Female Varsity Athletes' Perceptions of The Development of Optimism

by

Hayley Laine deBeaudrap

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Faculty of Physical Education and Recreation
University of Alberta

Abstract

This study examined female athletes' perceptions of how they became optimistic. In order to identify optimistic athletes, 83 members of female varsity sport teams at the University of Alberta completed a sport-specific version of the Life Orientation Test (LOT; Dunn, Causgrove Dunn, & Lizmore, 2015). Nine participants (*M* age = 19 years) who scored high in optimism (*M* score = 36.89, *SD* = 1.9) then completed individual semi-structured interviews. Seven of these participants also completed a member-checking interview. Data analysis followed Interpretative Phenomenological Analysis (Smith, Flowers, & Larkin, 2009). Results were organized across a developmental framework documenting shared aspects of participants' perspectives of experiences that contributed to development of optimism during childhood, adolescence, and adulthood. During childhood participants perceived that their parents were supportive, provided feedback, and allowed them to have choice over the sports in which they participated. During adolescence coaches began to play a more important role in developing optimism and participants were able to learn about being optimistic through experiences, particularly negative experiences. Finally, during early adulthood participants developed personal narratives about the ways in which they approached sport with optimism. Practical implications arising from these findings include increasing parents', coaches', and athletes' understanding of how to increase the development of optimism.

Preface

This thesis is an original work by Hayley deBeaudrap. The research project, of which this thesis is a part, received research ethics approval from the University of Alberta Research Ethics Board, How Female Varsity Athletes Learn to Respond to Adversity, No. Pro00054183, February 3, 2015.

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Chapter 1:

Rationale and Purpose

Why are some athletes able to rebound from adversity, cope with the setbacks like injury and poor performances, and enthusiastically embrace the myriad of other challenges associated with being successful in high performance sport? One possible answer is that these individuals are highly optimistic (Martin-Krumm, Sarrazin, Peterson, & Famose, 2003). Optimism has been defined as "an individual difference variable that reflects the extent to which people hold generalized favorable expectancies for their future" (Carver, Scheier, & Segerstrom, 2010, p. 879). For instance, people with high dispositional optimism believe good things will happen to them (Venne, Laguna, Walk, & Ravizza, 2006).

Researchers have also conceptualized optimism in terms of individuals' explanatory style. Explanatory style is "how people habitually explain the causes of events that occur to them" (Peterson & Steen, 2002, p. 244). Individuals are considered to have an optimistic explanatory style when they explain causes of bad events to be specific, temporary, and external (Seligman, 1990). That is, they believe a bad event is specific to the situation at hand, will not last indefinitely, and is due to something external of the individual self. Hence, whereas, *dispositional optimism* is a generally favorable outlook toward life, *optimistic explanatory style* is more about the cognitive techniques and strategies individuals use to explain the causes of events (Seligman, 1990).

High levels of both dispositional optimism and optimistic explanatory style have been associated with a range of positive outcomes in the general population, including reduced distress and depression, increased life satisfaction, and the use of approach or

problem-focused coping strategies (Carver et al., 2010; Solberg Nes, & Segerstrom, 2006). Optimistic explanatory style has also been shown to be a significant predictor of health (Kamen & Seligman, 1987), happiness (Cheng & Furnham, 2001), and positively correlated with extraversion (Yamagata et al., 2006). Whether considered as an explanatory style or a disposition, optimism is clearly an important quality for individuals to possess.

Among athletes, dispositional optimism and optimistic explanatory style have been positively correlated with adaptive coping (Nicholls, Polman, Levy, & Backhouse, 2008), satisfaction in school and sport (Gaudreau, Gunnell, Hoar, Thompson, & Lelièvе, 2014), reduced stress (Gustafsson & Skoog, 2012; Martin-Krumm et al., 2003), reduced rates of burnout (Berengüi, Ruiz, Montero, Marcos, & Gullón, 2013; Gustafsson & Skoog, 2012), increased mental toughness (Jones, Hanton, & Connaughton, 2002), and the attainment of high levels of performance (Gould, Dieffenbach, & Moffet, 2002; Norlander & Archer, 2002). Whereas there is an emerging evidence base depicting the benefits of optimism in sport, far less is known about the factors that contribute to its development among athletes. If researchers can establish some of the factors that contribute to the development of optimism among athletes we may be able to create interventions to foster optimism in the future.

This thesis focused on the development of dispositional optimism. From this perspective optimism is a trait. As McAdams and Adler (2006) explained, traits are "broad, internal, and comparative features of psychological individuality that account for consistencies perceived or expected in behavior and experience from one situation to the next, and over time" (p. 472). Similar to most traits, test-retest correlations in studies of

optimism are relatively high, ranging from .58 to .79 over periods lasting from a few weeks to three years (see Carver et al., 2010, for a review). Yet, the stability of optimism is not always consistent, and as Carver et al. observed "change is certainly possible" (p. 886).

For example, Segerstrom (2007) found in one 10 year test-retest study that the correlation between measures of optimism was only .35. This result was likely obtained due to the fact that participants in this study were originally law school students and the follow-up occurred when they were well into their law practice. Reflecting on this study, Carver et al. (2010) speculated that "perhaps optimism is more changeable during times of life transition, when there is break from prior experience, and outcomes become more uncertain" (p. 881). Furthermore, in the Segerstrom (2007) study, the direction of change was mainly in the optimistic direction and was predicted by changes in social resources. These findings suggest that, even though optimism is a disposition, it can be learned and change over time, particularly if life circumstances change. Therefore, in the current study it was feasible to (retrospectively) examine how optimism developed among athletes as they moved through from childhood to young adulthood and dealt with changing circumstances in life and sport.

There is, of course, a genetic component to variations among people (Carver et al., 2010), which has consistently been demonstrated across cultures (Yamagata et al., 2006). Yet, twin studies have shown *both genetics and the environment* are factors to consider in the development of personality traits (Krueger, Johnston, & Kling, 2006). In their book chapter, Kreuger et al. reported that genetic influence on individual differences in personality account for 40-60% of the variance in the emergence of personality. If

genetic factors account for between 40-60% of personality, then presumably the environment influences the 'other' 40-60%.

In the context of sport, some of the early experiences athletes gain may represent environmental influences that contribute to the development of optimism in addition to innate factors. Given that optimism as a disposition is not solely due to genetics, it is likely that athletes' experiences (and the social resources that are available to them; Carver et al., 2010) during childhood and adolescence contribute to the development of high dispositional optimism. Therefore, this research examined the perceived experiences (i.e., perceptions of personal development and social interactions) that individuals with high dispositional optimism believe contributed to their optimism development. To this end, **the purpose of this study** was to examine female athletes' perceptions of how they became optimistic.

Chapter 2:

Literature Review

As noted in the introduction, some scholars have suggested optimism is a personality trait or disposition present across time and different contexts (e.g., Scheier & Carver, 1985), whereas Seligman (1990) defined optimism as an explanatory style. In order to provide a thorough review of the literature, I first discuss optimism from a dispositional perspective and detail associated research before going on to discuss optimistic explanatory style and associated research.

Dispositional (Trait) Optimism

Dispositional optimism is a generally favorable outlook toward life (Carver et al., 2010). Compared to less optimistic individuals, people with high dispositional optimism would generally expect good things to come to them (Scheier & Carver, 1985). Research on dispositional optimism originated in the medical domain, where studies demonstrated dispositional optimism reduced post-surgery recovery time, reduced distress and depression, and increased life satisfaction (Carver et al., 1993; Carver et al., 2010; Scheier et al., 1989). Dispositional optimism has also been associated with increased subjective well-being during times of adversity (Carver et al., 2010).

Scheier and Carver's (1985) Life Orientation Test-Revised (LOT-R) is the most widely used measure of dispositional optimism (Burke, Joyner, Czech, & Wilson, 2000). The original instrument (i.e., LOT; Scheier & Carver, 1985) has 12 items scored on a 5-point Likert scale (ranging 0-4), four of which are positively worded, four negatively worded, and the remainder filler (neutral) items. The revised version of the instrument (i.e., the LOT-R) is a 10-item measure with three positively worded items, three

negatively worded items and four filler items scored on a 5-point Likert scale ranging 0-4. The positively worded items and negatively worded items are summed to create a composite score ranging from 0-24. A higher score reflects a more optimistic individual and a lower score reflects a less optimistic individual. Test-retest reliability of the LOT and LOT-R is high and internal consistency is good and relatively stable over time with Cronbach's alpha ranging from high 0.70s to low 0.80s (Carver & Scheier, 2002; Scheier & Carver, 1985).

Several studies using the LOT and LOT-R have shown positive correlations between optimism and a range of factors associated with health and well-being, including reduced stress, increased life satisfaction, decreased levels of depression, and approach or problem-focused coping strategies (Aspinwall, & Brunhart, 1996; Carver et al., 1993; Scheier & Carver, 1987). For instance, Carver et al. (1993) examined how optimism-pessimism differences predicted the well-being of individuals during a time of crisis (diagnosis of, and surgery for, breast cancer) and found that dispositional optimism was inversely and strongly related to distress at all of the assessment points.

Sport Studies of Dispositional Optimism

Only a few studies have examined dispositional optimism in sport. One study conducted in the UK by Nicholls and colleagues (2008) examined optimism, coping, and mental toughness (i.e., "having the natural or developed psychological edge that enables you to generally cope better than your opponents" Jones et al., 2002, p. 213). The sample was comprised of 677 athletes (*n* males = 454; *n* females = 223) between the ages of 15 and 58 years (*M* age = 22.66 years, *SD* = 7.20), competing from beginner levels up to the international level. Results showed significant positive correlations between dispositional

optimism and dimensions of task-oriented coping, including thought control, mental imagery, effort expenditure, logical analysis, seeking support, and relaxation. Negative correlations were found between dispositional optimism and the maladaptive coping strategies such as mental distraction and resignation. Furthermore, dispositional optimism was positively correlated with mental toughness and a negative correlation was found between mental toughness and pessimism.

A study conducted in Sweden examined dispositional optimism and burnout (a multidimensional syndrome of emotional/physical exhaustion along with reduced sense of athletic accomplishment and sport devaluation) among athletes (Gustafsson & Skoog, 2012). Participants were 217 athletes (*n* males = 139; *n* females = 78) representing 25 different sports (*M* age = 17.21, *SD* = 0.95). Results demonstrated a significant negative correlation between perceived stress levels and dispositional optimism. Furthermore, a significant positive correlation was reported between the three aspects of burnout (emotional/physical exhaustion, reduced sense of athletic accomplishment, and sport devaluation) and perceived stress levels. The findings of this study suggest that, because optimists expect good outcomes when faced with adversity, they are less likely to perceive stress when dealing with this adversity and therefore less likely to experience burnout symptoms compared to less optimistic athletes.

Venne et al. (2006) compared dispositional optimism levels between post-secondary first year non-athletes and athletes to post-secondary final year non-athletes and athletes. The authors found a significant difference in dispositional optimism levels from first year student athletes to final year student athletes. That is, final year athletes scored significantly higher on optimism than first year athletes. There were no significant

differences between first year athletes and non-athletes, nor between first year non-athletes and final year non-athletes. The authors speculated that athletes' optimism may improve (from first year to final year) because they develop increased self-efficacy in their sport and learn to master challenges they face. Venne et al. concluded that "implications of these findings suggest that participation in athletics may have an affect [sic] on optimism levels" (p. 192). However, this study did not include any measures to assess how optimism was developed and it did not track athletes over time (rather separate samples of first and final year students were used). If indeed optimism can change (improve) through sporting involvement, it remains important to understand more about how athletes learn to become optimistic.

Recently, Gaudreau et al. (2014) examined how dispositional optimism and pessimism were related to task-oriented coping and satisfaction in school and sport among Canadian student-athletes (*M* age = 14.88 years, *SD* = 1.58). Results supported a matching domain hypothesis, whereby optimism was indirectly related to domain satisfaction through domain task-oriented coping, whereas pessimism was indirectly related to domain satisfaction through domain disengagement coping. That is, optimistic student-athletes experienced greater satisfaction in school and sport as a consequence of their use of task-oriented coping strategies in school and sport domains. These findings highlight the importance of taking context into account when considering relationships between optimism and psychological adjustment.

In summary, studies have revealed that dispositional optimism is positively associated with a range of adaptive psychological outcomes, and negatively associated with a range of maladaptive psychological outcomes. The evidence base remains rather

small and several scholars have highlighted the need for continued research examining optimism in sport. For instance, Gaudreau et al. (2014) highlighted the need for researchers to examine the conditions through which engagement in youth sport may contribute to the acquisition of skills such as those associated with optimism. Other researchers have highlighted the need for longitudinal research to examine how optimism among athletes changes over time (e.g., Gustafsson & Skoog, 2012). Given that longitudinal research is time-consuming and was unfeasible for the current study a retrospective approach was used, which can be useful for identifying athletes' memories of key moments in their sporting careers that influenced their psychological development (Holt, Tamminen, Tink, & Black, 2009). Furthermore, a qualitative approach was adopted, which was consistent with Venne et al.'s (2006) suggestion that "qualitative approaches are necessary to examine exactly what experiences… [influence] optimism levels to provide an insight into identifying those challenges that provide opportunities for successful achievement of mastery experiences" (p. 193).

In the current study it was assumed that the athletes' experiences in sport may contribute to the development of dispositional optimism. For instance, they may have faced, and learned to deal with, challenges and through successful mastery attempts developed a more optimistic perspective (cf. Venne et al., 2006). Optimism may change when individuals experience major transitions in life (Carver et al., 2010), such as those associated with moving through the youth sport system into varsity sport (Stambulova, Alfermann, Statler, & Côté, 2009). The social support athletes experience (e.g., from parents or teammates) may provide 'resources' that are important for the development of optimism (cf. Segerstrom, 2007). Yet, it appears there are no existing published studies

that have examined how optimism develops among athletes at this time and therefore the current study adopted an exploratory (retrospective, qualitative) approach in order to provide new findings that could extend the literature on optimism and sport participation.

Optimistic Explanatory Style

Although this thesis focused on dispositional optimism, a review of the optimism literature would not be complete without some discussion of optimistic explanatory style. Explanatory style is an individual's habitual way of explaining the causes of bad events. An individual with an optimistic explanatory style would explain a bad event as temporary, specific, and external (Seligman, 1990). Explanatory style can be traced from the concept of learned helplessness. Learned helplessness is defined in terms of a 'giving up reaction' or 'quitting response' when people believe that nothing they do matters and their actions will have no effect on the outcome (Seligman, 1990). Optimistic explanatory style is postulated as a method to reduce learned helplessness, whereas a pessimistic explanatory style is a way of spreading learned helplessness (Abramson, Seligman, & Teasdale, 1978; Seligman, 1990).

Optimistic explanatory style is often measured using the Attributional Style Questionnaire (ASQ; Peterson, Semmel, Von Baeyer, Abramson, Metalsky, & Seligman, 1982). The ASQ is a 12-item measure, where individuals give causal explanations to six positive outcomes and six negative outcomes. The pessimism scale is then subtracted from the optimism scale for an overall score. A number that remains a positive integer is consider more optimistic, whereas a number that becomes a negative integer is considered more pessimistic. Peterson et al. (1982) found the internal reliability of good

events and bad events to have alpha values of 0.75 and 0.72 respectively, and the overall mean reliability of the six subscales was 0.54.

Optimistic explanatory style has also been assessed with a content analysis procedure called Content Analysis of Verbatim Explanations (CAVE; Schulman, Castellon, & Seligman, 1989). The CAVE method essentially allows individuals to give verbal causations for events or phenomena, which are then rated on the ASQ dimensions of internality, stability, and universality (Schulman et al., 1989). 'CAVE-ing' is a two-step process whereby the first step is to determine if an attribution has been made based on provided guidelines. In the second step, the attribution is rated on a 7-point scale according to the dimensions of universality, stability and internality. Using the CAVE approach, Roesch and Amirkhan (1997) analyzed newspaper quotations from 310 team and solo professional athletes. It was found that wins and losses were constrained by specific circumstances, but largely wins were attributed to controllable factors and losses were attributed to uncontrollable factors.

There is also a sport-specific measure of explanatory style -- the Sport Attributional Style Scale (SASS; Hanrahan, Grove, & Hattie, 1989). Similar to the ASQ the SASS measures internality, universality, and stability, however the SASS also measures two additional dimensions called controllability and intentionality. The SASS is made up of 16 hypothetical situations in which athletes attribute what the most likely cause is for the situation happening to them. Hanrahan et al. (1989) found that the test-retest reliability was a suitable value with the coefficient means being .60 for positive events and .56 for negative events. Upon further examination of the SASS correlations between the SASS and ASQ were found (Hanrahan & Grove, 1990). Furthermore, a short

form version of the SASS was developed reducing the 16 hypothetical situations down to 10, which demonstrates virtually the same dimensional subscale scores as the longer 16-item form (Hanrahan & Grove, 1990).

Sport Studies of Optimistic Explanatory Style

Optimistic explanatory style has been more widely studied in sport than dispositional optimism. For example, Prapavessis and Carron (1988) examined the link between learned helplessness and explanatory style with a sample of 50 athletes (*n* males = 31; *n* females = 19) aged 11 to 25 years (*M* age = 15 for females and 16 for males). Participants completed the ASQ (Peterson et al., 1982) along with the Maladaptive Achievement Pattern Questionnaire (Prapavessis & Carron, 1988). In this study maladaptive achievement patterns (i.e., failures seen as internal, stable, and global) were associated with learned helplessness in 11 of the 50 athletes. Athletes in the helpless group perceived personal and match factors to be more internal, stable and global than athletes in the non-helpless group. Furthermore, the helpless athletes perceived the causes of failure to be more stable and global than the non-helpless athletes.

Seligman, Nolen-Hoeksema, Thornton, and Thornton, (1990) found varsity swimmers (*n* males = 21; *n* = females = 26) with an optimistic explanatory style performed better in a post-trial after which they had received false failure feedback on a previous performance than swimmers with a pessimistic explanatory style. Gordon (2008) found similar results with 20 intramural male soccer players. Players who scored higher on the ASQ had a better pass completion ratio and overall performance in losing situations than players who scored lower on the ASQ.

Carron, Shapcott, and Martin (2014) examined 39 teams consisting of 442 athletes (*n* males = 227; *n* females = 215) competing at either a local, provincial, intercollegiate, or national level. Team explanatory style was assessed using the Team Attributional Style Questionnaire. Two categories of teams were created; less versus more successful teams (i.e., less successful teams had a winning percentage .500 or below). This study determined teams had a collective explanatory style and more successful teams had a more optimistic explanatory style than less successful teams.

Martin-Krumm et al. (2003) examined 62 high school students (*n* males = 33; *n* females = 29) aged 14 to 16 years (*M* = 14 years, *SD* = .76) who had been playing basketball for at least one year. Explanatory style was determined using the Sport Explanatory Style Questionnaire. Participants in the upper tenth percentile were considered to have the most optimistic explanatory style and those in the lower tenth percentile were considered to have the most pessimistic explanatory style. Participants of this study completed a three-phase experiment where they recorded their resting heart rate, completed a timed dribbling circuit, rested, and then completed the timed dribbling circuit a second time. Between completing the dribbling circuit the first and second time participants were not informed of their time, but were told "You have not produced a very good time compared to the other pupils who have performed. But once you have rested, you will have the possibility to train and test a second time" (p. 1690). Similar to Seligman et al. (1990) and Gordon (2008), this study found that those participants with the most optimistic explanatory style performed better in the second test after receiving failure feedback.

Another common setback issue facing athletes is dealing with injury. Shapcott, Bloom, Johnston, Loughead, and Delaney (2007) found, in a sample of 170 varsity athletes (*n* males = 99; *n* females = 71), individuals with an optimistic explanatory style took longer to recover from a complex concussion than athletes with a pessimistic explanatory style. This result may seem surprising as optimists generally have faster recovery times from illness or surgery (Carver et al., 2010; Carver et al., 1993), but it may be possible that athletes with an optimistic explanatory style felt less stress and did not feel rushed to return to play because they understood the bad event (i.e., the concussion and recovery) was temporal and would pass.

Explanatory style is an important part of resiliency after failure and research has shown that an optimistic explanatory style contributes to this resiliency (Gordon, 2008; Martin-Krumm et al., 2003; Seligman, 1990). Martin-Krumm et al. also found that explanatory style effected two other components, success expectation and state anxiety. Similar to dispositional optimists who had lower levels of state anxiety (Wilson, Raglin, & Pritchard, 2002) individuals with an optimistic explanatory style had low stress reactivity.

Gender Differences

Several studies (e.g., Gordon, 2008; Seligman, Nolen-Hoeksema, Thornton, & Thornton, 1990; Wilson et al., 2002) have considered gender differences in relation to optimism or optimistic explanatory style. In Seligman et al.'s (1990) study of explanatory style and disappointing athletic performance among university swimmers, men had a higher optimistic explanatory style than women (men *M* score = 6.44, *SD* = 3.15; women *M* score = 3.15, *SD* = 1.96). Gordon (2008) attempted to replicate the gender difference

results from Selgiman et al. (1990) study. The research paper by Gordon illustrates two studies, one that used all male participants and one that used all female participants. In both studies the ASQ was administered and the male participants were found to have a higher optimistic explanatory style than the female participants (male *M* score = 3.38, *SD* = 2.32; female *M* score = 2.67, *SD* = 1.87). Finally, Wilson et al. (2002) looked at dispositional optimism, pessimism and pre-competition anxiety in 74 college level athletes (*n* males = 35, *n* females = 39). This study also found that 46% of male athletes, compared to 36% female athletes, employed an optimistic orientation. Given that evidence suggests males may be more optimistic than females, it is important to gain a better understanding of how females can become optimistic. Hence, the current study focused on the development of optimism among female athletes to add new insights to the literature.

Summary

It has been well demonstrated that optimism is linked with a range of positive outcomes in life (Carver et al., 2010; Carver et al. 1993; Scheier & Carver, 1985) and in sport (Gould et al., 2002; Gustafsson & Skoog, 2012; Nicholls et al., 2008; Wilson et al., 2002), but less is known about how athletes become optimistic. Furthermore, because female athletes scored lower on optimism assessments consistently when compared to their male counterparts (Czech, Burke, Joyner, & Hardy, 2002; Gordon, 2008; Seligman et al., 1990; Wilson et al, 2002), this study focused on female athletes. To reiterate, the purpose of this study was to examine female athletes' perceptions of how they became optimistic.

Chapter 3:

Method

Methodology

In order to reveal new information about how athletes become optimistic, a qualitative research approach was used. Although there are robust questionnaires for examining optimism (i.e., LOT, [Scheier & Carver, 1985], LOT-R [Scheier, Carver, & Bridges, 1994], ASQ [Peterson et al. 1982], CAVE [Schulman et al., 1989], SASS [Hanrahan et al., 1990]), they do not examine how athletes became, or learned to become, optimistic. Qualitative research can be used to explore individuals' perceptions of their experiences and to "understand the participants' subjective experiences and through these experiences, interpret the participants' meanings" (Markula & Silk, 2011, p. 34). As such, a qualitative and retrospective approach was used to examine how female varsity athletes perceived they became optimistic.

This study utilized Interpretative Phenomenological Analysis (IPA; Smith, Flowers, Larkin, 2009). According to Markula and Silk (2011) phenomenology's central aspect is to study the human experience. IPA is grounded in phenomenology and attempts to make sense of participants' meaning of subjective experiences. More specifically, IPA seeks to understand what the experience is like for people, and what sense people are making of the events or situations that are happening to them (Smith, Flowers, & Larkin, 2009). My study looked to understand human experiences and individual meaning making specifically involving how female athletes thought they had come to be optimistic, making IPA appropriate for this study.

Philosophical Framework

The philosophical underpinnings of IPA are hermeneutics and idiography. Hermeneutics is the theory of interpretation, and interpretation is an essential component of IPA (Smith et al., 2009). The IPA researcher interprets the data to understand and make sense of the participants' lived experiences. Consistent with idiography, IPA seeks to understand each experience at an individual level. Through careful interpretation and examination of individual cases the IPA researcher can develop more general claims that have emerged from the lived experiences within the data.

Accordingly, this study was completed within the interpretive paradigm. The interpretive paradigm is consistent with the chosen IPA methodology. The interpretative researcher understands the research as a form of narrative in which the participants share their lived experiences with the researcher (Markula & Silk, 2011). Epistemologically I approached this study from a subjectivist view and employed an idiographic approach to data collection. I approached this study using a relativist ontological view that individuals construct multiple meanings of reality through a subjective meaning-making process. Individuals have their own reality, but through IPA it is possible to identify shared aspects of individual experiences. Hence, I sought to identify individuals' perceptions of how they became optimistic and then identify shared commonalities among these perceptions.

Participant Recruitment

This study required a sample of optimistic female athletes. Therefore, purposeful sampling was required. Purposeful sampling involves using pre-determined criteria to recruit participants who can provide the 'best' and 'most' information to address the purpose of the research (Mayan, 2009). Following Research Ethics Board (REB)

approval and permission from the athletic director, an email (Appendix A) was sent to the head coaches of women's soccer, basketball, rugby, volleyball, and hockey teams at the University of Alberta. The coaches agreed to let me attend a team meeting, during which athletes received an information letter (Appendix B) and were informed about the study and their rights (e.g., study is voluntary, freedom to withdraw). Then athletes were asked to complete a written informed consent form (Appendix C) and a sport-specific version of the LOT (Appendix D).

The sport-specific version of the LOT was recently developed by Dunn and colleagues (Dunn, Causgrove Dunn, & Lizmore, 2015). This scale took the original positive, negative, and filler items from the LOT and put them into the context of sport. This was done by framing each question with the stem "after I play poorly in my sport…" and by re-wording questions where needed. For example, question one in the original LOT asks, "…I usually expect the best." In this sport-specific LOT this question was revised to read "…I usually expect the best for my next competition." This scale has 12 items scored on a 5-point Likert scale (ranging 1-5), four of which are positively worded, four negatively worded, and the remainder filler (neutral) items. A score of 20 on the optimism scale demonstrates high optimism and a score of 20 on the pessimism scale demonstrates high pessimism. A composite optimism score can be calculated by reverse coding the negative items and adding that score to the optimism score. This composite score can range from 8-40, with a score of 40 being the most optimistic. For this sample of varsity athletes the internal consistency of the sport-specific LOT was found to be acceptable with a Cronbach's alpha of 0.85.

A total of 83 athletes completed the sport-specific version of the LOT (*M* score = 29.28, *SD* = 4.45). These 83 athletes were from the Pandas basketball (*n* = 12), hockey (*n* = 23), rugby (*n* = 15), soccer (*n* = 18), and volleyball (*n* = 15). The mean scores from the LOT from all five teams are provided in Table 1 (Appendix E). Athletes with scores equal to or greater than 35 were invited to participate in two interviews. Individuals with a score greater than 35 were selected because they were at least one full standard deviation ahead of the overall group average, hence why this value was used to distinguish the most optimistic athletes.

The first interview was the 'main interview' and the second was a member-checking interview. Importantly none of the athletes on a particular team received their scores on the LOT prior to the main interviews being conducted. For example, the players on the soccer team received their LOT scores (via e-mail) once all the soccer players in this study had completed their first interview. This was done to help prevent response bias and, more specifically, the possibility of athletes completing the interviews being led into any preconceived ideas of optimism. Athletes who completed the interview part of the study were informed of their LOT results during the main interview (and these results were explained).

Participants

A total of 12 athletes met the inclusion criteria of scoring of 35 or greater on the LOT. Nine of these athletes responded to recruitment emails, whereas three did not respond despite multiple attempts to contact them. Hence, the final sample was nine participants. IPA studies typically have relatively small and homogenous samples. This allows the researcher to "examine convergence and divergence in some detail" (Smith et

al., 2009, p. 3). A sample size of nine is slightly higher than sample sizes typically used in IPA studies (Smith et al., 2009). Furthermore, participants were interviewed on two occasions. The sample size was therefore acceptable for an IPA study and provided an adequate level of data saturation to address the purpose of this study.

The mean age of the athletes interviewed was 19.33 years (age range = 18-22, *SD* = 1.5). The experience of the nine athletes ranged from first year red-shirt athletes to athletes who had just completed their 3rd year of eligibility. Specifically, three athletes were redshirts in year one of eligibility, one athlete just completed her first year of eligibility, two athletes just completed their second year of eligibility, three athletes just completed their third year of eligibility. Athletes were from the rugby (*n* = 2), soccer (*n* = 3), hockey (*n* = 2), and volleyball (*n* = 2) varsity teams. They had an average LOT score of 36.89 (40 being the highest possible score), with the range being 35-40. This average compares favorably to high optimism scores reported by athletes in other studies. For example, Olympic champions in Gould et al.'s (2002) study had an average score of 18.7 out of a possible 24 (measured using the LOT-R). Hence, participants selected for interviews in the current study were not only the most optimistic of those sampled but were also highly optimistic when compared to optimistic athletes in other studies.

First (Main) Interviews

Individual semi-structured interviews were completed with each participant, followed by a member-checking follow-up interview (described later), which was completed by seven of the participants (two participants failed to respond to repeated attempts to organize a member-checking interview). Interviews were conducted in a research office located at the Child and Adolescent Sport and Activity Lab at the

University of Alberta. Interview length (for main interviews) ranged from 48-70 minutes (*M* interview length= 61.3 minutes) and all interviews were audio-recorded. I conducted all interviews with the participants. In order to prepare for the interviews I completed a qualitative research methods class, conducted interviews for an unrelated study with ultramarathon runners, and completed several mock interviews (both as an interview and as an interviewee).

The interview guide (Appendix F) was developed in several stages. First, a range of open-ended questions were developed based on existing measures (Carver & Scheier, 1985; Hanrahan et al., 1989; Peterson et al., 1982; Scheier & Carver, 1987) and informed by the qualitative interviewing literature (Rubin & Rubin, 2012). Next, the draft version of the interview guide was subjected to further review (i.e., during proposal meeting, with other graduate students). A pilot interview with a former female varsity athlete, who was forced to retire due to injury, was also conducted. These data were not included in the results of the study. The main purpose of the pilot interview was to confirm the suitability of the interview questions and highlight areas that needed to be modified.

Throughout the interviews participants were asked a series of open-ended questions, which are used to "encourage people to talk about their experiences, perceptions, and understandings rather than providing a normative response or text-book type answer" (Rubin & Rubin, 2012, p. 135). Probing questions were also used throughout to help maintain the flow of conversation. Probing also allowed for the clarifications of unclear comments, helped provide further detail without changing the focus of the conversation, and was used to help encourage participants to expand on their ideas (Rubin & Rubin, 2012).

Although the interviews were conducted in a conversational manner, there was a basic structure to each interview. First, participants were given instructions and asked some demographic questions. The main part of the interview guide featured questions about their experience in sport to date as part of a 'warm-up.' They were then asked about their positive and negative experiences in sport, along with questions about how their experiences contributed to who they are today and the role of social agents in their sporting career. Next, participants were asked to describe two scenarios they had experienced in sport; one when the stakes were very high and the result was not successful, the other when the stakes were very high and the result was successful. These parts of the interview thus provided participants with opportunities to discuss ways in which they responded to adversity (and positive situations) in order to produce information that could later be analyzed for connections to attributes of optimism and how it was developed.

The latter parts of the interview focused more specifically on optimism (prior to this the term optimism had not been used to avoid unduly leading the participants). At this time they were asked questions about their views of themselves as optimists. All participants were asked if they considered themselves to be optimistic and all nine responded that they did. At the conclusion of the first interview the participants received their LOT scores and an explanation of what the scores meant. Each participant was also asked not to share that the study was seeking to understand optimism to help prevent other participants being led into preconceived ideas of optimism.

Second (Member-checking) Interviews

A member-checking interview was completed approximately four weeks after the first interview (Lincoln & Guba, 1985). This was done to give me sufficient time to transcribe the interviews and complete the initial analysis. Given that the member-checking interview was based on participants' responses to the first interview, there was no formal interview guide per se because questions were tailored to each participant. All member-checking interviews were composed of three parts. In the first part of the member-checking interview participants were given a summary of their interview findings and were asked to provide any feedback. Participants were also asked a series of questions to clarify responses to the first interview, add any missing details, and add additional information they may have thought of since the first interview.

During the second part of the interview participants were asked questions based on the emergent themes that arose from the initial data analysis (e.g., autonomy, experiences, self control, goal-setting). These questions were used to clarify how the emergent themes were part of each participant's optimism development. The final part of the member-checking interview involved asking questions about social agents (parents, coaches, teammates) and how those social agents were apart of developing optimism. Member checking therefore helped ensure my interpretations of the data were fair representations of the athletes' sport experiences, and provided opportunities to further saturate the data.

Data Analysis

Audio files from the interviews were transcribed verbatim. All identifying material within the data (e.g., participant's names, names of other people mentioned during the interview) was removed. Participants were given a pseudonym to ensure

anonymity. Data analysis in IPA has a structure "designed to encourage a reflective engagement with the participant's account" (Smith et al., 2009, p. 80). Data analysis moved through six stages; (1) reading and re-reading, (2) initial noting, (3) developing emergent themes, (4) searching for connections across emergent themes, (5) moving to next case, and (6) looking for patterns across cases. Data analysis began as soon as the first data were collected and continued throughout the study.

The first step of IPA requires the researcher to immerse herself in the data, which helps ensure the participant becomes the focus of the analysis (Smith et al., 2009). Each transcript was initially analyzed individually before moving on to the next transcript to ensure a focus on the individuality of each participant's experiences. On the initial read through of the transcript I highlighted the participants' ideas and thoughts to help draw my attention to their words and not my own. Step two merges together with step one as the researcher begins making notes on the data being read. Step two is designed to help the researcher produce a comprehensive and detailed set of notes and comments on the data. During this step initial coding took place, using thematic analysis, for each individual transcript. I also started to create new or clarifying questions to ask each participant during their follow-up member-checking interview.

During step three the primary focus of the analysis becomes more on the initial notes made by the researcher during step one and two of the analysis than with the transcript itself (Smith et al., 2009). In step three I began looking for any emergent themes from the data that had captured and reflected the understanding of the participants' experiences. These emergent themes were placed directly within the transcript in order to help me with my coding. Step four involved looking across the

emergent themes to develop connections and interpret how the emergent themes fit together. This was done through abstraction, where I looked for clusters among the already determined themes and develop a new name for this cluster. I created a complete list of themes for each participant before moving on to the next transcript. I also wrote a short summary for each participant after I had completed the initial analysis to help maintain the integrity and individuality of each case. This summary described thoughts and ideas that came across often for the participant as well as gave a complete list of their original themes.

Step five of the analysis involved moving on to the next case and completing steps one through four. Each interview was analyzed separately as its own case to help ensure each participant's individuality; this was done by strictly following steps one through four. Once each case had been analyzed I began step six where I looked for patterns across cases. During step six I was required to re-label or reconfigure the themes as connections from case to case emerged. Once I had reached step six some of my initial themes were collapsed to make broader themes. For example the theme of passion and autonomy were collapsed to create one theme called perception of choice.

Audio files from the member-checking interviews were transcribed verbatim. The same IPA process was repeated for the member-checking interviews and steps one through five were followed to analyze the member-checking interviews. During step six initial themes from the first interviews became clearer and some themes were further collapsed. Analysis from the member-checking interviews provided a more concise and saturated list of themes that participants perceived to have helped them develop optimism.

A table of themes was developed in order to illustrate the findings from the data. At this point I began to share my initial results with my supervisor and other graduate students in order to help me work through my analysis. As I continued with my analysis looking for the emergent themes across each case I began to break the results down into developmental stages (childhood, adolescence and early adulthood). These developmental stages arose from the data through inductive methods, as my interview guide was not broken down into developmental stages. Through the analysis it became apparent that there were different types of experiences that contributed to optimism development at different stages of athlete development. The final results reflect these developmental stages.

Finally a data matrix was developed to show the theme reporting of each participant (Table 2; Appendix G). This data matrix showed a high level of data saturation across all themes. The final results contain three developmental stages, with the associated themes. A narrative to explain and illustrate the perceived experiences of the participants was written using participants' quotes. In order to achieve a thick description of each developmental stage I used a large number of participant quotes.

Methodological Rigor

IPA has specific ways in which a study can be determined as trustworthy. First and foremost good qualitative, in-depth interviews need to take place (Smith et al., 2009). Having previous experience with qualitative interviewing was an asset. Additionally I met with my supervisor on a regular basis to discuss the interview process and review the analysis. My supervisor read the transcripts and reviewed coding. The review of coding involved providing my supervisor with a table listing the themes, and explanations of the

themes, and then two or three example quotes for each theme. Next, emerging results were shared with other graduate students during lab meetings. Through sharing my results with other graduate students I was able to see my results from a different perspective that I had not thought of throughout the analysis.

Member-checking was completed to ensure a high level of data saturation. Finally, throughout the research process an audit trail documenting all analytical decisions was maintained (Lincoln & Guba, 1985). In order to support the decisions depicted within the audit trail, a reflexive journal was also kept throughout the study. This reflexive journal provided insight and justification for any decisions. The reflexive journal also allowed me to reflect upon my own experiences and assumptions and how they may have influenced my interpretation of the data.

Chapter 4:

Results

The results are separated into three developmental periods (childhood, adolescence, and early adulthood) because there appeared to be distinct experiences, shared among the participants, within each period that they perceived contributed to the development of optimism. Hence, each developmental period is presented sequentially and the key experiences during these periods are articulated. Within each main theme the sub-themes that characterized the major theme are highlighted in italics. The results are intended to convey a "developmental trajectory" that reflects the most commonly shared experiences that athletes perceived contributed to their optimism. In the following sections key themes associated with each developmental period are reported. An overview of athletes reporting each theme is provided in Table 2.

Experiences that Contributed to Development of Optimism During Childhood

Participants' parents played an important role in the development of optimism during childhood. Childhood was broadly defined as the period from the commencement of sport participation (around 4 to 5 years old) to about 12 years old. During this time their parents were supportive, provided feedback, and allowed participants to have choices over the sports in which they participated.

Role of Parents in Contributing to the Development of Optimism

Parents played an important role in facilitating the development of optimism for all participants during their childhood. Alana, a rugby player, captured the overall role of her parents succinctly when she said, "I think it honestly just goes back to how I was

raised. My parents have always been really optimistic" (first interview). Similarly, Ashley, a soccer player, said of her childhood environment:

> I think to be the most optimistic … you kind of need to start in a really good environment, a really optimistic environment at first. Like for me, I was so blessed, I'm so blessed to have the life I have and the parents that encourage me and just having that kind of setting in my life just starts everything off very positive (second interview).

Within this generally supportive atmosphere participants reported that their parents provided performance-related feedback, finding the 'positives' following poor performances. Parents were able to help participants *gain some perspective* (seeing the 'big picture') to avoid dwelling on specific mistakes. For example, Kari, a rugby player, explained how her father helped her put the game into perspective. She said:

> Having my dad be there, just letting me know, helping me see the big picture, 'cause I find, especially when I was really negative, I would only see the small things, I messed up here, I messed up here. OK, but through the whole game, you actually played pretty well. My dad really helped me see that (first interview).

Additionally, parents would provide performance-related feedback that encouraged participants to think about the *positive elements of performances* rather than mistakes. Amber, a soccer player, stated, "my parents, if something negative happened they would like automatically like bring the positive out of it and try and make me feel better" (second interview). Similarly, Alana said her mom "made me see the positive and

made me realize what I could learn from the situation and I think that's definitely grown now" (second interview).

It is important to note that parents were not merely positive at all times, but rather provided performance-related feedback in what participants described as 'honest' ways. For instance, as Renae (a soccer player) explained:

> I always like to ask what can I do better … they're just really honest like 'this wasn't good or this was good' and so it's just like really honest and like not really like telling me like 'oh no you're great' all the time and it's just like honest 'this is what you can do better' (first interview).

Finally, parents allowed their children to have a *choice over the sports in which they participated*. Participants reported this helped create a positive affiliation with the sport and therefore it was enjoyable. For example Kari, noted, "my dad always told my brother and I when we were younger, 'I don't care what you play, what you do, but just do something, just find something that you love and stick with it'" (first interview). Other participants were placed in several sports during childhood and then were able to choose which sport they continued. Amber stated, "well pretty much my parents just like signed me up for everything and then let me decide what I liked I guess" (first interview). Brittany, a hockey player, explained the importance of enjoyment. She said "if you don't enjoy something, you're not going to be positive about it I don't think" (second interview). When asked if having choice was important to help start the development of optimism in sport, Heather said, "I think definitely…'cause then you have your choice and it's your decision, like your outlook on it" (second interview). Furthermore, Brittany provided insight into why an athlete may want to develop a more optimistic outlook in

sport, “I feel like if you approach any sport negatively I mean you’re either not meant to play or you gotta change something because you’re not gonna do well with a negative attitude” (first interview).

Experiences that Contributed to Optimism Development During Adolescence

During adolescence (broadly defined as the period from 13 years old to 18 years old) participants became more focused on their main sport and reached higher levels of competition. Parents, though still an important source of support for sport participation, were a less powerful influence on the development of optimism at this time. Two themes accounted for the development of optimism during adolescence. First, coaches began to play a more important role by creating a positive environment, helping participants understand their strengths and weaknesses, and acting as role models. Second, athletes were able to self-regulate and evaluate their own experiences and learn about being optimistic through both positive and negative experiences they encountered.

Role of Coaches in Contributing to the Development of Optimism

Eight participants said that their coaches were a very important part of their sport experience during adolescence (one participant did not talk about her coach in as much detail in this respect). First and foremost, those coaches who contributed to the development of optimism in the athletes helped to create a *positive environment* in sport. Brittany stated, “You need positive coaches to have a good experience. It’s more than [having] friends, because if you’re not playing and the coach doesn’t respect you, you could have, like people have the shittiest experience” (first interview).

Coaches also provided feedback that enabled *participants to understand their strengths and weaknesses*. Alana said she liked it when coaches:

> … give you feedback… I would want them to be able to like sit down with me and be real with me and be like 'okay this is where you need to work, or this is what you're doing really well don't spend too much time on that.' If you have someone who's always, it's always sugar coat everything it's not gonna, you're not going to learn from that. *I think optimism comes from realizing that everyone has weaknesses and strengths* [emphasis added] (second interview).

Similarly, Renae said:

> I think positive in that they are not always just telling you your negatives, but they can give you like things that you are good at and reinforce you, but also give you things to challenge you.... (second interview).

Coaches as appeared to be *role models* of optimistic behaviors. Amber recalled that one of her main coaches during adolescence "never got mad…Well I think because he's so positive, [then] like I always had a positive outlook on everything" (first interview). The participants described watching and learning from their coaches particularly around how to react and cope when faced with adversity. Katlyn discussed how her coach responded when her hockey team faced adversity (double overtime in a bronze medal game):

> He was pretty calm, I mean he was just kept telling us to like, 'you're not actually tired like you can keep going like this is your last game together.' So it was just kind of like the same do or die like kind of thing (first interview).

Learning About Optimism From Experiences

As participants progressed through sport and reached higher levels of competition they encountered *new and different experiences* to those of childhood. All participants

felt that this range of different experiences had led them to become more optimistic. As Ashley stated:

> I think you learn the most when you go into different experiences and play different sports and you get to see how different teams play or how they cope with each other. Yeah I think the more experiences you have, negative and positive, the more positive you'll be in the long run (second interview).

When asked how she thought her experiences had contributed to who she was as a person, Emily (a volleyball player) explained, "the positive and negative experiences have caused me to go there and think about how I'm feeling in the situation and I'm able to reflect on that, especially after big wins or losses" (first interview).

Interestingly, all participants reported that it was important to have *negative experiences*, to be faced with adversity or failure, in order to become optimistic. In fact, participants reported that the majority of their growth came from learning to deal with negative experiences. In contrast to childhood, when feedback from parents was crucial for understanding performance, during adolescence participants were more self-aware and able to process their experiences more independently. These negative experiences were therefore seen as an opportunity to develop and use an optimistic attitude. For example, Alana explained how negative experiences:

> … help you figure out like who you are in those kind of experiences. I mean everyone knows how to be a good person when everything is good and you're winning and what not, but it really helps you learn who you are when everything is not easy and it's hard and you have to figure it out and getting dragged through

> the mud kind of thing…it helps you grow as a person to go through those things (second interview).

Similarly, Katlyn described how having negative experiences contributed to the development of her optimism. She said:

> I feel like through the challenges I've kind of been through, like about like maybe being cut and not playing or not getting enough ice time as I feel as I should or maybe I shouldn't, but I feel like I should. I feel like all those things have made me more optimistic. I mean when you're negative about that, then even like the social part of it no one's going to want to hang out with you or no one's gonna want to go like help you out (first interview).

Emily went on to explain how her experiences taught her she does better with a positive outlook:

> I feel like I can be negative, but I feel like most of the times I try my best to be optimistic and I feel like being negative maybe in the past has shown me like it doesn't work as good as like trying to get the positives out of even like a bad situation (first interview).

Eventually through having different experiences participants were able to be happy with their positive experiences and were able to cope with the negative experiences; this helped participants become optimistic.

Optimism Becoming Part of Personal Narrative During Early Adulthood

Early adulthood referred to the current period (aged approximately 18-22 years) when participants became part of a university-level team. During this current period participants developed personal narratives about the ways in which they approached sport

with optimism. In contrast to childhood and adolescence, when they heavily relied on social agents (parents and coaches respectively), participants were more autonomous and self-regulatory in building and maintaining an optimistic approach during early adulthood. Collectively they described three main themes that captured how they took an optimistic approach to their current sporting careers. First, they were able to find the positives from difficult situations. Second, they had a strong sense of personal control. Third, they set personal goals.

Being Able to Find a Positive Aspect in a Negative Situation

During the current time period (early adulthood) all nine participants noted the importance of being able to pull at least one positive aspect out of a negative experience. They felt finding something positive to focus on made it easier to maintain a positive outlook. As Brittany said, "of course there is always something positive in everything that you do. Even if there is negative, after it's negative there's still some positive" (first interview). Being able to see some aspect of the experience as positive reinforced that negative experiences helped to create learning moments for the participants. Amber suggested that:

> When negative things happen you have to learn from them and you have to like use that to make yourself better and then when positive things happen that's great and you like keep going um yeah. Basically like use it to your advantage, like negative things happen for a learning experience and if you can turn them into a positive thing then like that's how you're going to succeed (first interview).

In this way participants were able to see mistakes and negative experiences as opportunities for learning. As Kari explained:

> I find with the negatives, you always have to learn something, ‘cause I find when something bad happens or you’re not playing well or whatever, if you don’t learn from it you are not getting better. ‘Cause whether you win and you do better, I mean that’s kind of a physical form of it, but when you lose you have to take something from it, because if you don’t, then there’s nothing, you’re just staying the same, and possibly even backwards (first interview).

Furthermore, athletes were able to reflect on their performances, as Emily described:

> I think after like games and everything I like reflect on what I did myself no matter what like whether we win or lose. So like there is usually something good I can think of which is good and there is always stuff to work on (second interview).

Finally, Heather explained how she learned to take the positive from a situation when she suffered a severe injury. She explained, “well at first it was tough like trying to find a different role…but it was like I guess I found a positive in like accepting a different role and seeing how I can improve as an athlete in that role” (first interview).

Strong Sense of Personal Control

Eight participants discussed how they are self-aware and capable of controlling their own actions or responses. Heather said, “you can control what you’re controlling, like what’s in your hands.” Brittany said, “I’m in control, for sure, because you choose what happens to you and what you would like to accomplish and ‘cause if you don’t, you don’t have control of your life” (first interview). Furthermore, Kari explained her thoughts on control, “I always feel like I’m always in control of my own actions, and also my own thoughts as well” (first interview).

By knowing what they could control participants felt like they knew what they needed to work on. By having something to work on participants thought they did not dwell on what they had no control over, thus helping them feel more optimistic. Alana explained, "usually just focusing on what I can do to improve the situation. Like myself and like what I can do to become like a better athlete and like become better from it I guess" (first interview). Renae said, "if there's something negative like just kind of like move on from it. If there is nothing you can do about it then just get over it and if there is something you can do then fix it I guess" (first interview).

The awareness of having control over only yourself helped the participants think they were more persistent when faced with adversity and helped keep a positive outlook. Ashley explained, "I always find that when something goes wrong, I'm not just like, I throw in the towel, we're gonna lose. I find I always do everything in my power to think of a way that we can come back" (first interview). Renae explained this further when she said:

> Hard work like makes you see that you are in control of it. So like what you do gets you to where you are and so just having that control it's easier. Like being hardworking is, with the control, it's easier to deal with negative situations. Then, 'cause like you have control with your hard work so you have the ability to change it (second interview).

Setting Personal Goals

All nine participants discussed goal setting and how having process rather than outcome goals gave them something to work towards. Striving to achieve these goals was also a way for participants to re-appraise losses and focus on areas for personal

improvement as an athlete. Emily explained the importance of goal setting and how goals have helped her develop optimism when she said, "I think you can't really be optimistic, unless you're working towards something. Like you can always want to win, but like it's not really that satisfying, personally, unless you are working towards something" (second interview).

Given this focus on personal goals, participants were able to focus on positive elements of their performance even if they lost a game or match. Katlyn explained this when she said:

> Yeah I feel before every game like I said, I visualize kind of what I want to do. And if I ended up doing it or doing something kind of like it then I'm kind of like 'OK well that was good, at least that was positive' even if maybe we lost. 'Well I worked on that and I got better and that, so that will probably help in the future' (first interview).

Process goals were therefore a way for the participants to have a positive outlook about their future as athletes. Goals provided the participants with a drive to be better and work hard for what they wanted. Kari explained, "I find with the positives, it makes me wanna set goals, it makes me wanna work a little bit harder, it makes me wanna strive just that little extra far" (first interview).

Participants highlighted that their goals must be realistic, because having an unattainable goal would not aid in optimism development. Heather said:

> I guess it goes in hand with the goal you have. Like when you are setting goals you have to set attainable goals and even though um like I'm optimistic about the attainable goals I set, so I won't make an unattainable goal (first interview).

Similarly, Alana said:

> I'm shooting for realistic goals you know what I mean? Like with this camp, whole Canada thing, like yeah I am hoping I make the team, but I'm also not sitting here like 'oh I'm definitely going to make it', like you know what I mean? Like I'm putting as much time and effort in as I can to be successful (first interview).

Not only did goals have to be realistic, participants also had to be willing to work hard to achieve them. For example, Heather said "like if you work hard and believe, like it sounds very like cliché, but like believe and like really work hard and have that goal in mind and then take the steps to work towards the goal and it will happen, yeah" (first interview). Brittany emphasized the importance of working hard to achieve her personal goals and how this contributed to optimism. She explained:

> I think you can strive for anything that you want to strive for. I think that if you set enough goals and you set, set up yourself in a situation, like unless you have different things that prohibit you from doing it, but um I think if you truly set yourself to be optimistic about something that you're doing and you put all your effort into you can do it. And I think that's what got me to where I am, because I wouldn't be the athlete I am if I didn't have that positive outlook on what could be at the end of it 'cause I wouldn't be here (first interview).

Chapter 5: Discussion

The purpose of this study was to examine female athletes' perceptions of how they developed optimism. Optimism has been positively associated with a range of positive outcomes in sport settings, including adaptive coping, satisfaction, reduced stress and burnout, and performance success (e.g., Gaudreau et al., 2014; Gould et al., 2002; Gustafsson & Skoog, 2012; Nicholls et al., 2008). There is some evidence to suggest that optimism may change over time (Segerstom, 2007) and with increasing athletic experience (Venne et al., 2006), but little was previously known about how athletes develop optimism. The findings of the current study offer new insights to the literature by showing athletes perceived that both social interactions and personal experiences contributed to the development of optimism over time. Importantly, the findings revealed how these social interactions and personal experiences varied over the course of development.

More specifically, results revealed that similarities in the developmental experiences athletes thought were important in the development through childhood, adolescence, and early adulthood. During childhood parents played the most important role in the development of optimism by providing support, positive performance-related feedback, and the perception of choice over which sport to play. Adolescence saw a shift away from the importance of parents and towards the importance of coaches. Coaches developed optimism by creating a positive environment, helping athletes understand their strengths and weaknesses, and by being role models of optimism. During the adolescent period participants also noted the importance of having new and different experiences, it was also important to have negative experiences. Participants then moved into early

adulthood where they became more autonomous, self-regulatory, and independent. In this stage participants were able to find the positive aspect of a negative situation, had a strong sense of self-control, and set personal goals.

In general, the organization of participants' experiences around a developmental framework reflects McAdams' (2013) tripartite framework of human personality. This framework describes individuals as actors, agents, and authors. The social actor encompasses traits; in the case of this study that trait is optimism. The motivated agent specifies "personal goals, values, hopes and fears" (McAdams, 2013, p. 273). Here important choices and decisions are made in regards to life projects. The adolescent time frame for the participants of this study generally aligns with the motivated agent as the participants were learning to be more independent in processing their experiences. Finally, individuals become authors of their life story, making purposeful and meaningful narrative identities (Coulter, Mallett, Singer, & Gucciardi, 2015). Participants in this study became more autonomous and self-regulating during early adulthood and had created clear personal narratives of how they developed optimism. Developing this personal narrative is the final aspect of developing personality as it helped the participant build on and maintain optimism.

Participants' parents provided a great deal of support, positive performance-related feedback, perspective, and choice. In general, consistent with the findings of Segerstom (2007) in a non-sport setting, parents provided 'social resources' for participants which appeared to help them to develop optimism. The role of parents in the development of optimism was also consistent with previous research that has revealed parents' play an important role in the early years of sport involvement (Côté, 1999;

Wuerth, Lee, & Alfermann, 2004). For example, Côté (1999) found that parents took on a leadership role in getting their child involved in sport during the early years of childhood. Then, as the child aged and progressed through sport, the parents moved into the background and provided a more general form of emotional support and continued financial/logistical support. Furthermore, Wuerth et al. (2004) also found parents' involvement to be high during the 'initiation phase' of sport. The current findings add to existing research by suggesting that parental provision of support, positive performance-related feedback, perspective, and choice may have contributed to the development of optimism among female athletes.

Participants also noted the importance of receiving feedback from their parents. It was important this feedback was positive in nature, but also realistic or honest. Knight and Holt (2014) also found that tennis players wanted honest performance-related feedback from their parents as it gave the athletes the perception of their parents caring and being supportive. By giving feedback parents are able to help foster the development of optimism, because they can control exactly what feedback is given to the athlete. For example, parents are able set the tone of feedback as well as give feedback that helps athletes see the 'bigger picture.' For participants in this study, being able to receive feedback and deal with it was an important part of developing optimism and helped them learn to put sport into perspective.

Helping athletes become autonomous was another important role of parents. As participants move through childhood, adolescence and into early adulthood becoming autonomous is an important part of being successful within sport (Wuerth et al., 2004). Furthermore, autonomy supportive parenting (i.e., providing appropriate structure for

children and allowing them to be involved in decision making) has been linked with open bidirectional communication between adolescent female athletes and their parents (Holt, Tamminen, Black, Mandigo, & Fox, 2009). In the current study, participants reported they had choice over the sports they played and this helped them to develop an optimistic attitude toward sport because they were able to participate in sports they enjoyed.

Current findings also revealed that the role of parents (in relation to the development of optimism) decreased as the participants moved from childhood into adolescence. Coaches became more important during the adolescent period, which is consistent with previous research looking at the development of athletes (e.g., Côté, 1999) but not an issue that has received extensive prior attention in the optimism literature. An exception was a recent study that examined explanatory style in a sample of US college level golf coaches. A feature of this study included interviews with the coaches, during which they reported a perception that optimism in their athletes as "greatly influenced by parents and former coaches" (Wilson, Hawkins, & Joyner, 2015, p. 135). Participants in the current study described three key components of how coaches helped to develop optimism during adolescence (creating a positive environment, helping athletes understand personal strengths and weaknesses, and coaches were role models of optimism). These three components complimented the foundation parents had established during the childhood years. Together parents and coaches helped to develop optimism within these participants.

Along with this positive environment is was also important that coaches provided the participants with feedback that addressed both strengths and weaknesses. Confidence was increased when the participants were told what they were doing well. However, the

participants also discussed the importance of being told what they needed to improve on or work on. Previous research has shown coaches become the primary source of this feedback as athletes move into the adolescence years, due to the fact coaches are seen as more knowledgeable than parents or as the experts (Côté, 1999; Holt & Knight, 2014). For the participants of this study, parents' opinions were still valued, but as the participants aged coaches' feedback appeared to become more important.

One final aspect of the coaches' role was being a strong role model of positive behavior was important for the development of optimism among athletes. Fraser-Thomas and Côté (2009) found that when coaches are positive role models athletes have positive experiences, but when coaches are negative role models specifically demonstrating inappropriate behaviors (e.g., commenting on athletes' weight), athletes had negative experiences. Participants in the current study were very aware of their coaches' behaviors and this awareness influenced the development of optimism for these participants. For example, participants discussed how it was easier to stay positive when the coach was positive or it was easier to deal with adversity in a positive way when the coach led by example.

As the participants moved into this adolescent time frame they were becoming more autonomous and able to self-regulate their emotions and reactions during different experiences. It is important to note that participants reported learning to be optimistic by dealing with negative situations. This reflects a growing body of literature in sport psychology that has examined issues related to stress-related growth. For instance, Tamminen, Holt, and Neely (2012) found that elite female athletes who had experienced adversity in sport (including conflicts with coaches, bullying, injuries, eating disorders,

and sexual abuse) experienced negative psychological consequences but were able, over time, to find new meanings from their experiences. They identified opportunities for growth through social support and realized the role of sport in their lives, gained perspective, and saw adversity as part of an ongoing experience through sport. In the current study participants attributed the development of optimism to having dealt with negative experiences. However, there is a caveat here in that it remained unclear whether participants became more optimistic by dealing with negative experiences or were able to deal with negative experiences because they were optimistic.

The overall trend was that participants attributed the development of their optimism to social agents when they were younger and then became more autonomous and able to self-regulate as they aged. In other words, the factors they associated with the development of optimism changes from being more social to more personal in nature. The participants became motivated agents (McAdams, 2013) whereby they processed information and then made a choice based on that information. In terms of optimism, the primary decision that needed to be made was how to react to adversity. The participants learned from experiences during childhood and from their parents, then during adolescence they started to shift into a more independent role. Adolescence was the important phase between childhood and early adulthood that allowed the participants to be agents of their own life story and allowed them to start developing a personal narrative.

By the time the participants had reached early adulthood they had a clear personal narrative of how they developed optimism (cf. McAdams, 2013). During the final stage of the suggested developmental framework of optimism “people are able to use their

more sophisticated abstract reasoning skills and greater life experiences to put their lives together into purposeful and meaningful narrative identities" (Coulter et al., 2015, p. 11). Through the life experiences the participants had during childhood and adolescence they were able to develop skills (finding a positive aspect in a negative situation, a strong sense of personal control, and personal goal setting) that aided in the continual development of optimism as they became more independent. As they entered into early adulthood they were then able to use these learned skills that helped them utilize optimism, particularly during times of adversity.

Overall, results from this study show the development of optimism can be mapped onto a developmental framework that moves through three specific phases of childhood, adolescence, and early adulthood. The results further demonstrated the role of important social agents (i.e., parents and coaches) along with the ways in which participants' self-regulatory processes contributed to the development of optimism. Given that researchers have observed that there is a need to develop ways to induce optimism among individuals (Carver et al., 2010), the current findings offer some applied implications that may be useful for promoting optimism among female athletes.

First, from a practical perspective it appears to be important to promote parents' understanding of optimism and how dispositional optimism can be socially influenced. Indeed, the social resources available to a person may not only be important for creating optimists, but also 'turning' more pessimistic people into more optimistic people (Carver et al., 2010). Parents may be able to create a foundation for their offspring to be optimistic by providing positive performance-related feedback and the perception of choice over which sport to play.

Second, coaches can also continue to promote a positive environment that fosters optimism. This positive environment could be achieved by constructive feedback and being a good role model of an optimistic behavior. During adolescence coaches become increasingly important and the coaches' opinions were valued. The environment the coach provides would likely have an influence on the level of optimism development.

Third, educating athletes on what optimism is and how it can benefit them as athletes might lead them to want to develop higher levels of optimism. Ultimately it is the athlete who is increasing optimism. By educating them on what optimism is and how it can be increased they are more likely going to be able to influence its development. Hence, in addition to manipulating features of the sport environment (i.e., interactions with parents and coaches), individual-based interventions designed to promote an optimistic attitude may be important for competitive athletes (Gustafsson & Skoog, 2012).

This study is not without limitations. The sample consisted of all female varsity athletes so the findings cannot be readily generalized to different types of athletes in other contexts. As previous research has shown male athletes to typically be more optimistic than female athletes (Gordon, 2008; Seligman et al., 1990; Wilson et al., 2002) the findings may not apply to male athletes. Furthermore, whereas the findings portrayed participants' accounts of factors that enabled them to develop optimism, it remains unknown whether issues such as coping with negative experiences led to the development of optimism or whether athletes were able to cope with such experiences because they were optimistic. In all likelihood there are some reciprocal relationships here in that as athletes become more optimistic they are better equipped to deal with negative situations

and as they experience success in coping with negative situations they in turn become more optimistic. Such potential reciprocity was not examined in the current study and is an area for future research.

Another issue to consider is the very nature of conducting interviews with individuals about optimism. Simply informing people that they are optimistic (or at least have scored highly on a measure of optimism) may unduly lead them during interviews. As a consequence, participants may report experiences that were important to them but did not necessarily lead to the development of optimism per se. Several measures were taken in this study to limit potential response bias. Participants were not specifically informed this was a study of optimism (the recruitment materials and information letters referred to understanding more about how athletes respond to adversity). The sport specific version of the LOT has only one item in which the term optimistic is used. Participants who completed the LOT did not receive feedback until interviews had been completed with their teammates. Interview participants received their scores from the LOT (and therefore were informed they were optimistic) only at the end of the first interview. These steps ensured that athletes talked extensively about their experiences in youth sport more broadly at the start of the interviews, before speaking more specifically about optimism at the end of the interviews (and during member-checking) to provide detailed an in-depth data about a range of their athletic experiences.

The use of a retrospective approach, though appropriate for this study, is also not without its limitations. Memories of events, especially those from childhood, may be vague and participants' hampered by their ability to recall. Whereas retrospective recall is certainly limited in the extent to which it can be used to investigate 'objective' facts from

childhood or adolescence, this is not necessarily a major concern for IPA research that relies on retrospection. That is, within IPA individuals are asked to recall events and the meaning these events hold for them at the current time (Smith et al., 2009). Therefore, it is not the event per se, but rather the recollection of the event in one's memory, that is important for ascribing meaning. Nonetheless, future studies that adopt a longitudinal approach to examine factors that influence the development of optimism among athletes are needed. Finally, it may be important to compare and contrast the views of optimists and pessimists to gain a more complete picture of the development of optimism.

A final issue to consider was the use of a domain specific optimism measure. A sport-specific version of the LOT was chosen, as sport was the domain in which this research took place. However, future research is required to confirm optimism as being a domain specific disposition. These limitations were balanced with the strengths of the study, which included a suitable sample size (Smith et al., 2009) and participants who were engaged in two interviews. This produced adequate data saturation. The approach to purposeful sampling was another strength, and the use of the sport-specific version of the LOT (Dunn et al., 2015) to identify optimistic participants helped ensure the sample was appropriate for addressing the purposes of the study. Other methodological strengths of the study were a rigorous process in developing the interview guide and the use of a reflexive journal during the research process.

In conclusion, athletes can gain many benefits from developing dispositional optimism, both in sport and life in general. Understanding how to influence the development of optimism from a young age is key to influencing the development of this disposition. Furthermore, it is important to understand social agents (parents, coaches) are

involved in the development of optimism during childhood and adolescence but they appeared to become less important as athletes age and become more autonomous and self-regulatory of their experiences. This study may therefore have revealed some important information that will help to increase opportunities to produce more optimistic athletes.

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Appendix

Appendix A: Coach Permission Request Email

Dear Coach,

My name is Hayley and I am a Master's student (under the supervision of Dr. Nicholas Holt) in the Faculty of Physical Education and Recreation at the University of Alberta.

I would like to ask for your help in recruiting participants for my study. **The purpose of the study is to learn more how some athletes learned to respond to adversity.**

To determine if athletes are eligible to participate in this study, I would like to attend the end of one of your practices or team meetings and ask **all** the athletes on your team to complete a short questionnaire. This will take no more than 10 minutes to complete.

Next, I will tally the scores from the questionnaire and identify those athletes who fit the criteria for inclusion on this study. I will e-mail those athletes who are eligible and expressed interest in participating in the study and arrange to conduct an interview. Your athletes' involvement in this study is entirely voluntary.

All the athletes who complete the questionnaire, regardless of whether or not they fit the eligibility criteria, will receive their scores and a brief explanation of these scores. You will **not** receive a summary of the athletes' scores because they are confidential.

I would be very appreciative if you would allow me to attend a practice session to invite your athletes to take part in my study. Please e-mail me back if you would like to arrange a time for me to come meet with your team and have them complete the questionnaire.

Many thanks,

Hayley deBeaudrap, MA Student
Faculty of Physical Education and Recreation
University of Alberta
debeaudr@ualberta.ca

Appendix B: Athlete Information Letter

UNIVERSITY OF ALBERTA
Physical Education and Recreation
Van Vilet Centre
Edmonton, Alberta, Canada T6G 2H9
http:www.physedandrec.ualberta.ca
Tel: 780.492.1000
Fax: 780.492.1006

Principal Investigator	Supervisor
Hayley deBeaudrap, MA Student Faculty of Physical Education and Recreation University of Alberta E: debeaudr@ualberta.ca	Dr. Nicholas L. Holt, Professor Faculty of Physical Education and Recreation University of Alberta T: 780 492-7386 E: nick.holt@ualberta.ca

How Female Varsity Athletes Learn to Respond to Adversity

November 2014

Dear Athlete,

My name is Hayley and I am a Master's student (under the supervision of Dr. Nicholas Holt) in the Faculty of Physical Education and Recreation at the University of Alberta. **I am doing a study looking how female varsity athletes learn to respond to adversity.**

Eligibility
To be eligible to participate in this study you must:

- Be at least 18 years old.
- Are currently competing on a female varsity sports team.
- Obtain a certain score on the Life Orientation Test questionnaire.

Study Requirements
You will be required to complete the Life Orientation Test, which will take no more than 10 minutes. About one week after you complete the scale you will receive feedback (your score and a brief explanation of what this means). **Depending on your score, I may ask you to participate in two interviews.**

So, I am asking you to do the following:
1) Complete the Life Orientation Test (which will take no more than 10 minutes)
2) Depending on your score on the questionnaire, I may ask you to complete two interviews. The first interview will last about 60 minutes. The second interview will last about 30 minutes.

All the data you provide is confidential. It will not be shared with your coach.

The total time commitment for this study is either 10 minutes (if you only complete the questionnaire) or 100 minutes (if you complete the questionnaire and both interviews).

If you participate in the interviews, they will be audio-taped. I will type up the audio files and send you a copy of your transcripts. You will be able to remove any information you do not want

me to include in the study. I will also e-mail you a summary of the findings of the study when I have finished the analysis.

Benefits
Participating in this study will help me to identify information about how athletes learn to respond to adversity. By providing your thoughts on the experiences you have had as an athlete, the findings from this study may also help identify 'best practices' for sport psychologists to use when developing the mental qualities of current and future athletes. This information may also be helpful for coach education programs.

Risks
There are no known risks. Nonetheless, if any question makes you uncomfortable in any way, you do not have to answer it. If at any time during the interview you want to stop, you can let me know and we will stop the interview.

Freedom to Withdraw
This study is voluntary. There are no negative consequences for non-participation. You may withdraw from the study up to four weeks after the final follow-up interviews are conducted. I will remove your data upon request.

Anonymity and Confidentiality
When the audio files from the interviews are typed up I will remove your name (and assign you a pseudonym) and remove any personal information. Any information that you provide remains confidential. I will keep all data private. Data will be kept locked in a locked office. Only my supervisor and I will have access to the data. I am required to keep the data for five years after the study has been completed. After five years data will be destroyed. Once I have finished the study I will present the results at conferences and in an academic journal.

This study has been approved by the University of Alberta Research Ethics Board. Any questions you may have about this study may be directed to Hayley deBeaudrap by email debeaudr@ualberta.ca. If you have concerns about this study or any questions about your rights as a research participant, you may contact the University of Alberta Research Ethics Office at 780-492-2615. This office has no direct involvement with this project.

If you would like to participate in this study, please contact Hayley (debeaudr@ualberta.ca).

Many thanks,

Hayley deBeaudrap
Master's Student

Appendix C: Athlete Informed Consent Form

UNIVERSITY OF ALBERTA
Physical Education and Recreation
Van Vilet Centre
Edmonton, Alberta, Canada T6G 2H9
http:www.physedandrec.ualberta.ca
Tel: 780.492.1000
Fax: 780.492.1006

Informed Consent Form

Title of Project: How Female Varsity Athletes Learn to Respond to Adversity		
Principal Investigator: Hayley deBeaudrap, Master's Student Faculty of Physical Education and Recreation University of Alberta E: debeaudr@ualberta.ca	**Supervisor**: Dr. Nicholas L. Holt, Professor Faculty of Physical Education and Recreation University of Alberta T: 780 492-7386 E: nick.holt@ualberta.ca	
Do you understand that you have been asked to take part in a research study?	Yes	No
Have you read and received a copy of the attached information letter?	Yes	No
Do you understand the benefits and risks involved in taking part in this research study?	Yes	No
Do you understand that you are free to contact the researcher to ask questions and discuss this study?	Yes	No
Do you understand that you are free to refuse participation, or to withdraw from the study up to four weeks after your interview, without consequence?	Yes	No
Do you understand the issues of confidentiality and do you understand who will have access to your information?	Yes	No

I agree to take part in this study: **YES** **NO**

Name: _____

Signature: _____

Date: _____

Appendix D: Sport-Specific LOT

INSTRUCTIONS: The purpose of this questionnaire is to identify **how you typically think and feel following poor performances in <u>your sport</u>**. Please indicate the extent to which you **agree or disagree** with the following statements. (Circle one response option to the right of each statement). **There are no right or wrong answers** so please don't spend too much time on any one statement; simply choose the answer that best describes how you view each statement.

After I Play Poorly in my Sport. . .	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
1. . . .I usually expect the best for my next competition.	1	2	3	4	5
2. . . .It's easy for me to relax.	1	2	3	4	5
3. . . .I generally feel that if something can go wrong for me, it will.	1	2	3	4	5
4. . . .I always look on the bright side of things.	1	2	3	4	5
5. . . .I am always optimistic about my future as an athlete.	1	2	3	4	5
6. . . .I enjoy being around my friends and teammates.	1	2	3	4	5
7. . . .It's important for me to keep myself busy.	1	2	3	4	5
8. . . .I hardly ever expect things to go my way for upcoming competitions.	1	2	3	4	5
9. . . .I usually feel that things never work out the way I want them to.	1	2	3	4	5
10. . . .I don't get upset too easily.	1	2	3	4	5
11. . . .I usually take the view that "every cloud has a silver lining."	1	2	3	4	5
12. . . .I rarely count on good things happening to me in the next competition.	1	2	3	4	5

Contact Email: _____

Appendix E: Table 1

Average Scores on the Life Orientation Test for Each Team Sport

	Optimism Score	Pessimism Score	Reversed Pessimism Score	Composite Optimism Score
Basketball	12.83	9.67	14.33	27.17
Rugby	14.67	9.07	14.93	29.60
Soccer	13.61	8.39	15.61	29.22
Hockey	14.74	8.39	15.61	30.35
Volleyball	14.33	8.27	15.73	30.07
Overall Group	14.04	8.76	15.24	29.28

Appendix F: Interview Guide

INTERVIEW GUIDE

Introduction:
Thank you for agreeing to participate in this interview. I am interested in learning more about your experiences as an athlete. There are no right or wrong answers.

Demographics:

How old are you?

What sports have you played?

What varsity team do you play on?

What year of eligibility are you currently in?

Main Part:
How many years have you played your chosen sport?
(Probes: How did you get into the sport, why did you pick it? What position do you play?-tell me about your position, what it means to you)

How important is sport in your life?
(Probes: explain why or why not important, explain how it is important, in what ways is sport important, can you give me specific examples? Are there experiences you really remember?)

What opportunities have you had within your sport?
(Probes: provincial or national teams, experiences would not have had without sport)

Why do you think you are playing at the varsity level? How did you get here?

I want you to think back to when you were first starting your athletic career (including chosen sport and others), looking back how would you describe yourself as an athlete then? Tell me about experiences you had as a young athlete.

How would you describe yourself as an athlete now?
(Probes: if difference between then and now, why (or why not) did the change occur, what experiences led you to change as an athlete, or how do you think that change came about? Did playing a variety of sports have any impact?)

Do you or did you ever notice differences in yourself in different situations?
(Probes: training session to matches, exhibition matches to regular season, winning situation versus losing situation)

Has sport had many positive experiences for you? (From when first started to now)
(Probes: tell me about some of the positive experiences; tell me about your best memory of sport or most positive experience)

What has made your sport career a positive one up until now?
(Probes: what factors influenced sport to create those positive experiences)

Why do you think you had these positive experiences?
(Probes: were these experiences solely due to you, were there outside factors at play, what was the controllability of these experiences? Do you expect to have these experiences again?)

Has sport had many negative experiences for you? (From when first started to now)
(Probes: explain to me those negative experiences, what is your worst memory of sport or most negative experience in sport?)

What do you feel led you to have these more negative experiences in sport?
(Probes: were these experiences solely due to you, were there outside factors at play, what was the controllability of these experiences? Do you expect to have these experiences again?)

Have these experiences contributed to who you are today?
(Probes: can you explain how so?)

Who have been the most influential people during your sport career?
(Probes: was this person or persons a positive influence, were there people who really left a lasting negative influence on you? What specifically did this person(s) do?)

When you are faced with adversity in your sport how do you deal with it?
(Probes: How do you cope with stress and setbacks in your sport? How does this adversity affect you? Can you give me specific examples; is it different outside of sport?)

Scenario Type Questions (more specific to your sport)

I want you to think of a situation in sport when the stakes were very high and you were unable to know if you were going to succeed and the result ending up not being a successful one. Vividly visualize yourself in that situation. Please describe it to me.

- What did it feel like to be in this type of situation (before, during, after)?
  Describe how those types of situations feel (you, coach, teammates, and fans)
-Why do you think you were not successful in this situation? Are these causes constant?
-How do you react when you are faced with adversity in this specific situation?
(Probe: Why do you react this way? Do you expect to succeed in the end? Do you continue to perform to the best of your ability?
(Probe: Do you pull yourself out of it? Is there a trick you use during and after?)
-How do situations like these affect the team, what is the team atmosphere?

I want you to think of a situation when the stakes were very high and you were unable to know if you were going to succeed and the result ends up being a successful one. Vividly visualize yourself in that situation. Please describe it to me.

- What did it feel like to be in this type of situation (before, during, after)?
Describe how those types of situations feel (you, coach, teammates, fans)
-Is there adversity in this type of situation?
(Probe: Are these easy situations to deal with? What does adversity look like in these situations?)
-Why do you think you and your team were successful in this situation? Are these causes constant?
-Do you control the outcome? Do others control the outcome?
-What is the team atmosphere like in these situations?

Wrap-up Questions

What does the term *Optimism* or *Optimist* mean to you?

Would you consider yourself to be optimistic or have a positive outlook? (Why or why not?)

Would you consider this positive outlook or your optimism part of the reason you have been successful in sport?
(Probes: How has it helped? Has it not helped?)

How do you think you have become optimistic?
(Probe: what experiences in sport helped you become optimistic?)

If you were given the opportunity to address young athletes of your sport, what advice would you give them that would help them look at adversity with a more positive outlook?

At conclusion of interview give each participant their individual LOT score and explain what this score means. Remind participants to not discuss with teammates that the study is about optimism.

Appendix G: Table 2

Data Matrix of Reported Themes for Interviewed Athletes

Female Athletes Perceptions of the Development of Optimism								
	Childhood: Parents			Adolescence: Coaches & Experiences		Early Adulthood: Personal Narrative		
ID	Supportive	Provide Feedback	Perception of Choice	Coaches	Experiences	Find a Positive	Personal Control	Personal Goals
1	X	X	X	X	X	X		X
2	X	X	X	X	X	X	X	X
3	X	X	X	X	X	X	X	X
4	X	X	X	X	X	X	X	X
5	X		X	X	X	X	X	X
6	X	X	X	X	X	X	X	X
7	X	X	X	X	X	X	X	X
8	X	X	X	X	X	X	X	X
9	X		X	X	X	X	X	X
n	**9**	**7**	**9**	**9**	**9**	**9**	**8**	**9**