114.
- Côté, J. and Fraser-Thomas, J. (2007) 'Youth involvement in sport', in P.R.E. Crocker (Ed.) *Introduction to sport psychology: A Canadian perspective*. Toronto: Pearson Prentice Hall. pp. 266-294
- Department for Constitutional Affairs (2006) *Human Rights: Human lives. A Handbook for Public Authorities*. London: DCA 55/06
- Donnelly, P. (1999) 'Who's fair game?: Sport, sexual harassment and abuse', in P. White and K. Young (eds) *Sport and Gender in Canada*. Toronto: Oxford University Press.

- Dvorak, J. (2008) 'Football, Youth and Health', keynote speech to a conference on *Researching Youth Football* held at Loughborough University, UK, 17<sup>th</sup> Sept 2008.
- Ericsson, K.A., Krampe, R.T. and Tesch-Römer, C. (1993) 'The role of deliberate practice in the acquisition of expert performance', *Psychological Review* 100, 363-406.
- Fasting, K., Brackenridge, C., and Sundgot-Borgen, J. (2000) *Females, Elite Sports and Sexual Harassment. The Norwegian Women Project*. Oslo, Norwegian Olympic Committee.
- Fasting, K., Brackenridge, C., and Sundgot-Borgen, J. (2004) 'Prevalence of sexual harassment among Norwegian female elite athletes in relation to sport type', *International Review for the Sociology of Sport* 39 (4): 373-386
- Fasting, K. and Knorre, N. (2005) *Women in Sport in the Czech Republic: The Experience of Female Athletes*. Oslo and Prague: Norwegian School of Sport Sciences and Czech Olympic Committee.
- Fergusson, D.M. and Mullen, P.E. (1999) *Childhood Sexual Abuse: An Evidence Based Perspective*, Volume 40, *Developmental Clinical Psychology and Psychiatry*, London: Sage.
- Fowler, B. (1997) *Pierre Bourdieu and Cultural Theory*. London: Sage.
- Furlong, A. and Cartmel, F. (1997) *Young People and Social Change? Individualisation and Risk in Late Modernity*. Buckingham: Open University Press.
- Gallagher, B. (2000) 'The extent and nature of known cases of institutional child sexual abuse', *British Journal of Social Work* 30: 795-817.
- Gervis, M (in press) 'What price gold medals? An investigation into the negative emotional responses of child athletes to their coaches', in C. Brackenridge (ed) *Sport, Children's Rights and Violence Prevention: A Sourcebook on Global Issues and Local Programmes*. Innocenti Research Centre, Florence: UNICEF

Green, E., Mitchell, W. and Bunton, R. (2000) 'Contextualising risk and danger: An analysis of young people's perceptions of risk', *Journal of Youth Studies* 3(2): 109-126.

Hartill, M. (2008) 'The sexual abuse of boys in organized male-sports', *Men and Masculinities* (online) doi: 10.1177/1097184X07313361 retrieved 8 Mar 2009.

Hartill, M. (2005) 'Sport and the sexually abused male child', *Sport, Education and Society* 10(3): 287-304.

International Olympic Committee. (2006). *Olympic Medical Code*.

[http://www.olympic.org/uk/organisation/commissions/medical/index\\_uk.asp](http://www.olympic.org/uk/organisation/commissions/medical/index_uk.asp) retrieved 20<sup>th</sup> Feb 2009.

International Olympic Committee. (2007). *IOC adopts consensus statement on sexual harassment and abuse in sport*.

[http://www.olympic.org/uk/organisation/commissions/medical/full\\_story\\_uk.asp?id=2064](http://www.olympic.org/uk/organisation/commissions/medical/full_story_uk.asp?id=2064) retrieved 20<sup>th</sup> Feb 2009.

Kennedy, S. with Grainger, J. (2006) *Why I Didn't Say Anything: The Sheldon Kennedy Story*. Canada: Insomniac Press.

Kirby, S. (1986) 'High performance female athlete retirement', unpublished Ph.D. dissertation, University of Alberta, Edmonton, Canada.

Kirby, S. and Greaves, L. (1996) 'Foul play: Sexual abuse and harassment in sport', paper presented to the Pre-Olympic Scientific Congress, Dallas, USA, 11-14<sup>th</sup> Jly.

Leahy, T. (2008) 'Biopsychosocial support systems and the role of the sports scientist', keynote speech to the annual conference of the British Association of Sport and Exercise Sciences, Brunel University, UK, 1-4<sup>th</sup> Sep.

Leahy, T., Pretty, G., and Tenenbaum, G. (2004) 'Perpetrator methodology as a predictor of

- traumatic symptomatology in adult survivors of childhood sexual abuse', *Journal of Interpersonal Violence* 19(5): 521-540.
- Leahy, T., Pretty, G. and Tenenbaum, G. (2002) 'Prevalence of sexual abuse in organised competitive sport in Australia', *Journal of Sexual Aggression* 8(2): 16-36.
- Leccardi, C. (2007) 'Facing uncertainty: Temporality and biographies in the new century', *Young – Nordic Journal of Youth Research* 13: 123-146.
- Myers, J. and Barrett, B. (2002) *In at the Deep End: A New Insight for all Sports from Analysis of Child Abuse within Swimming*. London: NSPCC.
- Parton, N. (2005) *Safeguarding Childhood: Early Intervention and Surveillance in a Late Modern Society*. Basingstoke: Macmillan.
- Robinson, L. (1998) *Crossing the Line: Violence and Sexual Assault in Canada's National Sport*. Toronto: McClelland and Stewart Inc.
- Slinn, N. (2006) *Safeguarding and Protecting Children: A Guide for Sportspeople*. Leeds: Sports Coach UK/NSPCC.
- Slot, O. (2008) 'Swearing, rows and sour grapes. Tom Daley's dreams take a tumble', *The Times* 12<sup>th</sup> Aug, <http://www.timesonline.co.uk/tol/sport/olympics/article4511018.ece> retrieved 23<sup>rd</sup> Feb 2009.
- [http://www.sportdevelopment.org.uk/html/rg\\_ltad.html](http://www.sportdevelopment.org.uk/html/rg_ltad.html) (2004) retrieved 9 Mar 2009
- Stafford, I. and Balyi, I. (2005) *Coaching for Long-Term Athlete Development*. Leeds: Coachwise Ltd.
- Tabachnick, B. G., and Fidell, L. S. (2001) *Computer-assisted Research Design and Analysis*. Boston: Allyn & Bacon.
- Toftegaard Nielsen, J. (2001) 'The forbidden zone: Intimacy, sexual relations and misconduct in the

relationship between coaches and athletes', *International Review for the Sociology of Sport*, 36(2): 165-183.

vanden Auweele, Y., Opdenacker, J., Vertommen, T., Boen, F., Van Niekerk, L., De Martelaer, K. and De Cuyper, B. (2008) 'Unwanted sexual experiences in sport: Perceptions and reported prevalence among Flemish, female student-athletes', *International Journal of Sport and Exercise Psychology* 6(4): 354-365.

Whealin, J.M., Davies, S., Shaffer, A.E., Jackson, J.L. and Love, L.C. (2002) 'Family context and childhood adjustment associated with intra-familial unwanted sexual attention', *Journal of Family Violence* 17(2): 151-165.

Whincup, P.H., Gilg, J.A., Odoki, K., Taylor, S. J. C. and Cook, D.G. (2001) 'Age of menarche in contemporary British teenagers: survey of girls born between 1982 and 1986', *British Medical Journal* 322:1095-1096, 5<sup>th</sup> May.

[http://en.wikipedia.org/wiki/Basketball\\_at\\_the\\_2008\\_Summer\\_Olympics\\_Men%27s\\_team\\_rosters#](http://en.wikipedia.org/wiki/Basketball_at_the_2008_Summer_Olympics_Men%27s_team_rosters#).

C2.A0Argentina

Woolfe, D.A., Jaffe, P.G., Jette, J.L. and Poisson, S.E. (2003) 'The impact of child abuse in community institutions and behaviours: Advancing professional and scientific understanding', *Clinical Psychology: Science and Practise* 10: 179-191.

**Table 1 Estimated SIA for sample sports <sup>1</sup>**

SPORT	ESTIMATED SIA	
	Males	Females
Gymnastics <sup>1</sup>	14-17	12-15
Swimming <sup>1</sup>	14-17	13-16
Tennis <sup>1 2</sup>	19-22	18-21
Rowing <sup>1</sup>	15-18	16-19
Volleyball <sup>1</sup>	16-19	16-19
Field hockey <sup>1</sup>	15-18	16-19
Football (Soccer) <sup>3</sup>	16-19	17-20
Ice hockey <sup>4</sup>	18-21	16-19
Basketball <sup>5</sup>	14-17	15-18
Athletics (Track & Field) <sup>6</sup>	16-19	14-17

1 Source: Athletes Assistance Programme of Sport Canada (National Team data at 25 Mar 1997), extracted from Brackenridge & Kirby (1997)

2 Plus one 17 year old on each team for development purposes

3 Source: <http://www.skysports.com> and <http://www.TheFA.com> retrieved 6 Mar 2009

4 Source: <http://www.hockeycanada.ca> retrieved 6 Mar 2009

5 Source: [http://en.wikipedia.org/wiki/Basketball\\_at\\_the\\_2008\\_Summer\\_Olympics\\_-\\_Men%27s\\_team\\_rosters#.C2.A0Argentina](http://en.wikipedia.org/wiki/Basketball_at_the_2008_Summer_Olympics_-_Men%27s_team_rosters#.C2.A0Argentina) retrieved 9 Mar 2009.

6 Source: 2008 Olympic teams <http://www.olympics.org.uk/teamGB.aspx> retrieved 6 Mar 2009

**Table 2**      **Distribution of cases of sexual abuse in sport by sex, specialisation type and SIA status**

<b>EARLY SPECIALISATION SPORTS</b>					
	<b>Cases of sexual abuse occurring below the estimated SIA</b>		<b>Cases of sexual abuse occurring within the estimated SIA</b>		<b>Totals</b>
	<b>Male n (age/range)</b>	<b>Female n (age/range)</b>	<b>Male n (age/range)</b>	<b>Female n (age/range)</b>	
Gymnastics	0 (-)	11 (7-14 yrs)	1 (15 yrs)	0 (-)	12
Swimming	6 (10-13 yrs)	2 (11 yrs)	0 (-)	6 (13-16 yrs)	14
Tennis	3 (12-14 yrs)	8 (9-15 yrs)	0 (-)	0 (-)	11
<b>Sub-total</b>					37
<b>LATE SPECIALISATION SPORTS</b>					
Athletics	4 (15 yrs)	1 (13 yrs)	0 (-)	5 (14-17 yrs)	10
Football	16 (9-15 yrs)	1 (15 yrs)	0 (-)	0 (-)	17
Basketball	1 (12 yrs)	5 (13-14 yrs)	2 (14 yrs)	3 (15-16 yrs)	11
Ice Hockey	6 (9-13 yrs)	0 (-)	0 (-)	0 (-)	6
Volleyball	0 (-)	1 (14yrs)	0 (-)	1 (16yrs)	2
<b>Sub-total</b>					46



**Table 3** Percentage of sexual abuse cases occurring below or within the SIA by early and late specialisation sport

Sport type	Cases of sexual abuse occurring below the estimated SIA		Cases of sexual abuse occurring within the estimated SIA	
	Male % (n)	Female % (n)	Male % (n)	Female % (n)
Early specialisation (n=37)	90% (9)	78% (21)	10% (1)	22% (6)
Late specialisation (n=46)	93% (27)	47% (8)	7% (2)	53% (9)