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A qualitative investigation of the impact of mothers, peers, and coaches on eating disorders in female student-athletes

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A QUALITATIVE INVESTIGATION OF THE IMPACT OF MOTHERS, PEERS, AND COACHES ON EATING DISORDERS IN FEMALE STUDENT-ATHLETES

A Master Thesis presented to the Faculty of the
Graduate Program in Exercise and Sport Sciences
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In partial fulfillment of the requirements for the degree
Master of Science

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by

Amanda Smith

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Ithaca College
Graduate Program in Exercise and Sport Sciences
Ithaca, New York

CERTIFICATE OF APPROVAL

MASTER OF SCIENCE THESIS

This is to certify that the Master of Science Thesis of

Amanda S. Smith

Submitted in partial fulfillment of the requirements for the degree of
Master of Science in the School of Health Sciences
at Ithaca College has been approved.

Thesis Advisor:

Committee Member:

Candidate:

Chair, Graduate Program
in Exercise and
Sport Sciences:

Dean of Graduate Studies:

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ABSTRACT

Eating disorders can be complicated psychiatric illnesses that are often characterized by severe disturbances in eating behavior, accompanied by distorted thoughts and emotions about oneself (American Psychiatric Association [APA], 2005). A meta-analysis comparing the incidence of eating disorders among athletes and non-athletes supported the claim that athletes do have a higher incidence of eating problems than non-athletes (Smolak, Murnen, & Ruble, 2000). Within the athlete population, female athletes are particularly weight and body conscious, which may lead to disordered eating habits (Feit, 1992). It has been shown that mothers (Field et al., 2006; Fulkerson et al., 2002; Smolak & Levine, 2001), peers (Cattarin & Thompson, 1994; Oliver & Thelen, 1996; Phares, Steinberg, & Thompson, 2004), and coaches (Heffner, Ogles, Gold, Marsden, & Johnson, 2003) can have a significant effect on eating behaviors. The purpose of this study was to identify the impact that mothers, peers, and coaches had on eating disorders in female student-athletes. Five female student-athletes were interviewed using a semi-structured interview format to identify the impact their mothers, peers, and coaches had on their eating disorders. The interviews were analyzed and common themes identified. Three themes emerged: 1) Mothers/parents had distant and resentful relationships with their daughters; 2) Peers influenced athletes' body image and eating habits; and 3) Coaches failed to address eating disorders. Each theme was discussed in relation to the existing literature.

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DEDICATION

I dedicate this thesis project to those who have lived or who are currently living with an eating disorder. It is my hope that all women will learn to love themselves fully, for we are all "fearfully and wonderfully made" by the Lord.

Psalms 139:14

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Chapter 1

INTRODUCTION

Eating disorders can be complicated psychiatric illnesses that are characterized by severe disturbances in eating behavior, accompanied by distorted thoughts and emotions about oneself (American Psychiatric Association [APA], 2005). Approximately ten times more females suffer from eating disorders than males (Pritts & Susman, 2003). In addition, the number of American women struggling with an eating disorder has doubled to at least five million in the past three decades (U.S. Department of Health and Human Services, 2000).

Eating disorders often begin between 12 and 18 years of age (Flament, Ledoux, Jeammet, Choquet, & Simon, 1995; Lucas, Beard, O'Fallon, & Kurland, 1991). Anorexia nervosa (AN), bulimia nervosa (BN), and eating disorders not otherwise specified (EDNOS) are the three primary types of diagnosed eating disorders within the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV) (APA, 1994).

Regardless of the classification, all eating disorders stem from an attempt to control emotional pain and are characterized by a disturbance in one's perception of body shape and self-image (Pritts & Susman, 2003). In addition, the occurrence of psychiatric disorders such as depression, substance abuse, and anxiety are also highly correlated with the existence of an eating disorder (National Institute of Mental Health, 2001).

There are many risk factors for developing an eating disorder. Participation in activities that promote thinness, such as ballet dancing, modeling, and athletics is

considered one risk factor (Pritts & Susman, 2003). Furthermore, family relations, particularly the relationship between a parent and child, have been shown to influence the development of eating disorders (Colahan & Robinson, 2002). In addition, certain personality traits, such as low self-esteem, striving for perfection, difficulty conveying negative emotions, and difficulty resolving conflicts have been associated with the development of eating disorders (Pritts & Susman, 2003).

For years, researchers have studied whether there are higher incidences of eating disorders in athletes when compared to non-athletes (Sanford-Martens et al., 2005; Smolak, Murnen, & Ruble, 2000). Results have been equivocal. One study found no difference in the occurrence of eating disorders among athletes and non-athletes (Sanford-Martens et al., 2005). However, a larger meta-analysis showed a small but significant difference supporting the claim that athletes have a higher incidence of eating disorders than non-athletes (Smolak et al., 2000). Despite these differing results, it appears that athletes are at least as susceptible to eating disorders as non-athletes, if not more.

Within the athlete population, female athletes are particularly weight and body conscious due to the fact that their physical appearance, in large part, determines their identity (Feit, 1992). Researchers believe that the most common characteristics of female athletes with sub-clinical eating disorders (i.e., not yet presenting all of the diagnosable signs and symptoms of a clinical eating disorder) are:

> (a) preoccupation with food, energy intake, and body weight; (b) distorted body image and body weight dissatisfaction; (c) undue influence of body weight on self-evaluation; (d) intense fear of gaining weight even though they are at a

> normal weight or slightly below (~5%) normal weight; (e) attempts to lose weight using one or more pathogenic weight control methods; (f) food intake governed by strict dietary rules, accompanied by extreme feelings of guilt and self-hatred upon breaking a rule; (g) absence of a medical disorder to explain energy restriction, weight loss or maintenance, or low body weight; and (h) menstrual dysfunction (Beals & Manore, 2000, p. 138).

The development of eating disorders can also be greatly influenced by parental behaviors. Parents who make comments directed towards their children that encourage weight loss or gain can affect their children's body image and self-esteem (Fisher & Birch, 2001). Fisher and Birch (2001) also found that a child's inclination for certain foods develops during the fetal and nursing periods and is believed to be dependent on the food intake of the mother. Furthermore, researchers have suggested that throughout childhood children watch and mimic the eating habits and attitudes of their mothers (Field et al., 2006; Fulkerson et al., 2002). Therefore, these same researchers have suggested that young girls partially model their mothers' dieting and weight controlling behaviors. Children who perceive their mother as dissatisfied with her body can become similarly dissatisfied with their own body thus increasing the risk for developing an eating disorder (Keery, Eisenberg, Boutelle, Neumark-Sztainer, & Story, 2006). Thus, mothers' perceptions of their own bodies can directly influence their daughters. One study showed adolescent girls who perceived their "thinness" as important to their mothers were significantly more likely to think about "thinness" and want to be thinner (Field, 2005).

In addition to parents, an individual's peers can have an influence on the development of an eating disorder. Peers have been found to convey socio-cultural messages that influence children's perceptions about their body image and weight (Dunkley, Wertheim, & Paxon, 2001; Tsiantas & King, 2001). The general socio-cultural model assumes that body dissatisfaction is caused by the influence of peers and the media (Dohnt & Tiggemann, 2006). In addition, girls become more aware of this socio-cultural ideal as they go through adolescence and therefore, increase their attempts to achieve it (McCabe & Ricciardelli, 2004).

Peer relationships can also influence the development of body image, weight concerns, and eating behaviors in children (Cattarin & Thompson, 1994; Phares, Steinberg, & Thompson, 2004). In particular, girls believe that thinness increases their "likeability" by peers (Oliver & Thelen, 1996). A strong association has been found in girls ages 5-8 years between their desire to be thin and their perception of their peers' desires to be thin (Dohnt & Tiggemann, 2006). Furthermore, McCabe and Ricciardelli (2004) found that among adolescent girls, their best female friends were important in shaping weight loss and extreme weight loss strategies.

Along with parents and peers, coaches may also exert a strong influence on an athlete and her susceptibility to developing an eating disorder. The coach-athlete relationship can be critical for an athlete with an eating disorder. A survey of 303 collegiate coaches revealed that a significant number of coaches display behaviors and attitudes that are "unhealthy" in terms of relating to their athletes' eating and weight (Heffner, Ogles, Gold, Marsden, & Johnson, 2003). Sherman, Thompson, Dehaas, and Wilfert (2005) found that coaches are often aware of their athletes' eating problems.

However, it was also reported that many coaches do not view the disordered eating symptoms seriously. In fact, 37% of coaches surveyed viewed the occurrence of amenorrhea in their athletes as "normal" (Sherman et al., 2005) and believed that a 1,500 calorie diet was an adequate amount of energy for an athlete (Heffner et al., 2003). Pressure from coaches to be thin for athletic benefits may be another risk factor that contributes to increased risk and/or incidence of disordered eating among athletes (Petrie, 1996).

Another issue may be the difficulty that some coaches have in differentiating between an athlete with an eating disorder and one who is simply dedicated to peak performance training. This is particularly apparent in the case of the Female Athlete Triad, a term developed in 1992 to describe the combination of disordered eating, menstrual dysfunction, and low bone mineral density (Beals & Hill, 2006). Athletes with the Female Athlete Triad will either willfully (i.e., dieting to lose weight or body fat) or inadvertently not ingest enough calories to adequately fuel physical activity or normal bodily processes (Thompson, 2005). Oddly enough, most athletes that develop the Female Athlete Triad have the same characteristics most prized by coaches. These athletes typically demonstrate: a) extreme dedication to sport; b) prompt and attentive behaviors; c) perfectionism about technique and training; d) self-criticism and self reliance, and e) longer and harder training than expected (Manore et al., 1999). Therefore, it becomes hard for a coach to distinguish an eating disordered athlete from an athlete who is simply dedicated to her sport (Thompson & Sherman, 1999b). It is also easy to see how a coach's attempts to develop a dedicated athlete could lead to the development of an eating disorder. Moreover, because of the nature of the athletic environment,

identification of disordered eating in an athlete is complicated by the many stereotypes regarding the ideal shape and size of an athlete's body and the belief that fat reduction enhances sport performance (Thompson & Sherman, 1999a).

Finally, a coach is often viewed as the "knowledge giver" and the athlete as the "receiver," in need of her coach's advice to better her performance (Jones, Glintmeyer, & McKenzie, 2005). Therefore, because an athlete often tries to please her coach, the athlete with an eating disorder can be very willing to risk her health in order to do so (Sherman & Thompson, 2005).

Although previous research has separately investigated the impact of the mother-daughter relationship on eating disorders (Field et al., 2006; Fulkerson et al., 2002; Keery et al., 2006), how peer relationships influence eating disorders (Cattarin & Thompson, 1994; Oliver & Thelen, 1996; Phares et al., 2004), and the effect of the coach-athlete relationship on eating disorders (Heffner et al., 2003; Jones et al., 2005), no research exists which collectively evaluates the impact of all these relationships on female athletes with eating disorders. Therefore, it is essential to understand these relationships and how they interact to impact the lives of athletes with eating disorders.

Purpose Statement

The purpose of this study was to identify the impact mothers, peers, and coaches have on eating disorders in female student-athletes.

Significance of the Study

There is a dearth of qualitative research investigating the factors influencing eating disorders in female athletes. Understanding this phenomenon is crucial for

educating coaches and parents about how to prevent female athletes from developing an eating disorder. The current study provides valuable information regarding the impact of parents, peers, and coaches on female athletes with eating disorders. Therefore, the information gathered in this study can provide parents, peers, and coaches with insight as to their influence on female athletes and how they might prevent the occurrence of eating disorders in this population.

Delimitations

The delimitations for this study include:

1. Only five female athletes receiving treatment for an eating disorder in the last four years were interviewed.
2. The principal investigator developed the semi-structured interview guide for this study and use in the data collection process.

Limitations

The limitations for this study include:

1. The results may not be generalized beyond the five athletes interviewed for this study.

Definition of Terms

1. Anorexia nervosa (AN) - an eating disorder characterized by a patient refusing to maintain a normal body weight (at least 15% below normal weight for age and height), an intense fear of gaining weight, a disturbance in how one views his/her body, and/or primary or secondary amenorrhea present in postmenarchal females (APA, 1994).

2. Bulimia (BN) - an eating disorder characterized by a patient with recurrent episodes of binge eating, behavior to prevent weight gain such as vomiting, use of laxatives, fasting, excessive exercise and/or diuretics or other medications, and/or bingeing and purging a minimum of two episodes per week for at least three months (APA, 1994).
3. Eating disorder not otherwise specified (EDNOS) - characterized as eating disorders that do not meet the criteria for either anorexia nervosa or bulimia but exhibit some symptoms of either anorexia nervosa or bulimia (APA, 1994).
4. Female Athlete Triad - the combination of disordered eating, menstrual dysfunction, and low bone mineral density observed in eating disordered athletes (Beals & Hill, 2006).
5. Interview Guide - a list of questions or issues that are to be explored in the course of an interview (Patton, 1980).
6. Qualitative Research - emphasizes the importance of understanding the meanings of human behavior and the socio-cultural context of social interactions (Strauss & Corbin, 1990).

Chapter 2

LITERATURE REVIEW

Eating Disorders

Eating disorders are common psychosocial disorders that often begin during adolescence (ages 12-18 years) (Flament et al., 1995; Lucas et al., 1991). The three primary diagnoses for eating disorders as described by the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV) (APA, 1994) are anorexia nervosa (AN), bulimia nervosa (BN), and eating disorders not otherwise specified (EDNOS). The DSM-IV defines AN using the following three symptoms:

> 1) refusal to maintain weight or gain weight within 85% of expected weight for height (ideal body weight, or IBW); 2) an overriding fear of weight gain and; 3) a lack of recognition of the physical changes that result from malnutrition which can include body image distortion or denial of the serious consequences of malnutrition (APA, 1994).

In addition to the symptoms listed above, a loss of three consecutive menstrual periods is also a symptom for AN in postmenarcheal females (Lock & le Grange, 2006). According to the DSM-IV, BN has both behavioral and psychological components. The behavioral components include:

> 1) severe dieting while maintaining weight in the normal range; 2) incidents of binge eating and; 3) compensatory purgative behaviors (purging, exercise, laxative use, etc.) (APA, 1994).

In order to diagnose BN, these behaviors must continue for a period of three months with an average of at least two incidents per week. These behaviors are also

accompanied by a psychological component in which the individual's beliefs and attitudes overemphasize shape and weight as the predominant way to judge self-worth and self-esteem (APA, 1994). In comparison, EDNOS is defined as:

> a broad category that encompasses a considerable range of abnormal eating or dieting techniques, which includes a variety of symptoms and attitudes related to oneself and food. EDNOS is diagnosed when the issues are food related, harsh enough to cause dysfunction, and include both behavioral and psychological components (APA, 1994).

In Western societies, body-image issues are an increasing concern for many women (Slater & Tiggemann, 2006). In fact, 95% of patients with eating disorders are women (Södersten, Bergh, & Zandian, 2006). The socio-cultural model, which assumes that body dissatisfaction is caused by the influence of peers and the media (Dohnt & Tiggemann, 2006), is the most accepted explanation for the increasing number of women with body-image disturbance, body dissatisfaction, and disordered eating (Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999).

Eating Disorders in Athletes

Research attempting to determine whether athletes are at greater risk for disordered eating than non-athletes has been relatively inconclusive. Some research indicates that athletes are at a greater risk for disordered eating (Smolak et al., 2000; Sundgot-Borgen & Torstveit, 2004), while other studies have found little difference between the two populations (Ashley, Smith, Robinson, & Richardson, 1996; Hausenblas & McNally, 2004; Kirk, Singh, & Getz, 2001; Rhea, 1999; Sanford-Martens et al., 2005; Schwarz, Gairrett, Aruguete, & Gold, 2005).

By way of a meta-analysis, Hausenblas and Downs (2001) concluded that female athletes have a more positive body image than non-athletes, but that female athletes may be motivated to participate in sports and exercise to obtain the "ideal body". Similarly, DiBartolo and Schaffer (2002) examined eating attitudes, body satisfaction, and psychological well-being and found athletes to have less disordered eating symptomology and healthier psychological functioning than non-athletes. Yet, results from a questionnaire administered to 182 female college athletes indicated that 32% of the athletes practiced at least one pathogenic weight-controlling behavior that included self-induced vomiting, bingeing more than twice a week, or the use of laxatives, diet pills, or diuretics (Rosen, McKeag, Hough, & Curley, 1986). Tiggemann and Williamson (2000) also found that for many women, an increase in exercise duration is often related to a decrease in body satisfaction and self-esteem.

Hausenblas and McNally (2004) suggested that the discrepancy in research findings may be accounted for by potential moderating variables, such as the level of competition and type of sport. These variables are generally not taken into account in most research studies. While it is difficult to make definite conclusions regarding a higher prevalence of disordered eating in athletics, two findings are generally agreed upon. First, female athletes exhibit more disordered eating behaviors than male athletes and second, the risk of disordered eating behavior is greater in sports where leanness is emphasized, particularly at higher levels of competition (Reinking & Alexander, 2005). These two premises are addressed below.

Several studies suggest that more female athletes struggle with disordered eating than male athletes (Grieve, Wann, Henson, & Ford, 2006; Johnson, Powers, & Dick,

1999). The following five psychological risk factors have been associated with an increase in disordered eating in female athletes. These athletes often have: 1) a drive for thinness; 2) a strong response to peer pressure surrounding eating; 3) performance perfectionism; 4) social pressure concerning body shape; and 5) tremendous trust in their team (Hinton & Kubas, 2005). Sundgot-Borgen (1994) identified several additional risk factors that may trigger disordered eating in female elite athletes. These factors included dieting at a young age, dieting as recommended by a coach, an early start to sport-specific training that does not allow an individual's natural body type to match a particular sport, extreme exercise, the loss of a coach, and injury or illness. Some of these factors may result from coaches pressuring their athletes to be thin in order to obtain athletic excellence (Petrie, 1996), whereas other risk factors may be a result of the athlete setting unattainable standards for her appearance (Haase, Prapavessis, & Owens, 2002).

Waldron and Krane (2005) employed the achievement goal theory to examine female athletes' perceptions of sports as they related to disordered eating behaviors. Results showed female athletes who engage in an ego-oriented view of sports as opposed to a task-oriented view of sports, to be more at risk to engage in health-compromising behaviors, including disordered eating. Slater and Tiggermann (2006) also found that when compared to women who played less than two sports during childhood, those women who participated in two or more sports during childhood were more concerned with their body-image during adulthood. In addition, the experiences these women had with physical activity during childhood predicted their body-image concerns more readily than their current activity or current perceptions regarding their weight. Finally, researchers have suggested that Hispanic and Caucasian urban adolescent females are

comparably more at risk for disordered eating than African-American urban adolescent females (Pernick et al., 2006; Rhea, 1999).

Additional research has indicated sports that are "weight-related" increase the risk for disordered eating among athletes (Karlson, Becker, & Merkur, 2001). Such sports include: distance running, where a lower body weight is perceived to increase performance; aesthetic sports such as gymnastics, figure skating, and ballet; and weight-dependent sports such as wrestling, judo, and lightweight rowing (Karlson et al., 2001).

Zucker, Womble, Williamson, and Perrin (1999) compared the existence of disordered eating across three groups: 1) non-athletic students; 2) student-athletes who participated in refereed sports; and 3) student-athletes who participated in judged sports. These authors found that a higher rate of disordered eating existed among athletes in judged sports than both the refereed sports and the non-athletic student populations. However, when considering measures of body size and shape, judged sports did not differ from non-athletic students. Furthermore, members of refereed sports teams were more concerned with body size and shape than non-athletes or athletes on a judged sports team. Similar to other studies, it appears that athletes participating in sports where thinness is encouraged express greater weight concerns, more body dissatisfaction, and more constant dieting behaviors (Davis & Cowles, 1989).

Petrie (1996) found that female athletes participating in sports where thinness and appearance impacted success were more preoccupied with their weight than female athletes that participated in non-lean sports, or females who did not participate in any sport. Additionally, Reinking and Alexander (2005) suggested that lean-sport athletes are at greater risk for disordered eating than athletes in non-lean sports.

Similarly, Stoutjesdyk and Jevne (1993), found that athletes involved in sports that emphasize leanness (i.e., gymnastics and diving) or are involved in sports where athletes are weight-matched for competition (i.e., lightweight rowing and judo), had higher scores on The Eating Attitudes Test (EAT) than athletes in non-weight restricting sports (i.e., volleyball). The EAT is a 40-item scale that measures food preoccupation, eating behaviors, vomiting, laxative use, and pressure from others to gain weight (Garner & Garfinkel, 1979). One explanation for these findings may be that eating disordered athletes who engaged in sports emphasizing leanness may have higher state and trait anxiety (Vardar, Vardar, & Kurt, 2007). State anxiety is a temporary feeling of apprehension or tension that changes depending on the situation at hand, whereas trait anxiety is a behavioral disposition and therefore part of a person's personality (Weinberg & Gould, 2003). Again, disordered eating athletes who participated in sports emphasizing leanness may have experienced more state and trait anxiety due to the "pressure to be thin" and therefore, had higher EAT scores.

Finally, one study examining the level of competition as a risk factor indicated that athletes who compete at a higher level of competition are more at risk for disordered eating (Picard, 1999). According to this study Division I athletes are at higher risk for disordered eating than Division II or III athletes.

Despite several studies indicating disordered eating to be more prevalent in specific sports (Davis & Cowles, 1989; Petrie, 1996; Reinking & Alexander, 2005; Stoutjesdyk & Jevne, 1993; Vardar et al., 2007; Zucker et al., 1999) and at higher levels of competition (Picard, 1999), contradictory findings have been identified. Sanford-Martens et al. (2005) found more non-athletes than athletes exhibiting symptomatic

criteria for eating disorders. Furthermore, athletes participating in sports that emphasized leanness did not exhibit more problematic eating behaviors than their non-lean sport athlete peers. Similarly, Karlson et al. (2001) found no difference in the eating behaviors of female athletes in the following three groups: 1) lightweight rowers, 2) distance runners, and 3) a control group. Ashley et al. (1996) found no difference in the eating behaviors between athletes competing in lean and non-lean sports and no difference in the eating behaviors between Division I collegiate athletes and a control group of non-athlete subjects.

Due to the equivocal results of these studies it appears that while female athletes are at risk for developing disordered eating, the link between disordered eating, type of sport, and level of competition may be difficult to identify. Therefore, it seems logical that other potential factors might affect disordered eating in athletes.

The Female Athlete Triad

Athletes who do not get an adequate amount of nutrients and calories in their diet can suffer a decrease in athletic performance and, in some instances, serious medical problems (Ray, 2005). Medical problems in female athletes may include menstrual dysfunction and low bone mineral density. This combination of symptoms, when combined with disordered eating, is often referred to as the Female Athlete Triad (Beals & Hill, 2006). It has been generally accepted that the Female Athlete Triad starts when an athlete begins to diet, believing a lower body weight will increase athletic performance. As the athlete's diet becomes increasingly restrictive, the consequential energy reduction results in menstrual dysfunction and a decrease in bone mineral density. As such, it is hypothesized that the disorders of the Female Athlete Triad are interconnected (Beals &

Hill, 2006). For example, eating disorders and amenorrehea often result in low levels of bone mineral density, low estrogen levels, and eventually osteoporosis. The longer the triad exists the more detrimental the effects, with the possibility of these effects becoming irreversible (Putukian, 2001). In some cases, the Female Athlete Triad can also cause morbidity and mortality (Otis, Drinkwater, Johnson, Loucks, & Wilmore, 1997).

Mother-Daughter Relationships

Mothers are influential throughout their children's lives (Jaffe & Worobey, 2006). As such, children often model their mothers' behavior. Studies have indicated that mothers who restrict their own eating and are dissatisfied with their own bodies will influence their children to exhibit similar behaviors, increasing the risk for developing eating disorders (Elfhag & Linné, 2005; Keery et al., 2006; Pike & Rodin, 1991; Smolak, Levine, & Schermer, 1999). Therefore, the mother-daughter relationship appears to contribute significantly to why girls develop disordered eating habits (Pike & Rodin, 1991).

Fisher and Birch (2001) found that children develop certain food preferences during the fetal and nursing periods that seem to be dependent on the food their mother ingests. Furthermore, parent-child food intake is similar as children watch and mimic the eating habits and attitudes of their mothers (Fisher & Birch, 2001). In a study that compared mothers without eating disorders to eating disordered mothers, Agras, Hammer, and McNicholas (1999) found eating disordered mothers and their daughters to interact differently than those mothers without eating disorders. These interactions differed in the areas of feeding, food use, and weight concerns. Additionally, during the early years of childhood eating disordered mothers reacted to food and eating differently

than mothers without an eating disorder. Mothers with eating disorders used food as a reward or to calm their children and practiced a disorganized feeding schedule. Eating disordered mothers also procrastinated and avoided eating during meal times. These behaviors most likely affected the children's future eating habits.

Mealtimes are an important time for children as they learn to experiment with food and begin to exhibit autonomy. In a study conducted by Stein, Woolley, and McPherson (1999), conflict during mealtime between eating disordered mothers and their infants was examined. This study revealed that conflict arose when the eating disordered mothers failed to acknowledge their infants' hunger cues or when the eating disordered mothers were unable to put their infants' food desires first, before their own issues and concerns. Moreover, eating disordered mothers were also found to be more intrusive and less facilitating during mealtimes, thus initiating more conflict with their infants during mealtime (Stein, Woolley, Cooper, & Fairburn, 1994). In short, when parents do not allow their children to handle food, and all food is kept stored away and out of the reach of the children, the children are being denied their feeding autonomy (Stein et al., 1999).

Smolak et al. (1997) examined the impact of mothers' and fathers' weight concerns on their children. Results indicated that mothers were more likely to comment on their daughters' body than their sons' body. In addition, the comments that mothers made about their daughters' weight significantly increased their daughters' weight loss attempts. In comparison, the fathers' comments did not appear to impact their daughters' weight loss attempts to the same extent. Similar results were found by Wertheim, Mee, and Paxton (1999) as they concluded that the transmission of dieting appears to be stronger from the mothers to the daughters. In another study, when comparing eating

disordered mothers to mothers without eating disorders, eating disordered mothers expressed more concern for their daughters' weight than they did for their sons' weight (Agras et al., 1999).

Mothers who fear becoming overweight also fear that their children will be overweight (Jaffe & Worobey, 2006). Pike and Rodin (1991) found that daughters of mothers with disordered eating patterns might learn to partially model their mothers' behaviors and therefore, develop greater weight concerns as children. In addition, mothers may also place direct pressure on their daughters to be thin. Similar findings were obtained by Smolak and Levine (2001) who found increases in children's body dissatisfaction to be positively correlated with their parents' dieting behaviors and negative comments regarding their own bodies. Thus, mothers who are preoccupied with their own weight and eating seem more likely to restrict their daughters' eating and encourage weight loss (Francis & Birch, 2005a). Furthermore, adolescent girls who perceive their thinness as important to their mothers appear significantly more preoccupied with being thinner (Field et al., 2005). Benedikt et al. (1998) found a positive association between daughters who attempt weight loss, their dissatisfaction with their body, and their mothers' encouragement for them to be thin and lose weight. These authors also found that mothers who practice dieting and disordered eating behaviors become models for their daughters. As stated, a mother's dieting behavior, as well as her weight consciousness, can directly influence a daughter's dieting behaviors (Hirokane, Tokumura, Nanri, Kimura, & Saito, 2005). In sum, many researchers have concluded that young girls at least partially model their mothers' dieting and weight controlling behaviors (Field et al., 2006; Fulkerson et al., 2002).

Elfhag and Linné (2005) revealed a mother-daughter relationship regarding eating pathology, implying that a gender-specific family pattern for eating pathology may exist. Furthermore, when the mother's age was considered, it was found that older mothers might share restrictive eating habits with their adolescent daughters whereas younger mothers may share emotional and uncontrolled eating patterns with their adolescent daughters. One explanation for this is that mothers and daughters who are more similar in age may share more similar attitudes towards their bodies. For example, a daughter may more easily compare her body to her mother's if her mother is younger.

Francis and Birch (2005b) found an association between overweight mothers who restrict their daughter's food intake at the age of five and their daughter's tendency to eat when she is not hungry during the ages of five to nine, thus resulting in an increase in the daughter's body mass index (BMI) during this time period. This may suggest that when daughters of overweight mothers have restrictions around their food intake, they might have a tendency to overeat in the presence of food, increasing their risk to become overweight.

Hahn-Smith and Smith (2001) evaluated the influence of maternal identification (i.e., how much a daughter identified with her mother) on a daughter's body image, eating, and self-esteem. Results showed daughters who had high maternal identification did not model their mothers' body dissatisfaction; whereas daughters with low maternal identification appeared more likely to share similar body dissatisfactions as did their mothers. Furthermore, when compared to daughters without an eating disorder, eating disordered daughters tended to have difficulty balancing intimacy and autonomy in the mother-daughter relationship (Mahoraj, Rodin, Connolly, Olmsted, & Daneman, 2001).

In this same study, mothers of eating disordered daughters were unable to balance giving their daughters independence while also providing supportive guidance. With this, Wheeler, Wintre, and Polivy (2003) found that daughters who felt a sense of incompetence due to a lack of autonomy or self-determination were more influenced by the parent-adolescent relationship and more likely to develop eating disorders.

In a study in which mothers reported on their daughters' eating disordered symptoms, it was found that these mothers underestimated their daughters' difficulties with their eating disorder (Pendley & Bates, 1996). Furthermore, it seems that eating disordered daughters who are premenstrual are more influenced by their mothers' dieting when compared to eating disordered daughters who have already menstruated (Wertheim, Martin, Prior, Sanson, & Smart, 2002). Thus, it appears that younger girls may be more affected by their mothers' behaviors than their older counterparts.

Wertheim et al. (1999) found that parental encouragement to lose weight was more powerful than the influence of the parents' own weight loss behaviors in both daughters who restricted their diet and in daughters who exhibited bulimic symptoms. However, when examining more restrictive weight loss behaviors (i.e., fasting or skipping meals) daughters were more influenced by their parents' weight loss behaviors (Wertheim et al., 1999).

Peer Relationships

Peers have been found to convey socio-cultural messages that influence children's perceptions about their body image and weight (Dunkley et al., 2001; Tsiantas & King, 2001). As previously discussed, the general socio-cultural model assumes that body dissatisfaction is primarily caused by the influence of peers and the media (Dohnt &

Tiggemann, 2006). Girls become more aware of the socio-cultural ideals as they mature through adolescence, and therefore, increase their attempts to achieve these ideals (McCabe & Ricciardelli, 2004). As a result, peer conversations that stem from the media are often related to appearance topics such as clothes, make-up, and pop stars. In turn, the more focused a friend is on appearance, the more likely an individual may be to internalize appearance ideals and body dissatisfaction (Clark & Tiggemann, 2006).

Peer relationships influence the development of body image, weight concerns, and eating in children (Cattarin & Thompson, 1994; Oliver & Thelen, 1996; Phares et al., 2004). There exists a strong association between girls' (ages 5-8 years old) desires to be thin and their perception of their peers' desires to be thin, which may cause a decrease in some girls' self-esteem and body satisfaction (Dohnt & Tiggemann, 2006). On a similar note, McCabe and Ricciardelli (2004) found that among adolescent girls, their best female friends were important in shaping weight loss ideals and weight loss strategies.

Little research has been conducted regarding the influence of sisters on disordered eating. However, siblings are known to contribute to the early development of certain behavioral problems such as drug use and sexual attitudes (Ary, Tildesley, Hops, & Andrews, 1993). While having a sibling with an eating disorder has not been shown to be a risk factor for developing an eating disorder (Wunderlich, Gerlinghoff, & Backmund, 2004), siblings are conscious of the differences between one another and often compare and judge themselves against one another at a young age (Dunn & Plomin, 1991).

Rieves and Cash (1996) asked college undergraduates to rate the effect that their siblings' attractiveness had on how they perceived their own appearance when growing up. Results indicated that when a sibling is more attractive it may encourage negative

self-evaluation, but when a sibling is less attractive it may encourage positive self-evaluation. Similar findings by Tsiantas and King (2001) revealed that during adolescence and the teenage years, older sisters who participated in appearance-based social comparisons negatively evaluated their younger siblings. However, for the older sisters, this resulted in a positive self-evaluation of appearance. Children with anorexia are often jealous of their sisters, in addition to viewing their sisters as being in more popular peer groups (Karwautz et al., 2001).

When examining birth order, patients with anorexia are less likely to be first-born and less likely to have one or more brothers (Eagles, Johnston, & Millar, 2004). One explanation is that having an older sister may provide a "role model" for disordered eating behavior. In addition, inter-female competition between sisters may lead to a higher prevalence of eating disorders in families that have no male siblings.

Thompson, Coovert, Richards, Johnson, and Cattarin (1995) found that teasing can have a direct effect on body image and eating disturbances. When examining teasing between siblings, Tsiantas and King (2001) found that teasing by older siblings was more common than teasing by younger siblings. Thus, a link may exist between teasing and anorexia nervosa in younger children. In addition, female siblings who are closest in age to the sister with anorexia nervosa often have higher body image disturbances (Tsiantas & King, 2001).

Regarding peer relationships with the opposite sex, messages from opposite sex peers do not seem to increase either boys' or girls' desires to change their body shapes (McCabe & Ricciardelli, 2004). In fact, in an older population, Forbes, Jobe, and

Richardson (2006) found that college women with boyfriends were more satisfied with their bodies. However, it should be noted that this might not rule out body dissatisfaction.

When examining the relationship between roommates, more similarities in eating attitudes were observed in college women who chose to live together than women who were randomly placed together (Gilbert & Meyer, 2004). Zalta and Keel (2006) found similar results. Women who selected to live with one another demonstrated similar bulimic behaviors than women who were randomly placed to live with one another. Therefore, these results suggest women may choose to live with friends who exhibit similar eating behaviors to their own.

A limited number of studies have been conducted examining peer relationships and interactions on athletic teams and how these relationships might shape body image ideals. It has been found that sports participation increases the opportunities for adolescent girls to interact in ways concerning appearance and body image, therefore, possibly increasing body related issues on teams (Eder & Parker, 1987). Furthermore, due to teamwork and shared team values, it has been suggested that athletic team peers have more influence on one another than peers in a non-athletic friendship (Burkes-Miller & Black, 1991). Successful athletes may also act as role models for body related attitudes and behaviors (Burkes-Miller & Black, 1991). Moreover, it has been noted that prior to eating meals with their team, many athletes frequently talk about what food they should eat in order to remain thin and conditioned. It may be that many food decisions are greatly influenced by teammates (Overdorf, 1987).

Coach-Athlete Relationships

The head coach or assistant coach is often the individual who has the closest relationship with the athlete (Sherman & Thompson, 2005). The role coaches play in their athletes' lives is far more important than simply providing intensity and technique workouts. Coaches teach athletes about themselves and can directly influence their athletes' self-esteem during their athletic career and for the rest of their lives (Feit, 1992). Therefore, coaches are in an excellent position to play an important role in identifying and managing athletes with eating disorders (Sherman & Thompson, 2005).

In a survey given to 92 elite Norwegian female athletes who were classified with an eating disorder, 67% admitted to dieting because their coach directly recommended it while 75% dieted due to the coach's overall influence (Deakin, 2001). Coaches and trainers play a significant role in athletes' lives due to the frequent contact they have with one another, thus suggesting that coaches and trainers have the power to help or harm athletes in the management of eating problems (Thompson, 1987). Additionally, there is a "power" that coaches often have over their athletes in that coaches are often regarded as privileged in their knowledge, expertise, wisdom, and resources. Thus, athletes are often characterized as desiring the wisdom of their coaches (Johns & Johns, 2000). Jones, Armour, and Portac (2002) stated that coaches need to recognize that their position is a privilege and must understand the importance of their words, practices, and how they impact and influence their athletes.

Due to the fact that coaches are key figures in athletes' lives, it has been suggested that athletes who are predisposed to eating disorders may take coaches' comments more seriously and personally, as these athletes may have a greater need to

obtain approval from their coaches (Turk, Prentice, Chappell, & Shields, 1999). Restrictive dieting and excessive exercise can be accepted and expected behaviors by many coaches due to the emphasis on reducing body fat and maintaining thinness in athletics (Thompson & Sherman, 2005). Thus, the overuse of techniques such as weigh-ins or body fat assessments may trigger disordered eating in some athletes (Thornton, 1990).

A coach may view an athlete's weight as a training or aerobic conditioning issue while the athlete may view a discussion about weight as a criticism and a request to change herself because she is not "acceptable" to her coach (Campbell, 1987). As a result, some coaches inadvertently play a negative role in their athletes' lives, as their training practices and recommendations precipitate disordered eating or exacerbate an existing eating disorder (Thompson & Sherman, 2005). According to the American College of Sports Medicine (ACSM) (1992), coaches must understand and be aware of how influential their advice and comments are. Realizing the serious health implications of eating disorders, it is very important that coaches have specific guidelines to prevent the initiation or exacerbation of eating disorders in their athletes.

Due to the power and influence coaches have over their athletes they can play a positive role through identification and referral of athletes who are at risk for disordered eating. According to the National Collegiate Athletic Association (NCAA) coach handbook for *Managing the Female Athlete Triad,* coaches are in a good position to identify eating disorders and should be aware of the physical/medical and psychological/behavioral signs and symptoms of eating disorders (Sherman et al., 2005). Some signs and symptoms coaches should watch for include: a decline in athletic

performance and fitness, abnormal muscular fatigue, weight loss, excessive tiredness, light-headedness, feeling cold, extreme mood changes, unusual mood patterns, sleep disturbances, and physical conditions such as dry hair and skin, cold hands and feet, fine hair on face or body, puffy cheeks, bloodshot eyes, and eroded tooth enamel (Hornak & Hornak, 1997; Manore et al., 1999).

Griffin and Harris (1996) assessed the attitudes, knowledge, experiences, and recommendations of coaches regarding weight control. Results showed that coaches had negative attitudes toward overweight people, lacked knowledge about obesity and healthy weight loss, and had often tried to lose weight themselves. Furthermore, coaches believed that more females needed to lose weight and that more males needed to gain weight. Additionally, no differences were found in the responses made by coaches in "lean" sports verse "non-lean" sports.

Bickford (1999) stated that within the athletic population, coaches are often blamed for the prevalence of eating disorders. This is due to several reasons. First, athletes look to coaches for information on nutrition and weight loss and coaches may believe they are knowledgeable enough to give advice in this area but often don't know enough to respond appropriately. Furthermore, coaches' recommendations may be based on their own experiences with weight loss methods and dieting. In fact, in one study less than half the coaches surveyed had attended an educational program about eating disorders and a third of the coaches were not aware of any resources available to them (Turk et al., 1999). Second, coaches may give verbal or non-verbal messages to their athletes to lose weight and, in turn, these messages result in athletes using pathogenic weight loss behaviors (Griffin & Harris, 1996). With this in mind, coaches that

emphasize the relationship between appearance and performance can influence the development of disordered eating behaviors (Leon, 1991). Therefore, coaches must understand the serious implications of eating disorders, as well as the prevention guidelines available to them to help decrease their athletes' risk of developing eating disorders. Coaches should not assume student-athletes know how to eat correctly and should address proper weight loss techniques and assessment of nutritional needs so athletes can better reach their optimal performance weight range (ACSM, 1992). Furthermore, when making weight related recommendations to athletes, coaches must consider a number of weight ranges for optimal performance (weight ranges based on a person's body composition, the individual athlete's level of growth and maturation, the sport/event the athlete is involved in, frame size, and bone density). If needed, coaches should obtain input from medical doctors and registered dieticians (Feit, 1992).

Thompson and Sherman (1999b) compared similarities in those characteristics associated with anorexia nervosa to characteristics associated with being a "good athlete". The following five similarities were made. First, being a mentally tough athlete was associated with asceticism in an anorexic person. Asceticism was defined as the "strong tendency to seek virtue through self-restraint, self-discipline, self-denial, self-sacrifice, and control of body urges" (Thompson & Sherman, 1999b, p. 185). Athletes who are mentally tough are unaffected by their emotions, make sacrifices for the team, and play through the pain of an injury. Therefore, it is suggested that anorexic athletes might appear to be mentally tough, when really they are struggling with a potential eating disorder. The second characteristic identified was commitment to training as seen in a "good athlete" compared to excessive exercise as seen in an anorexic person. Due to the

fact that anorexic athletes often have a need for approval, these individuals are sometimes characterized as overly committed to training, which is often pleasing to their coaches. The third similarity made was a pursuit of excellence in a "good athlete" and perfectionism in an anorexic person. Coaches look for athletes who are loyal to their sport, extremely meticulous, determined to be their best, and never satisfied with their current level of achievement. All these virtues are similar to the characteristics of perfectionism often found in individuals with anorexia. The fourth similarity was unselfishness in a "good athlete" as compared to selflessness in an anorexic person. Anorexic athletes will constantly put the needs of the coaches and members of team before themselves and are accustomed to sacrificing themselves for others. Lastly, a similarity between an athlete who performs despite pain was compared to an anorexic person who denies that she is in discomfort. Many anorexic individuals exercise despite being ill, injured, malnourished, and depressed. Coaches generally praise those athletes that are coachable and compliant, and at times, these athletes could be struggling with eating disorders (Thompson & Sherman, 1999b).

Thompson (1987) has stated that a coach can have a tremendous amount of control over an athlete's life. This issue of control is very important for athletes struggling with disordered eating. Disordered eating athletes misguidedly attempt to control their lives and their world by controlling their weight. As a consequence, coaches exerting more control, such as restricting playing time and "pushing" to gain more weight, may cause resistance from many athletes. Coaches can avoid this by helping their athletes to develop strengths outside of their sport. The goal is to empower athletes to

have more autonomy and control in their lives and ensure that their self-worth is not solely dependent on being successful athletes (Coakley, 1992).

Treatment of Eating Disorders

Research suggests that family therapy is the most widely accepted method for treating patients with anorexia nervosa (Dare, Eisler, Russell, Treasure, & Dodge, 2001; Wallin & Kronval, 2002). Family therapy views the family as a "whole system" rather than looking at each individual member separately and therefore, individual struggles are viewed as a by-product of the relationship struggles within the family (Jones, 1980). In a study that compared family therapy to individual therapy, greater improvement was seen with eating disordered patients who were treated with family therapy (Russell, Szmukler, Dare, & Eisler, 1987). Another study assessed the changes in family function after undergoing two years of family therapy. Results indicated that families developed a higher degree of competence in dealing with disorder eating behaviors, and family cohesion and adaptability had increased towards a more balanced pattern of family behaviors (Wallin & Kronval, 2002). In addition, it was also found that families became more expressive after family therapy. In short, when assessing patient and parent satisfaction with family therapy, it has been suggested that family-based treatments combined with individual sessions for both the patient and parents, fulfills best the patient's and parents' expectations for treatment (Paulson-Karlsson, Nevonen, & Engström, 2006). The outcome of family therapy is most successful when the patient views her parents as resources rather than barriers to her disordered eating (le Grange, 2004).

One qualitative study involving patients who had recovered from anorexia nervosa illustrated that patients generally are able to recall a turning point in their recovery process (Nilsson & Hägglöf, 2006). This turning point often results in the recognition of the detrimental effects and acceptance of the illness. It is likely that the patient's friends, the type of treatment received, and the influence of family are the most important factors in this turning point toward recovery (Nilsson & Hägglöf, 2006). Dare, Eisler, Russell, and Szmukler (1990) compared family therapy with individual supportive psychotherapy for the treatment of eating disorders and found family therapy significantly more effective for both anorexia and bulimia. Preliminary research by le Grange, Lock, and Dymek (2003) also suggested that family based therapy can be beneficial for bulimic patients.

When studying the impact of treatment length on eating disorders, Lock, Couturier, and Agras (2006), found no significant differences when comparing the benefits of short-course (6 month and 10 sessions) and long-course (12 months and 20 sessions) treatment programs using family therapy. Similarly, a study assessing the psychological and psychosocial outcomes of family therapy with adolescents (ages 12-18 years at baseline) experiencing an eating disorder found that a short course of family therapy was as effective as a longer course (Lock et al., 2006). However, when considering the ideal type of treatment it seems that the length of time the patient has struggled with the eating disorder is more important than the length of the treatment. According to Eisler et al. (1997), family therapy is often most successful in patients with early onset anorexia (before the age of 18 years) and with those who have a short history

of anorexia (less than three years), while patients with late onset anorexia (after the age of 18 years) are more successfully treated with individual therapy.

Cognitive Behavioral Therapy (CBT) is an additional form of therapy that has been used to treat patients suffering from eating disorders. Accordingly, CBT focuses on how individuals create emotional difficulties for themselves through ineffective thoughts, feelings, and actions (Ellis, 1992). Research has pointed to the benefits of CBT for the treatment of some eating disorders, especially with binge eating and purging (Schapman-Williams, Lock, & Couturier, 2005). However, one study that examined the role of CBT in the outpatient treatment of anorexia nervosa found no significant differences between patients who received CBT (treatment group) and patients who received behavioral family therapy (the comparison group) (Ball & Mitchell, 2004). One additional type of therapy, Body Awareness Therapy, has been tested with equivocal findings. Body Awareness Therapy is physiotherapy that aims to educate the patient about the body and its function. This includes learning the boundaries of the body, perceptions of muscular activity, relaxation activities, and how to interpret various body signals (Wallin, Kronovall, & Majewski, 2000). Wallin et al. (2000) compared the effectiveness of Body Awareness Therapy and family therapy and found Body Awareness Therapy to have no effect on treatment for anorexia nervosa. Body Awareness Therapy did, however, appear to help improve the body image of the patients participating in the study.

Research suggests that in addition to treatment of anorexia nervosa by medical and psychological interventions, exercise can be an effective addition to therapy, particularly light resistance training (Reuters Health, 2006). A study conducted with hospitalized anorexics compared strength, the BMI, percent body fat, and lean body mass

improvements of subjects who participated in a light resistance training program with subjects who did not participate in the program. Results indicated significant improvement in strength, BMI, percent body fat, and lean body mass in the subjects who participated in the light resistance training program but no significant improvements in those subjects who did not participate in the program.

Anorexia nervosa is particularly hard to treat because the patient often struggles with denial of the illness and often has a resistance to change her detrimental behaviors. These obstacles are similar to those of a substance abuse disorder. Thus, it has been suggested that it may be useful to consider the benefits of Motivational Enhancement Therapy which utilizes the trans-theoretical model of change whereby the individual passes through the specific phases of precontemplation (no intention of changing), contemplation (thinking about changing), preparation (making small changes in behavior), action (change lasting less than six months), and maintenance (change lasting more than six months) (Marshall & Biddle, 2001). In terms of treatment, this model helps the therapist meet the patient at her respective stage of change and determine the most appropriate intervention plan (Kaplan, 2002). However, for each individual, it is important to note that the pros and cons for changing will likely play a significant role in recovery. With this in mind, the health belief model (HBM) has been successfully used to treat patients with eating disorders. This model suggests that behavioral change occurs only when an individual perceives that the pros of change clearly outweigh the cons. Thus, the HBM attempts to explain why individuals make certain decisions regarding their health-related behaviors (Harrison, Mullen, & Green, 1992). In a study conducted by Gale, Holliday, Troop, Serpell, and Treasure (2006), the pros and cons for recovering

anorexics and bulimics were assessed. Results indicated that individuals with anorexia agreed that their illness provided the pros of safety, structure, uniqueness, and the communication of emotions, whereas individuals with bulimia believed that their illness allowed them to eat and remain slim. Yet, both anorexics and bulimics agreed that their eating disorder also resulted in guilt, hatred, feeling trapped, a negative self-image, and undesirable weight and shape.

In conclusion, despite limited research on the treatment of eating disorders, family therapy is the most widely accepted method for treating patients with anorexia nervosa (Dare et al., 2001; Wallin & Kronval, 2002). Furthermore, when treating bulimia, research has pointed to the benefits of CBT to help reduce the cycle of binge eating and purging (Schapman-Williams et al., 2006). Lastly, employing the trans-theoretical model of change has helped some therapists better meet their patients at a particular stage of change, thus improving the effectiveness of therapy (Kaplan, 2002).

Prevention of Eating Disorders

It is unclear if eating disorder prevention programs are successful, as prevention programs have yielded mixed results. In a meta-analysis conducted by Fingeret, Warren, Cepeda-Benito, and Gleaves (2006), the effectiveness of eating disorder prevention programs was evaluated. Overall, a large improvement can be found in subjects' knowledge about eating disorders however, this knowledge generally has a small effect on reducing disordered eating attitudes and behaviors. Research done with high school athletic teams has indicated that interventions targeting healthy exercise and nutrition can significantly alter the risk factors for disordered eating and drug use such as amphetamines, anabolic steroids, and sports supplements (Elliot et al., 2006). Because

early detection and intervention of an eating disorder can be essential to long-term effective treatment (Bosi & Oliveira, 2004), it is suggested that educating athletes, coaches, parents, administrators, and athletic training staffs regarding potential risk factors is crucial in the prevention of eating disorders in student-athlete populations (Ray, 2005). Furthermore, educating young female athletes about menstrual irregularities and disordered eating is important. When coaches, teachers, parents, and athletes do not initiate prevention programs the problems of eating disorders may only be perpetuated (Nattiv, Agostini, Drinkwater, & Yeager, 1994).

The key to preventing disordered eating in athletics is education and awareness (Johnson, 1994). Therefore, the best prevention strategies involve educating coaches, parents, and athletes about identification and awareness protocols (Sherman et al., 2005). Prevention strategies and an emphasis on proper nutrition to maximize performance should be promoted to educate coaches through existing clinic programs, certification programs, and workshops. Coaches and parents should also be educated in the nutritional needs, optimal body fat/lean muscle mass ranges, and optimal performance weight ranges for athletes. Furthermore, coaches should communicate openly with their athletes about these issues (Feit, 1992).

Still, it is important that coaches not provide counseling services or medical advice to their athletes since they are not educated, certified, or licensed to do so (Hornak & Hornak, 1997). Hornak and Hornak (1997) suggested that the following steps be taken by a coach to help an athlete struggling with disordered eating: 1) recognize the problem; 2) organize a "carefrontation" with the athlete; 3) refer the athlete to a professional; and 4) reinforce specific strategies and behaviors to better manage the eating disorder and

help restore the athlete to better health. After referral and diagnosis, a coach should adhere to the following guidelines for reinforcing the recommendations made by the diagnostic team: 1) require that the athlete follow her dietary recommendations; 2) refrain from "pushing" food onto the athlete; 3) maintain confidentiality regarding the athlete's disorder; 4) avoid developing a dual relationship with the athlete such as taking on a parental or counseling role in addition to the coaching role; 5) select healthy places to eat team meals; 6) focus on health; and 7) schedule educational team meetings by inviting professionals to speak on various topics prevalent to nutrition and sport performance.

Coaches and parents should not ignore or disregard the warning signs of an eating disorder because the athlete is performing well, especially because coaches' or parents' recognition of these signs could prevent the onset of disordered eating behaviors. It seems important for coaches and parents to focus less on winning and more on training athletes to be healthy competitors (Round Table Discussion, 1985). Furthermore, it is suggested that the responsibility to seek out education regarding eating disorders not fall on coaches alone but that athletic departments establish and implement educational programs for their coaches, athletes, and athletic trainers (Turk et al., 1999). All must work together in order to provide the needed resources and programs to help the athlete struggling with disordered eating behaviors.

Summary

Three types of eating disorders have been defined by the DSM-IV: 1) anorexia nervosa, 2) bulimia nervosa, and 3) eating disorders not otherwise specified (APA, 1994). Mothers (Field et al., 2006; Fulkerson et al., 2002; Keery et al., 2006), peers (Cattarin & Thompson, 1994; Oliver & Thelen, 1996; Phares et al., 2004), and coaches (Heffner et

al., 2003; Jones et al., 2005; Sherman & Thompson, 2005) have all been shown to influence an athlete with an eating disorder. Despite the inconclusive research surrounding athletes at a risk for eating disorders (Smolak et al., 2000; Sundgot-Borgen & Torstveit, 2004) and non-athletes at risk for eating disorders (Ashley et al., 1996; Hausenblas & McNally, 2004; Kirk et al., 2001; Rhea, 1999; Sanford-Martens et al., 2005; Schwarz et al., 2005), disordered eating is prevalent in athletics and predominately affects women (Grieve et al., 2006; Johnson et al., 1999). Athletes who do not get an adequate amount of nutrients and calories in their diet are also at risk to develop the Female Athlete Triad (Ray, 2005). With all eating disorders, early detection and intervention are essential to the long-term health and performance of athletes (Bosi & Oliveira, 2004)

Chapter 3

METHODS

The purpose of this study was to identify the impact mothers, peers, and coaches have on eating disorders in female student-athletes. This chapter contains a review of the methodology of this study including a discussion of the research design, participants, procedures, data collection, and analysis.

Research Design

A qualitative research design was used in this study. Qualitative research consists of detailed descriptions of situations, events, people, interactions, and observed behaviors (Hatch, 2002). The aim of qualitative research is to gain an understanding of the world from the perspective of those living in it (Hatch, 2002).

For the current study, in-depth semi-structured interviews were used to understand the process by which events and actions occurred (Strean, 1998). During the interviews the participants were asked to discuss the impact their mothers, peers, and coaches had on their eating disorders. These interviews were designed to assess the participants' perspective and identify information that cannot be directly observed such as feelings, thoughts, and intentions (Patton, 1980). In this study, each interview was approximately 60-90 minutes in length and was tape recorded, transcribed and then coded for major them.

Participants

Four student-athletes (N=4) were recruited from various athletic teams and Exercise and Sport Science classes at a small college in the Northeast United States. All

participants were female athletes, ages 18-24, who have received professional treatment or counseling for an eating disorder within the last four years. The current athletes participated in sports including: swimming, outdoor track, indoor track, and cross country. For biographical sketches of the athletes see Appendix A.

Procedures

After approval from the Human Subjects Review Board, participants were recruited from athletic teams and Exercise and Sport Science classes in the following two manners:

Female Athletic Teams

- The coaches of all female athletic teams at the college were contacted via e-mail (see Appendix B) to ask permission from each coach to attend a team meeting to recruit subjects for this study.
- The principle investigator then followed up with a phone call to each coach who had not responded via e-mail to obtain permission to attend a team meeting to recruit subjects for this study.
- After permission was obtained via e-mail or phone the coach and primary investigator agreed upon a team meeting where the researcher could present information to the athletes.
- At the team meeting it was made clear that only female athletes with an eating disorder should volunteer for the study, however, the recruitment statement (see Appendix C) was given to all student-athletes (coaches were not asked to identify potential participants).
- The primary investigator's contact information was located on the recruitment statement.
- If an athlete was interested it was up to the athlete to contact the primary investigator by phone at a later date to set up an interview.

In some cases, coaches responded (via e-mail or phone) by stating that the team was no longer holding team meetings. In these situations the primary investigator gained

permission from these coaches to contact their athletes by sending the recruitment statement (see Appendix C) to them via e-mail.

Exercise and Sport Sciences Classes

- All professors in the department of Exercise and Sport Science at the college were contacted via e-mail (see Appendix D) to ask permission to attend their classes to recruit subjects for this study.
- The principle investigator then followed up with a phone call to each professor who had not responded via e-mail to obtain permission to attend his/her class.
- After permission was obtained the primary investigator scheduled a five-minute time block at the beginning of each professor's class to present information about this study using the recruitment statement (see Appendix C).
- At each presentation it was stated that only female student-athletes with an eating disorder should volunteer, however, the recruitment statement was given to all female student-athletes (teachers were not asked to identify potential participants).
- The primary investigator's contact information was located on the recruitment statement.
- If any student was interested it was up to that student to contact the primary investigator by phone at a later date to schedule an interview.

Once a potential participant contacted the primary investigator, an interview was scheduled. Each interview took place in a private location to ensure confidentiality. All interviews were tape recorded to allow for exact transcription. Only the primary researcher and the participant were present at the interview to minimize all distractions and ensure the participant's comfort level in responding to certain questions.

Prior to each interview the participants read and signed an informed consent form (Appendix E) and received a referral information sheet (Appendix F). The interviews followed the questions on the attached semi-structured interview guide (see Appendix G).

The interviews were used to explore the impact of various interpersonal relationships on the athletes' eating disorders. More specifically, there was an in-depth focus on the relationship each athlete shares with her mother, peers, and coach.

Data Collection

Before any data was collected, all participants were assured that their responses would be kept confidential and their participation anonymous. The following steps were adopted to ensure the participants confidentiality and anonymity (Seidman, 2006).

1. All interviews took place in a private location.
2. The primary investigator completed all of the transcriptions
3. Case numbers were assigned to each participant and were used in all transcripts and in the final analysis.
4. All data collected was kept in a locked filing cabinet in the office of Dr. Greg Shelley. Only the primary investigator and the two faculty advisors had access to the cabinet.

Interviews

In-depth semi-structured interviews were used as the primary data source in the current study. A semi-structured interview style was used to direct the conversation between the primary investigator and the participant. All interview questions were based on information from eating disorder and sport psychology literature. Topics included: 1) the demographic information of the participant; 2) information about the participant's eating disorder; 3) information regarding the participant's relationship with her mother;

4) information regarding the participant's relationships with her peers; and 5) information regarding the participant's relationship with her coach.

Question Set I (see Appendix G) on the interview guide was used to obtain specific information regarding each athlete's demographic information including: 1) name; 2) address; 3) birth date; 3) height; 4) weight; and 4) what sport(s) the athlete currently participates in. Question Sets II-V (see Appendix G) of the interview guide included open-ended questions designed to gather in-depth information regarding the impact of mothers, peers, and coaches on eating disorders in the participants. However, the research was not limited to just these questions. As Patton (1980) states, "the interview guide provides topics about subject areas within which the interviewer is free to explore, probe, and ask questions that will elucidate and illuminate that particular subject" (p. 200). Sample questions from this part of the interview include: 1) What type of eating disorder have you been diagnosed with?; 2) Describe your relationship with your mother; 3) Describe your relationship with your friend(s); and 4) Describe your relationship with your coach.

The primary researcher followed the interview guide throughout each interview to ensure that each participant was asked the same questions. However, the primary investigator was also free to probe in diverse ways depending on individual differences with each participant's eating disorder and their relationships.

Bracketing Interview

A bracketing interview was done prior to the primary study. A former graduate student who was trained in counseling and qualitative research methods conducted the semi-structured interview with the primary researcher. The bracketing interview was

transcribed verbatim and analyzed for higher-order themes. This interview served as a method of identifying any possible biases the primary researcher might have prior to analyzing the other interview data.

Data Analysis

The data set for the current study included the transcripts from interviews with four (N=4) female athletes who have received treatment for an eating disorder within the last four years. All personal information was removed from the transcripts and a code number was associated with each participant's data. The data was analyzed utilizing the following steps adopted from Shelley (1999):

1. All interviews were transcribed verbatim by the primary researcher.
2. Each participant reviewed her own transcript to ensure accuracy, a technique known as member checking used to enhance the validity of the data (Krefting, 1991).
3. The researcher reviewed each transcribed interview in order to recall what was discussed during the interview process and the general content of each interview.
4. From each transcript significant statements related to the research question were extracted. "Categories" were formed based on the content of these significant statements.
5. Meaning units were formed directly from the "categories" and the comments, words, and phrases of the participants. The meaning units related to the experience of the athletes regarding the influence of their mothers, peers, and coaches on their eating disorder.

6. Clusters of lower-order themes were then formulated from synthesized meaning units.
7. The lower-order themes were then formulated into higher-order themes, which served to provide initial answers to the research question.
8. Common themes emerged by comparing all higher-order themes across the participants. Common themes serve to answer the research question.

Chapter 4

RESULTS

Based on the analysis of the four interviews several higher-order themes were identified for each participant (Appendices H-K). Further analysis of these higher-order themes revealed three common themes among the participants (Appendix H). The three common themes include: 1) Mothers/parents have distant and resentful relationships with their daughters; 2) Peers influence athletes' body image and eating habits; and 3) Coaches fail to address eating disorders. Together, these three themes answer the research question, "What is the impact of mothers, coaches, and peers on eating disorders in female student-athletes?" Each theme, along with supporting quotes, is presented below.

Common Theme #1

Mothers/parents have distant and resentful relationships with their daughters

The athletes in this study spoke about their mothers'/parents' behaviors being a major cause of the distant and resentful relationships they have with them. This theme was reflected in the following statement by Athlete 1:

> I was so mad at [my mother]...Because she like, made me become the mom for my family...she left too for a little bit and I was just so angry with her...I was really angry with her for a while. (Athlete 1)

Athlete 2 expressed similar distance from her mother:

> [My mother] doesn't know much about me because she is a very isolated person because she is deaf...My parents did not notice [my eating disorder] until my aunt noticed because my aunt had not seen me for about 6 months and then all of a sudden my aunt was like [Athlete 2] looks really different, so my parents where like um, there is something wrong, there something going on, but they still did not do anything about it. (Athlete 2)

Athlete 2 also spoke about to her relationship with her father:

> My dad was my center figure. My dad, I loved him. And I still do (crying) but um....not the same way....so like he was like my center figure and now he is not umm (crying)...I couldn't control what [my dad] was doing. I couldn't control like how much I was losing him so I like took it out on myself I guess. (Athlete 2)

Athlete 2 also indicated a lack of communication and emotional disconnect with both of her parents.

> My parents are not involved with my life because my mom grew up... both my parents are deaf so it makes it a lot harder for them to be involved in my life because there's that barrier between the hearing and deaf, like there is a huge wall and so they don't really know who I am they don't really know how I act because all they see is when I am at home with them, they don't really interact on an outside level so um they had a hard time with like how to address it, "how do I talk to her about this when I really don't know what is going on?" So they never, my parents never really talk to me. (Athlete 2)

Athlete 3 expressed similar experiences with her mother:

> [My mother] is not a very disclosed person, like she doesn't like to talk a lot about stuff so um, right now like me and her we're kind of um, like I want to be close with her but like I want her to like talk to me about things and like kind of treat me as like a friend kind of rather than like my mom and she is still kind of like trying to be like my mom and stuff so we are not very close, (laugh) cause she I don't know. Me and her don't get along right now not to say we won't later but, it's kind of, not a very deep relationship...I really don't know, because we don't, she doesn't talk about things with me that much so I think she does but she also, if she is not happy then she probably wouldn't even say it...I just don't understand my mom very well and so I don't know. (Athlete 3)

Common Theme #2

Peers influence athletes' body image and eating habits

The athletes stated that their body image and eating habits were greatly influenced by their peers. Athlete 1 gave the following narrative regarding her friends:

> Thinking that I am like so fat and all my best friends are like these skinny little twigs and so I have always felt you know like my body isn't like good enough or just like, that...My, actually one of my best friends who's in my group at home she actually has an eating disorder too but she like we it's just like not talked about. She doesn't, and so just like being around everyone at lunch and just she

> would be eating three cookies for lunch and we know that's all she would eat like you know. And then I would like eat a pear and like a Gogurt tube and crackers and just like not being very healthy at all. So like I would always like pass out...Um, no I know I um for my whole, I remember since 7th grade, I was, I have been obsessed with my appearance and stuff and I have always been um, just like I said, all my friends are like twigs and stuff, and I always felt that I was fat. I still remember being in like seventh grade and because I had so many fat rolls, I don't know what I was thinking. I don't know I was just like obsessed with my image. (Athlete 1)

Furthermore, Athlete 1 also expressed similar feelings regarding her ex-boyfriend:

> Cause I have always felt like, that my body is not good enough for [my ex-boyfriend]...I mean he will affect my mood which you know, in that way, and in turn affect my behaviors in that way. (Athlete 1)

Athlete 1 made the following statements regarding her teammates:

> [Olympic Athlete] is the Olympic medal winner from 2002 she weighs like 103, and she is also like 5'1'' or something... one of my best friends there she's just like yea our, our coach um yea "[coach] like tells me that I have the ideal body type, I am like [Olympic Athlete] he knows that I am," she would like brag about it...like they are all like sticks and so little and a lot of them too have their own eating disorders like, more like anorexia you know. Or like not eating or like so concerned. And we have, so I was with the distance runners and they're like all the older girls who are so good and like, I would just idolize them and they were just like so concerned about their eating and everything...And I have always felt huge compared to them, and just like I always made a joke, I can't ever, I never take myself seriously I am always like hey guys I am like the shot putter running...But um, yea they have really impacted it because I have always just like I need to like change the way I eat, and you know be like super healthy and train and everything...(Athlete 1)

Athlete 3 had similar experiences with her friends:

> I went on a trip with my friend and then she like made me eat (laugh) so yea...I just have a lot of really good friends that um, I there have been like certain people that have impacted me the most and those are probably the most different from me...I think everyone of my friends has had a concern with body image. Um, actually yea, yea, yea. All of my friends have. Um, and actually everybody has chosen to lessen the food that they eat in order to do that. Um, yea. Last year my friend started going on the treadmill, like we had a treadmill in our dorm and she started going on the treadmill like every night and she like, and she was like talking about how she was like losing weight and stuff like that so like made me want to do it so then I would like go on the treadmill every night as a motivation to like exercise I guess...Yea, well if anyone yea if anybody says that it, it would

> that I had gained weight or if I asked my friend if I have, and they say yes or something that will definitely affect me...I think my friends have the biggest influence about that kind of stuff just...the fact that like if my friends would diet or like exercise and or something they would lose weight and they would lose weight that would affect me in a way to make me want to, and because it would make me want to lose weight cause I don't know, it yea, I guess that kind of thing. And um also, I have been struggling about going back and like seeing all of my friends from like high school, like when I go back for the summer I am like wanting to not look like I have gained weight but I have been struggling to try and make myself not care about that because it's, it clearly doesn't matter at all and like it doesn't affect your personality. Like I am still going to be the same person so I am like trying to make myself not care about it but I have to say that my friends are definitely probably like the biggest influence and especially right now when a lot of people have been kind of more concerned with body image and like cutting down on what they eat and like stuff like that...They are probably the biggest influence. (Athlete 3)

Athlete 3 expressed similar experiences with her roommates:

> My roommate actually has to be the tiniest person I have ever met and I think that she actually has issues with like that kind of stuff and now I have actually kind of started to like realize that more and more cause she, she doesn't eat a lot at all and actually this year and beginning of the year that actually helped me to not eat a lot because she would only eat like a salad for the whole day or something. And just say that she was not hungry and like I believed her because she was on Adderall so like she wouldn't be hungry and like so I would start doing that pattern too. Like I started off eating a lot and I just like slowly started like eating the same kind of way she did... (Athlete 3)

In addition, Athlete 3 expressed similar experiences with her boyfriend:

> [My ex-boyfriend is] like a really honest guy, which I loved and he was like my best friend and then when I came back from last summer he just said that like um, that he or that I had looked like I had gained weight or something like that and that, I don't know, and I was like okay whatever and like, just kind of played it off like I didn't care. He was like no, he's like I don't care he's like you have a big butt now (laughing) so he like didn't care but he's like no I like it (laughing) and I am like okay whatever but the fact that I don't like to gain weight whether or not he liked it, if I didn't like that's kind like motivated me to like to lose weight. (Athlete 3)

Common Theme #3

Coaches fail to address eating disorders

The athletes stated that their coaches did not address eating disorders and at times this occurred even when the athletes believed that their coaches knew they had eating disorders. Athlete 2 illustrated this in the following statement:

> Like right now, my coach, he doesn't address eating disorders, he doesn't address um, like we don't ever have like I remember in high school, in 9th grade we had like a sit down meeting where we went over healthy athlete um, diets. And we have not done that in college...(Athlete 2)

Athlete 4 expressed the following regarding her relationship with her coach:

> I am pretty sure [my coach] knew [about my eating disorder], but me and her didn't talk about my eating disorder. She was just there as a coach and she was there to help me become a better athlete and that's what she did...I would do anything possible not to talk to that lady... (Athlete 4)

Summary

Three common themes were identified from the analysis of the four interviews. They include: 1) Mothers/parents have distant and resentful relationships with their daughters; 2) Peers influence athletes' body image and eating habits; and 3) Coaches fail to address eating disorders. These results illustrate how mothers, peers, and coaches impact the lives of student-athletes with eating disorders.

Chapter 5

DISCUSSION

The purpose of this study was to identify the impact mothers, peers, and coaches have on eating disorders in female student-athletes. The following three common themes emerged from this study: 1) Mothers/parents have distant and resentful relationships with their daughters; 2) Peers influence athletes' body image and eating habits; and 3) Coaches fail to address eating disorders. Each common theme is discussed below.

Common Theme #1

Mothers/parents have distant and resentful relationships with their daughters

Jaffe and Worobey (2006) stated that mothers are influential people throughout their children's lives. Consequently, it has been suggested that the mother-daughter relationship may contribute significantly to the development of disordered eating in young girls (Pike & Rodin, 1991). This may be particularly true if distance or resentment exists in the mother-daughter relationship. In fact, athletes in the current study indicated that distant relationships with their mothers contributed to their eating disorders.

Furthermore, Hahn-Smith and Smith (2001) evaluated the influence a girl's identification with her mother has on the daughter's body image, eating, and self-esteem. Results showed that daughters who identified more with their mothers have higher levels of self-esteem and displayed lower levels of disordered eating habits. Daughters in this study who identified less with their mothers or who had a distant relationship with them were more likely to share similar body dissatisfactions as their mothers. Therefore, it can be suggested that the distant mother-daughter relationships increased the likelihood of

body dissatisfaction in the athletes in this study. This was particularly true for those athletes whose mothers displayed body dissatisfaction or other unhealthy behaviors.

Another outcome of a distant mother-daughter relationships is the lack of understanding mothers have regarding their daughters' disordered eating problems. Pendley and Bates (1996) reported that mothers often underestimated their daughters' difficulties with eating disorders. In the current study the athletes stated that often times their mothers were unaware of their eating disorders or did not understand what they were going through. This could be the result of a lack of an emotional connection in the mother-daughter relationships.

Even though all the athletes in this study expressed distance in their relationships with their parents, this lack of connection came about in different ways for each athlete. Athlete 1 was angry at her mother for leaving the family and therefore, turned to food for comfort. Athlete 2 related her distant relationship with her parents to a combination of her parents' addiction to alcohol, deafness, and criticism. Athlete 3 expressed that her mother's withdrawn personality made it hard to connect with her even though she desired to have a closer relationship with her. As this study, and others, have shown, distance in parent-daughter relationships no matter that cause can be detrimental to the daughters' mental and physical well-being.

Common Theme #2

Peers influence athletes' body image and eating habits

The athletes in this study indicated that their peers greatly influenced their body image and eating habits. This is consistent with other research which suggests that peers convey socio-cultural messages that influence children's perceptions about their body

image and weight (Dunkley et al., 2001; Tsiantas & King, 2001). Clark and Tiggemann (2006) stated that the more focused an individual's friends are on appearance the more that individual will internalize appearance ideals and possibly body dissatisfaction. Peer relationships have also been found to influence the development of body image, weight concerns, and eating in children (Cattarin & Thompson, 1994; Oliver & Thelen, 1996; Phares et al., 2004). In fact, McCabe and Ricciardelli (2004) found that among adolescent girls, their best female friends were important in shaping weight loss and extreme weight loss strategies. Furthermore, Dohnt and Tiggemann (2006) determined that among 5-8 year old girls a strong association was found between their desire to be thin and their perception of their peers' desire to be thin. A similar association was found in the present study as the athletes were greatly influenced by their peers' desire to be thin. For example, Athlete 3 was heavily influenced by her roommate's nightly runs on the treadmill while Athlete 1 spoke of being overly conscious of her weight because her friends were so thin. Clearly, being surrounded by peers who are concerned with weight can have a great influence on young girls.

McCabe and Ricciardelli (2004) found peer relationships with the opposite sex were much less influential. In fact, messages from opposite sex peers do not seem to increase either a boy's or a girl's desire to change his/her body shape. This however, was not found to be true in the current study as both Athletes 1 and 3 stated that their boyfriends influenced their attitudes in this regard. This discrepancy from previous literature may be explained by the fact that the athletes in the current study rely more strongly on the influence of their peers regardless of their peers' sex. This may be due to the lack of close relationships these athletes share with their mothers and coaches.

Regarding the influence of teammates Burkes-Miller and Black (1991) found that due to the ethic of teamwork and shared team values athletic team peers have more influence on one another than peers in a normal friendship. This may be due to the great amount of time teammates spend together. In the current study Athlete 1 stated that she idolized her teammates and attempted to copy their eating habits. In addition, Eder and Parker (1987) found that sport participation increases the opportunities for adolescent girls to discuss their concerns about appearance and body image, thus potentially increasing body related issues on teams. In addition, research has suggested that successful athletes may act as role models for body related attitudes and behaviors (Burkes-Miller & Black, 1991). This is consistent with the results of the current study, which suggest that athletes use older, more successful athletes as role models and sources of information for body image and eating habits. Moreover, it has been noted that prior to going out to eat with their team, many athletes frequently talked about what food they should eat in order to remain thin and conditioned (Overdorf, 1987). Therefore, many food decisions were greatly influenced by athletes' teammates. In the current study, Athlete 1 spoke about how she idolized the other members on her team and compared her body to their bodies, wishing she too could look like them.

When examining the relationship between roommates, more similarities in eating attitudes were observed in college women who chose to live together than women who were randomly placed together (Gilbert & Meyer, 2004; Zalta & Keel, 2006). Women who selected to live with one another demonstrated similar bulimic behaviors while women who were randomly placed to live with one another did not. These results suggest women chose to live with friends who exhibit similar eating behaviors to their own. The

athletes in the current study were also influenced by their roommates' behaviors as Athlete 3 spoke about how her roommate's sparse eating behaviors influenced her to also eat less food. Whether they chose to live together or not, it is clear that roommates have a significant influence on each other's eating habits.

Common Theme #3

Coaches fail to address eating disorders

Thompson (1987) has stated that coaches and trainers play significant roles in athletes' lives due to the frequent contact they have with their athletes. This suggests that coaches and trainers may have a significant impact on an athlete's management of eating disorders. Furthermore, a coach's failure to address eating disorders may make his/her athletes more susceptible to unhealthy behaviors. In the current study, Athletes 4 indicated that her coach did not address her eating disorder with her even thought she believed her coach knew she had an eating disorder. Therefore, Athlete 4 indicated that she never felt comfortable addressing her eating disorder with her coach.

Coaches may avoid addressing eating disorders with their athletes because of their own misconceptions and lack of knowledge about weight control. Griffin and Harris (1996) assessed the attitudes, knowledge, experiences, and recommendations of coaches regarding weight control. Results showed that coaches had a negative attitude toward overweight people, lacked knowledge about obesity and healthy weight loss, and had often tried to lose weight themselves. Furthermore, the coaches in that study believed that more females needed to lose weight and that more males needed to gain weight. Based on these results, a coach might believe that a female athlete who is struggling with her

weight ought to lose weight and therefore, would avoid addressing their eating habits or encourage her to lose weight. Either tactic might lead to unhealthy behaviors.

Coaches' lack of knowledge regarding the signs and symptoms of disordered eating athletes may add to the problem. In fact, one study revealed that half the coaches surveyed had never attended an educational program about eating disorders and a third of the coaches were not aware of any resources available to them (Turk et al., 1999). Therefore, it appears that coaches are unaware of not only how to address the problem but also what to look for to identify eating disordered athletes. This is particularly problematic because athletes look to coaches for information on nutrition and weight loss. Uneducated coaches may not know enough to respond appropriately in many cases. Furthermore, coaches' recommendations may be based on their own experiences with weight loss methods and dieting (Griffin & Harris, 1996). Coaches should not assume athletes know how to eat correctly but should address proper weight loss techniques and conduct assessments of each athlete's nutritional needs so athletes can better reach their optimal performance weight range (ACSM, 1992). Therefore, coaches should not try and give their own personal advice on how to eat correctly but rather ask a professional in the community to speak to the team about nutrition and a proper athletic diet (Feit, 1992).

Summary

Research has investigated the impact of the mother-daughter relationship on eating disorders (Field et al., 2006; Fulkerson et al., 2002; Keery et al., 2006), how peer relationships influence eating disorders (Cattarin & Thompson, 1994; Oliver & Thelen, 1996; Phares et al., 2004;), and the effects of the coach-athlete relationship on eating disorders (Heffner et al., 2003; Jones et al., 2005; Sherman & Thompson, 2005). The

purpose of the current study was to address the influence mothers, peers, and coaches have on eating disorders in student-athletes.

Mothers, peers, and coaches have a significant influence on athletes' lives and, as such, they have the ability to establish relationships with them which may positively impact them and prevent the onset of eating disorders. These individuals can also offer much needed support to athletes coping with eating disorders. Due to the fact that the athletes in the present study lacked a strong relationship with their mothers and coaches they were missing the required social support necessary to deal with their condition. Poor communication with their mothers and coaches in combination with the negative role models their peers provided may have negatively influenced the athletes' body image and eating disorders. Therefore, the present study illustrates the importance of the mother-daughter and coach-athlete relationships, as these individuals are important role models in athletes' lives. When these relationships are weak, athletes may be more easily influenced by their peers who often serve as negative role models.

Chapter 6

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to identify the impact mothers, peers, and coaches have on eating disorders in female student-athletes. This chapter includes a summary, a conclusion, and recommendations for future research.

Summary

The current study identified three common themes regarding the influence of mothers, peers, and coaches on athletes with eating disorders. The themes include: 1) Mothers/parents have distant and resentful relationships with their daughters; 2) Peers influence athletes' body image and eating habits; and 3) Coaches fail to address eating disorders.

These themes represent the common experiences of the four athletes in this study regarding the impact of their mothers, peers, and coaches on their eating disorders. All four athletes expressed distance or resentment in their relationship with their mother or parents. However, the distance in these relationships came about differently. For one athlete (Athlete 1) the distance was due to family conflict while for another athlete (Athlete 2) the distance was due to her parents' disabilities and her mother's deafness and addiction to alcohol. Another athlete (Athlete 3) felt distance from her mother due to her mother's withdrawn personality. In addition to these distant relationships with their parents the athletes in this study also received little attention or education related to eating disorders from their coaches. With this lack of adult role models it appears that they looked to their peers for information and support. Unfortunately, too often

their peers served as negative role models. Therefore, it seems that all the athletes in the current study lack strong influential relationships with the adult role models (i.e., mothers and coaches) who play instrumental roles in their lives. Thus, due to the lack of connection and guidance from their mothers or coaches these athletes looked to their peers as models for body image and eating behaviors. In the current study the athletes' peers often served as negative role models.

Conclusions

Similar to the findings of Pike and Rodin (1991), this study found that the mother-daughter relationship can contribute to the development of eating disorders in girls. In this study, the disconnection athletes experienced in their relationship with their mothers impacted their eating disorders. Therefore, since mothers are influential people in a child's life (Jaffe & Worobey, 2006), it is important for an athlete's mother to be a positive role model for her daughter. Furthermore, coaches and trainers also play significant roles in athletes' lives due to the frequent contact they have with them. They also have the power to help athletes with the management of eating problems (Thompson, 1987). Therefore, it is also important for coaches to develop strong relationships with their athletes. In this study, the athletes indicated that their coaches did not address eating disorders and therefore, missed the opportunity to positively influence them or help them identify, manage, and/or recover from their eating disorders.

With the lack of connection with their mothers and coaches, some athletes turned to their peers as models for body image and eating habits. Peers have been found to influence the development of body image, weight concerns, and eating in children (Cattarin & Thompson, 1994; Oliver & Thelen, 1996; Phares et al., 2004;) both positively

and negatively. With the absence of strong adult role models peers were influential in the lives of the participants in this study. Unfortunately, their influence was often negative.

Lastly, it is interesting that two out of the four athletes (Athletes 1 and 4) in the present study were on the swim team and all four subjects ran track or cross-country. It is possible that a barrier in communication exists between the athletes and coaches in both swimming and track. Since athletes spend much of their time under the water or running long distances away from their coaches in these sports, they athletes are not spending as much time during practice with their coaches. Therefore, it may be harder to develop a trusting relationship between the athletes and coaches, simply due to the fact that the two individuals are spending less time together in practice. Without a strong relationship, coaches may find it harder to address athletes with eating disorders.

Future Recommendations

While the current study should provide valuable information for coaches, athletes, parents, and researchers additional research is needed. The first recommendation for future research is to replicate this study utilizing the same methodology on a larger scale, with more subjects. This would allow the researcher to collect more data to either support or contradict the current findings. Second, it would be beneficial to investigate each type of eating disorder separately. Many variations existed in each subject's experience solely due to the fact that they were faced with different symptoms depending on their type of eating disorder. Separating athletes by the type of eating disorder would allow more in-depth and focused research to be conducted. Third, it would be important to investigate eating disorders in athletes that all participate in the same sport. In this study, two out of the four subjects were on the swim team and all four subjects ran track or cross-country.

Further research should be conducted to look at the impact of each sport on an athlete's eating disorder. Furthermore, it may be beneficial for a researcher to conduct interviews with the athletes' mothers, peers, and/or coaches. This would allow the researcher to gather more information regarding the influence each of these individuals has on the athletes' eating disorders. Finally, research should be conducted to examine the impact both parents have on an athlete's eating disorder. It may be that even when a mother has a distant relationship with her daughter, a strong paternal influence can help a female to feel more secure in the world. Therefore, it would be important to look at the influence both parents have on an athlete and if a strong father, despite a distant relationship with the mother, helps prevent the onset of an eating disorder.

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Appendix A

Biographical Sketches of Athletes

Athlete: interview	Athlete number is designated based on the order of her
Date:	Date of Interview
Age:	Athlete's Age
Weight:	Athlete's Weight
Height:	Athlete's Height
Rate:	Athletes race
Sport:	Sports athlete currently participates in at Ithaca College
Duration of Sport:	Length of time athlete has been on each team at Ithaca College
Age of Sport Participation:	Age athlete began to play sports

Athlete:	1
Today's Date:	5/6/07
Age:	20
Weight:	150 lb
Height:	5'5''
Race:	Caucasian
Sport:	Swimming Outdoor track
Duration of Sport:	Two years One year
Age of Sport Participation:	10 years old

Athlete:	2
Today's Date:	5/6/07
Age:	19
Weight:	123 lb
Height:	5'6''
Race:	Caucasian

Sport:	Cross Country
	Track (indoor and outdoor)
Duration of Sport:	One year
	One year
Age of Sport Participation:	9 years old

Athlete:	3
Today's Date:	5/12/07
Age:	20
Weight:	118 lb
Height:	5'3''
Race:	Caucasian
Sport:	---
Duration of Sport:	---
Age of Sport Participation:	Around 8 years old

Athlete:	4
Today's Date:	6/3/2007
Age:	22
Weight:	130 lb
Height:	5'4''
Race:	Caucasian
Sport:	Swimming
	Outdoor track
Duration of Sport:	Four years
	Four years
Age of Sport Participation:	3 years old

Appendix B

Coach Permission E-mail

Dear Coach _____:

My name is Amanda Smith. I am a graduate student in the Department of Exercise and Sport Sciences. I am currently in the process of subject recruitment for my Masters thesis, which will study the impact of mothers, peers, and coaches on female student-athletes with eating disorders. The purpose of this study is to gain a better understanding of the influence mothers, peers, and coaches have on athletes with eating disorders. The results should help provide more information to the athletic community about the prevention and management of eating disorders.

I am writing you to ask your permission to attend a team meeting in order to present my thesis topic and recruit potential participants. Any interested volunteers will be asked to contact me outside of this initial meeting in order to protect their confidentiality. If you are willing, I would like to schedule a five-minute meeting with your team to ask for volunteers. You may respond to this e-mail directly or call me at (607) 592-4753. Thank you very much for your time. I look forward to your response.

Sincerely,

Amanda Smith

Appendix C

Recruitment Statement

Hello. My name is Amanda Smith. I am a Master's student in the Department of Exercise and Sport Sciences. I am here to recruit subjects for my thesis concerning the impact of mothers, peers, and coaches on female student-athletes with eating disorders. I realize this is a sensitive topic and want to assure you that if you choose to participate in this study all information and results will remain completely confidential. In order to participate you must be at least 18 years of age, a female varsity student-athlete and have received treatment for an eating disorder within the last four years.

Participation in this study is voluntary and involves scheduling a 60-90 minute interview where I will ask you a series of questions regarding your life and the impact your mother, peers, and coaches have had on your respective eating disorder. After each interview and transcription, a copy will be sent to you. You will be asked to read the transcribed interview for proper wording and accuracy before returning the interview to me.

If you are interested in volunteering you can contact me by e-mail or phone. My contact information is provided. It is not necessary to express your interest now, but if you are interested in participating please contact me within the next 48 hours.

Thank you for your time. If there are any questions I would be happy to answer them now.

Contact Information:

Amanda Smith
Cell Phone Number: (607) 592-4753
e-mail: asmith3@ithaca.edu

Note: I will be the only one to receive calls at the above phone number and e-mails at the above e-mail address.

Appendix D

Professor Permission E-mail

Dear Professor _____:

My name is Amanda Smith. I am a graduate student in the Department of Exercise and Sport Sciences. I am currently in the process of subject recruitment for my Masters thesis, which will study the impact of mothers, peers, and coaches on female student-athletes with eating disorders. The purpose of this study is to gain a better understanding of the influence mothers, peers, and coaches have on athletes with eating disorders. The results should help provide more information to the athletic community about the prevention and management of eating disorders.

I am writing you to ask your permission to attend one of your classes in order to present my thesis topic and recruit potential participants. Any interested volunteers will be asked to contact me outside of this initial meeting in order to protect their confidentiality. If you are willing, I would like to schedule a time (I will only need five minutes) to meet with your class. You may respond to this e-mail directly or call me at (607) 592-4753. Thank you very much for your time. I look forward to your response.

Sincerely,

Amanda Smith

Appendix E

Informed Consent Form

1. **Purpose of the study**

The purpose of this study is to identify the impact mothers, coaches, and peers have on eating disorders in female student-athletes.

2. **Benefits of the study**

Little qualitative research has been conducted on the factors influencing eating disorders in athletes. Understanding this phenomenon is crucial in educating coaches and parents about how to prevent children from developing eating disorders. Since many athletes look to their coaches, mother, and peers for approval and guidance, it is important that a better understanding of the factors influencing the development of eating disorders is attained.

The benefits to the field include:

- A deeper understanding of the influence a mother, coach or peer may have on an eating disordered athlete
- An opportunity to evaluate eating disorders from the perspective of the athlete
- The construction of a semi-structured interview guide as a tool to collect qualitative data relevant to eating disorders in athletics

The benefits to the participant include:

- An opportunity for you to share information to help future student-athletes struggling with an eating disorder
- A chance for you to talk about the experiences associated with being a student-athlete with an eating disorder

3. **What you will be asked to do**

All interviews will be approximately 60-90 minutes in length. Each interview will follow a semi-structured interview guide. Amanda Smith will conduct all interviews. Each interview will be tape recorded and later transcribed. After each interview transcription, a copy will be sent to you. You will be asked to read your transcribed interview for proper wording and accuracy. Total time commitment should be about 15 minutes for review. At this point, you will be given the opportunity to add or remove information from the interview. You can also ask to have your entire interview removed from the study if you wish. After the completion of the study, your transcribed interview will be made available if you desire a copy.

*Initials*____

4. **Risks**

Because the topic of eating disorders may be a sensitive topic, you may experience conflicting and/or strong emotions from the questions asked in the interview. In the event that the interview appears too difficult for you, the interview will be stopped and you will be given the opportunity to decide whether or not to continue. If you desire counseling following the interview a referral will be made for you.

5. **Responsibility for injury statement**

If you desire further counseling, a referral will be made for you to the Ithaca College Counseling Center. In addition, a list of counselors in the Ithaca Community who specialize in eating disorders will be provided if you desire. However, any costs from these services will not be covered by Ithaca College. Ithaca College will not pay for any care, lost wages, or provide other financial compensation.

6. **Withdrawal from the study**

In the event that the interview is too difficult for you to complete, the interview will be stopped and you will be given the opportunity to decide whether or not to continue. There will be no negative consequences for discontinuing. No explanation will be needed. All recorded information will be destroyed. If you desire further counseling after the interview I will make a referral for you.

7. **How the data will be maintained in confidence**

All information gathered in this study will be confidential. Your name will not be used in reporting any of the results. You will choose a "pseudonym" for referencing throughout the data analysis process. All interviews will take place in a private location in the Center for Health Sciences building. All collected data will be stored in a cabinet in the locked office of Dr. Greg Shelley (CHS 319). The tape-recorded interviews will only be accessible by the researchers in this study and will be destroyed once the study is over. All presented results will in no way identify you by name. All reported data will remain confidential as to your identification.

I, _____ am at least 18 years old, a female athlete and have struggled with an eating disorder within the last four years.

I, _____ give permission for my interview to be tape recorded.

I, _____ wish to participate in the following study:

"A Qualitative Investigation of the Impact of Mothers, Coaches, and Peers on Eating Disorders in Female Student-Athletes"

_____ _____

Participant's signature Date

Appendix F

Referral Information

The Ithaca College Counseling Center: (607) 274-3136

Location: On the ground floor of the Hammond Health Center and accessible through a private entrance on the west side of the building.

Office hours: 8:30 a.m. to 5:00 p.m. Monday through Friday.

Counselors/Clinics in the Community:

Elmira Nutrition Clinic
732-5646

Kate Halliday, CSW
279-5439

Cris Haltom, Ph.D.
272-6759

Appendix G

Semi-Structured Interview Guide

Question Set I: Demographic Information

Contact Information

Today's Date: __/__/__
Name: _____
Address: _____
_____
Phone Number: _____
E-mail Address: _____

Personal Information

Birth Date: __/__/__
Weight: _____lb
Height: __ft __in
Race: _____

Sports Information

What sport(s) are you currently participating in at Ithaca College?
*1.*_____ *2.*_____ *3.* _____

How long have you been a member of this (these) team(s)?
*1.*_____ *2.*_____ *3.* _____

At what age did you start playing sports? _____

Question Set II: Eating Disorder Information

1. *What type of eating disorder have you been diagnosed with?*
    a. *When did you first become concerned about your eating disorder?*
    b. *Did anyone else express concern about your eating disorder? If so, who did and how did they express their concern?*
    c. *When did you first receive treatment?*
    d. *How long did you (have you) receive(d) treatment?*
2. *What type of treatment/counseling have you received for your eating disorder?*

a. *How has this treatment affected you/your eating disorder?*

3. *Describe a typical day with your eating disorder?*

    a. *Overall, how has your eating disorder affected you?*

4. *Tell me about the development of your eating disorder?*

5. *List five words that would best describe "you"- as you continue to live with your eating disorder?*

Question Set IV: Mother-Daughter Relationship

6. *Describe your relationship with your mother?*

7. *In what ways has your mom impacted your eating behavior?*

8. *Describe your mother's eating habits?*

    a. *Has she ever been diagnosed with an eating disorder?*

    b. *Did/does she diet?*

    c. *Describe your mother's satisfaction/dissatisfaction with her body?*

        i. *How this has impacted how you feel about your body?*

    d. *Describe your mother's satisfaction/dissatisfaction with your body*

        i. *How has this impacted how you feel about your body?*

9. *Did/does your mom ever comment about your body? Explain?*

Question Set V: Peer Relationships

10. *Describe your relationship with your friend(s)?*

    a. *In what ways have your friend(s) impacted your eating behavior?*

11. *Describe your most significant dating relationship(s) (current)*

    a. *In what ways have these dating relationships impacted your eating behavior?*

12. *Describe your most influential relationships with your teammates? (current)*

    a. *In what ways have your teammates impacted your eating behavior?*

13. *Describe your most influential relationship(s) with your roommate(s)? (current)*

    a. *In what ways have your roommate(s) impacted your eating behavior?*

14. *Describe your relationship with your sibling(s)?*

    a. *In what ways have your siblings impacted your eating behavior?*

15. *Tell me about anyone or anything else that you feel has impacted your eating behavior? Explain?*

16. *Is there anything else that you would like to share concerning your eating behavior that we have not talked about? Explain?*

Question Set III: Coach-Athlete Relationship

17. *Describe your most influential relationship with your coach? (current)*

18. *How would you describe your coach's leadership style?*

19. *In what ways has your coach impacted your eating behavior?*

20. *In what ways has your coach's gender impacted your relationship with him/her?*

21. *In what ways has your coach's gender impacted your eating behavior?*

Appendix H

Common Themes

COMMON THEME #1: (A1:3, A2:1, A2:2, A3:1):

Mothers/parents have distant and resentful relationships with their daughters

COMMON THEME #2: (A1:1, A3:3):

Peers influence athletes' body image and eating habits

COMMON THEME #3: (A2:5, A4:5):

Coaches fail to address eating disorders

Appendix I

Higher-Order Themes for Athlete 1

THEME #1: **Peers have great influence on athlete**

This theme was apparent from the following statements:

Friends

- "Um, just like thinking that I am like so fat and all my best friends are like these skinny little twigs and so I have always felt you know like my body isn't like good enough or just like, that."
- "Actually one of my best friends who's in my group at home she actually has an eating disorder too but she like we its just like not talked about. She doesn't, and so just like being around everyone at lunch and just she would eat three cookies for lunch and we know that's all she would eat like you know. And then I would like eat a pear and like a Gogurt tube and crackers and just like not being very healthy at all. So like I would always like pass out."
- "I remember since 7th grade, I was I have been obsessed with my appearance and stuff and I have always been um, just like a I said, all my friends are like twigs and stuff, and I always felt that I was fat. I still remember being in like seventh grade and because I had so many fat rolls, I don't know what I was thinking I don't know I was just like obsessed with my image..."

Boyfriend

- "Cause I have always felt like, that my body is not good enough for [my boyfriend]."
- "I mean [my boyfriend] will affect my mood which you know, in that way. And in turn affect my behaviors in that way.

Teammates

- "Tristian Gal, she is the Olympic medal winner from 2002 she weights like 103, and she is also like 5'1'' or something, but they would also in just like one of my best friends there she's just like yea our coach um yea "he like tells me that I have the ideal body type, I am like Tristian he knows that I am," she would like brag about it. And I would be like okay cool I am glad you are a wave and I am not (laughing)"
- "[My teammates] are all like sticks and so little and a lot of them too have their own eating disorders like, more like anorexia you know. Or like not eating or like so concerned. And we have, so I was with the distance runners and their like all the older girls who are so good and like, I would just idolize them and they were just like so concerned about their eating and everything."
- "And I have always felt huge compared to [my teammates], and just like I always made a joke, I can't never I never take myself seriously I am always like hey guys I am like the shot putter running. You know, just like funny. But

- um, yea they have really impacted it because I have always just like I need to like change the way I eat, and you know be like super healthy and train and everything but then again that never happened."
- "It was me and my roommate but I am sure that he planned it like that because K, my roommate was a twig, she has been in"

Sister

- "[My sister and I] are two years apart and we have always had this like this retched fighting relationship, like horrible fighting relationship our whole lives."
- "[My sister and I] were just both would just say really hurtful comments to each other. Like physically fight like all the time. Yea, we would just fight all the time."
- "[My sister] use it against me when she gets angry. I know she doesn't mean it, but she will say things. She says things all the time."
- "Why don't you go throw it up Lauren, like why don't you like blah blah blah" you know stupid stuff like that. And like it use to really bother me."

<u>THEME #2:</u> Poor performance in sport was blamed on weight and appearance

This theme was represented through the following statements:

- "...always thinking like that if something went bad or something I am like oh, its because I am fat or like ugly. Like if I was like skinner, prettier like this would not have gone"
- "I thought I was fat I was still like little and like in middle school, 9th grade. Then I feel like I got, like I hit puberty and I started getting bigger and um, but I was like really I used to be really good for those three years, which a lot, that's kind of a that's a trend a lot in running."
- "Like I remember I broke a school record in 9th grade, and was like an up and coming super star and then I felt like it all crashed because I just started gaining all this weight. I felt like I am just like lugging around..."
- "So I have always felt like so much pressure. And just like being in swimming, just in a bathing suit you know just always seeing just like any little, I always think like oh God that looks so good you know, ewww I hate to be in a bathing suit, you know. But I have always like there has not been one point since 9th grade that I haven't tried to, sports has been you know, and that's one of my motivations to like losing weight too. I'll be like oh this is going to help me, you know, this will make me faster this is why I am swimming bad or this is why I am running bad because um, I am so heavy."

THEME #3: **Mother's behaviors caused distance and resentment for athlete in the initial stages of her eating disorder.**

This theme was constructed through the content of the following statements:

- "Um.... it was definitely. That was a little hard for sure. Just like everyone was just like fighting all the time. I was so mad at [my mother]."
- "Because [my mother] like, made me become the mom for my family...she left too for a little bit and I was just so angry with her."
- "I was really angry with [my mother] for a while"

THEME #4: **Conflict between family members resulted in athlete using food as a coping mechanism**

This theme was constructed through the content in the following statements:

Family

- "Just like everyone was just like fighting all the time"
- "so it was just kind of like a back burner like thing you know but then when all my stuff with my family started coming out that's when I turned to food."
- "I have always used running as an escape. Like my coping mechanism, like whenever I was like mad or even I used to just go on runs with my dad when I was like seven, like dad take me running with you. Like who does that? And just like all the time. But then, like I don't know what happened between summer like when things started to get bad with my parents like I don't know how I switched my coping mechanism from like running to eating. Like I don't know where that change was made, but it was."
- "I just still remember like the first day that I like felt depressed, depression. Which was in the summer and I cried and like that's like my first memory of using food as like a coping mechanism."

THEME #5: **Coach's pressure to lose weight for sport fostered body dissatisfaction.**

This theme was constructed through the content of the following statements:

- "...but sports definitely fostered that too."
- "...it's so crazy how sports so impacts it. And then that is when I went up to Lake Placid and, and then whole sport is based on your weight and your sled because your sled has to be a certain weight based on your weight. And so, we were always being weighed-in and stuff."
- "There is always that pressure of like a low weight but I am like, I know that I have a lot... I am muscular, like I have a heavier build. But it's always been an issue for me."

- "...under so much pressure but I feel likes it in any sport. It's like such so huge, and it's so not talked about and, and there's just always that underlying, that underlying notion about your weight and body because in their sport their bodies are on display."
- "With sports it's always like healthy. In a healthy ways but at the same time is like overwhelming pressure and then when I don't do it I am like, yea."
- "Coach always be, you had to keep like a food diary log and always watching. And I did. I did lose weight."
- "I did lose weight and everything. Yea we always weighed-in and always watched what to eat, watch what you eat. And everything there though, cause living at the Olympic training center nutrition is like a huge thing. You know athletes and so everything that was like, everything has like nutritional value on it, and like we had meal plans written out and it was just, I just love food so much too and so it was just hard."
- "[My coach] was like, you really need to like watch what you are eating, your weight, like we have our... we were having nationals in like three weeks and he was like your weight needs to be at this certain weight so I needed to be 135 so that I could use the 12.5 sled and to use a certain sled and so yea."

THEME #6: **Despite closeness in their relationship, athlete's high school coach didn't effectively address the signs and symptoms of her eating disorder.**

This theme was constructed from the following statements:

- "[My coach and I] are really close. And he is like, he's like the most amazing person ever and he's just like pushing both like, at like swimming and personally and he's just been like always there and just like awesome. Like, he's just like all around, like he is like a coach in every aspect of your life, not just in swimming. And all year round and just like when its swim season and he's just like an amazing person. And we're just, we're like really close."
- "I guess just from always being, like just always having like the image, like body image problems are always thinking like I am so fat, blah blah but my junior year of swimming, so my fall of my junior year I, I don't even know what made me, what made me but like I just stopped eating and I was like I am going like lose weight like I am really serious this time, I am going to lose weight. And I would just remember like eating nothing, like I would just eat nothing and be so concerned and then actually one time I ended up like blacking, passing out, blacking out at a swim meet and that started like a huge thing with my coach and I mean it happened three times. I would, I would just not like eat anything and like then push myself so hard at practice."
- "[My coach] was just like there, like right there to help me and then like you know, we would talk about it and then one time during practice, like I had, like I was so dizzy I couldn't even move like and he had to like pull me out of the water and like ran and went and got a power bar and stuff, and like made me you know like lay down we're going to talk about this in his office just

like really supportive and like holding my hand. You need to breathe on my count and just like…"

THEME #7: **College coach neglected to form a relationship with athlete.**

This theme was constructed through the following statements:

- "[My college coach] is like the worst coach ever for motive. She doesn't coach, she just, she's not a coach. She's there for um, to like make a line up which she doesn't even do that. And she basically writes our practices, like that's what she does. She never once has ever been like, I mean I could like count on my hand, my one hand, like the times when she has like pushed us in practice verbally through out my two years of being on the team. Like that's just her, I mean it's just her style but I just don't think that's a coach. And she'll she just I don't know. Every there are so many people that have problems with her. Like, like the same thing she only gives attention to like the really good people. Yea because it's funny… its true in my case that she like paid like absolutely no attention to me what so ever until I started getting good and sprinting faster times. And then she was like, oh well we can…you know what I mean. And I guess I mean you can't really, I guess you can't not on a coach, I guess its her personality but knowing she, she has no motivation. She doesn't give us any inspiration she is just kind of just the head of team I guess."

Appendix J

Higher-Order Themes for Athlete 2

THEME #1: **Parents' disabilities and choices caused distance in their relationship with athlete.**

This theme was constructed through the following statements:

- "My parents are not involved with my life because my mom grew up... both my parents are deaf so it makes it a lot harder for them to be involved in my life because there's that barrier between the hearing and deaf, like there is a huge wall and so they don't really know who I am they don't really know how I act because all they see is when I am at home with them, they don't really interact on an outside level so um they had a hard time with like how to address it, how do I talk to her about this when I really don't know what is going on so they never, my parents never really talk to me and then like once they started to really realize it they did the whole push shove, like they had to watch what I was doing, they had to watch where I was going and that made it even worse so"
- "...And then um my dad's like he use to be like in my life and he used to um really...I looked up to him a lot because he was just like, he is an amazing guy and then just being... he became a Jehovah Witness and that engulfed his life and he forgot about his family, and um so like I couldn't like since I couldn't control what he was doing I couldn't control like how much I was losing him so I like took it out on myself I guess."
- "There's some barrier that [my parents] still don't have, they still have um, like my father does this weird thing where like if I bring someone to the house or say I have a boyfriend or say I am going out, he won't talk to me anymore because he, I used to be able to talk to him fine, and open and free but then ever since I had the eating disorder he can't talk to me anymore so he talks to my mom and then there is this whole triangle conversation thing going on where my dad will yell at my mom, my mom gets yelled at so she thinks, she thinks It's personally towards her and she's like why are you doing this to me Lauren? Why are you doing this to me (yelling tone of voice)? And so there is this conflict between my mom and I and so we get into a fight and then I will go up to my dad because I am the kind of person who if I have something to say to a person I am going to go say it to them (tape ended). I am not going to go talk my dad about what he was just doing and I am just like why did you not tell me what your problem was, why did you not tell me that you didn't want me to go out with friends that night? Why did you tell mom that I couldn't stay up until, that I had to be home by 12. I didn't know I had to be home by 12 and so there is always this triangle conversation thing. Its ridiculous. Still is ridiculous."
-

- "Um, and so because my dad was blamed so much for it, more than I ever wanted him to be blamed for it, because it was it was the Jehovah Witness and it was the alcoholism and it was because my grandparents had all passed away it was not just because of his faults but my aunt and my grandmother made it into that it was all his fault. So, that really hurt him, I think. Um, and so he has a very hard, he's scared to talk to me, he's scared to, I know he's scared because his hands tremble um when I see him now and its, it hurts. But..."
- "Um, well [Jehovah Witnesses] call people who are not Jehovah Witnesses worldly people, like everyone else is a worldly person and it means that they can not be trusted. They can not be um, you can't talk to them, you can't interact with them, and so that means that my dad can't interact with his whole family basically like he can't."
- "I could not control what my parents were doing because both of my grandparents had just passed away, my aunt had just passed away, um both of my parents started becoming alcoholics, my dad started becoming a stricter Jehovah Witness and so my dad was my center figure. My dad, I loved him. And I still do (crying) but um....not the same way....so like he was like my center figure and now he is not umm (crying)."
- "I couldn't control what [my dad] was doing. I couldn't control like how much I was losing him so I like took it out on myself I guess."
- "[My parent's deafness] helped [my eating disorder]. It helped it because they didn't know who I really was, it helped it because it is so much easier to say, yea I ate something and have them just believe you because they can't hear me open the refrigerator door, they can't hear me actually eating food you know like if you are in another room you can hear somebody opening a bag of chips or opening something. My parents can't, they had to believe what I said. Um, it's a lot easier to throw things away. It's a lot easier to just sneak around the house, do your own thing, not have them realize so it helped me have an eating disorder."
- "[My mother has] been kind of oppressed by my father because my father down talks her, and my dad's like the smart one and my mom's the not so smart one so she, my mom's a follower and so I don't relate to her on that level because I'm the like I want do what I want to do, I want to do this, this is what I am going to do. And she like not, she like I have to do what your father says."

THEME #2: **Mother's criticism of athlete perpetuated emotional disconnect.**

This theme was constructed through the statements below:

- "I am too controlling, I oppress [my mother], I'm too big headed, um...(sigh) [My mother] says I am too smart, um, um and it has a lot to do with being deaf. Because when you are deaf you are oppressed. Like, people look down on you. People think that you are dumb, people don't think that deaf people can read, that deaf people can't talk, that deaf people can't do this can do that and so um, when you get drunk your true feelings come out and um, my

mom's feelings definitely come out and she gets very emotional and then she starts ranting at me for how um, I have made too many decisions for her in my life and I am too big headed and I um, she always goes back to I control things too much and that I am a picky eater and that I am too concerned about my weight."

- "[My mother] doesn't know much about me because she is a very isolated person because she is deaf and um she's been kind of oppressed by my father because my father down talks her, and my dad's like the smart one and my mom's the not so smart one so she, my mom's a follower and so I don't relate to her on that level because I'm the like, I want do what I want to do, I want to do this, this is what I am going to do. And she's not like not, she's like… I have to do what your father says."
- "My parents did not notice [my eating disorder] until my aunt noticed because my aunt had not seen me for about 6 months and then all of a sudden my aunt was like Lauren looks really different, so my parents where like um, there is something wrong, there something going on, but they still did not do anything about it."

THEME #3: **Lack of parental modeling of healthy relationships stimulates fear of judgment by peers.**

This theme was constructed through the following statements:

Friends/Teammates

- "I have made closer friends here than I have at home and they don't know because I am afraid that they will judge me I am afraid that they will think that I am still the same way."
- "Because I am afraid to talk about it so I don't bring it up."
- "Yea, because I don't want [my friends] to judge me, um. Because when people tell you something a lot of people don't understand time, time frame."
- "But um, so uh…I just don't want [my friends] to judge me so that is why I am afraid to say anything."

Boyfriend

- "Why do you want to go exercise why do you, what's wrong with you? And so [my ex-boyfriend] would constantly be criticizing me for that. And he was my second boyfriend, umm he was my first boyfriend really. Yea, he was my first boyfriend. And um, he and I lasted, I was with him for 6 months but it was a horrible six months. Like that was the worst relationship of my life because it was so destructive but I didn't let it get to me."
- "[My ex-boyfriend] was verbally abusive."
- "Just very critical and [my ex-boyfriend] had a very stubborn personality."

Appendix K

Higher-Order Themes for Athlete 3

THEME # 1: **Mother has distant relationship with athlete.**

This theme was constructed through the content of the statements below:

- "[My mother] is not a very disclosing person, like she doesn't like to talk a lot about stuff so um, right now like me and her we're kind of um, like I want to be close with her but like I want her to like talk to me about things and like kind of treat me as like a friend kind of rather than like my mom and she is still kind of like trying to be like my mom and stuff so we are not very close, (laugh) cause she... I don't know. Me and her don't get along right now not to say we won't later but, its kind of, not a very deep relationship."
- "I really don't know, because [my mother and I] don't... she doesn't talk about things with me that much so I think she does but she also, if she is not happy then she probably wouldn't even say it."
- "I just don't understand my mom very well and so I don't know."

THEME #2: **Mother's concern about athlete's low body weight causes resistance in their relationship.**

This theme was constructed from the following statements:

- "[My mother is] all about like what's healthy and kind of like you have to eat and she when I would if I would be like way too skinny or something she would make, like force me to eat and I wouldn't eat cause like I am really stubborn, but um, and I usually do things to spite her so I probably wouldn't but, um yea and even when like say that I haven't eaten a lot when I do go home she will just like... food... and just keep feeding me food and she like does that all the time."
- "Like the slightest thing, like if I have said I haven't eaten [my mother] is just like automatically assumes that I just that I just need to keep eating that, like I am gonna, that I think badly of myself and my body or something like and then I just get mad at her for doing that cause um, cause now that I am not really that concerned and like I actually like want to eat and when I don't its not because I am choosing not to, and stuff.
- "My mom was telling me I was getting too skinny."
-

THEME #3: **Peers have a great influence on athlete's eating behavior and exercise.**

This theme was constructed through the following statements:

Friends

- "Then I went on a trip with my friend and then she like made me eat (laugh) so yea."
- "I just have a lot of really good friends that um, there have been like certain people that have impacted me the most and those are probably the most different from me."
- "...I think everyone of my friends has had a concern with body image. Um, actually yea, yea yea. All of my friends have. Um, and actually everybody has chosen to lessen the food that they eat in order to do that. Um, yea. Last year I'm... my friend started going on the treadmill, like we had a treadmill in our dorm and she started going on the treadmill like every night and she like and she was like talking about how she was like losing weight and stuff like that so like it made me want to do it so then I would like go on the treadmill every night as a motivation to like exercise I guess."
- "Yea, well if anyone yea if any body says that it, it would that I had gained weight or it I asked my friend if I have, and they say yes or something that will definitely affect me."
- "I think my friends have the biggest influence about that kind of stuff just..."
- "The fact that like if my friends would diet or like exercise and or something they would lose weight and they would lose weight that would affect me in a way to make me want to, and because it would make me want to lose weight cause I don't know, it yea, I guess that kind of thing. And um also, I have been struggling about going back and like seeing all of my friends from like high school, like when I go back for the summer I am like wanting to not look like I have gained weight but I have been struggling to try and make myself not care about that because it's, it clearly doesn't matter at all and like it doesn't not affect your personality. Like I am still going to be the same person so I am like trying to make myself not care about it but I have to say that my friends definitely probably are like the biggest influence and especially right now when a lot of people have been kind of more concerned with body image and like cutting down on what they eat and like stuff like that."
- "They are probably the biggest influence."

Teammates

- "Probably to eat more, like things that are good like before I run cause like [my teammates] would like talk about eating like bananas and stuff like that before we run and we would burn nothing and we shouldn't eat before we run. And um, just um I guess in that way a lot. And I mean like, everybody I guess, some of my friends would start doing cross country with me and um and then they would be saying how they lost weight because they were like running and stuff so but that didn't really impact me at all cause I think it just, it just like reinforced the fact that people have body image problems but if any thing it just made me eat a lot because we were always hungry."

Roommates

- "My roommate actually has to be the tiniest person I have ever meet and I think that she is actually has issues with like that kind of stuff and now I have actually kind of started to like realize that more and more cause she, she doesn't eat a lot at all and actually this year and beginning of the year that actually helped me to not eat a lot because she would only eat like a salad for the whole day or something. And just say that was not hungry and like I believed her because she was on Adderall so like she wouldn't be hungry and like so I would start doing that pattern too. Like I started off eating a lot and I just like slowly started like eating the same kind of way she did and then I just stopped in general because I started running and I was just hungry and so now, I try and get her to eat too."
- "[My roommate] actually had, she has major problems with like body image like a lot. Like she's always like concerned about, like she always thinks she is getting fat and stuff. And I tell her that she is like really lucky cause she is like tall cause you can never tell if like she gained weight or not so its stupid in a way but yea she always had like problems with that and would always say like I am too skinny and like stuff like that and I think that a lot of times when she would say that it was more of a your too skinny kind of like want to be skinnier kind of thing."

Boyfriend

- "[My ex-boyfriend is] like a really honest guy, which I loved and he was like my best friend and then when I came back from last summer he just said that like um, that he or that I had looked like I had gained weight or something like that and that, I don't know, and I was like okay whatever and like, just kind of played it off like I didn't care. He was like no, he's like I don't care, he's like you have a big butt now (laughing) so he like didn't care but he's like no I like it (laughing) and I am like okay whatever but the fact that I don't like to gain weight whether or not he liked it, if I didn't like that's kind like motivated me to like to lose weight."

Sibling

- "Probably the only one who would make comments about something would be my oldest brother because just he's one of those people that just like kinda says whatever he thinks and just like to make fun of you, you know but not really serious and just like thinks that people aren't going to take it to heart. Which is, you have to be careful about (laughing). Um I am sure that he is probably said something once or twice that has...just kind of reinforced just like what I thinking but now I just don't care and I just like hit him or something (laughing) so. I don't know, but yea."
- "I feel like I remember [my brother] saying something to me. Like I don't know like something about me gaining weight or something like that."
- "I am sure like a while ago, [my brother] like said something but it obviously hasn't been significant enough for me to remember."

THEME #4: **Parents' lack of connection to athlete causes athlete to keep distance in intimate relationships with the opposite sex.**

This theme was constructed from the following statements:

- "I don't, cause I don't like, I get in relationships and then I get out of them really fast because I don't like being, I don't like people relying on me, I don't like being close very much like not, I get kind of and I like being on my own because I guess I don't like when people are expecting so much of me and I just don't have at this moment in my life I don't have the ability to like share myself and its that energy that a relationship needs."
- "But it just liked freaked me to get kind of close with people and [my ex-boyfriend] like told me that he loved me and I kinda like, I don't know, freaked out a little bit and like just couldn't devote enough time to it and he's like the kind of person that kind of needed that."

THEME #5: **Sport is used as a weight loss technique.**

This theme was constructed based on the following statements:

- "Every year when I would do cross country like you would lose a lot of weight just by running, and it just naturally does that and this was the first year."
- "Like running has kind of like it's become more of that for me. Which I guess, I am happier about. Like I think I am like um, until my early 20s I am still going to be some what concerned about it and but like at least I am happier that I am going to do it in a healthier way. And like I would rather lose weight by like eating enough of what I need, like what my body needs and by like running and exercising in a healthy way instead of not eating. I definitely don't want to ever do that (laughing)"
- "I think with running like you automatically lose weight really like just because running itself just makes you do that so I think that the biggest concern is probably that you'd lose weight and you need the energy to like be able to run well so I don't, um it was really easy to get in the habit of just eating a lot of like really good foods for it and now I am looking back and realizing that like I didn't do that and that is probably why like I did get really tired and thinking about the stuff I did eat and like I just think I wasn't as educated on like nutrition and stuff I guess."
- "I remember thinking that it was a good combination not to eat and then to run to lose a lot of weight."

THEME #6: **Coach's focus on performance in sport caused an inability to pay attention to athlete's over focus on body image.**

This theme was constructed through the following statements:

- "My first coach I had at high school was just um really influential in the fact of how like I ran and just being like really carefree when I run and not caring about things and like concerns with stuff as much. And then my second coach that I had was more about push yourself do this, like exercise and like how to motivate me to like go beyond what I can do kind of. So both have like impacted me in different ways."
- "Ballet you feel so fat (laughing) compared to everyone. Like oh my god like I remember just looking in the mirror and I just did not like it. Like I hated going there because I would just try and they would, these girls would like have ribbons around their waist and like they're so ridiculous (laughing). If you saw them on the streets they're not that skinny like but when you look at yourself and like you can see yourself and compare yourself to everybody down the line, you just feel so overweight and I was like so young and I like I just I never ah, just so stupid."
- "I actually it was just so awful just like looking in the mirror and like comparing yourself to like everybody like constantly and I just like I just thought I was so, I was like disgusted with myself. I like totally forgot about that. But yea. And with swimming it's like an automatic thing. Like you just, because you are like in this tiny bathing suit. They like, you have to get twice the size lower than yourself so they're like this small (hand motion) and you have to put them on so that you have no resistance when you swim, and that was bad in general just because like it would just make you think that you are so big and like I don't know but I was with my friends so I didn't really care that much but I would like hate when like guys would come watch or like stuff like that because like I would just feel like concerned about it cause they were way way too tiny."
- "When you see yourself it's completely skewed like the way you see yourself, compared to what people see of you so to me it would be just a little bit, like the littlest bit of weight gain from like eating food again like I would think I was gaining weight a lot, and now I look back on pictures then and I am like what am I talking about. It's weird."
- "It was like the second time cause then when I started cross country and like of course I like lost weight and actually I didn't think I was, it was weird, I didn't think I had lost any weight at all and then I would start looking at pictures of myself towards like the end of the semester, like um season and stuff and like just noticing that I had lost a lot of weight and like I just noticed through out the winter but I don't know, I just started to realize how, how you really can see yourself in a completely different way and it just freaked me out a little bit (laughing) so, it just made me think that even if I do like think I look that I have gained weight like I probably don't look like it."

THEME #1: **Parent's pressure caused conflict for athlete resulting in her living away from hor[illegible].**

This theme is illustrated through the following quotes.

- "And especially my mom, she is the most obnoxious about it and just like always behind me and I hate it when people rush me and I don't like when people like push me to do things because I like to do them on my own time and like when I want to do them, and whatever so that just really stressed me. And then so I would, purposefully wouldn't do my work because I do it despite her you know (laughing) yea so that was why. And they were more, like if I got a C or something they were kind of like why didn't you work harder and then like I always thought that um I don't know that if I worked my hardest and that was all that I cared about and stuff. So that is why I wanted to like move away because I was way more independent..."
- "I have just always been like a very independent person and especially because my parents are very I don't know, just they are really annoying (laughing) with like my school work and stuff so I just really wanted to get away and it was amazing (laugh)."

Appendix L

Higher-Order Themes for Athlete 4

THEME #1: **Mother's own attitudes towards weight and dieting influence the athlete's attitudes about her body image.**

This theme was constructed from the following statements:

- "[My mother] is really small. And she um, her sister is the same and my grandmother is really small but my dad's side of the family are like their not, they're not fat, but like big boned and they all exercise like you can tell like that they're always like aw I need to go on a diet oh I need to lose to 10, 10 or 15 more pounds. And it's just a different thing. But my dad is um a cross country runner and he always has been. So he is fairly slim, on his side of the family its just like the other side of the family is not tiny like my mom's side. So my sister and my brother are tiny like my mom. And I am more my dad's side of my family like."
- "[My mother] kind of picks on my dad's side of the family a little bit when they come over for Christmas or something because, they be like Oh, you know its their always on a diet of some sort. They should just eat what they want and then they be satisfied and but she doesn't understand like that if other people just eat what they want that there not going to be like healthy you know. Like they wont be fit. They're like get fatter and fatter and fatter you know. But to her like, she thinks, she thinks that because people diet that like then they want more food because they are on the diet so then they're going to eat different food and more food of it and she thinks that why they're like overweight. But, I think that's just crazy. And um, so I think she really likes how her body is, and not that she has ever like said like oh your fat or to me. She has never, she has always been like your fine, your not fat cause she'll be like you are athletic and you know, some times I am jealous of you because she doesn't have any boobs (laugh) and I do, so I don't know."

THEME #2: **Older sister's appearance and accomplishments affected athlete's satisfaction with her own body and self-esteem.**

This theme was constructed through the following statements.

- "[My sister] is the definition of perfect (laugh) um, she in med school right now. She was like just a step below an elite gymnast. Um, real tiny and I don't know. She's super nice, she's like really smart and very talented at all of the sports. I gave her, after her gymnastics career is over now cause college is over, but so she asked me like how is she could work out in the pool so I gave

her an example of a workout and she is faster than I am. So, I mean its good for her but it was like, Uh can I ever be better than you at something. But um, I mean, I love her to pieces and I don't think... I mean I'm defiantly um, jealous of her. But we are different people and she's like, everything has to be organized and everything, like her books are in alphabetical order on her bookshelf and like she is like so type A personality and I am more of like, I like to paint and do other like creative things and random things. And she like doesn't even think to do anything other than read (laugh) so as much as she has everything perfect in her life um, I don't think I would want her life."

- "I definitely like want to be as successful as [my sister] is. Um, I think it something anybody would want you know. I mean everybody works so that they can be successful. And the fact that she is and she is really successful, but she works for it. I mean maybe she doesn't have to work as hard as other people would have to but I think it has its plusses, like her lifestyle has its plusses and minuses. I don't know. Its, I would love to look like her, and I would love to have her athletic ability but if that means that I couldn't paint then I don't know if I would trade it."

THEME #3: **Exposure to addiction in the home environment may put athlete at higher risk for an eating disorder.**

This theme was constructed through the following statements:

- "My mom is a chain smoker and she drinks coffee all day long so she has between, I think she said she counted one time and she had like 13 cups of coffee that day. It's just crazy. It boggles my mind how much coffee this woman drinks. But she, um, she works nights so she doesn't eat so much during the day because she sleeps all day but she comes home at night she'll have, I mean in the morning, she comes home in the morning. She'll sit down and eat like a bagel um and yogurt or something and then when she gets up at night from sleeping all day she'll, she'll like have another bagel and yogurt. I think bagels and yogurt are her favorite thing to eat and coffee. And she'll like joke around about how she doesn't eat anything that is non-fat or low fat at all she thinks it tastes gross that way. And um, then she'll like just be like last night I was really hungry so I bought myself a cake and I ate half of a cake and like things like that. She'll eat a lot of, like she'll get a bag of M & M's, like a pound bag and she can sit down and just eat it all and it doesn't bother her. But we have never been the type of family to like make a sit down dinner and like sit down all together and eat it. Its kind of like fend for yourself sort of thing."
- "[My mother] likes her body. She is glad that she is small. Um, one time she decided to quit smoking and instead of smoking she would, she found herself eating instead and she gained a couple pounds and so her size 00 pants, like she had a little muffin top over the top of her size 00 pants and so she decided that she didn't want to quit smoking and she started smoking again."

THEME #4: **Mother had a lack of understanding regarding athlete's eating disorder.**

This theme was constructed through the following statements:

- "[My mother] didn't pretend to understand about the eating disorder ever. She just said I don't understand what is going on in your mind and I want to help you but I need to know how like to help you and she was and then after that, after she confronted me about the whole thing I was worried that is was going to be kind of like she was watching me every second, which she didn't. She was very, she let me go and do whatever I wanted. She wanted to just know how she could be there for me and I don't know. I think I thought it was a good thing at the time, but I didn't get any better."

THEME #5: **Coach focuses on performance and training and therefore neglects to address athlete's eating disorder.**

This theme was constructed through the following statements:

- "[My swim coach] put a lot of effort into coaching me. And um, like she would come in. When I decided that I wanted to like succeed, so like sophomore year I was really determined, and so I would go in and swim on Sundays and just do technique work instead of practicing. And when she found out that I was coming in on Sundays she started coming in on Sundays and would help me on my technique.
- "I am pretty sure she knew, but me and her didn't talked about my eating disorder. She was just there as a coach and she was there to help me become a better athlete and that's what she did."
- "I would do anything possible not to talk to that lady...[My track coach is] just aggressive and doesn't care about anything except track, and winning and herself... The only thing that she wanted to do was make me run faster...But even that she kind of wrote me off as not very good and she would coach me when she had free time but if she had to choose between coaching me or some else she would coach someone else. And I think one time, we were talking and I was like, I run because I love running and I love the sport and everything and she, her answer to that if you love it so much then why are you on the swim team?"

THEME #6: **Mother's small body frame caused athlete to be resentful towards her.**

- "Its probably important to mention that my mom is 5'7'' and I think she is 92 pounds."
- "I've I have always wanted like be petite. I always wanted to be petite I guess that's just not how I am, you know. It's not my body. So, its not that [my mother] caused me to have an eating disorder. She didn't. She, herself did not.

But I would say that there is an influence on what I wanted for myself that I just didn't have."

- "It makes me feel like I want to be skinny (laugh)."