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AN INVESTIGATION INTO DISORDERED
EATING AMONG ATHLETES

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Education:
Kinesiology

by
Melissa Ann Bender

June 2008

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Approved by:


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June 2008
Date

ABSTRACT

Disordered eating is a spectrum of abnormal eating behaviors that can be harmful to one's body. The risks associated with disordered eating are of great interest to researchers. The purpose of this project was first, to find the prevalence of disordered eating and clinical eating disorders among athletes and nonathletes. Second, to discover what risk factors are associated with female athletes and nonathletes that have disordered eating behaviors. Third, to review the health concerns for those females with disordered eating for both athletes and nonathletes.

A review of literature on the topic was collated from journal articles and books. The prevalence of disordered eating ranged from 1.3%-51.7% among nonathletes and 7.1%-46.2% among athletes. The risk factors for disordered eating include low self esteem, body dissatisfaction, drive for thinness, ethnicity, and those identified by the DSM-IV (ATA, 1994). Finally, the health concerns for those with disordered eating include bradycardia and amenorrhea, as well as, other negative impacts on body functions. In conclusion, more research is necessary to clearly diagnose both athletes and nonathletes with disordered eating.

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DEDICATION

To my family, who always supported me and helped me get through the challenging times in life. Thank you for your love and encouragement.

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CHAPTER ONE

INTRODUCTION

Statement of the Problem

Athletes from all levels and sports backgrounds push their bodies to perform to their best abilities. Nutrition plays a large role in ensuring one's body can perform at peak levels. However, some athletes may become preoccupied with restricting their diet and develop disordered eating behaviors to have the preferred body shape and size for their sport. Disordered eating behaviors can be as simple as limiting certain food groups, to eating far below the recommended amount of calories per day, to occasionally bingeing and purging. Thompson and Sherman (1993) describe disordered eating as the spectrum of these abnormal eating behaviors with clinically identified eating disorders being the most extreme.

Initial use of disordered eating behaviors may help an athlete drop weight. That weight loss may increase their sport performance because of the body's fight or flight response to starvation, states the National Athletic Trainer's Association Position Statement (NATA) (2008) and Beals (2004). Eventually, the body will not be able to

maintain its strength leading to a decline in performance along with the athlete's health (Beals, 2004).

As illustrated in the American College of Sports Medicine (ACSM) Position Stand 2007, females with low energy availability set themselves up for the "Female Athlete Triad". The female athlete triad is the collective term for athletes suffering with one or a combination of low energy availability (with or without an eating disorder), functional hypothalamic amenorrhea, and osteoporosis (ACSM, 2007). Female and male athletes are at risk of dangerous and even fatal consequences that are associated with disordered eating. But are athletes more at risk than their nonathlete counterparts, what does the research find?

Purpose of the Study

Thus, the purpose of this study is to investigate the differences between athletes and non-athletes by addressing: prevalence of disordered eating and eating disorders, the risk factors associated with the disease(s), and health concerns for those suffering with disordered eating. The results from this review may help those who work with athletes, as well as, help athletes to gain a

greater understanding of disordered eating. A pamphlet will be created that can be distributed among high school and college students to increase their knowledge about disordered eating.

Research Questions

The research in this review focuses on three questions: First, is disordered eating more common among athletes or non-athletes? Second, what are the risk factors associated with the disorder and how are they different among the two groups? And lastly, what health concerns are there for athletes and non-athletes with disordered eating?

Scope

This review is intended for teachers, coaches, and athlete to gain a clear understanding of disordered eating including its prevalence, risk factors, and health concerns in sport and daily life. Information for this review was gathered from various peer reviewed journal articles and books relevant to disordered eating (Beal, 2007; Nieman, 2007; Weinberg & Gould, 2003). With the knowledge presented from these resources, athletes and their peers,

family, coaches, and athletic trainers may be able to better understand disordered eating. Presented in Appendix A is a pamphlet for high school and college students to use when they suspect someone has disordered eating and provides suggestions to help that individual deal with their problem.

Limitations of the Study

This review focuses primarily on female athletes and non-athletes with disordered eating behaviors. The articles reviewed found mixed findings and most research has shown prevalence rates of 1% to 62% of athletes with disordered eating (NATA, 2008). This wide spectrum of findings makes it difficult to draw specific conclusions, but the articles still have valuable information for understanding disordered eating. Another limitation is the number of journals that were used for this study.

Definition of Terms

- A. Disordered eating (DE) "described the spectrum of abnormal and harmful eating behaviors that are used in misguided attempt to lose weight or maintain an abnormally low or unhealthy body weight" (Beals,

2004, p. 4). Sundgot-Borgen states psychological characteristics for eating disorders (EDs) among athletes and non-athletes include being self-critical about weight, compulsiveness and rigidity of eating and exercising, being socially withdrawn, having depression and insomnia, and being restless. Also, behavioral characteristics include: secretive eating, ritualistic eating patterns, excessive exercise, binge eating, vomiting, use of laxatives and diuretics, and substance abuse (NATA, 2008, p.84).

- B. The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) was recognized in the American Psychiatric Association's (APA) in 1994. This manual is used by psychologist and those in the medical field to diagnose an individual with an eating disorder including anorexia nervosa (AN), bulimia nervosa (BN), and eating disorder not otherwise specified (EDNOS).
- C. Anorexia nervosa (AN) is defined as someone who refuses to maintain normal body weight (weight 15% below average for their height), was a fear of

becoming fat or gaining weight, and the disturbance of how one's body weight is seen (APA, 1994).

- D. Bulimia nervosa (BN) is defined as someone who has a cycle of binge eating followed by purging which includes vomiting, laxative or diuretics, strict dieting or fasting, or vigorous exercise (APA, 1994).
- E. Eating disorders not otherwise specified (EDNOS) is defined as someone who presents all but a few of the criteria that classify those with AN or BN (APA, 1994).
- F. Eating Disorders Inventory questionnaire (EDE-Q) is a tool used to assess an individual in the general population for suspicion of eating disorders. (NATA, 2008).

CHAPTER TWO

METHODS

Assessment of the literature began by searching EBSCOhost, ScienceDirect, and PsycINFO scholarly journal databases available through California State University San Bernardino. Using these databases the terms "disordered eating among athletes," "eating disorder among athletes," and "athletes and non-athletes with disordered eating" were entered to identify resources on the topic. Next, using the Internet, these terms were used to gain more information on the topic. The main focus of this review was looking for studies dealing with disordered eating among athletes and non-athletes.

The literature research found five scholarly journals which commonly address the topics of disordered eating among female athletes and non-athletes including the Journal of Adolescence, Journal of the American College of Nutrition, Journal of Athletic Training, and Scandinavian Journal of Medicine & Science in Sports, and two articles from the International Journal of Eating Disorders. The Journal of Social Issues, Journal of Athletic Training, Medicine & Science in Sports & Exercise, Journal of Sports

Behavior, International Journal of Eating Disorders, Journal of Adolescent Health, and Athletic Insight addressed issues related specifically to athletes with disordered eating or eating disorders. Two textbooks, including Foundations of Sport & Exercise Psychology (Weinberg & Gould, 2003) and Exercise Testing and Prescription (Nieman, 2007) were used to gather more knowledge on the topic of eating disorders. Lastly, Disordered Eating Among Athletes: A comprehensive guide to health professionals (Beals, 2004) was also used to clarify issues related to athletes with disordered eating.

The studies in these scholarly journals addresses past history on the topic of disordered eating. The research also shows the prevalence, risk factors, and health concerns for disordered eating among athletes and non-athletes. These findings will be examined in more detail throughout this literature review.

CHAPTER THREE

REVIEW OF LITERATURE

History of Disordered Eating

Research on athletes with eating disturbances and body weight concerns has been taking place since the early 1980s (Beals, 2004). Johnson, Powers, & Dick (1999) suggest research on the topic of eating disorders (EDs) among athletes has increased after the death and serious illness of some elite athletes with EDs. In recent studies, the term disordered eating (DE) has been used to describe the spectrum of abnormal eating behaviors with AN, BN, and EDNOS being the most severe disorders that are clinically diagnosed (American Psychiatric Association, 1994; Beals, 2004; Thompson and Sherman, 1993; Weinberg & Gould, 2003).

The NATA position statement (2008) states DE behaviors include inadequate caloric intake, poor nutrition, binge eating, use of laxatives or diuretics, and diet pills. Individuals try to manage their weight by fasting, vomiting, and excessive exercise (APA, 1994; Beals, 2004; NATA, 2008). Those suffering with DE have poor attitudes about body weight, shape, and size (NATA, 2008).

Torstveit, Rosenvinge, & Sundgot-Borgen (2008) suggest some DE behavior may predict one's risk for an ED in the future.

The NATA position statement (2008) identifies some of the methods for screening individuals with DE including: the Eating Disorders Inventory (EDI), the Eating Disorder Examination (EDE-Q), and the Eating Attitude Test (EAT). However, these instruments may be valid for use in the general population but are not as accurate for athletes (NATA, 2008). This notion supports research on DE showing prevalence rates as low as 1% to as much as 62% among the population on athletes (Beals, 2004). DE among athletes and non-athletes needs to be examined, to see if the identification, risk factors, prevalence, and presentation of DE are the same in both groups.

Prevalence of Disordered Eating

The risk of DE among female non-athletes is said to be 1.3% to 5% of the population though research suggests the prevalence is much higher because many go undiagnosed (APA, 1994; Hoerr, Bokram, Lugo, Bivins, & Keast, 2002; Nieman, 2007). As stated earlier by Beals (2004), studies have different results on DE risks among athletes with prevalence rates from 1% up to 62%. A factor that may

affect these results in athletes is the distinction between lean and non lean sport in some studies. Lean sports are identified as those typically requiring small body frames, and they are judged on performance, or require revealing uniforms (track, gymnastics, swimming, diving and wrestling). Non lean sports include, but are not limited to, basketball, soccer, golf, and tennis, where emphasis is not on one's build (or physique) (Milligan & Pritchard, 2006). A more in-depth look at some of these studies may bring a better understanding of DE among athletes and non-athletes.

Researchers Reinking and Alexander (2005) suggest 7.1% of female collegiate athletes and 12.9% of collegiate non-athletes were at high risk for DE. Their findings also suggested that among the athletic population, those in lean sports compared to non lean sport were at a greater risk of DE (25% to 2.9%, respectively). Reinking and Alexander (2005) found that athletes had lower body dissatisfaction and greater satisfaction about their body and size than non athletes. Although their findings did not find a significant difference between the prevalence of DE among athletes and non-athletes, the trends are apparent.

Contrary to the prior research by Reinking and Alexander (2005), Milligan & Pritchard (2006) found that athletes in lean sports are more at risk for EDs than athletes in non lean sports. They found female athletes in non lean sports to have high rates of DE behaviors. They also found that body dissatisfaction and low self esteem were better predictors for EDs than the type of sport an athlete plays. Finally, they speculate that female Division 1 athletes in lean sports already have a thin physique, giving them less body dissatisfaction and higher self esteem compared to those in non lean sport who have higher BMI and feel weight loss would increase their performance.

To identify who was at higher risk for DE, another study compared college female athletes in gymnastics, cross-country runners, basketball, golf, volleyball, swimming, and tennis, to non-athletes (Warren, Stanton, & Blessing, 1989). They found only gymnasts and runners had differences among the groups in relation to their EDI and EAT scores. Gymnasts had higher scores in the drive for thinness section of the surveys than runners. Body dissatisfaction was higher among gymnasts and non-athletes than in runners. The prevalence of weight preoccupation

was 20% for gymnasts, 10% for non-athletes, and 0% for runners. Even though the athletes in this study did not meet the criteria for EDs, more than 50% of them engaged in at least one DE behavior (Warren et al., 1989)

Researcher Torstveit and his colleagues (2008) found 46.2% of athletes and 51.7% of controls (non-athletes) had met one or more of the DE indicators. Among the athletes with DE indicators, 48.9% participate in lean sports and 43.8% in non lean sports. Lastly, the percentage diagnosed with clinical ED was 28.1% of athletes and 20.8% of the control populations. Of those athletes in lean sports, 89% were diagnosed with AN, 67% with BN, and 65% with EDNOS (Torstveit et al., 2008).

Further research on female athletes showed mean DE prevalence of 19.6% among African Americans, Caucasians, and Latinas, all were females participating in high school athletics. Prevalence rates were 23.3% for Latinas, 19.2% for African Americans, and 18.4% for Caucasians (Pernick et al., 2006). The findings also suggested that Caucasians and Latinas were more at risk than African Americans for binge eating, putting them at greater risk for a clinical ED.

Conversely, a different study found no differences among female athletes and non-athletes for EDs (Rhea, 1999). However, like the study of Pernick et al. (2006), this study did find Caucasians and Hispanics had a higher drive for thinness, body dissatisfaction, ineffectiveness, and perfectionism on the EDI assessment than did African Americans (Rhea, 1999). Of those at risk for an ED were 12% Caucasians, 12% Hispanics, and 5% African Americans (Rhea, 1999).

Hoerr and colleagues (2002) found 10.9% of the college females studied to be at risk of an ED and 4.5% who had been treated for the disorder. Again, compared to African Americans, Caucasians were at greater risk for EDs. The findings also suggest sorority women and female athletes had a higher risk for DE (Hoerr et al., 2002).

Research on EDs done by Johnson, Powers, & Dick (1999) found that of female athletes, only 1.1% met the criteria to be diagnosed with BN and 0% met the criteria for AN. However, 9.2% of females were identified with BN, as well as 2.85% with AN when criteria was less stringent. The researchers also referred to past studies suggesting prevalence rates of AN at 1% and BN at 30% among athletes (Johnson et al., 1999).

Even though past research has inconsistent findings on the prevalence of DE among athletic and nonathletic populations, the research is valuable. The more the topic is studied, better tools and research methods will be developed to meet the needs of athletes, as well as non-athletes by correctly identifying those with DE and EDs. These studies have shed light on unhealthy and even deadly eating behaviors among females of all populations. Now that it is known that there is an issue among females, researchers can try to then look at what identifies these individuals with DE.

Risk Factors for Disordered Eating

This review has found a wide range of prevalence for females coping with DE and clinical EDs. In the introduction, individual factors associated with EDs were shared. In this section, group factors including type of sport, ethnicity, and internal and external factors like the media will be addressed to provide greater understanding of DE. With adequate knowledge of what factors put an individual at risk for DE, researchers may find ways to prevent this unhealthy behavior. The following studies will identify larger population risk

factors for DE among female athletic and nonathletic populations.

The ATA (1994) has established criteria for diagnosing individuals with EDs provided in the DSM-IV. The DSM-IV outlines clinical and diagnostic criteria for AN, BN, and EDNOS. However, many individuals fall just outside the criteria while still exhibiting DE and a distorted body image. This review will touch on the criteria that individuals fall victim to when dealing with DE. Some factors will overlap with EDs but others are specific to only populations with DE.

Many assessment tools are used to identify someone at risk for an ED or DE. Most common is the Eating Disorders Inventory (EDI) which looks at subscales of drive for thinness, bulimia, and body dissatisfaction, and personality scales of ineffectiveness, perfectionism, interpersonal distrust, interoceptive awareness, and maturity fears (Warren et al., 1989). The Eating Disorders Inventory-2, which is newer, has more subscales, including the ones listed above, as well as asceticism, impulse regulation, and social insecurity. Individuals with higher scores show more signs of DE behaviors (Reinking & Alexander, 2005).

Type of Sport

Researchers Reinking and Alexander (2005) used the EDI-2 to identify factors associated with DE. They found athletes had lower scores in body dissatisfaction and ineffectiveness. Among athletes, those in lean sports had a high score for body dissatisfaction while having a lower actual and desired body weight than those in non lean sports. The drive for thinness scale helps researchers and psychiatrists identify those at risk for DE.

In contrast, Milligan and Pritchard (2006) suggest that body dissatisfaction, followed by self esteem and type of sport were primary factors related to DE. They also found that females in non lean sport were at greater risk for DE than those in lean sport. Similar research found body dissatisfaction was a predicting factor associated with DE suggests Milligan and Pritchard (2006).

Ethnicity

Several studies reflect on females with DE and EDs and the effect ethnicity has on groups being more or less at risk (Hoerr et al., 2002; Pernick et al., 2006; Rhea, 1999). Hoerr and colleagues (2002) found Caucasian college females were at greater risk for DE than African Americans, especially for bingeing and eliminating high fat foods.

Pernick et al. (2006) found Caucasian and Latina high school athletes scored higher than African Americans on all but one of the EDE-Q subscales used to identify individuals at risk for DE. Lastly, Rhea (1999) found Caucasians and Hispanic urban adolescent females scored higher than African Americans on six of the eight subscales of the EDI assessment. Thompson and Sherman (1999) suggest African American athletes do not participate in sports that typically emphasize thin, lean bodies, nor do they put as much emphasis on thinness as a beauty ideal. These findings suggest different ethnic groups have different body ideals, implying that certain groups may have higher or lower risk for DE behaviors.

Internal and External Factors

One study found that athletes with DE behaviors suffered from low body image, high social pressure, low self-esteem, and high competition anxiety (Berry and Howe, 2000). The study also showed that athletes who demonstrated high restrained eating had higher body fat and BMI than their non dieting counterparts. Low body image was a significant factor that predicted individuals who used emotional eating as a coping mechanism. Athletes often feel the need to please coaches and peers who may

express the need to lose weight directly or indirectly. Researchers suggested poor body image is a primary factor associated with DE for non-athletes (Berry and Howe, 2000).

Fulkerson, Keel, Leon, and Dorr (1997) showed that high school female athletes and non-athletes had little difference on EDI score in bulimia, drive for thinness, body dissatisfaction, and perfectionism. However, athletes had a more positive attitude and higher self-efficacy than non-athletes. Researchers suggest self-efficacy may protect athletes from the development of DE (Fulkerson et al., 1997). They suggest that as athletes pick a particular sport, typically at the college level, they may feel more pressure for thinness if that sport requires a lean build.

Role of the Media

Media and idealized body images also impact how athletes and non-athletes see themselves, and can influence DE behaviors as females try to reach their *ideal* size and shape (Cahill & Mussap, 2005; O’Riordan & Zamboanga, 2007). O’Riordan and Zamboanga (2008) found that those females that get information about dieting or see images of thin females in the media had a high risk for bulimic attitudes/tendencies. Further on the links between media

Health Concerns for those with Disordered Eating

Individuals with DE behaviors put themselves at risk for physiological problems that can affect their health and performance. Non-athletes risk many health concerns that may put them in danger. However, some of the health problems that put non-athletes at risk for DE behaviors or classify someone with an ED are often considered normal conditions for athletes. Bradycardia (slow heart rate) is healthy or normal for athletes but is a factor linked to EDs among non-athletes. Among the athletic population, loss of one's menstrual cycle is often considered normal for those with strenuous practices, while it is another factor that determines a nonathletic female has clinical AN. The physiological factors associated with weight loss and DE are varied among the athletic population, making it difficult to identify those with a problem.

Research by Johnson (1994) explains that athletes who have dieted and lost weight have seen increases in their performance ability, which can fuel their efforts leading to DE. It is suggested this occurs from the body's fight or flight response to starvation. Beals (2004) suggests that losing weight will also increase relative $VO_2\text{max}$, to a point, helping improve performance in endurance sports.

participating in sport while it is a clinical symptom for individuals with AN. Another symptom for AN is amenorrhea, which is the loss of one's menstrual cycle. In athletes, amenorrhea is often common to those who have strenuous practices and cannot maintain high enough caloric intake relative to their output. Lastly, when amenorrhea occurs, it can be accompanied by bone loss associated with increased risk for bone fracture and even permanent bone loss (NATA, 2008). These health consequences are often overlooked among the athletic population because many perceive them as normal or healthy conditions.

Lastly, the ACSM (2007) has coined the term "Female Athlete Triad" to explain the connection between energy availability, menstrual function, and bone mineral density. The ACSM (2007) has found a correlation between athletes who do not take in enough calories to offset the amount they expend with bone health. Low energy availability can lead athletes to lose their menstrual cycle; this is called amenorrhea if the cycle stops for longer than three months. Amenorrhea can cause the bone mineral density to decrease, leading to osteoporosis. Athletes with low bone mineral density or osteoporosis are at great risk for stress fractures. These conditions may not occur simultaneously,

but may have a prolonged effect on an athlete's health, even after their menstrual cycle was restored or DE behaviors had stopped (ACSM, 2007).

CHAPTER FOUR

RESULTS

After completing this review of literature on athletes and non-athletes with DE, the results illustrate the prevalence, risk factors, and health concerns associated with the extreme behaviors. As many research results show, the prevalence of DE for both athletes and non-athletes is not clear cut (Beals, 2004, Hoerr et al., 2002; Johnson et al., 1999; Milligan & Pritchard, 2006; Pernick et al., 2006; Rhea, 1999; Reinking & Alexander, 2005; Torstveit et al. 2008; Warren et al., 1989). These researchers findings suggest the average person's prevalence for DE ranged from 1.3%-51.7%, with a mean of 10.9%, and a standard deviation of 12.8%. The studies on athletes had DE prevalence ranging from 7.1%-46.2%, with different ranges for lean sport (25%-48.9%) and non lean sport (2.9%-43.8%). Prevalence may be difficult to assess with studies using different tools to identify individuals with DE and different ages and type of sport for the samples being assessed.

Some individuals coping with DE have similar risk factors that may lead them to be clinically diagnosed with

an ED in their future, while others may go their whole life using these behaviors to maintain or lose weight with no clinical diagnosis. The ATA (1994) DSM-IV identifies specific risk factors for individuals with EDs. Researchers suggest self esteem, body dissatisfaction, and drive for thinness are factors that contribute to DE, but their impact on lean versus non lean sport is not as clear (Milligan & Pritchard, 2006; Reinking & Alexander, 2005).

Several studies suggest that ethnicity has an influence on a person's risk for DE. Female athletes or non-athletes at most risk for DE behaviors are Caucasian, followed by Hispanic/Latina, with African Americans having the lowest risk (Hoerr et al., 2002; Pernick et al., 2006; Rhea, 1999). Other factors including social influences such as coaches, family, and peers can increase one's need to diet and the use of DE behaviors to see results (Williamson et al., 1995). Lastly, media and its impact on females', both athletic and non athletic, body satisfaction and idealized body (size and shape) can lead someone to DE (Cahill & Musssap, 2005; O'Riordan & Zamboanga, 2008).

Finally, this review identified health concerns for both athletes and non-athletes with DE and EDs. Many health concerns for non-athletes are often looked upon as

normal among the athlete population, like bradycardia and amenorrhea (ACSM, 2007, NATA, 2008). Problems with abnormal electrolytes, cardiovascular, skeletal, and gastrointestinal functions can put females at very high risk for several illnesses, and even death (ACSM, 2007; NATA, 2008). Athletes and non-athletes need to understand the risk they put on their lives when they continually restrict their caloric intake using DE behaviors.

CHAPTER FIVE

CONCLUSION AND FUTURE RESEARCH

Conclusion

The project's findings on DE illustrating prevalence for female athletes and non-athletes are still unclear after more than 20 years of studies. Risks for DE include "a combination of familial, sociocultural, personality, and perhaps biological factors" which can increase someone's prevalence for an DE or EDs, as suggested by Thompson & Sherman (1993). Athletes are at greatest concern for medical complications associated with the Female Athlete Triad according to the ACSM position statement (2007). The findings in this literature review are neither all inclusive nor exhaustive on DE and EDs among athletes and non-athletes. However, this project should have brought attention to the need for understanding of DE and its effect on females, both athletes and non-athletes.

Future Research

It is recommended that researchers continue to study the topic of athletes and non-athletes with DE, while working to find assessment tools that will clearly identify at risk individuals. Assessment tools need to be validated for use with the athletic population, not only the general population with EDs. More studies need to be performed on lean and non lean sport athletes to understand if one has a higher prevalence of DE than the other. Research needs to address more ethnicities rather than comparing only one or two groups to Caucasians. Also, the impact peers, families and coaches have on athletes' and non-athletes' perception of their body image needs to be investigated. An investigation as to why the athletic population places such emphasis on body size and shape also needs to be addressed. Further, studies assessing risk factors for DE that may damage an athlete's health, e.g., amenorrhea, need to take place. Lastly, more research needs to address the need to change factors that predispose females to DE behaviors.

APPENDIX A
DISORDERED EATING PAMPHLET

Disordered Eating

What is the impact of Disordered Eating?

- Significant weight loss
- Loss of period (menstrual cycle)
- Dehydration (lack of water)
- Problems with digestion
- Stress fractures (broken bones)
- Muscle weakness and fatigue
- Dizziness, fainting, and seizures
- Headaches, migraines
- Trouble sleeping
- Chronic body pain
- Low body temperature (always cold)
- Loss of lean body mass
- Slow metabolism
- Nutrient deficient
- High levels of stress

How can I help?

- Try to be supportive and caring to the individual
- Share your concern and suggest professional help
- Do not try to change their eating behavior, this is a professional's job
- If they do not seek help, speak with family, counselor, or medical staff

How do you treat Disordered Eating?

Once identified with a problem, individuals should be treated with the support of family, friends, coaches, trainers, physicians, and mental health professionals.

Treatment may include:

- Medical exam
- Nutritional management
- Counseling (psychological)
- Prescription medication
- Exclusion from activity

Is there any way to prevent Disordered Eating?

- Educate everyone about disordered eating and the health effects that result from these unhealthy behaviors.
- De-emphasize weight and body composition and promote healthier eating and work-out habits.
- Promote overall good health practices, like a minimum 6 hours of sleep per night and elimination of unnecessary substances.
- Use sport psychology staff and school psychologists to work on effective mental skill building.
- Provide good nutrition advice and discourage fad dieting.

Disordered Eating

Signs, significance, suggestions



Information collated from:
 NATA Position Statement (2008)
 ACSM Position Stand (2007)
 NCAA.ORG

Disordered Eating Identification, Risk Factors, Advice

What is Disordered Eating?

Disordered Eating is a spectrum of abnormal eating behaviors ranging from dietary restrictions to clinical eating disorders like Anorexia or Bulimia.

People with disordered eating may:

Limit their food intake

Some will eat too little

Some will only eat once a day.

Healthy females should eat between 1,200-1,600 calories per day.

Binge eat

Some will eat a large amount of food in a short amount of time.

Some may consume more than 1500 calories in one sitting.

Purge

Some try to get rid of the calories consumed by vomiting, using laxatives/diuretics, or over-exercising.

Excessively exercise

Some exercise more than what is necessary for performance.



What are some signs of Disordered Eating?

Mental/Emotional

- Anxiety (intense fear of situations) and/or depression
- Mood swings & irritability
- Guilt & shame about eating
- Intense fear of being fat
- Low self-esteem
- Eating when upset or stressed
- Perfectionism (need to do everything perfect)
- Constantly focused on food

What are some signs of Disordered Eating?

Behaviors

- Excessive exercise
- Routinely restricting calorie or food intake
- Feeling out of control when eating
- Excessive use of restroom
- Avoidance of eating
- Use of laxatives, diet pills, and diuretics
- Feels fat even when thin
- Preoccupation with weight
- Fasting to compensate for eating
- Frequent weighing

Adapted from NCAA Coaches Handbook: Managing the Female Athlete Triad Handbook website: <http://www.ncaa.org/wps/wcm/connect/resources/file/ebad9e4a146e2d0/Handbook.pdf?MOD=AJPERES>

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