

Warriner, K., & Lavallee, D. (2008). The retirement experience of elite female gymnasts: Self identity and the physical self. *Journal of Applied Sport Psychology*, 20, 301-317.

Abstract

This study explored experiences of retirement from elite sport among a sample of retired female gymnasts. Given the young age at which female gymnasts begin and end their sport career, particular attention was afforded to the role of identity and the physical self in the process of adaptation. Retrospective, semi-structured interviews were conducted and interview transcripts analyzed using interpretative phenomenological analysis. Analysis indicated that retirement from gymnastics engendered adjustment difficulties for six of the seven participants. Identity loss was particularly salient, and for two gymnasts, physical changes associated with retirement were a further source of distress. The challenge of athletic retirement was intensified because the gymnasts had heavily invested in sport during adolescence, a period demarcated for the pursuit of an identity. Furthermore, their retirement coincided with a time when adolescents typically undergo profound changes physiologically. Practical suggestions to facilitate athletes' disengagement from sport are discussed.

The retirement experiences of elite female gymnasts: Self identity and the physical self

Retirement from elite sport has commanded considerable research attention over the last decade (Taylor, Ogilvie, & Lavallee, 2005). This trend has been fuelled by an increase in the number of athletes requiring the assistance of sport psychologists to manage their transition out of sport (Murphy, 1995). However, athletic retirement is multifaceted, complex and specific to the individual and despite the proliferation of theoretical and empirical literature, many aspects of the process continue to perplex and intrigue researchers. For some athletes, disengagement from sport is neither stressful, nor a source of severe adjustment difficulties (Perna, Ahlgren, & Zaichkowsky, 1999). Indeed, for some of these athletes, retirement is a positive process, which is embraced without the need for specialized assistance (Sinclair & Orlick, 1993). However, the experience can also provoke considerable distress and require extensive adaptation (Blinde & Stratta, 1992; Werthner & Orlick, 1986).

The multifarious nature of adjustment to retirement resonates with Schlossberg's (1981) model for analyzing human adaptation to transition. In this context, a transition is defined as "an event or non-event that results in a change in assumptions regarding oneself and the world and thus requires a corresponding change in one's behavior and relationships" (Schlossberg, 1981, p.5). Adaptation to transition is determined by the interaction of three sets of factors, which relate to characteristics of the individual (such as age and state of health), perceptions of the transition (including source and onset), and characteristics of the pre- and post-transition environments (including institutional support). The individual and the transition itself determine the relative salience of these variables; hence a phenomenological perspective is required. Within this framework, self-identity is particularly relevant because the impact of a transition is moderated by its effect on the individual's assumptions about the self. Schlossberg's multidimensional approach has been widely extrapolated to sport career termination research (Swain, 1991) and several variables have been modified to increase its

applicability to athletic retirement. For example, athletic identity (the degree to which an athlete identifies with the athlete role) has been cited as an additional characteristic of the individual that moderates adaptation to athletic retirement (Sinclair & Orlick, 1993).

Taylor et al. (2005) also identified athletic identity as an important individual determinant of adjustment. Indeed, athletic identity has been positively correlated with the degree of emotional and social adjustment in retirement and the amount of time and distress involved in these adjustments (Grove, Lavalley, & Gordon, 1997). These difficulties are particularly pronounced for athletes who develop an exclusive athletic identity, whereby “the individual derives his/her self-identity exclusively from the athlete role” (Brewer, Van Raalte, & Linder, 1993, p.239). Although this typically confers advantages for athletic performance (Werthner & Orlick, 1986), it can also be a liability when the athlete disengages from sport (Miller & Kerr, 2002). For example, strong and exclusive athletic identity is associated with inhibited decision making skills (Pearson & Petitpas, 1990) and low coping resources (Sinclair & Orlick, 1993).

A potential explanation for the negative consequences of a strong and exclusive athletic identity emerges from developmental theory. Adolescence has been identified as a stage in life during which individuals form a true self-identity (Chickering, 1969; Erikson, 1968). Self-identity refers to a “clearly delineated self-definition...comprised of those goals, values and beliefs which the person finds personally expressive and to which he/she is unequivocally committed” (Waterman, 1985 p.6). True identity formation therefore resides in commitment to occupational and ideological options most congruent with an individual’s principles, needs, interests and abilities (Marcia, 1980). Such a commitment necessitates an active exploration of different roles and behaviors and the accomplishment of particular developmental tasks. Havighurst (1972) defined a developmental task as “a task that arises at or about a certain period in the life of the individual, successful achievement of which leads to happiness and to

success with later tasks” (p.2). Developmental tasks associated with adolescence include the formation of mature peer relationships, acceptance of one’s physical appearance and the establishment of personal control and independence (Gilligan, 1993; Rice, 2001).

Achieving excellence in elite sport typically involves incredible sacrifice and dedication, which often prevents athletes from engaging in adequate exploration of different roles and behaviors associated with identity formation (Brewer et al., 1993). Commitment of one’s identity to the sport role without exploration of alternatives indicates a state of identity foreclosure (Murphy, Petitpas, & Brewer, 1996), which precludes the achievement of true identity (Marcia, 1980). This is particularly pertinent in sports such as women’s gymnastics, because the nature of elite gymnastics compels the athletes to “maximize their career into the years before puberty” (Kerr & Dacyshyn, 2000, p.127), the very years assigned to exploration and identity development. Accordingly, identity conflict has been strongly associated with retirement from elite gymnastics (Kerr & Dacyshyn, 2000; Lavalley & Robinson, 2007). These authors suggest that this conflict is exacerbated by the relatively young age at which gymnasts retire. Female gymnasts typically reach their peak in the years before adolescence. Retirement therefore occurs during adolescence, when the developmental task of identity formation is most pertinent. The process of identity formation for young females “is hard work, fraught with the anxieties of loneliness and failure” (Josselson, 1980, p.179). It follows, therefore, that the identity issues provoked by disengagement from elite sport are pronounced for female gymnasts because they retire during a stage in their life that is already inherently challenging (Krane, Greenleaf, & Snow, 1997). From this perspective, and given that the developmental endeavors of adolescence are understood to be instrumental in effecting a productive adulthood (Erikson, 1968; Josselson, 1980), elite female gymnasts’ experiences of identity and retirement warrant further understanding.

Stephan and Bilard (2003) proposed that identity issues in retirement might be connected to physical changes associated with disengagement from elite sport. Athletes with a strong athletic identity are likely to evaluate their self-worth from their perceived physical competence. Loss of the athletic physique and its capabilities may therefore combine with the distress associated with the loss of athletic identity, serving to intensify the process of adaptation. Furthermore, aside from the issue of identity, physical changes initiated by retirement may be a separate cause of distress for many athletes in retirement (Phoenix, Faulkner, & Sparkes, 2005). Physical deterioration (weight gain, reduced strength, flexibility and cardiovascular fitness) is an inherent part of athletic retirement, and has recently begun to command empirical research attention (Stephan, Torregrosa & Sanchez, in press). Elite gymnasts present a below average physical profile in terms of weight and height (O'Connor, Lewis, & Boyd, 1996) and intuitively, these profiles cannot and indeed should not be maintained in retirement. Furthermore, given the relatively young age of retirement from women's gymnastics, and the tendency for puberty to be delayed in this cohort, retirement often coincides with the onset of puberty, with an associated average weight increase of 40 to 50 pounds (Russell-Mayhew, 2005).

The scope for physical change in retirement from elite gymnastics is, therefore, considerable. Research with retired elite gymnasts also suggests that this cohort is particularly sensitive to physical changes and weight gain in retirement (Kerr & Dacyshyn, 2000; Lavalley & Robinson, 2007). Thus, the combined effect of disengagement from sport and the onset of puberty may place retired gymnasts at particular risk of physical adjustment difficulties. This study, therefore, explores the retirement experiences of elite female gymnasts, with particular reference to the role of identity and the physical self. The study aims to supplement previous research by examining ways in which elite sport involvement influences identity formation, with attention afforded to the accomplishment of gender-specific developmental tasks. This

research also augments the extant literature by investigating the role of physical changes in transition out of elite sport. It was anticipated that adjustment to physical change following career termination would represent a substantial challenge for these athletes, with an interaction between the loss of athletic identity and the loss of the athletic physique. Challenges associated with identity and the physical self were also expected to confirm the importance of age and life stage in adaptation to retirement, because female gymnasts typically retire in adolescence, a stage of life when adolescents undergo drastic changes in identity and physiology.

Method

Design

The aim of the current study was to generate accounts of participants' subjective experiences of retirement. Therefore, a phenomenological approach, which emphasizes the lived experience, was adopted (Greene, 1997). Data were collected through semi-structured qualitative interviews.

Participants

Purposive sampling, considered to be a valuable non-probability sampling technique (Schwandt, 1997) was used in this study. Therefore, participants were recruited through personal contacts of the researcher. All participants had competed internationally (two had reached Olympic standard, and the remaining five competed in Commonwealth Games, European Championships or World Championships) and had been retired for at least 12 months (range 3 to 10 years). These criteria were established to allow the exploration of disengagement from elite sport and to permit the study of retirement from a process perspective.

Data collection was concluded after the 7th interview because the researcher deemed that theoretical saturation had been achieved (Strauss & Corbin, 1998).

Participants were retired female artistic ($n=4$) and rhythmic ($n=3$) gymnasts in the United Kingdom and ranged in age from 20 to 28 ($M=23.9$; $SD=3.13$). The mean age of retirement was 18 years ($SD= 0.82$). On average, the participants began gymnastics at the age of six ($SD= 1.63$), reached their highest level of competition at 16.6 years ($SD= 0.73$), and trained 41.5 hours per week at the peak of their career ($SD= 17.1$).

Instrument

A predetermined interview schedule¹ was developed employing standardized open-ended questions in addition to tailored probes. This ensured purpose and direction in the interview, whilst permitting flexibility to pursue particular issues raised by participants. The schedule was underpinned by an extensive review of the extant literature on retirement from elite sport and aimed to elude qualitative information regarding participants' experiences and views of retirement from elite gymnastics. A forty-five minute semi-structured pilot interview was conducted with a retired gymnast to assess the appropriateness of the interview schedule and to refine the researcher's interview technique. No changes were made to the schedule, but the interviewer (first author) was alerted to the challenge of framing questions in a neutral fashion and the importance of allowing participants time to formulate their thoughts and responses, rather than attempting to "fill" silences (Corey, 2000).

The interview schedule commenced by inviting participants to discuss their entry and increased involvement in the sport. This built rapport, allowing participants to discuss a topic that was assumed to be relatively straightforward. Congruent with previous qualitative studies of retirement (Lavalley & Robinson, 2007), the schedule traced participants' experiences of retirement from a temporal perspective, gathering information on their life as an elite gymnast ("What was your life like when involved in gymnastics?"), the circumstances surrounding their departure from gymnastics ("What factors contributed to your decision to retire?") and the nature of the retirement experience ("How did you feel directly after your departure from

gymnastics/in the ensuing months/years?"). Consequent questions were directed towards issues of identity ("How did you feel about who you were at that time?") and the physical changes associated with retirement. Participants who struggled with retirement were encouraged to identify ways in which their experiences could have been improved, and those who experienced smooth transitions were invited to suggest reasons for this. Questions were phrased neutrally and in an open-ended manner, avoiding jargon. Interesting trajectories were pursued through the use of standardized probes ("I'm interested in what you were saying about.... Could you tell me a little more?").

Procedure

Participants were contacted by telephone, informed of the nature of the study and asked if they were interested in participating. A convenient time and location for each interview was arranged with those who agreed to participate. Each participant signed a consent form assuring confidentiality and anonymity. They were also informed that they may terminate the interview at any stage and remove their data from the study up to ten days after their interview.

All interviews were tape-recorded, with participants' prior consent, and lasted from 45 to 120 minutes. The interview recordings were transcribed immediately, with only minor grammatical adjustments to enhance readability. Three participants were interviewed over the telephone due to geographical constraints. The comparability of data derived from face-to-face and telephone interviews has been previously reported (Bermack, 1989; Kerr & Dacyshyn, 2000) and the data derived from both formats in the present study did not expose any notable differences in detail or disclosure.

Data Analysis

Data analysis drew on interpretive phenomenological analysis (IPA) procedures outlined by Smith, Jarman, and Osborn (1999). This procedure is aligned with the steps involved in

thematic analysis explicated by Patton (1990) and adapted to sport phenomena by Gould, Jackson, and Finch (1993). IPA aims to capture the complexity and detail of participants' views of the topic under investigation, and the researcher must engage in an "interpretive relationship with the transcript" through multiple readings (Smith, 1995, p.19). In the first stage of analysis, interesting quotes were identified in the left margin. Each quote constituted a "meaning unit" or "segment of text that is comprehensible by itself and contains one idea, episode or piece of information" (Tesch, 1990, p.116). The second stage of analysis combined tags containing similar meanings to form second order themes. These themes captured the essence of the grouped raw data units and were flexible to accommodate new meaning units emerging from the data. Third order themes were then formed from the prior analysis, representing a higher level of abstraction. These themes were then transformed into a master theme list, with reference to where instances of each theme could be located in the original transcript. Each transcript was analyzed individually and master theme lists for each interview were compared and contrasted to form general over-arching domains.

Some of the emergent themes reflected the content of the interview schedule, while others transpired from novel trajectories introduced by participants. In this respect, data analysis was deductive (involving the use of predetermined themes) and inductive (allowing themes to emerge from the quotes).

Trustworthiness

Several steps were taken to ensure the trustworthiness of this study (Miles & Huberman, 1994). To maximize internal validity, "thick" descriptions of the findings were provided. A thick description refers to an in-depth portrayal of a phenomenon that permits readers to accurately grasp the essence of the story. Data corroboration was also undertaken. This involved ensuring that the results of each stage in the analysis were supported by the original data (Strauss & Corbin, 1998). Extensive methodological guidance was received and possible

interpretations were also discussed with a colleague to reach a consensus regarding the best fit. Furthermore, the transcripts and identified themes were emailed to the participants, to validate their accuracy and representativeness. This form of member checking is a useful means of building credibility (Miles & Huberman, 1994). All seven participants confirmed that they had checked their transcripts. Two participants made alterations; one gymnast tempered her comments regarding her attitude towards weight control in gymnastics and another added further suggestions for supporting future generations through retirement. To increase reliability, it was ensured that the study design complemented the primary research interests (Miles & Huberman, 1994).

Results

Data analysis yielded 13 themes that were subsequently clustered into the following five domains: causes of career termination, features of the transition, experiences of retirement, accepting, and managing differences between the pre- and post-transition environments, and generative ideas. These domains and their component themes are detailed in Table 1. Due to space limitations, the two domains most central to the study aims are presented below and consist of experiences of retirement (including loss and turmoil, and identity confusion), and accepting and managing differences between the pre- and post-transition environments (including lack of personal control versus total independence, the need to control diet and appearance versus the absence of any need for control, total support versus diminished support, and direction versus no direction).

Experiences of retirement

Loss and turmoil. Six of the seven participants described their disengagement from gymnastics as profoundly traumatic. Lucy² and Sophie both described their departure from the sport as “a nightmare,” Abbie felt empty and hopeless, and Amy described the experience as reminiscent of losing a close friend. These proclamations seemed to suggest that without

gymnastics, their lives seemed empty. Hollie explained that when she was a gymnast, her diary was brimming with excitement, flying abroad to compete several times a year; “when I finished gymnastics, I looked at my diary and there was just nothing to look forward to. It was just empty.” Thus retirement signified the loss of goals, structure and purpose in life. Only Ella felt positive about her life immediately after retirement because she wanted to make up for opportunities previously denied by her training regime.

Identity confusion. These gymnasts generally conveyed a sense of uncertainty as to who they were outside gymnastics. Several participants discussed how they felt unaware of their interests, capabilities, and values. Hollie explained how gymnastics had been the most important thing in her life for over a decade, and several participants commented on the extensive sacrifices they had made for the sport. Lucy’s life had been “gym, gym, gym,” while Sophie moved away from her family and friends to concentrate on her training. School was generally seen as a “nuisance.” While involved in gymnastics, almost all the participants described a close identification with the athlete role. Hence, they mostly “felt like gymnasts” rather than “people who did gymnastics.” This identification was reinforced by the perceptions of others and a personal feeling that gymnastics made them “different.” Subsequently, disengagement from sport was discussed in the context of profound identity loss. Cara poignantly professed: “there was nothing else to me as a person but gymnastics, so you take away gym and there is nothing...I felt like nothing.” Whereas Abbie, Lucy, and Cara felt that they had resolved this identity crisis, Sophie took up competitive athletics, which allowed her to retain her athletic identity. She conceded that in some respects, she has yet to fully accept the loss of gymnastics because she continues to feel “different as a person.”

Ella was the only gymnast not to report undergoing an identity crisis during her retirement. She explained that gymnastics was not her only source of self-definition. She also regarded schoolwork as important and she demarcated her school life and sport life. Ella

reflected that she did not seek to be identified as a gymnast; she “didn’t need gymnastics” and could live without it. Interestingly, two participants, Hollie and Amy, also reported consciously not defining themselves exclusively through gymnastics, yet both recounted a sense of identity loss in retirement. For example, for a time Amy relied on gymnastics and her accomplishments to validate herself to other people. She reflected that after two years of “soul-searching”, she realized that there was more to her identity than gymnastics: “[now] I don’t need to have gymnastics to make me a good person...I’m just happy enough in myself that I don’t feel like I need it.” For Hollie, the search continues: “gymnastics gives you a security...a gymnast is who you are, and when you leave you’re not a gymnast anymore. I guess I still haven’t found what that other bit of me is.”

Accepting and managing differences between the pre- and post-transition environments

This theme encapsulated the numerous consequences of retirement and the pervasive impact that disengagement from elite gymnastics had on these athletes’ lives.

Lack of personal control versus total independence. Several participants in this study described a perceived lack of control over many aspects of their sport career, from their training sessions and competition schedules, to their diet and appearance. Sophie elaborated: “when you’re a gymnast you’re so enclosed and watched over, every day, 24 hours a day. As an 18 year old you’re treated like a 12 year old...you’re always told what to do.” Accustomed to such an intensely structured environment, several of these gymnasts recounted how they initially struggled to accept and manage the independence afforded by retirement. Amy explained that: “suddenly adjusting to having to run your own life by yourself...that’s a major challenge...because you really haven’t been running your own life for all the years you’ve been involved in gymnastics.”

Sophie and Lucy professed that making decisions and accepting personal control continue to challenge them today. Ella’s experience of personal control before and after retirement was

different. She stated that she felt in control of her life as a gymnast and issues with control and independence in retirement were not salient in her narrative.

The need to control diet and appearance versus the absence of any need for control.

This theme was particularly pertinent to the rhythmic gymnasts, whose diet and appearance were strictly controlled by the rhythmic ideal that “beauty is skeletal” (Amy). Lucy stated that she was weighed excessively, sometimes five times a day, and subjected to a barrage of abuse from her coach targeting her appearance. Overall, Lucy had an extremely negative relationship with her coach. She attributed this to her coach’s Eastern European training methods, which involved: “having the gymnast in the gym 12 hours a day, starve them and scream at them and that’s how you get results.” This provides a contrast with the remaining gymnasts’ accounts of coaches who worked effectively with them. In respect to weight control and training in general, these participants felt their coaches appreciated their individual needs and strengths.

The extreme pressure to be thin reported by the rhythmic gymnasts was accompanied by disordered eating patterns and an extremely controlled relationship with food. These gymnasts communicated their struggle to accept that in retirement, they no longer needed to control their diet and appearance: “it took quite a while to lose all the hang-ups about food and the issues of control and to realize you can take it or leave it. That’s a major challenge” (Amy). For Lucy, the struggle was so recalcitrant that she endured a two-year battle with bulimia. She described her extreme distress at the weight she gained in retirement, which she perceived as confirmation of the loss of her identity as a gymnast. Indeed, whilst involved in the sport, she had explicitly associated her lean physique with her identity as a gymnast: “I used to like people calling me skinny because I knew that was what I was supposed to be...I was a gymnast and gymnasts are skinny.” Lucy recalled her distress at the thought that, because she had gained weight, people would no longer perceive her as a gymnast.

The artistic gymnasts did not recall experiencing the same need or inclination to excessively restrict their diet whilst training. Abbie and Ella concluded that they did not perceive a particular pressure to be thin and although Sophie and Hollie did perceive pressure, they did not internalize this. Three artistic gymnasts described how their coach helped them identify and achieve a realistic performance weight, without putting pressure on them. These gymnasts did not report any significant food or weight related struggles in retirement.

Total support versus diminished support. The athletes also discussed differences between the support they received before and after retirement. Whilst training, most of these gymnasts recalled how supported they felt. Lucy explained: “everybody is trying to improve you.” When these gymnasts retired, they felt alone and unsupported. Several participants described how their demanding training schedules had prevented the formation of friendships with their non-sport peers. In addition to this, the friendships these athletes made with teammates seemed to disappear in retirement, deprived of the mutual bond of gymnastics. Lucy in particular conceded that she struggled to accept this difference and became “very insular and withdrawn.” Several participants also described their frustration at the lack of institutional support once they had ceased competing. In particular, they lamented the lack of access to careers advisors or counselors to help them carve out new careers and tackle emotional challenges in retirement. To manage this lack of support, several participants described how they established the formation of friendships as a priority. Abbie and Amy in particular, commented that making new friends was a turning point in their adjustment to life without gymnastics. They also drew support from their families.

Total direction versus no direction. All seven participants described how, as elite gymnasts, their lives were characterized by direction and purpose. As Lucy explained: “in gymnastics you always have goals, you always know where you’re going, and what you’re

doing.” Disengagement from sport drastically changed this concept. Abbie posited: “I didn’t really have a purpose. I went into a spiral where I just kept thinking, what do I do now?”

Although all seven participants anticipated their retirement several months in advance, most did not engage in pre-retirement planning. Ella and Amy were exceptions to this trend. Both gymnasts described how they deliberately maintained their academic studies with the intention of applying to university. Amy actually accepted a place at University a year prior to her retirement. Amy felt that leaving the sport with the next four years of her life accounted for was “very important and a really big comfort.” After two months to two years of misdirection, the participants began to fill the void left by gymnastics. Ella, Sophie and Hollie participated in other sports and Jennie “did some temporary assignments and started to build up some skills”. Six gymnasts caught up with their schooling and went to university. All 7 participants recognized that they grew to appreciate the freedom that retirement afforded. Ella recalled: “I went on holiday; I could never have done that when I was training!”

Taking time and space to reflect on their sport career was repeatedly identified as a crucial process in the participants’ attempts to rebuild a life without gymnastics. For Abbie, Lucy, Hollie and Sophie this post-rationalization involved either positively re-framing or internally acknowledging their accomplishments in sport. Lucy commented that: “now my gymnastics has changed into something I’m very proud of.”

Discussion

This study explored the retirement experiences of elite female gymnasts. The findings indicated that, with one exception, disengagement from elite gymnastics provoked considerable distress and required extensive adaptation. This supports previous studies documenting difficult transitions from elite sport (e.g., Blinde & Stratta, 1992). The theme of loss and turmoil, which was evident in the narratives of six participants resonated with the view that “sports involvement is a living, loving relationship for the athlete and that the end of

the affiliation marks the loss of an important relationship” (Werthner & Orlick, 1986, p. 188). However, one participant welcomed retirement and did not experience serious readjustment. Retirement, therefore, can also engender positive outcomes (Sinclair & Orlick, 1993). Overall, these results suggest that athletic retirement represents both “an opportunity for psychological growth and a danger of psychological deterioration” (Moos & Tsu, 1976, p.13).

This study also explored the role of identity in the retirement experience. Identity confusion emerged as a major theme and analysis of the data indicated that this confusion was partly due to an interaction between elite sport involvement and the process of identity formation. Developmental theorists have demarcated adolescence as a critical period for identity formation (Erikson, 1968). True identity resides in commitment to personally expressive goals, interests and values and is formed through role experimentation and the accomplishment of particular developmental tasks (Havighurst, 1972). For females, these tasks include personal control and the attainment of independence, the formation of mature peer relationships and acceptance of one’s body and appearance (Gilligan, 1993; Josselson, 1987; Rice, 2001). The manner in which participation in elite sport potentially affected achievement of each of these tasks is addressed in turn, and the extent to which this impacted the gymnasts’ retirement experiences is also discussed.

Erikson (1968) posited that adolescents must experiment with different roles and behaviors in the pursuit of true self-identity. All the gymnasts in this study dedicated extreme hours to sport, training between 22 and 60 hours a week. Furthermore, for many, gymnastics was all they cared about. In this respect, for many of the participants in this study, elite sport involvement was incompatible with role experimentation. Lacking opportunity or inclination for such exploration, these gymnasts became “unidimensional”, developing a strong, and in some cases, exclusive athletic identity (Brewer et al., 1993). Given this close identification

with the sport role, the extent and severity of identity loss and confusion experienced by these gymnasts in retirement is unsurprising (Brewer et al., 1993).

It was interesting to note that three participants did experiment with different roles during adolescence and endeavored to maintain balanced lives. Although one of these gymnasts reported a manageable transition with no identity confusion, the remaining two struggled to adjust to retirement and particularly to the loss of identity. Ostensibly, this finding diverges from the positive correlation reported between athletic identity and adjustment difficulties in retirement (Brewer, et al. 1993; Grove et al., 1997). However, although whilst training, these gymnasts' identities contained multiple dimensions (including sport, academic and social roles), it is possible that through their dedication to gymnastics, the sport dimension necessarily became dominant. This unintentional identity narrowing may underpin their subsequent experience of identity confusion in retirement (Stryker & Serpe, 1994). Indeed, the importance assigned to a particular dimension is posited to determine the extent to which loss of that domain is associated with distress and adjustment difficulties (Rosenberg, 1979). For all the gymnasts in this study, gymnastics was the most important feature of their lives. Indeed, the dedication required to excel in elite gymnastics renders it difficult to conceive how gymnasts could resist close identification with the athlete role. Consistent with this, Lavalley and Robinson (2007) reported that retired gymnasts in their sample were encouraged to act and think like gymnasts, developing into gymnasts rather than people. Consequently, role experimentation was futile because they approached these activities from the perspective of a gymnast.

Asserting personal control and achieving independence is also considered instrumental in the process of identity formation for young females (Gilligan, 1993; Josselson, 1987). This involves being free from the control of others. However, for their teenage years, these gymnasts were immersed in a sport that regulated many aspects of their lives, from their

schedules to their diet and appearance. The prescriptive, highly structured nature of elite gymnastics therefore reduced the athletes' personal control and independence. Consequently, many of the participants in this study struggled to adjust to the independence afforded by retirement, precisely because they had never been in control of their own lives. It seems that rather than representing these gymnasts' best interests, controlling their lives so extensively inadvertently prevented the development of decision-making abilities and self-management skills. This hindered the development of the athlete as a person and increased the potential for adjustment difficulties in retirement (Miller & Kerr, 2002). Congruent with this, the retired gymnasts in Kerr and Dacyshyn's (2000) research also reported a lack of control over their sport career, which seemed to have a detrimental impact on their perceptions of control in retirement. Werthner and Orlick (1986) also found that 64 percent of former Olympians interviewed perceived a lack of control in sport and subsequently felt lost and directionless in retirement. Hence, participation in elite sport potentially stalls the development of personal control and independence, which may have negative ramifications in retirement.

The tendency to perceive a lack of control in sport amongst the current participants tended to be associated with the extent to which they identified with the sport role. Those who developed a strong and exclusive athletic identity appeared to internalize the sport ethic that dictated that "real" gymnasts should subordinate everything to sport (Hughes & Coakley, 1990). Therefore, perhaps they were more likely to relinquish control over their sport careers. One gymnast in this study did not develop a strong athletic identity, did not internalize the sport ethic, and consequently felt in control of her training and her life. Through its effect on perceived control in sport, athletic identity also affected the extent to which independence in retirement was perceived as a challenge.

The ability to form and maintain interpersonal relationships is a major developmental task associated with adolescence and seems to be crucial in the development of the female

identity (Gilligan, 1993; Rice, 2001). Indeed, it has been suggested that for women, “meaning and identity reside in connectedness,” so, a woman comes to define herself in terms of her relationships with others (Josselson, 1987, p.178). The current research suggests that elite sport involvement has the potential to interfere with this task because the demanding lifestyle of an elite athlete makes it difficult to establish friendships out of sport, and because retirement can often signal the loss of friendships formed in sport. Retired at 17 and 18, participants in this study felt alone and unconnected. Two participants suggested that forming new friendships in retirement resembled a turning point in their adjustment to their new lives.

Acceptance of one’s physical appearance is also regarded as a crucial developmental task associated with female identity development in adolescence (Rice, 2001). For some participants in this study, involvement in elite sport complicated this task because they internalized a belief that beauty equated to thinness. The rhythmic gymnasts adhered to this ideal for a time after disengagement from sport and this was problematic due to the onset of puberty and the associated weight gain. For several participants, the arrival of puberty contributed directly to the timing of their retirement. In this way, the current study confirms the importance of age and stage of life in affecting adaptation to retirement (Taylor & Ogilvie, 1994). These gymnasts retired during adolescence, a stage of life associated with drastic physiological change (Gilligan, 1993). For some participants, the timing of their retirement intensified the inevitable physical changes associated with the termination of their training regimes, and made acceptance of their physical appearance even more challenging. However, this was not the experience of all the gymnasts; the artistic gymnasts generally did not experience great physical changes in retirement or did not struggle to adjust to any physical changes that did occur. Thus, participation in elite sport does not necessarily render acceptance of one’s appearance more difficult, but the present findings suggest that it does have the potential to complicate the adjustment process for some athletes.

In sum, extensive support was found for the contention that elite sport involvement affects the development of self-identity and that this interaction contributed to the participants' sense of identity confusion in retirement (Brewer et al., 1993). This study also suggests ways in which the effect may occur. In some cases, elite sport involvement precludes role experimentation and the acquisition of personal control and independence. It also potentially impedes the formation of mature peer relationships and acceptance of one's body and appearance. The cumulative result of this effect was to delay the process of identity formation for most of the gymnasts in this study and perhaps to intensify the natural identity crisis associated with adolescence. This reinforces the importance of age and life stage in athletes' experiences of retirement. These gymnasts heavily invested in sport during adolescence, a time demarcated for the pursuit of an identity. This extreme investment tended to hamper the accomplishment of developmental tasks integral to the process of identity formation, which perhaps exacerbated the identity confusion for some in retirement.

This study also investigated the role of physical changes in retirement. The findings revealed partial support for the idea that physical changes are a source of considerable distress for athletes in retirement (Phoenix et al., 2005). The rhythmic gymnasts commented extensively on the weight they gained in retirement, and this change required considerable adjustment. However, the artistic gymnasts reported only minimal physical changes, which provoked nominal amounts of distress. To understand the different salience of physical changes in these gymnasts' retirement experiences, it is helpful to consider the nature of their sport experience and the strength of their athletic identity during and after their career.

The nature of the sport experience varied considerably for the participants in this study. Traditionally, gymnastics is considered to be a weight-conscious sport (Petrie, 1993). However, the artistic gymnasts either did not internalize or did not perceive a pressure to be thin. The ability of coaches to support but not pressure the gymnasts in reaching an optimal

but realistic performance weight was instrumental in this process. The importance of aesthetics is arguably more embedded in rhythmic gymnastics (Lavallee & Robinson, 2007) and congruent with this, the rhythmic gymnasts perceived a severe and pervasive pressure to be thin, fuelled at times by their coaches. This study therefore reveals the potential for coaches to positively or negatively affect their gymnasts' well-being. With respect to weight-related pressure and overall interaction, the rhythmic gymnasts' relationships with their coaches were markedly negative compared with their artistic counterparts. It was interesting that the artistic gymnasts had several coaches whereas the rhythmic gymnasts had just one coach. This may have served to intensify the coach-athlete relationship for the rhythmic gymnasts because every hour of training was monitored and dictated by the same coach.

The nature of the sport experience was also associated with the gymnasts' health status, with respect to attitudes towards eating and weight, upon disengagement from sport. All four artistic gymnasts possessed a healthy relationship with food upon disengagement from sport, whereas the rhythmic gymnasts reported disordered eating patterns. Consequently, the artistic gymnasts experienced minimal physical changes in retirement, or were able to rationalize their weight gain, accepting that their bodies needed to change. This is interesting given the findings of previous research identifying gymnastics as a particularly weight-pressured environment and gymnasts as a population at risk of eating disorders (e.g., Petrie, 1993; Rosen & Hough, 1988). It also deviates from the findings of Kerr and Dacyshyn (2000) and Lavallee and Robinson (2007), who interviewed retired female gymnasts and reported an enduring preoccupation with weight gain in retirement. Although Lavallee and Robinson's research involved British gymnasts, the majority of the extant literature on gymnasts has involved American gymnasts. The American National Team typically place in the top three in the World, whereas Great Britain has yet to infiltrate the top ten. The lower performance expectations and profile of the sport in Great Britain may account for some of these

differences (Kerr, Berman & De Souza, 2006). The rhythmic gymnasts in this study generally experienced greater adjustment difficulties to physical changes in retirement. Although the design of this study precludes causal conclusions, two participants traced their struggles with weight and food in retirement to the attitudes acquired through gymnastics, and the excessive control they had exerted over their diet to achieve the skeletal rhythmic ideal.

Athletic identity and the extent to which the individual continued to identify with the sport in retirement seemed to moderate the significance of physical changes. The one participant who didn't appear to possess a strong athletic identity also welcomed her weight gain because she no longer wished to look like a gymnast. However, several other participants perceived the loss of their athletic physique as confirmation of the loss of their athletic identity (Stephan & Bilard, 2003). For those athletes with a strong athletic identity, this interaction tended to intensify the process of adaptation. This underlines the phenomenological nature of retirement. It was not the change per se, but the meaning of the change to the individual that determined whether it was a source of distress.

The moderating role of athletic identity also supports the notion that the athletic body plays a crucial role in the development of many athletes' identities (Stephan & Bilard, 2003). As discussed, many of the athletes in this study developed a strong and exclusive athletic identity, deriving self-worth from their athletic accomplishments. Given that their athletic accomplishments were contingent, in part, on their body, their body understandably became a vehicle of self-worth. The defining characteristic of these gymnasts' bodies was leanness. The loss of this defining characteristic in retirement undermined their athletic identity. The two rhythmic gymnasts who reported greatest difficulty accepting the changes in their physical appearance were also reluctant to relinquish their identification with the sport once retired.

This study, therefore, adds some credence to the view that current conceptual models of transition out of elite sport (e.g., Taylor & Ogilvie, 1994) should include a physical dimension

factor when examining the quality of adaptation to athletic retirement (Stephan et al., in press). It also supports Schlossberg (1981), who suggested that state of health was an important factor in analyzing human adaptation to retirement. Furthermore, this research adds to the extant literature by suggesting factors associated with the significance of physical changes for individual athletes. Specifically, the impact and extent of physical changes experienced in retirement seem to be mediated by the strength and exclusivity of one's athletic identity; the pressure to be thin as a gymnast and the gymnasts' ability to rationalize any physical changes in terms of adjusting to a non-athletic identity.

Throughout this discussion, the omnipresent influence of athletic identity in these athletes' experiences of retirement is apparent. Indirectly (through its effect on issues around personal control and adjustment to physical factors in retirement) and directly (on the themes of loss and turmoil and identity confusion), athletic identity exerted a pervasive impact on the nature of these participants' retirement experiences. In accordance with Taylor et al. (2001), the degree to which an athlete's identity is immersed in sport was perhaps the most important individual determinant of adjustment. This also concurs with a wealth of previous research linking athletic identity at the time of retirement with the extent, severity and duration of adjustment difficulties in retirement (e.g., Grove et al., 1997; Lavalley, 2005) and strongly indicates that a strong athletic identity constitutes a serious liability in terms of athletes' adaptation to retirement.

In addition to the stated aims of this research, several interesting trajectories emerged from the participants' data that warrant discussion. These centered around the concept of control in relation to the differences between the pre- and post-transition environments. Major differences discussed by participants included the lack of personal control associated with their sport career compared with total independence in retirement, and the need to control their diet to maintain an optimal performance weight as gymnasts and the absence of such

need for control in retirement. The degree of difference between the pre- and post-transition environments was related to the amount of distress experienced by the gymnasts. For example, the rhythmic gymnasts, who reported drastically controlling their food intake during their sport career, also reported the greatest struggle in adjusting to the fact that controlling their diet and appearance was not necessary after their sport career. This pattern supports Schlossberg's (1981) contention that adaptation depends in part on the degree of difference between the pre- and the post-transition environments. A further difference discussed by the participants pertained to the extensive support received whilst training compared with the lack of support in retirement. Schlossberg (1981) posited that differences in interpersonal support before and after transition were instrumental to the process of adaptation, and the current study sustains this premise.

Strengths of the current research include the elite nature of the sample, which to the author's knowledge is unprecedented in the study of retired gymnasts. The use of semi-structured qualitative interviews was a further asset. Given the idiosyncratic nature of retirement, and that the specific role of physical changes in relation to identity is a relatively novel area of inquiry, it was beneficial to allow participants the opportunity to lead the interview into areas of personal significance in addition to gathering information in areas of predetermined interest. However, several caveats warrant mention. These include delimitations, which relate to how the study was narrowed in scope, and limitations, which correspond to potential weaknesses of the research. This study was delimited by gender and sport. Therefore, generalizations from this sample to broader populations, including male athletes and athletes from other sports, may not be warranted.

Limitations include the reliance on self-report data and the retrospective design, which, although an established method for attaining knowledge (Lincoln & Guba, 1985), precludes causal conclusions. Retrospective self-report data are also vulnerable to faulty recall,

respondent bias and poor articulation. One must accept the limitations of the chosen method, and the primary interest of phenomenology, namely the lived experience, is typically investigated retrospectively. Nonetheless, prospective, longitudinal approaches may still capture the dynamic nature of the retirement and would overcome some of the aforementioned limitations. The use of telephone interviews was a further potential limitation, because it was not possible to react to participants' nonverbal behaviors. However, this is counterbalanced by the fact that unintentional nonverbal behaviors emitted by the researcher were not detectable by participants (Gould et al., 1993). Furthermore, the anonymity afforded by the telephone set-up may have encouraged participant disclosure. Indeed, the three telephone interviews were longer and, at times, involved greater disclosure than the face-to-face interviews.

A number of future research directions emerge from the current study. The findings suggest that involvement in elite sport delayed the formation of self-identity. However, it was unclear whether this delay was temporary or more enduring. This constitutes an important trajectory for future research especially given the suggested relationship between self-identity and general well-being throughout the life span (Erikson, 1968). A greater appreciation of the dynamics and impact of multiple coaches compared with individual coaches in moderating the coach-athlete relationship is also needed. This might clarify whether the differences in the coach-athlete relationship for the rhythmic versus artistic gymnasts in this study were particular to this sample, or indicative of a wider phenomenon. Finally, the retirement experiences of male gymnasts must be explored. During the sampling phase, the researcher contacted retired male gymnasts, but none opted to participate. Gould et al. (1993) experienced a similar lack of success in the recruitment of male participants in their research with national champion figure skaters. The apparent silence of retired male athletes must be addressed in future studies.

This study also identifies a number of practical suggestions for facilitating athletes' disengagement from sport. Practitioners should endeavor to reduce the discrepancy between athletes' lives before and after retirement, perhaps through careers advice to help athletes locate new goals and interests aside from sport. However, it is important to note that in the midst of their competitive careers, athletes tend to exhibit resistance to exploration of aspects of themselves not related to sport. However, comments from participants in this study suggest that if practitioners are able to offer accessible and overtly relevant support, age-appropriate exploration could be achieved and some of the distress associated with retirement mitigated. Discussing psychological support around identity development provided within the National Squad set-up, Sophie commented: "they [sport psychologists] do it in a way that you don't understand, so it doesn't really mean anything to you...you need to have things explained more carefully, about life, and gymnastics and that the two aren't necessarily the same". Indeed, several participants retrospectively recognized the importance of self-exploration beyond the sport milieu. Therefore, facilitating dialogue between retired and competing gymnasts may also be useful in this endeavor.

Given the salient role of parents and coaches (Kerr, Berman & De Souza, 2006), developmental interventions to diversify the identity of young gymnasts should also seek to involve these key stakeholders. An immediate barrier to this suggestion resides in the widely held belief that diminishing the athlete identity will be detrimental to athletic performance (Petitpas, Danish, McKelvain & Murphy, 1990). However, recent research with athletes from a range of sports suggests that decreased identification with the athlete role does not automatically translate into inferior performance (Lally, 2007). Indeed, investing in athletic and personal activities may actually promote excellence in both domains (Miller & Kerr, 2002). Enhancing coach education to raise awareness of these findings may be a potent means of increasing their investment in identity development interventions for young athletes.

Increasing athletes' personal control and independence in sport would also serve to temper the discrepancy between athletes' lives before and after retirement. This might be achieved by allowing athletes greater involvement in the content and structure of their training sessions and their competition schedules. Similarly, parents could facilitate identity development by creating opportunities for their young athlete to establish and maintain interpersonal relationships with their non-sport peers and/or with their sport peers outside the sport milieu. This might be achieved through the identification of mutual interests outside gymnastics. Finally, a more supportive approach to weight control is needed in aesthetic sports. This should include access to nutritionists well versed in the demands of aesthetic sports, and the provision of psychological support in retirement to facilitate athletes' adjustment to the absence of any need to control their diet or appearance.

In conclusion, this study identifies an association between elite sport involvement during adolescence and delayed development of self-identity. For some athletes, the extreme dedication required to excel in elite sport is incompatible with the process of role experimentation and the development of personal control and independence. It may also complicate the formation of mature peer relationships, and the ability to accept one's physical appearance. Therefore, in the current context, the interaction between elite sport involvement and the process of identity formation may have negative implications for athletes' experiences of retirement. However, this research also suggests that if parents and coaches become more cognizant of the important developmental endeavors of adolescence, elite sport participation could facilitate rather than hinder the process of identity formation. From this vantage point, a sport environment which fosters excellence in and beyond the sport milieu is conceivable, whereby: "it's not about dedicating your life to your training but about dedicating your training to your life" (Millman, 1999, p.15).

References

- Bermack, E. (1989). Effect of telephone and face-to-face communication on rated extent of self disclosure by female collegiate students. *Psychological Reports, 65*, 259-267.
- Blinde, E.M., & Stratta, T.M. (1992). The "sport career death" of college athletes: Involuntary and unanticipated sport exits. *Journal of Sport Behavior, 15*, 3-20.
- Brewer, B.W., Van Raalte, J.L., & Linder, D.E. (1993). Athletic identity: Hercules' muscles or Achilles heel? *International Journal of Sport Psychology, 24*, 237-254.
- Chickering, A. (1969). *Education and identity*. San Francisco: Jossey-Bass.
- Corey, G. (2000). *Theory and practice of counseling and psychotherapy*. Pacific Grove, California: Brooks/Cole.
- Erikson, E.H. (1968). *Identity: Youth and crisis*. New York: Norton
- Gilligan, C. (1993). *In a different voice*. Cambridge: Harvard University Press.
- Gould, D., Jackson, S.A., & Finch, L. (1993). Sources of stress in National Champion Figure Skaters. *Journal of Sport & Exercise Psychology, 15*, 134-159.
- Greene, M. (1997). The lived world, literature and education. In D. Vandenberg (Ed.), *Phenomenology and education discourse* (pp.169-190). Johannesburg: Heinemann.
- Grove, R.L., Lavallee, D., & Gordon, S. (1997). Coping with retirement from sport: The influence of athletic identity. *Journal of Applied Sport Psychology, 9*, 191-203.
- Havighurst, R. (1972). *Developmental tasks and education*. New York: David McKay.
- Hughes, R., & Coakley, J. (1991). Positive deviance among athletes: The implications of over conformity to the sport ethic. *Sociology of Sport Journal, 8*, 307-325.
- Josselson, R. (1987). *Finding herself: Pathways to identity development in women*. San Francisco: Jossey-Bass.
- Kerr, G., Berman, E., & De Souza, M.J. (2006). Disordered eating in women's gymnastics: Perspectives of athletes, coaches, parents and judges. *Journal of Applied Sport*

Psychology, 18, 28-43.

Kerr, G., & Dacyshyn, A. (2000). The retirement experience of elite female gymnasts.

Journal of Applied Sport Psychology, 12, 115-133.

Krane, V., Greenleaf, C.A., & Snow, J. (1997). Reaching for gold and the price of glory: A motivational case study of an elite gymnast. *The Sport Psychologist*, 11, 53-71.

Lally, P. (2007). Identity and athletic retirement: A prospective study. *Psychology of Sport & Exercise*, 8 (1), 85-99.

Lavallee, D. (2005). The effect of a life development intervention on sports career transition adjustment. *The Sport Psychologist*, 19, 193-202.

Lavallee, D., & Robinson, H.K. (2007). In pursuit of an identity: A qualitative exploration from women's artistic gymnastics. *Psychology of Sport and Exercise*, 8, 119-141.

Lincoln, Y.S., & Guba, E.G., (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.

Marcia, J.E. (1980). Identity in adolescence. In J. Adeslon (Ed.), *Handbook of adolescent psychology* (pp.159-187). Toronto: Wiley.

Miles, M.B., & Huberman, A.M. (1994). *Qualitative data analysis*. London: Sage.

Miller, P.S., & Kerr, G.A. (2002). Conceptualizing excellence: Past, present, and future. *Journal of Applied Sport Psychology*, 14, 140-153.

Millman, D. (1999). *Body Mind Mastery*. Novato, CA: New World Library.

Moos, R.H., & Tsu, V. (1968). Human competence and coping: An overview. In R. H. Moos (Ed.), *Middle age and aging*. Chicago: University of Chicago Press.

Murphy, G.M., Petitpas, A.J., & Brewer, B.W. (1996). Identity foreclosure, athletic identity, and career maturity in intercollegiate athletes. *The Sport Psychologist*, 10, 239-246.

Murphy, S.M. (1995). Transitions in competitive sport. In S. M. Murphy (Ed.), *Sport psychology interventions* (pp. 331-346). Champaign, IL: Human Kinetics.

- O'Connor, P.J., Lewis, R.D., & Boyd, A. (1996). Health concerns of artistic female gymnasts. *Sports Medicine, 21*, 321-25.
- Patton, M.Q. (1990). *Qualitative evaluation & research methods*. Newbury Park, CA: Sage.
- Pearson, R. E., & Petitpas, A. J. (1990). Transitions of athletes: Developmental and preventative perspectives. *Journal of Counseling and Development, 69*, 7-10.
- Perna, M.P., Ahlgren, R.L., & Zaichkowsky, L. (1999). The influence of career planning, race, and athletic injury on life satisfaction among recently retired collegiate male athletes. *The Sport Psychologist, 13*, 144-156.
- Petitpas, A., Danish, S., McKelvain, R., & Murphy, S.M. (1990). A career assistance program for elite athletes. *Journal of Counseling and Development, 70*, 383-386.
- Petrie, T.A. (1993). Disordered eating in female collegiate gymnasts. *Journal of Sport & Exercise Psychology, 15*, 424-436.
- Phoenix, C., Faulkner, G., & Sparkes, A. C (2005). Athletic identity and self-ageing: The dilemma of exclusivity. *Psychology of Sport and Exercise, 6*, 335-347.
- Rice, P.F. (2001). *Human development* (4th ed.). Princeton, NJ: Prentice Hall.
- Rosen, L., & Hough, D. (1988). Pathogenic weight control behaviors of female collegiate gymnasts. *The Physician and Sports Medicine, 16*, 141-144.
- Rosenberg, M. (1979). *Conceiving the self*. New York: Basic Books.
- Russell-Mayhew, S. (2005). Betwixt and between: Puberty and body image. *Eating Disorders Today Newsletter, 3* (2), 5.
- Schlossberg, N.K. (1981). A model for analysing human adaptation to transition. *The Counseling Psychologist, 9*, 2-18.
- Schwandt, T.A. (1997). *Qualitative inquiry*. Thousand Oaks, CA: Sage.
- Sinclair, D.A., & Orlick, T. (1993). Positive transitions from high-performance sport. *The Sport Psychologist, 7*, 138-150.

- Smith, J.A. (1995). Qualitative methods, identity and transition to motherhood. *The Psychologist*, 7, 138-150.
- Smith, J.A., Jarman, M., & Osborn, M. (1999). Doing interpretative phenomenological analysis. In M. Murray & K. Chamberlain (Eds.), *Qualitative health psychology: Theories and methods* (pp.218-240). Thousand Oaks, CA: Sage.
- Stephan, Y., & Bilard, J. (2003). Repercussions of transition out of elite sport on body image. *Perceptual and Motor Skills*, 96, 95-104.
- Stephan, Y., Torregrosa, M., & Sanchez, X. (in press). The body matters: Psychophysical impact of retiring from elite sport. *Psychology of Sport and Exercise*.
- Strauss, A.L., & Corbin, J. (1998). *Basics of qualitative research*. Thousand Oaks, CA: Sage.
- Stryker, S. & Serpe, R.T. (1994). Identity salience and psychological centrality: Equivalent, overlapping or complementary concepts? *Social Psychology Quarterly*, 57, 16-35.
- Swain, D.A. (1991). Withdrawal from sports and Schlossberg's model of transitions. *Sociology of Sport Journal*, 8, 152-160.
- Taylor, J., & Ogilvie, B.C. (1994). A conceptual model of adaptation to retirement among athletes. *Journal of Applied Sport Psychology*, 6, 1-20.
- Taylor, J., Ogilvie, B., & Lavalley, D. (2005). Career transition among athletes: Is there life after sports? In J. M. Williams (Eds.), *Applied sport psychology: Personal growth to peak performance* (5th ed., pp. 595-615). Columbus, OH: McGraw-Hill.
- Tesch, R. (1990). *Qualitative research: Analysis types and software tools*. New York: Farmer Press.
- Waterman, A.S. (1985). Identity in the context of adolescent psychology. In A. S. Waterman (Ed.), *Identity in adolescence* (pp. 5-24). San Francisco: Jossey-Bass.
- Werthner, P., & Orlick, T. (1986). Retirement experiences of successful Olympic athletes. *International Journal of Sport Psychology*, 17, 337-363.

Footnotes

¹ Data from girls in the Fels Longitudinal Study showed that total body fat increases from a mean of approximately 5.5kg at 8 years of age to approximately 15kg at 16 years.

² Interview schedule is available from the corresponding author upon request.

³ All names are pseudonyms to protect the anonymity of the participants.

Table 1

Component themes in each domain and the number of participants represented by each theme

Domain	Component Themes
Causes of career termination	<ul style="list-style-type: none">• Physical and emotional demands of elite gymnastics• A sense of apt timing• Coach/Athlete relationship
Features of the transition	<ul style="list-style-type: none">• Source ambiguity• Onset: Sudden disengagement
Experiences of retirement	<ul style="list-style-type: none">• Loss and turmoil• Identity confusion
Accepting and managing differences between the pre and post transition environments	<ul style="list-style-type: none">• Lack of personal control versus total independence• Total support versus diminished support• Direction versus no direction• The need to control diet and appearance versus the absence of any need for control
Generative ideas to ease future generations disengagement from gymnastics	<ul style="list-style-type: none">• Invest in the holistic development of athletes• Recognize sporting achievements
