



Playing safe: Assessing the risk of sexual abuse to elite child athletes

Abstract

Young athletes frequently suffer from being seen as athletes first and children second. This has consequences for their legal, civil and human rights as children (Kelly et al., 1995) and for the way in which sport organisations choose to intervene on their behalf to protect them from physical, psychological and sexual abuses (Brackenridge, 1994). Sport careers peak at different ages depending on the sport: in some, children as young as 12 or 13 may reach the highest levels of competitive performance; in others, full maturity as an athlete may come late into adulthood or even middle age. Recognition of this variation has given rise to the concept of 'sport age' (Kirby, 1986) referring to sportspecific athlete development. This concept is of significance in helping to identify the developmental process in terms of athletic, rather than chronological, maturity. The risk of sexual abuse in sport, formerly ignored or denied, has now been documented in a number of studies, using both quantitative and qualitative methods (Kirby & Greaves, 1996; Brackenridge, 1997; Volkwein, 1996). Drawing on data from these studies and from the previous work on sport age and athletic maturation, this paper proposes a possible means of identifying and assessing relative risk of sexual abuse to elite young athletes in selected sports. The concept of a 'stage of imminent achievement' (SIA) is proposed as the period of peak vulnerability of young athletes to sexual abuse.

Key words: sport age, sexual abuse, children, elite



Playing safe: Assessing the risk of sexual abuse to elite child athletes

Introduction

One of the recurring themes in the literature on young people in sport has been the need to define them in a way which is appropriate to their needs, as children first and athletes second (Kelly *et al.*, 1995). However, it is all too often still the case that children with significant athletic potential are treated as adults (Roberts in Gleeson, 1986). This has serious consequences for child athletes' access to civil, criminal and human rights and to the legal and constitutional processes of protection and defence which they might more readily obtain in non-sporting contexts. In this paper, the concept of 'sport age' (Kirby, 1986) is explored as a potentially useful mechanism for identifying and assessing moments of highest risk of sexual abuse for young elite athletes in a range of sports. In an earlier paper Brackenridge (1994) highlighted some of the reasons for organisational inertia around sexual abuse and child protection in sport. A means of assessing risk through the identification of the 'stage of imminent achievement' is proposed here which might assist sport organisations in making judgements about where and how far to invest their resources in child protection initiatives.

Sexual maturity, sport age and peak performance

Many sport scientists have challenged the logic of using chronological age as a determinant of physical development (for example, Sharman, 1981; Malina,1989; Whilmore and Costill, 1994). Concepts such as 'physiological age', 'development age', 'skeletal age and 'dental age' have all been adopted at one time or another as proxy measures of overall development because of the limited usefulness of measures of chronological age. Indeed, the weight divisions adopted in some strength-based sports, such as boxing and wrestling, were introduced in attempts to render competition fairer.



However, critiques of competition categories, such as that by Khosla (1977), which showed that tall competitors were favoured in many Olympic events, have resulted in only a few altered competitive gradings. Four notable exceptions stand out. First, in swimming, the age eligibility for the Olympics was raised from 13 to 14 years for the 1976 Montreal Games. Secondly, the Women's Tennis Association (WTA) formed an Age Eligibility Commission in 1994 which considered evidence from both exercise scientists and social scientists before raising the minimum age for women starting on the professional tour from 14 years of age to 16 (Lindsey, 1997). Following the Atlanta Olympic Games in 1996, the International Gymnastics Federation also raised the age of eligibility for female athletes from 14 years to 16 years of age and International Figure Skating raised their minimum age from 14 to 15 in 1997. Alterations to the rule structures of sport such as these are generally founded in concerns about overtraining, over-exposure to the media and the sequelae of intense competition for the young athletes. There has rarely, if ever, been open debate about the consequences of such decisions for the sexual well-being of young athletes.

Puberty has also been used as an indicator of development but has been shown to vary widely in onset and duration within and between males and females. As Armstrong and Welshman note (1997: 13) "The sequence of events through which adolescents pass is much less variable than the time at which events occur." (See Table 1.) Exercise science approaches to the issue of maturation are, not surprisingly, biassed towards medical measures such as skeletal maturity, height and weight, bone, muscle, fat and nervous system development. The application of such measures to sport performance is generally limited to developing young athletes' motor ability, strength, pulmonary function, cardiovascular function and aerobic and anaerobic capacity (Whilmore and Costill, 1994). Usually, exercise scientists pay little attention to social factors or make



only passing reference to cross-cultural or multivariate analyses which might be important in coming to understand the experience of the child athlete. The issue of sexual maturity, for example, is significant for far more than physical reasons. In addition to influencing training effects and responses to physical workloads, the onset of puberty and subsequent sexual activity marks a crucial time in identity formation for the young elite athlete (Lee, 1993). In relation to males, for example, Messner says

The athlete's relationship with his coach takes place during boyhood and young adulthood, when the young male's masculine identity is being formed, when he is most insecure about his public status, about his relationships, his sexuality, his manhood. (Messner 1992: 105)

When other young people might be testing their emerging identity in school-based and friendship networks, the elite athlete may well spend time separated from such contacts whilst he or she trains and competes (Kirby, 1986). Donnelly (1987) talked of the 'lost childhood/lost adolescence' syndrome which characterised a group of recently retired young elite female athletes. Only 12% of his sample said "that they would be prepared to repeat their athletic careers without reservation." (p.4). Whilst it is important to recognise that young athletes are sexual beings it is also important not to assume that they are necessarily hypersexual. Indeed, in their study of sexual abuse amongst elite Canadian athletes Kirby and Greaves (1996) concluded that young athletes "...are sexually active at roughly the same ages as other members of Canadian society." (p. 22). On average, the male athletes in their study became sexually active before the female athletes, at 16.5 years of age and 18 years of age respectively. Most were sexually active within the sporting community.

Amongst the problems reported by athletes in Donnelly's study were 'problems of relationships with coaches' which, he reports, were "far more serious for female athletes than for male athletes" (1987: 5). These were



...typically, but not exclusively, being directed from male coaches to female athletes...also the *often problematic* development of a romantic relationship between a male coach and a female athlete - the difficulties of such relationships being far harder to handle for young females than for adult coaches (e.g. jealousies among teammates...); homosexual relationships can pose both similar and new difficulties. (1987: 6) (italics added)

It is interesting to note that there is no analysis in this work of the obvious breach of trust and misuse of power by the coaches concerned. We argue that the concept of consent is problematic in 'romantic relationships' where one has positional authority over the other, for example: clergy and parishioner, doctor and patient, armed forces officer and enlisted ranks, coach and athlete (Gonsiorek, 1995).

In a study of high performance athlete retirement, Kirby (1986: 142) reported that "chronological age was found to be insufficient for understanding the meaning of age within the context of sport." She coined the term 'sport age' to track athletes' development in competitive sport. Tracking athletes by the single indicator of chronological age ceases to be useful when considering the average chronological ages of athletes at their peak performance in different sports. For example, athletes in the sports of gymnastics or swimming regularly peak at much earlier chronological ages than do athletes in rowing or volleyball. So marked are these average peak ages that some sports with older peak age averages regularly recruit athletes retiring from sports with younger peak age averages. The concept of sport age allows comparison of athlete development across all sports in a manner which takes account of performance development in relation to the age at which peak performance is anticipated.

To measure sport age across sports, the path of an athlete from initial participation in the sport through to performance at the highest possible elite level is described. Different nomenclature exists in the sport systems of different nations but all identify a reasonably



linear path towards Olympic and/or world championship competition. We have chosen to use the following measures of sport age: novice, competitive, elite development and elite. The stages of development are relatively arbitrary yet reflect the increasing intensity of the athletic career pattern. Many sport organisations use a comparison between sport age and chronological age as a measure, albeit it rough and unscientific, to predict possible performances of athletes they are training. Successful athletes who are younger than the average age of the usual winners for their nation are deemed to have considerable performance potential. Athletes older than that average age are likely to be viewed as atypical and perhaps close to, or having reached, their performance potential. For example, in Canada in the sport of rowing, developmental female and male athletes over the age of 23 are not encouraged to apply for a place in the national training camps (Rowing Manitoba, 1997).

The notion of sport age allows cross-sport comparisons between performance potential for athletes of very different chronological ages but who are similarly placed in terms of their performance progress. Sport age can be used to compare athletes of different chronological ages on performance potential. For example, how might sport organisations trying to determine the likelihood of successful performance of an international multisport tour (such as the Commonwealth Games) choose between a 13 year old female swimmer and a 20 year old female rower for a place on the team? In all probability, the two would have trained for a similar number of years and had similar successes along the way. Both would be at the elite development level. The only difference between them might be that one had had more successes than the other at that elite development stage.



Sport age is a gender-friendly concept. Whereas chronological age could not be used to compare performance potential of the same 13 year old female swimmer and that of the 13 year old male swimmer, sport age does allow for cross-gender comparisons. Since girls reach puberty and mature socially at an earlier chronological age than do males, female athletes actually reach peak sport age at different chronological ages than do male athletes (see Table 1). The female swimmer would probably be placed in the elite development category whereas the same-aged male swimmer might only be comparable with other athletes, both male and female, in the competitive or sub-elite development level.

Sport age is a concept useful only within the sporting world. Athletes may feel or be substantially different from their same-aged but non-sport peers (Kirby, 1986, 1987; Donnelly, 1993). The 13 year old female swimmer at the elite development level may already be well-travelled, used to training between two and five hours per day, familiar with the routine of checking into and out of hotels, self-sufficient in terms of dietary requirements and physical training patterns and may have a very clear picture of her competition world wide. She will probably have friends and acquaintances in a variety of countries, perhaps have been exposed to several foreign languages, and may have found herself in many unusual and stressful situations (Brackenridge, 1996). These experiences would be very unusual for a same-aged, non-sport young woman. Athletes of the same sport age but from different sports would be expected to have had similar experiences with respect to their physical training, social development, values and behaviours, in contrast to same-aged non-athletes. Kirby's participants (1986: 144) described the feeling of "the rest of their lives being on hold" while they completed their athletic careers. The perceived and actual separation from 'normal' life which often accompanies elite-level sport and the exclusion of other routine experiences of growing



up increases the reliance which such high level young athletes place on support systems *inside* sport. This, arguably, increases the hot-house atmosphere of elite level sport which, in turn, adds to the vulnerability of the young athlete to sexual approaches by authority figures in the sporting context. Indeed, in a study of 186 parents of elite development level young female athletes, Brackenridge (1996) found that many of their daughters used sport as their main reference point for developing friendships and a social life. In sum, sport age is a concept resting on the average age at which international performers reach their peak performance levels. The concept allows for comparisons on the basis of potential peak performance, for differently aged athletes, and between athletes of both sexes, and is useful only within the sport context.

Knowledge of sexual abuse in sport

The findings of studies in Canada (Kirby and Greaves, 1996), the USA (Pike Masteralexis, 1995; Volkwein, 1996) and Britain (Brackenridge, 1997) challenge those organisations who continue to deny the existence of sexual abuse in sport. Indeed, since the publication in 1994 of a major literature and policy review of harassment and abuse in sport (Brackenridge, 1994) it might be argued that there have been several shifts in the institutional responses to this issue, first from denial to obstruction/resistance (Finkelhor in Myers, 1994), then from resistance to reluctant acceptance, then from acceptance to the formulation and dissemination of advocacy programmes (Crouch, 1995; National Coaching Foundation, 1996; Canadian Athletes Association, 1997). Whilst there is still a dearth of sport-related and sport-specific data about sexual abuse and harassment it is increasingly clear that these issues constitute a problem which demands responses from sport organisations at the level of both policy and practice. For example, in their survey of all Canada's high performance and recently



retired Olympic athletes, Kirby and Greaves (1996) found that sexual harassment and abuse by authority figures in sport were widespread practices. The research showed that 21.8% of all respondents had had sexual intercourse with persons in positions of authority, which, by whatever standard, is a startling figure (1). Sexual harassment and abuse were differentially experienced by females and males with the females demonstrating: a higher degree of vulnerability; higher awareness of the issues; more instances of abuse and harassment; and wider variation in the types of abuses they experience. In the same study 3.2% of athletes reported that when they were under 16 years of age they were upset by a flasher (someone exposing their genitals) in a sporting context. 8.6% of responding athletes experienced forced sexual intercourse in the sporting context, including 1.9% (n=5) who were under 16 years of age. Further, 2.6% of athletes experienced unwanted sexual touching prior to the age of 16 years. It is not clear how many of the athletes surveyed entered sport after the age of 16 or whether these data are additive, that is, related to experiences of sexual harassment and abuse reported outside the sporting context, particularly in the family (figures for which are reported in Brackenridge, 1994 and 1996). Athletes who, for whatever reason, have endured negative experiences to do with sexual, physical or emotional abuse, bring added vulnerability into the sport context. They are easy targets for coaches or other authority figures with motivations to abuse and are more likely to be singled out for the grooming process whereby individuals are targetted and prepared for abuse. (See Brackenridge, 1997 for a fuller explanation of grooming.) Brackenridge (1997) reports data from a qualitative study in which former female athletes gave detailed accounts of the sexual abuse they had suffered from their coaches; and Volkwein (1996) reports extensive concerns amongst campus athletes and non-athletes about acts of sexual harassment generated by student athletes. Whilst some policy interventions have begun to increase apparent safety levels within sport there is no empirical evidence of their



10

actual efficacy since there is so little knowledge about the baseline prevalence and incidence levels for sexual abuse in sport.

Emergent theoretical work on risk factors for sexual abuse and on abuser profiles has led to a better understanding of what constitutes risk of sexual abuse in sport and how such abuses come to be perpetrated (Brackenridge, 1997). Data from the quantitative study by Kirby and Greaves (1996) and the qualitative study by Brackenridge (1997) show a degree of consonance in respect of risk factors, for example the use of a vehicle to transport athletes, the isolation of younger female athletes by older male coaches, and the absence of organisational recruitment and vetting procedures or codes of ethics and practice. Clearly, it is important to demonstrate caution in the use of these risk factors until more extensive empirical support for them is found: studies currently underway in Holland (Cense, 1996-7) and in Norway (Fasting, 1996-7) are expected to add to existing knowledge about both the incidence of sexual abuse in sport and the patterns of risk factors which apply.

Variations in the definitions of sexual harassment and sexual abuse between the different studies reported above should be noted since not only do they import variability into the studies of incidence and prevalence (Brackenridge, 1992) but they also reflect particular discourses about sexual abuse. For example, Kelly *et al.* (1995) argue that the term 'sexual exploitation' should replace the term 'paedophilia' since the latter allows a socially comfortable distance to be placed between 'them' (paedophiles) and 'us' (non-paedophiles), whereas the evidence suggests that children are actually at far greater risk of sexual abuse from the families and known adults who constitute 'us' (Haskell and Randall, 1993): in short, they assert that we all play a part in sexual exploitation. In addition to issues of language in the study of sexual abuse there are also important issues around the medical and clinical psychological discourses about sexual abuse



11

which currently dominate most of the published work on this theme (see for example Marshall, Laws and Barbaree, 1990). The differences between clinical/therapeutic and discourse analytic approaches to sexual abuse are stark and have yet to be integrated in a convincing treatment of the issue.

Assessing the risk of sexual abuse to young athletes

[Fig. 1 about here]

It appears from the above research on both sexual abuse and sport age that 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 high standard of performance but are just below the elite level. We call this the 'stage of imminent achievement' (SIA) (see Fig. 1). This stage might include athletes on national squads who have not yet been selected for the national/international honours, those who occupy rankings just outside the top echelon for their sport and those for whom junior or age phase representative honours have been achieved. For these athletes, the personal costs of dropping out of their sport might be deemed to be higher than for others. The novice athlete can drop out without loss of face, can leave to find another coach or another sport without loss of reputation and has invested least, in terms of time, effort, money and family sacrifices. The top athlete, on the other hand, has a proven record, has already attained some of the rewards of success, and may be less dependent upon his or her coach for continued achievement at that level. In other words, they may have less to prove. The increased self esteem and personal confidence which accrues to the successful elite performer (after SIA) may provide them with the necessary personal resources to stand on their own and to operate independently from coaches or other authority figures. Brackenridge (1997) suggests that a cycle of



dependency prevails, involving sexual attention, guilt and further dependency and that this is endured, sometimes even after the athlete has consciously recognised the nature of what was happening to them. We suggest that this dependency *intensifies* during the SIA as illustrated by the following quotations from a professional male athlete, abused from the age of 14 by his male coach:

I went in there looking for a father figure and once it (sexual abuse) starts...happening it is brutal. You are always trying to run and hide from him and he is always tracking you down. It is something that you just cannot tell anybody...G knew I needed a father figure coming from home because it was brutal at home and he preys on that. He knows. He knows exactly what he is doing. He put me in a position right off the top that screwed my whole life for me. (Ottawa Citizen, January 7 1997: C8)

The elite young athlete treads a fine line between success and failure. Physical injuries or illness can occur at any time, destroying years of training. Psychological damage can be caused by the withdrawal of the coach's attention of interest. In short, the young athlete often needs the attention of the coach in order to maintain form and the chance to succeed. In these circumstances it is not difficult for a coach with sexual motives to groom and gain compliance from the athlete. The fact that grooming can often take place over a long period is shown by the following quotation from a former elite female athlete, describing to Brackenridge the way in which her coach gradually took control of

her:

...looking back there were signs...for example, he said "If you don't go to bed now I'll come in and kiss you"...he was really strict with me so then he had to make up to me. I was frightened of doing my (performances). It was really gradual - we'd stop at X chip shop and stop in a lay-by and eat them...I often needed calming down because I'd had a hard session. He did rape me but I didn't know it was happening. I was infatuated with him. He was in a way like a father. The build up was really slow. I was under age, I was 15. (Former athlete)

Donnelly suggests that males and females achieve at different rates, in other words, that

the SIA is experienced differently by them.

While girls are fighting natural growth, and retiring when those curves inevitably appear, boys are embracing it. While girls are denying themselves food in order



to confirm to some artificial standard, boys are eating to grow bigger and stronger. And while girls are trying to cram a career into a few short years because they know they are washed up at 16, 17 or 18 years old, boys are maturing at a slower and more relaxed pace in order to peak at a later age. (Donnelly, 1987: 9)

Whilst we might take issue with the sentiment of these words, and notwithstanding the wide individual variations in maturation which occur within each sex, they do reflect the clear gender based variation in SIA. Figure 1 shows the relationship between SIA and level of performance in sport and Table 1 gives some illustrative data from a range of Canadian National Athletes to show how peak sport age (and therefore SIA) can vary in relation to sex and age of sexual maturity. We recognise that sexual abusers target individuals of different ages for different reasons: indeed there are now many typologies of abusers which differentiate in terms of motive (see for example Whetsell-Mitchell 1995: 39). However, on the basis of the data currently available, we propose that athletes whose SIA coincides with or precedes their age of sexual maturity are at greater risk of sexual abuse in sport than those whose SIA or peak sport age follow their age of sexual maturity. If this hypothesis is supported by future research into the ages at which athletes experience sexual abuse in different sports then we shall be able to implement child protection strategies differentiated by *degree* of risk. This will be a significant step towards more effective prevention of sexual abuse of young people in sport. It should also allow more effective targetting of scarce resources by sport organisations in the public and not-for-profit sectors.

[Table 1 about here]

Conclusions

Youth sports continue to be a priority within the sports policies of most developed nations, whether for reasons of national pride, education, social control, economic potential or a combination of all these. However, unless children are recognised and defined *as* children within the context of sports they are likely to suffer negative



consequences for their legal, civil and human rights. One area of particular vulnerability is around sexual maturity and protection. Chronological age is an ineffective measure of maturation and has been recognised as such by many previous researchers. However, Kirby's concept of sport age provides a more flexible, sport-specific measure by which the stage of development of talented athletes may be compared across sport and between sexes. Identification of sport age reveals the stage of imminent achievement, that period just before an athlete reaches their peak. It has been argued in this paper that, for young athletes, risk of sexual abuse within the context of sport is heightened where SIA coincides with age of sexual maturity. Although the illustrative data from some sports presented here indicate wide variation in sport age, the actual risk of sexual abuse will not be known until systematic comparative data are available on the incidence of sexual abuse in different sports, amongst males and females. If empirical data from such work support the hypothesised link between SIA and vulnerability to sexual abuse then improved risk assessment and management in youth sport should follow.

Note:

1 This study was based on a response rate of 22.2% (n=266) from a total population of 1200. There was no follow up for reasons of confidentiality. Whilst the figures should be interpreted with caution, they do present, for the first time, national data on sexual abuse in elite sport.

References

- Armstrong, N. & Welsman, J. (1997) <u>Young People and Physical Activity</u>. Oxford: Oxford University Press.
- Brackenridge, C. H. (1987) "Ethical problems in women's sport." <u>Coaching Focus</u>, Leeds: National Coaching Foundation, Summer, 6: 5-7.

Brackenridge, C. H. & Ellis, L. (1992) Sexual abuse of children in sport: A comparative exploration of research methodologies and professional practice. Paper presented at the Pre-Olympic Scientific Congress, Malaga, Spain, July 14 -19.

Brackenridge, C. H. (1994) Fair play or fair game? Child sexual abuse in sport organisations. Int. Rev. for the Sociol. of Sport. 29 (3): 287-299.

Brackenridge, C. H. (1996) Healthy sport for healthy girls: The role of parents in preventing sexual abuse of girls. Paper presented at the Pre-Olympic Scientific Congress, Dallas, Texas, July 11-14.



- Brackenridge, C. H. (1997) "He owned me basically..." Women's experience of sexual abuse in sport." Int. Rev. for the Sociol. of Sport, 32 (2):tbc.
- Canadian Athletes Association (1997) <u>Harassment in Sport: A guide to policies</u>, <u>procedures and resources</u>. Ottawa: CAAW+S.
- Cense, M. (1996-7) for the Netherlands Olympic Committee Personal communication.
- Crouch, M. (1995) <u>Protecting Children: A Guide for Sportspeople.</u> Leeds: National Coaching Foundation.
- Donnelly, P. (1987) Problems of elite sport participation for children and adolescents: the case of female athletes." Paper presented to the IAPESGW Congress 'Movement and Sport in Women's Life', Jyvaskyla, Finland, 17-21 August.
- Donnelly, P. with E. Caspersen, L. Sergeant & B. Steenhof (1993) Problems associated with youth involvement in high-performance sport. In B.R. Cahill & A.J. Pearl (eds) <u>Intensive Participation in Children's Sports</u>, American Orthopaedic Society for Sports Medidcine, Champaign, Illinois: Human Kinetics: 95-126.
- Dyer, K. F. (1982) Catching up the Men: Women in Sport. London: Junction Books.
- Fasting, K. (1996-97) For the Norwegian Olympic Committee Personal communication.
- Finkelhor, D. (1994) The 'Backlash' and the future of child protection adfvocacy: insights from the study of social issues. In J. E. Myers (ed) <u>The Backlash: Child</u> <u>Protection Under Fire</u>, London: Sage:1-16.
- Gonsiorek, J. C. (ed) (1995) <u>Breach of Trust: Sexual Exploitation by Health Care</u> <u>Professionals and Clergy</u>. London: Sage.
- Haskell, L. & Randall, M. (1993) <u>The Women's Safety Project: Changing the</u> <u>Landscape: Ending Violence - Achieving Equality</u>. Final report of the Canadian Panel on Violence Against Women. Ministry of Supply and Services, Canada, App. A:A5.
- Kelly, L., Wingfield, R., Burton, S., & Regan, L. (1995) <u>Splintered Lives: Sexual</u> <u>Exploitation of Children in the Context of Children's Rights and Child Protection.</u> Essex: Barnados.
- Khosla, T. (1968) Unfairness of certain events in the Olympic Games. <u>British Medical</u> Journal 4, pp.111.
- Kirby, S. (1986) High performance female athlete retirement. PhD dissertation, University of Alberta, Edmonton, Canada.
- Kirby, S. & Greaves, L. (1996) Foul play: Sexual harassment and abuse in sport. Paper presented to the Pre-Olympic Scientific Congress, Dallas, USA, July 11-14.



- Lee, M. (1993) <u>Coaching Children in Sport: Principles and Practice</u>. London: Chapman Hall.
- Lindsey, E. (1997) Sugar and spice girls. <u>The Observer</u> newspaper, March 30:12.
- Malina, R. M. (1989) 1988 C.H. McCloy Research Lecture: Children in the Exercise Sciences. <u>Res. Quart. for Exercise and Sport</u>. 60 (4): 305-317.
- Marshall, W.A. & Tanner, J.M. (1969) Variations in pattern of pubertal changes in girls." <u>Archives of Diseases in Children</u>, 44: 291.
- Marshall, W.A. & Tanner, J.M. (1970) Variations in pattern of pubertal changes in boys." <u>Archives of Diseases in Children</u> 45: 13.
- Marshall, W.L., Laws, D.R. & Babaree, H E. (eds) (1990) <u>Handbook of Sexual</u> <u>Assault. Issues, Theories and the Treatment of the Offender</u>. New York: Plenum Press.
- Messner, M. (1992) <u>Power at Play: Sports and the Problem of Masculinity</u>. Boston: Beacon Press.
- National Coaching Foundation (1996) <u>Protecting Children From Abuse: A guide for</u> <u>everyone involved in children's sport</u>. Leeds: NCF.
- Ottawa Citizen (1997) January 7.
- Pike-Masteralexis, L. (1995) Sexual harassment and athletics: Legal and policy implications for athletic departments. <u>Journal of Sport and Social Issues</u>, 19 (2) May:141-156.
- Roberts, G. (1986) The growing child and the perception of competitive stress in sport. In G. Gleeson (ed) <u>The Growing Child in Competitive Sport</u>. London: Hodder & Stoughton:130-144.
- Rowing Manitoba (1997) Personal communication.
- Sharman, I.M. (1981) Grading the young athlete. Brit. J. of Sp.Med: 57-60.
- Volkwein, K. (1996) Sexual harassment in sport perceptions and experiences of female student-athletes. Paper presnted at the Pre-Olympic Scientific Congress, Dallas, USA, July 11-14.
- Wells, C. L. (1991) <u>Women, Sport and performance: A Physiological Perspective.</u> (2nd edition). Champaign, Illinois: Human Kinetics.
- Whetsell-Mitchell, J. (1995) <u>Rape of the Innocent: Understanding and Preventing Child</u> <u>Sexual Abuse.</u> Washington, Accelerated Development/Taylor & Francis.
- Whilmore, J. H. & Costill, D. L. (1994) <u>Physiology of Sport and Exercise</u>. Champaign, Illinois: Human Kinetics.







Table 1.Sexual maturity, peak sport age, chronological age and stage of
imminent achievement (SIA) - illustrative data for elite Canadian
male and female athletes

SEXUAL MAT	TURITY	MALES	FEMALES
Age of onset of	of puberty	11-12.4	8.5-13yrs 7:13) (Mells 1991)
Growth spurt	(71116	12.5-15.5yrs	10-12.5yrs 6-67)
Age of sexual	maturity	16-20 (Dver 1982: 6	16-20yrs 6-67)
Median age of	fmenarche	-	12.8-13.5yrs (Wells 1991)
PEAK (MEAN) SPORT AGE (AGE RANGE)* AND ESTIMATED SIA**			
Gymnastics	Peak sport age/range	23 (17-25)	17 (15-20)
	Estimated SIA	14-17	12-15
Swimming	Peak sport age/range	20 (17-25)	19 (16-24)
	Estimated SIA	14-17	13-16
Tennis***	Peak sport age/range	25 (22-31)	26 (21-31)
	Estimated SIA	19-22	18-21
Rowing	Peak sport age/range	26 (18-32)	27 (19-37)
	Estimated SIA	15-18	16-19
Volleyball	Peak sport age/range	21 (19-23)	22 (19-23)
	Estimated SIA	16-19	16-19
Field hockey	Peak sport age/range	27 (18-39)	25 (19-30)
	Estimated SIA	15-39	16-19

- * Source: Athletes Assistance Programme of Sport Canada (National Team data as at 25.3.97)
- ** SIA estimated at three years duration prior to bottom of the peak age range
- *** Plus one 17 year old on each team for development purposes

CB/23.6.97/irsschn.doc

