Perceived Body Image in Female Athletes by Sport Uniform Type

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This research is a product of the graduate program in Kinesiology and Sports Studies at Eastern Illinois University. Find out more about the program.

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Perceived Body Image in Female Athletes by Sport Uniform Type

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Abstract

The purpose of this study was to investigate whether collegiate sport teams in which female participants are required to wear uniforms that are more revealing, have a more negative self-perception of body image and greater drive for muscularity than those with non-revealing uniforms. Female athletes from 7 women's NCAA Division I collegiate athletic teams from a Midwestern university took part in this study. Subjects were grouped according to the type of uniform worn during competition in their sport. Subjects were divided into two categories: revealing uniforms (n = 33), which included volleyball, track and field, cross country, and swimming, while non-revealing uniforms (n = 26) which included softball, soccer and basketball. These two group categories were formed in order to compare the relationship of perceived body image and uniform type. Measures used to evaluate perceived body image included the Drive for Muscularity Scale, Body Shape Questionnaire, and the Stunkard Scale (Ideal and Reality). Independent t-tests were used to compare the dependent variables between groups for each of the 4 measures. There were no significant differences (p≥0.05) between the revealing uniform group and non-revealing uniform group for any of the four independent variables relating to the results of the body image dissatisfaction and drive for muscularity. Results showed both groups having no or only mild levels of body dissatisfaction and a moderate to low drive for muscularity. The revealing uniform group indicated a leaner body image as their ideal body image as compared to non-revealing group (p=0.004). It was concluded from these findings that the type of sport uniform worn by these female collegiate athletes did not appear to influence levels of body dissatisfaction or drive for muscularity differently. However, those in the revealing uniform group indicated a leaner ideal than those in the non-revealing uniform group.
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CHAPTER I

Introduction

Body image is a psychophysical element that is perpetual, emotional, cognitive, and kinesthetic (Mouron, Killion, & Culpepper, 2014). Females have a higher desire to achieve and maintain an ideal weight than males, especially when in the spotlight (Mouron, et al, 2014). In sports, women are under the spotlight of media and fans regularly. One's subjective perception of their physical appearance can either be positive or negative. How one feels in their sport uniform may influence their perception of their body image.

As many as 28% of college students have concerns about their body image (Rozin, Bauer, & Catanese, 2003). Women have a higher risk than men for issues such as body dissatisfaction and disordered eating behaviors (Najam & Ashfag, 2012). Research also indicates that the relationship between body satisfaction and self-esteem is much stronger in women than in men (Najam & Ashfag, 2012). Body dissatisfaction can have consequences for an individual’s health, both physically and mentally. Those that suffer from these body image disorders have a suicide rate that is 45 times higher than that of the general population (Phillips, Menard, Fay, & Pagano, 2005). Women with body image issues typically see themselves as being too heavy.

Uniform styles in sport are non-negotiable. It is important to understand the way female athletes view their bodies and how their body image is impacted by the type of uniforms they wear. The style of uniform is meant to facilitate the activities required by a given sport and all members of a team must wear the same uniform. Some uniforms are more ‘form fitting’ and expose more of the athlete’s body. Therefore, females with a poor
body image may have difficulty performing at their best in these types of uniforms due to feeling uncomfortable and concerned more on the way they look than on their performance. Females participating in a sport where other participants have a similar body size or shape as they do could be a factor. Female athletes may be more comfortable with their body size or shape if others they are surrounded by such as their teammates and other athletes are a similar in body image as that image when be considered normal. The nature and the requirements of the sport could impact both mind set and self-image. The nature and requirement of sport could include strength, agility, quickness, and/or being accurate or precise. Each of these factors will require a specific training regimen. That training regimen paired with genetics and diet will all factor into an individuals' body shape or size. These could shape the mindset of athletes toward their image by giving them an ideal image that they are striving for in order to be successful in their minds.

In sport, these image distortions could be a perception of being either too heavy or too small, depending on the sport. Women have a greater chance of being a target of objectification since they are often treated as sex objects in the media (Whitbourne, 2013). Prior research on a variety of sports has indicated that female athletes are highly dissatisfied with their overall appearance (Kato, Jevas, & Culpepper, 2011; Mala, Maly, Zahalka, & Bunc, 2010; Mouron, et al., 2014). Research has found that sports play a “crucial role in the development of functional body image” though it has been reported that certain sports have an increased risk of negative development (Kostel, Raalte, Brewer, & Cornelius, 2014, p. 65). These sports include judged sports such as gymnastics, cheerleading and diving. Researchers have also found a higher level of bulimic behaviors in NCAA Division III female athletes (Kato et al., 2011). Collegiate female athletes are often found to be at a higher risk of developing eating disorders due
negative eating habits in comparison to the general female population (Stewart, Plasenia, Han, Jackson, & Becker, 2014). In studies of competitive athletes, body dissatisfaction and eating disorders have been shown to be prevalent because of the high pressure to attain a specific athletic physique, as well as the social pressures to be thin (Kosteli, et al., 2014).

In a study conducted by Torres-Mcgehee and colleagues (2012), a third of college cheerleaders were at risk for eating disorders, especially those wearing mid-riff-baring uniforms. The relationship between eating disorders and body image in athletes appears to be less straightforward than when compared to the general population (De Bruin, Quadejans, Bakker, & Woertman, 2011). Kosteli et al., (2014) demonstrated that female rugby players, cricketers, and netballers were content with their bodies in the context of their sport but had more negative perceptions of their bodies outside of their sport. These athletes have developed both “dual and incompatible identities,” as athletes “they [have] expressed pride in their strong athletic bodies,” but feel as if others view them differently than “normal women” and are not as attractive to men due to their larger, athletic body frames (Kosteli, et al., 2014, p. 66). It should come as no surprise that many female athletes struggle with wanting to achieve the social ideal body of being thin while also wanting to develop a strong and muscular body for their specific sport performance (Kosteli, et al., 2014).

College students have been reported to have a high drive for thinness as well as a high drive for muscularity, though the two are not mutually exclusive (Kelley, Neufeld, & Musher-Elzenman, 2010). Overall, male athletes show a higher drive for muscularity than female athletes (Robert, Munroe-Chandler, & Gammage, 2009). College female athletes have a higher drive for muscularity than college female students (Robert, et al., 2009; Steinfeldt, Caret, Benton, & Steinfeldt, 2011). These drives have a variety of
effects on an individual's perceived self-body image. Female athletes often struggle with
the need to be both feminine and muscular. It is known that many athletes struggle with
body image (Blackmer, 2011; Kosteli et al., 2014; Voelker, Gould, & Reed, 2014),
however, little appears to be known about whether this psychological issue is
compounded by the type of uniforms that are required in their sport.

Studies have shown female have a more negative perceived self-body image
than males (Kato, et al., 2010; Najam & Ashfag, 2012), while other studies have shown
female athletes have a higher drive for muscularity than non-athlete females (Steinfeldt,
et al., 2011). There is little research comparing an athlete’s perceived body image with
their ideal body image. Similar studies have focused on their ideal body image which
varies by sport. Overall, female athletes strive for a lean and tone body figure (Krane,
Choi, Baird, Aimar & Kauer, 2004). However, there has been no study that has
examined perceived body image in female athletes based on their uniform type.

Purpose

The purpose of this study was to investigate whether collegiate sport teams in
which female participants are required to wear uniforms that are more revealing have a
more negative self-perception of body image and greater drive for muscularity than
those with non-revealing uniforms. In addition, the athlete's perceived body image was
compared to their perceived ideal body image.

Hypothesis

It was hypothesized that a more negative body image would be associated with
athletes wearing more revealing uniforms. It was expected that these individuals would
have a lower body image score and higher drive for muscularity score than those with
non-revealing uniforms. It was also hypothesized that their perceived actual body image would be significantly different than their perception of the ideal body which would be a leaner physique.

**Significance of the Study**

This research may provide sport professionals with a better understanding of the risk factors that influence female athlete psychological issues such as self-esteem, body image and disordered eating. By understanding how athletes feel mentally and physically in their uniforms can allow sport professionals to provide resources to decrease feelings of negative body image in female athletes. This study may bring greater attention and understanding to female athlete’s perceived body image and its effects on the individual because it is crucial in identifying alterations in body image for early diagnosis of body dysmorphic disorders, as well as eating disorders.

**Assumptions and Limitations**

It was assumed that all participants understood the questionnaires and that they were honest with regard to their answers. Limitations that may affect this study were as follows. Only female athletes at one Division I university were studied, and selection was not random. Therefore, the findings herein are not necessarily representative of all female college athletes in respective sports.
Definition of Terms

The terms listed have been defined for the purposes of this study as follows:

**Body dysmorphic disorder** – A mental preoccupation with a defect in appearance causing extreme anxiety (Mohammadi, 2015).

**Body Dissatisfaction** – The degree to which people are not satisfied with their bodies.

**Body Image** – Refers to how an individual sees herself when they look in the mirror or when they picture themselves in their mind. It encompasses what an individual believes about their appearance such as memories, assumptions, and generalizations; how an individual feel about their body, including height, shape and weight; and how an individual senses and controls their body and as they move, how they feel in their body (NEDA, 2016).

**Drive for Muscularity** – The desire to have a more muscular physique. (McCreary, 2013)

**Eating Disorder** – A chronic disease where there is an intentional change in behavior of nutrition i.e. extreme dieting, overeating, binge eating, bulimia nervosa, or anorexia (Olga, Nadja, Marija, Jagoda, Aneta & Miroslava, 2012).

**Disordered Eating** – A description of irregular eating behaviors that are not labeled under any specific eating disorder (Fortes, Akmeida & Ferreira, 2016).

**Revealing Uniform** – A uniform that exposes more skin or body contours than usual – related to such factors as tightness, short length (pants not being past finger tips), and/or exposed back/shoulders or chest and tight fitting.

**Non-revealing Uniform** – A uniform that covers most of the exposed skin on the body and does not cling to body contours – related to such factors as being loose fitting, having a longer length (pants being past finger tips) and back/shoulders or chest being covered and loose fitting.
CHAPTER II

Review of Literature

The purpose of this study was to investigate whether collegiate sport teams in which female participants are required to wear uniforms that are more revealing have a more negative self-perception of body image and greater drive for muscularity than those with non-revealing uniforms. Further, the discrepancy between an athlete's self and ideal body image ratings were assessed.

A review of the relevant, related literature was organized into the following major sections as follows: Body image, Social Physique Anxiety, Female Athletes and the Media, Female Athletes, Sports verse Society, Female Athletes and Uniform Type and Female Athletes and Weight Pressures.

Body Image

Body image is a complex set of perceptions and attitudes that are described as how an individual perceives their own body and physical appearance such as size and shape. Body image is subjective to the individual. Body image is often measured using the Stunkard Scale which asks the subject to rate their current and ideal body shapes using a scale of silhouettes (Najam & Ashfag, 2012).

Underweight women have been reported to perceive that they are healthier, more attractive and have higher levels of life satisfaction as compared to underweight men (Frederick, Peplau & Lever, 2006; McCreary & Sadava, 2001). Social norms have made women, both athletes and non-athletes, strive for this lean ideal. Overweight women are more depressed, have more suicide ideation, and more suicide attempts.
than women of a healthy weight (Carpenter, Hasin, Allison & Faith, 2000). The relationship between body image and body dissatisfaction in female student-athletes is more conflicted and confused than in the general population (Thompson, 2014). Body shape satisfaction is the extent to which a person is satisfied with their weight, size, and shape, while body shape dissatisfaction is the extent to which they are dissatisfied with these attributes. Research has shown that a strong relationship between body dissatisfaction and self-esteem exists in both men and women, though the relationship tends to be stronger in women (Najam & Ashfag, 2012). Omelchenko (2015) revealed that female student athletes, in particular, experience stressors that results in negative body image. Eating disorders are a risk factor for a perceived negative body image, especially in the general population, while this connection is less straightforward within the female athlete population they can still be at risk. (De Bruin et al., 2011). Additionally, some female student-athletes are conflicted about having a muscular body that facilitates sport performance but may not conform to the socially desired body type and may be perceived as being too muscular when compared to societal norms regarding femininity (Thompson, 2014). These societal norms of sport that are often taught to female athletes are associated with the traditional concepts of masculinity, when women are supposed to be feminine to be socially accepted (Steinfeldt, Zakrajsek, Carter, & Steinfeldt, 2011).

Excessive exercise and high self-expectations can lead to body image issues. There have been several studies that have shown normal weight women feel they are overweight, leading to higher risk of body dysmorphic disorders and poor self-esteem (McCreary, Sasse, Saucier, & Dorsch, 2004; Olivarsia, 2001; Varnes, Stellefson, Miller, Janelle, Dodd & Pigg, 2015). The social standard for bodily attractiveness for females is much thinner than the average female body shape (McCreary et al., 2004). Women view
muscularity more as looking lean and athletic, as opposed to bulk, and large amounts of muscle mass (McCreary et al., 2004). Though, not all female athletes view muscularity as being lean, some view it as being bulky and masculine which is normally a negative perception. A healthy pursuit of muscularity can quickly become anything but healthy (Olivardia, 2007). This is why understanding female athletes and these norms, allow for awareness and action to be taken to prevent these unhealthy behaviors.

Muscle dysmorphia is when an individual feels they are not muscular enough, this cause's significant distress and impairment in social and occupational areas of normal functioning (Oliveira, Bosi, Vigario, & Vieira, 2003). This is just one of many problems that can arise from social and sport pressures on women. Some feel a strong need to workout to an extreme that hinders daily activities, while others feel a need to cover their body to the point of excessive anxiety (Olivardia, 2001). Regular weight-trainers have lower Drive for Muscularity (DMS) scores than non-weight trainers (Wojtowicz & Von Ranson, 2006). This could be due to regular weight-trainers having a drive to be muscular which can be in a healthy range, while non-weight trainers may have no interest in becoming muscular. The unhealthy drive for muscularity and high body dissatisfaction are risk factors for disordered eating behaviors and extreme exercise. Oliveira et al., (2003) surveyed athletes using a body dissatisfaction instruments the Eating Attitudes Test (EAT-26) and the Body Shape Questionnaire (BSQ). The results indicate that these athletes did not have positive EAT-26 scores, which suggest the presence of risk factors for disordered eating behaviors (Oliveira et al., 2003).
Social Physique Anxiety

Social physique anxiety is a body image disorder related to body dissatisfaction and involves anxiety about how others negatively perceive one's body image (Robinson & Lewis, 2016). Social physique anxiety is related to other psychological variables such as physical attractiveness, eating attitudes and exercise motivation and patterns (Mü lazimoğlu-Balli, Koca, & Asci, 2010). Weight training in individuals who suffer from body image disorders can lead to excessive weight training behaviors as well as negatively impacting their psychological health (Thomas, Tod, Edwards & McGuigan, 2014).

There are many influences that affect the way an individual view their body. A strong influence on this are other people. School, family, and extracurricular activities such as sports shape and develop how individuals view their bodies is heavily influenced by these factors and their peers (Cash & Pruzinsky, 2002). Social physique anxiety has the ability to hinder both psychological needs and motivation to exercise (Sicilia, Saenz-Alvarez, Gonzalez-Cutre & Ferriz, 2016). These negative behaviors and views of one's body image are heavily influenced by the opinions of their peers and the need to be accepted (Hagger, Stevenson, Chatzisarantis, Gasoer, Ferreiera & Rave, 2010). Females were less likely to maintain their exercise motivations and exercise confidence than men (Mclester, Merwitz & Calloway, 2016). Individuals who engage in exercise as a way of enhancing their body appearance are more likely than those who do not to have higher levels of social physique anxiety (Alcaraz-Ibanez, Sicilia & Burgueno, 2017; Cook, Karr, Zunker, Mitchell, Thompson, Sherman & Crosby, 2015; Krane, Stiles-Shipley, Waldron & Michalenok, 2001).

There is pressure on athletes to attain or maintain a specific body image (Krane et al., 2001). The need an individual has to attain or maintain a particular body image for
optimal performance in their sport can increase their social physique anxiety (Krane et al., 2001). Both social physique anxiety and motivation levels influence the performance in male and female athletes, but female athletes have higher levels of social physique anxiety (Orris, Cain, Mayol, Scott, Everett & Beekley, 2015). Coaches may promote this ideal body image for their athletes to attain in order to enhance their performance (Koyuncu, Tok, Canpolat & Catikkas, 2010). Athletes of performance sports such as gymnastics, swimming and driving are more likely to experience social physique anxiety due to having greater concerns on being evaluated on appearance (Robinson & Lewis, 2016; Reel & Gill, 1996). In conflicting research, some competitive athletes have a lower social physique anxiety score than non-athletes (Mülazimoğlu-Balli, Koca, & Asci, 2010).

Female Athletes and the Media

The media such as magazine and television coverage has been known to sexualize and objectify women, and female athletes are no exception (Skillen, 2012). When in body-focused situations women are more critical about their bodies than men (Tiggemann, 2001). Women are also at a higher risk than men for body dissatisfaction or disordered eating behaviors. The manner in which women are portrayed in the media may contribute significantly to increasing these risks (Najam & Ashfag, 2012). The media uses images of female athletes to sexualize and objectified them and their sports (Fredrickson & Roberts, 1997). The women depicted in advertisements are generally 15% under the average female weight of the general population (Cramblitt & Pritchard, 2013). The coverage of the 2012 Summer Olympics focused on female athletes' aesthetic features rather than their athletic ability. NBC's New York affiliate published an article entitled "Olympic Beach Volleyball: Great Bodies, Bikinis and More" (Jackson, 2012). This was just one of many articles produced that objectified these top athletes'
bodies, rather than their athletic abilities (Jackson, 2012). According to recent research, the sexual objectification of female athletes has increased substantially in the last twenty years and that some athletes are objectified more than others, depending on sport (Jackson, 2012, Olivardia, 2001; Skillen, 2012; Varnes et al., 2015). Tennis athletes were found to be sexually objectified more than those who participated in another sport such as basketball (Varnes et al., 2015). This study investigated society's sexual objectification of female athletes using a cross-sectional survey which sampled non-athletes, athletes in sports that are considered more objectified and athletes in sports considered less objectified. The survey measured self-esteem, body surveillance, thin-ideal, as well as body shame. Varnes, et al. (2015) concluded that athletes in more objectified sports, such as tennis, are more likely to have body image concerns.

Athletes face a variety of pressures from society and their sport, which focus on their body's appearance, demands of their sport, body-revealing uniforms, as well as judging criteria. These may result in unique problems related to body image perception, putting them in a different category due to these factors that are different than what the general female population would face (Stewart et al., 2014). Sexual objectifications of all women is a contributing factor with issues such as disordered eating, body dysmorphic disorders as well as substance abuse and depression (Varnes et al., 2015). The more people are exposed to the media's influence on body image, the more they will begin to believe and represent that as a societal norm. People begin to compare themselves to these perceived norms thus influencing the development of body dissatisfaction (McCreary, 2011). A study by Cramblitt and Pritchard (2013) found that women had an increased drive for muscularity due to entertainment television that was sports-related and image-focused. This study shows the impact media, mainly television, has on a woman's drive for muscularity and their body ideal.
Female Athletes: Sport versus Society

Female athletes are likely to have better body image satisfaction as compared to female non-athletes. Varnes’, et al. (2015) research suggests that participation in competitive sports has lowered body image awareness in female athletes, thus, resulting in a decrease in a negative self-perceived body image. Female athletes may perceive their body as being ideal for their sport, but may feel differently when outside of the sport setting. Therefore a female athlete may have two body image perceptions, one being an image aligned with their sport and the second being an image promoted by societal norms. An example of this is a figure skater who may eat less in order to make themselves look leaner which could be appealing to the judges. The athletes sport image needs to be lean, this is both attractive to the judges and helps to facilitate athletic figure skating moves. Though, in the athlete’s societal image, she may be too lean. The athlete will typically side with their athletic image other societal image due to the higher reward from the sport such as winning medals and praise from coaches, teammates and fans (Omeltchenko, 2015). In sports, such as figure skating and diving, body dissatisfaction is often linked to disordered eating habits due to aspects such as aesthetics and endurance which require the athlete to be lean (Kosteli et al., 2014). A study by De Bruin and colleagues (2011) showed that performance female athletes had a more negative athletic body image than societal body image. Female athletes often experience pressures to be both feminine and masculine, feminine because of their sex and societal views, and masculine because traditionally sports were for men. The pressure of being successful leads to being more competitive and gaining more strength, both of which are usually associated with masculinity. There have also been reports from female athletes stating they view themselves to have characteristics more similar to men than their non-athlete female peers (Steinfeldt, Carter, Benton, & Steinfeldt, 2011,
Mouron et al., 2014; Petrie 1996). Women, those who participate in sports and those who do not, face societal body image pressures. Female athletes face unique pressures to conform to both masculine and feminine societal norms (Steinfeldt et al., 2011). Sports play a role in the development of a functional body image in athletes, though there is an increased risk for body image concerns in some sports (Kosteli, et al., 2014). Female athletes are at a higher risk than the general public of disorder eating habits due to body dissatisfaction (Stewart, Plasencia, Han, Jackson, & Becker, 2014). It has also been found that overall athletes experience better body esteem than non-athletes due to exercising more on a regular basis (Varnes et al., 2015). Researchers have found that body dissatisfaction and eating disorders are prevalent in competitive female athletes. This is due to pressures from their sport and society to be fit but also thin. In rugby, female players reported being confident with their bodies as it pertained to their specific sport, but felt less confident of their body when they compared themselves to societal norms of female physical attractiveness (Kosteli et al., 2014). In a study of female soccer players, researchers found that the players actively participated in practice, workouts, and competition in order to develop strong bodies. They were focused on their athletic outcomes over the societal ideals of the female body (Kosteli et al., 2014). Not all athletes will think about training in this way, nor will they all develop attributes from training that go against generalized ideals. Those that have a negative body image perception may train excessively or show signs of unhealthy eating behaviors in order to meet a societal norm or what they feel will help them succeed in their sport. A female athlete may struggle with a negative body image because of societal norms, or expectations of their sport, or both. Another study demonstrated that long distance runners were proud of their societal body image, whereas throwers were satisfied with their athletic body image (Kosteli et al., 2014). Some female athletes struggle with
striving to achieve both the societal ideal of the female body that is thin but also striving for a muscular body that is ideal for their specific sport (Kosteli et al., 2014). Evidence suggest that sport participation impacts the way female athletes view their bodies, though some evidence supports positive effects and other evidence supports negative effects on self-perceived body image depending on the specific sport. Kosteli et al., (2014) reported that in sports requiring lower body weight for optimal performance, female athletes are at a higher risk for body image dissatisfaction than those in non-lean sports. Long distance runners were more satisfied with their body image outside of their sport, as opposed to throwers (Kosteli et al., 2014). Conversely, long distance runners were less satisfied with their body type than throwers with regard to their ideal body type for their sport. Athletes can become dissatisfied with their bodies due to the strong sport-related pressures to be lean and fit. It has been shown that distance runners are more likely to be dissatisfied with their bodies even though they may appear to meet societal norms. While throwers, seem to be more satisfied with their bodies despite not typically meeting the societal norms of being lean (Kosteli et al., 2014). This could be explained by pressures from specific sport demands. A distance runner may believe they will be successful if they are leaner, causing a constant struggle to stay lean. While throwers do not have the pressure of staying lean, their pressure is to stay muscular. This idea that society has created for female athlete’s is that they should be thin and toned, has convinced some female athlete’s that this is the ideal that they must strive for (Cramblitt & Pritchard, 2013). Society and the media have added to the body pressures that female athletes already face.
Female Athletes and Uniform Type

Research has demonstrated that female athletes at the Division I level, regardless of uniform type, have a more positive body esteem and less body surveillance than their female non-athlete peers (Kato et al., 2011). This suggests that participation in competitive athletics is related to a decreased self-objectification and that societal objectification may also be a factor in the female athlete’s self-objectification process (Varnes et al., 2015). According to some competitive athletes, it is extremely important to feel confident and comfortable in their uniform when they compete. It seems that what an athlete wears can influence how they behave and their ability to perform (James, 2012). For some student-athletes, revealing uniforms can increase body consciousness, body dissatisfaction, and the use of pathogenic weight loss methods due to feeling uncomfortable in the uniform (Omeltchenko, 2015). James (2012) found that athletes believe they perform better when they look good, feeling that they should not have to sacrifice style for sport. According to a study of NCAA female athletes, revealing uniforms can lead to body dissatisfaction (Kato et al., 2011). In a survey of swimmers, forty-five percent reported their swimsuit as a stressor and volleyball players reported their uniform lowered their body image perception and hurt their performance on the court (Thompson, 2014). Some female athletes were less concerned with the uniform type (revealing or non-revealing) and more concerned with whether or not the uniform would enhance their performance and not encumber their athletic ability in any way (Skillen, 2012). There were some female athletes who wanted sport specific clothing that was also fashionable. Lastly, there were female athletes who wanted a suitable uniform for their sport that would not draw unwanted attention but also did not compromise their femininity (Skillen, 2012). Lean sports typically have a more revealing uniform such as track and field, while non-lean sports such as softball have non-revealing uniforms.
Female athletes in sports with a more revealing uniform are usually objectified more by the public and media than female athletes in non-revealing uniforms (Skillen, 2012).

**Female Athletes and Weight Pressure**

Sport specific pressures can cause weight pressure on athletes such as judging criteria that favor a lean body type based on the aesthetic nature of the sport; sport-sanctioned weight classifications; revealing uniforms; coaches' criticism about weight; competitive body comparisons among teammates; the belief that a small body improves performance; disordered eating being modeled by teammates; and stereotypical sport physiques (Anderson, Petrie, & Neumann, 2012). Lean sports or judged sports, where having a lower body weight or body fat percentage is an advantage, are sports that are the mostly likely to have athletes with a negative body image leading to disorders such as anorexia, or excessive exercise (Mülazimoğlu-Balli, et al., 2010; Petrie, 1996). This emphasis on reducing body fat to enhance sport performance leads to weight pressures (Omeltchenko, 2015). Female athletes have a higher rate of eating disorders and body dysmorphic behaviors when compared to female non-athletes especially within lean-body, endurance and weight dependent sports due to socio-cultural factors and the unique pressures of the sport environment (Anderson et al., 2012). In a study, high performance female athletes with a negative body image also demonstrated disordered eating habits, while the female athletes with a more positive body image did not (De Bruin et al., 2011). Whether a female athlete perceives her body image positively or negatively, they perceived themselves differently in their daily lives and their athletic lives. Those with a more positive body image had a more negative athletic body image than daily life body image (De Bruin et al., 2011). Overall these athletes were striving to a higher ideal in their athletic lives to reach personal records and goals in their specific...
sport. Not all eating behaviors are related to an athlete having a negative body image; rather they are convinced that being thin will help them to win especially in sports such as gymnastics or figure skating. Other authors have also found that it is not always body dissatisfaction that drives athletes toward disordered eating but the demands of their sport (De Bruin et al., 2011). Female athletes are held to a standard of being both thin and fit, increasing their perception of increased weight pressures. Athletes, especially in lean sports, may be more subject to unhealthy eating behaviors due to weight pressures from their sport, personal feelings, and pressure from coaches (Oliveira, et al., 2003).

In summary, the literature on athletes and uniform type are minimal. While the literature on athletes, body image, disordered eating habits and drive for muscularity are abundant. Female athletes and non-athletes are affected by social norms of a lean body image being ideal. Overall female athletes have shown a more positive body image than female non-athletes. Though, female athletes have stated viewing some of their body characteristics to be more masculine, unlike their female non-athlete peers. Female athletes may perceive their body as being ideal for their sport, but may feel differently when outside of the sport setting. Evidence supports that sport participation impacts the way a female athlete views their body. Female athletes are often faced with having a muscular body for sport performance and a lean body that aligns with societal norms of femininity. This drive of muscularity depends on the type of sport and aesthetic performance ideal of the sport as well. Females athletes in sports with more revealing uniforms are typically objectified more by the media than those in non-revealing uniforms. Though, female athletes seem to be less concerned with their uniform type (revealing or non-revealing) and more concerned with if their uniform can enhance their performance. Uniform type may have little impact on self-perception of body image or
drive for muscularity, but it could help us discover other issues collegiate female athletes face.
CHAPTER III

Methods

The purpose of this study was to investigate whether collegiate sport teams in which female participants are required to wear uniforms that are more revealing have a more negative self-perception of body image and greater drive for musculature than those with non-revealing uniforms. Further, the discrepancy between an athlete's self and ideal body image ratings were assessed.

Subjects

Female athletes from ten women's collegiate athletic teams at an NCAA Division I Midwestern university were recruited for this study. The project received approval from the university's Institutional Review Board prior to any contact with potential subjects. The subjects participated on the following athletic teams: cross country, track and field, swimming, volleyball, basketball, soccer, and softball.

A revealing uniform is one that exposes skin such as shoulders, back or chest and pants in length that do not go past the finger tips and is tight fitting. A non-revealing uniform is one that covers most of the exposed skin on the body such as the shoulders, back, or chest and pants in length that go past the finger tips and is loose fitting. Teams in the revealing uniform category were: cross country, track & field, swimming, and volleyball. Teams that wear non-revealing uniforms were: basketball, soccer, and softball.

Prospective subjects, with approval from their coach, were invited to participate in the study by the researcher before their practice or team meeting. All participants
were fully informed of the associated risks and discomforts and gave their voluntary consent to participate in the study and complete the questionnaire (Appendix A).

**Measurements**

Information obtained from each subject included ethnicity, sport team and position, how their uniform makes them feel, and if their uniform hinders their performance; physically or mentally and why (Appendix B). Participants completed a questionnaire to assess their perceived body image using a perceived body image scale (Stunkard, Sorensen, & Schulsinger, 1983), the Body Shape Questionnaire (Goltz, Stenzel, & Schneider, 2013) and the Drive for Muscularity Score (McCreary, 2013).

**Stunkard scale.**

The Stunkard Scale (Appendix C) is a series of images of progressively heavier body types labeled 1 through 9, with 9 being the heaviest (Stunkard et al., 1983). The Stunkard scale has been shown to be reliable and valid (Lo, Ho, Wong, Mak, & Lam, 2011; Lo, Ho, Mak, & Lam, 2012). This scale is commonly used to identify those with disturbed body self-perception as well as to assess perceived body image in any individuals whether or not their body image is disturbed. This perception of altered body image can influence health and psychological behaviors (Morotti, et al., 2013). The scale indicates an individual’s perception of their body size and shape, and the discrepancy between an individual’s self and ideal ratings. Subjects were asked to choose the silhouette that most closely resembled their perception of how they look and then to identify the image they perceive to represent their ideal body shape. Silhouette 4 corresponds to a BMI of 23 and this falls within the healthy range for women whereas Silhouette 6 through 9 are heavier (Lo, et al., 2012; Stunkard, et al., 1983) (Figure 1).
Drive for muscularity.

The Drive for Muscularity Scale (DMS) (Appendix D) represents an individual's perception that he or she is not muscular enough and that bulk should be added to his or her body frame in the form of muscle mass. The Drive for Muscularity Scale is a 15-item, self-report, survey that asks respondents to indicate the extent to which a series of attitudes and behaviors are descriptive of themselves (McCreary, 2013). Each item has a selection of six choices: always, very often, often, sometimes, rarely, and never. 'Always' is given the numerical value of one and 'never' is given the numerical value of six. Scores range from 15 to 90 with higher scores indicating a low drive for muscularity while the lower scores indicate a higher drive for muscularity. The DMS has been shown to be valid for a wide range of groups including, men (Bergeron & Tylka, 2007; Cortenay, et al., 2005; McCreary, 2011), undergraduate students (Cramblitt & Pritchard, 2013), and female college student athletes (Steinfeldt, et al., 2011). The DMS has demonstrated internal consistency in multiple studies (Courtenay, McCreary & Saucier, 2005; McCreary et al., 2004; McCreary, 2007; McCreary, 2011).
**Body shape questionnaire.**

The Body Shape Questionnaire (BSQ) (Appendix E) assessed body shape concerns, satisfaction with body shape, weight, and physical appearance, and self-depreciation due to physical appearance and the experience of feeling fat. The BSQ-34 has been widely used to assess body dissatisfaction (Lentillon-Kaestner, Berchtold, Rousseau, & Ferrand, 2014). The BSQ-34 has been shown to have concurrent validity, discriminant validity, and internal consistency in its test-retest reliability (Lentillon-Kaestner et al., 2014). A study by Di Pietro and Silveira (2009) reported that none of the questions of the BSQ showed low item-total correlation coefficient which demonstrates all items of the BSQ-34 are important components, thus the BSQ-34 has a coefficient of internal consistency of 0.97. The 34-item instrument has six subscales: body shape, fatness, thigh/bottom, fleshy areas, consciousness of body shape in the presence of others and disordered eating. The total score can range from 34 to 204, with 6 response options for each item, 1 for never, 3 for sometimes, and 6 for always. Higher scores show dissatisfaction with body shape (Najam & Ashfag, 2012). Results are classified into four levels of body image dissatisfaction: a score below 81 indicates no dissatisfaction about body shape; 81-110, mild dissatisfaction; 111-140, moderate dissatisfaction; >140, high dissatisfaction (Najam & Ashfag, 2012).

**Procedures**

Female athletes were contacted by the investigator and asked to volunteer their participation. Those who agreed to participate completed a packet containing an informed consent, the questionnaire package and a demographic information questionnaire. After giving their voluntary, informed consent, subjects completed a questionnaire package consisting of the Body Shape Questionnaire, Stunkard Scale,
and the Drive for Muscularity scale. Questionnaires were completed in a meeting area and coaches were not present when the surveys were completed. Surveys were only identifiable by sport and were collected in a folder set apart from the researcher once completed. Those who wished not to participate in the study returned their blank packet into the folder along with the other questionnaires. Once all packets were returned to the folder, the last respondent shuffled them in order to prohibit identification by order of submission.

**Data Analysis**

Descriptive statistics (mean ± Std. Dev) were calculated for all dependent variables. In order to test the hypothesis that female collegiate athletes with more revealing uniforms have a worse self-perception of body image and a greater drive for muscularity than those with non-revealing uniforms, independent t-tests were used to test the significance of variance for each of the dependent variables between groups. An *a priori* alpha level for significance of $p \leq 0.05$ was adopted for all tests.
CHAPTER IV

Results and Discussion

The purpose of this study was to investigate whether collegiate sport teams in which female participants are required to wear more revealing uniforms have a greater negative self-perception of body image and greater drive for muscularity than those with non-revealing uniforms. A second objective was to compare the perceived actual body image to their perceived ideal body image.

Subjects

Current collegiate NCAA Division I female athletes took part in this study. Fifty-nine questionnaires out of seventy-four distributed were completed and returned, for an overall response rate of 79.7%. Questionnaires were divided according to subjects who competed in revealing uniforms and those who wore non-revealing uniform types for analysis (Figure 2). Nine athletic teams were contacted, seven of which participated in the study. One hundred and seventy-nine student athletes were contacted. The final sample was only 33% of all female collegiate athletes contacted which included a total of 59 female collegiate athletes: 33 in the revealing uniform category and 26 in the non-revealing.
Means and standard deviations were calculated for each of the dependent variables. Comparison were made across independent variables using independent t-test.

**Drive for Muscularity**

Drive for muscularity scores for the revealing uniform group (m = 65.18±11.42) and the non-revealing uniform group (m = 62.30 ± 2.63) each had the highest number of responses in the categories of having a moderate or low drive for muscularity (Figure 3). Moderate and low drives for muscularity are considered to be in the healthy range of scores for these individuals (Magallares, 2013). Independent t-test revealed no significant difference between-groups (t(57)=0.889, p=0.378).

![Figure 2. Distribution of subjects by sport and uniform type.](image-url)
Figure 3. Drive for Muscularity Scale categorical results for each uniform group.

**Body Shape Questionnaire**

The results from the BSQ scores showed no significant difference between uniform groups ($t(57)=0.122$, $p=0.904$). The revealing uniform group ($m=91.85\pm34.85$) and the non-revealing uniform group ± sd ($m=93.10\pm42.72$) scores indicated a mild-dissatisfaction with their bodies, with few of the female athletes reported being moderately to highly dissatisfied with their bodies (Figure 4).
Stunkard Scale

Athlete's scores for their perception of ideal body shape showed a significant difference between the two groups (t(57)=2.981, p=0.004). The revealing uniform group (m=2.89±0.73) rated their ideal body as a 2, 3, or 4 on the rating scale, with most of the athletes picking a 2 or 3 on the Stunkard rating scale. While the non-revealing uniform group ± sd (m=3.44±0.67) reported their ideal to be a 2, 3, 4, or 5, with most of the athletes in this group picking a 3 or 4 on the rating scale. The ideal for the revealing uniform group was a leaner figure, than those in the non-revealing uniform group (Figure 5).
Figure 5. Subject’s perceived Stunkard Scale ideal body image rating for each uniform group.

Athlete’s Perceived body image reality scores were significantly different between the two groups ($t(57)=2.556, p=0.013$). The revealing uniform group ($m=3.64±1.025$) reported their perceived body image was a 2, 3, 4 or 5 on the rating scale, with most of the athletes choosing a 4 on the rating scale. While the non-revealing uniform group ($m=4.3±0.97$) reported their perceived body image to be a 2, 3, 4, or 5, with most of the athletes in this group picking a 3 on the rating scale. The perceived body image for the revealing uniform group was a leaner figure, than those in the non-revealing uniform group (Figure 6).
Figure 6. Subjects perceived Stunkard Scale reality body image rating for each uniform group.

Within-group comparisons of perceived reality and ideal body image ratings were performed with a dependent t-test. The revealing uniform group showed no significant difference (df = 57) between their perceived reality and their ideal body image using the Stunkard Scale (m=3.30±5.58) (Figure 7). The non-revealing uniform group showed no significant difference between their perceived reality and their ideal body image using the Stunkard Scale ± sd (m=2.7±4.97) (Figure 8).
Figure 7. Stunkard Scale Perceived Reality ratings compared to the Stunkard Scale Ideal rating for the Revealing Uniform Group.

Figure 8. Stunkard Scale Perceived Reality ratings compared to the Stunkard Scale Ideal rating for the Non-Revealing Uniform Group.
Independent t-tests were used to compare scores for the dependent variables between groups. There was no significant differences observed between mean scores for the revealing and non-revealing uniform groups for DMS ($t(57) = 0.889, p = 0.378$), BSQ ($t(57) = 0.122, p = 0.904$) or the Stunkard Scale for ideal body image ($t(57) = 2.987, p = 0.004$). However, there was a significantly greater mean score for the non-revealing uniform group compared with the revealing uniform group for the Stunkard Score for reality body image ($t(57) = 2.556, p = 0.013$).

**Discussion**

The purpose of this study was to investigate whether collegiate sport teams in which female participants were required to wear more revealing uniforms have a more negative self-perception of body image and greater drive for muscularity than those with non-revealing uniforms. A comparison of the athletes perceived actual body image with their perceived ideal was also investigated.

It was hypothesized that a more negative body image would be associated with athletes who wore more revealing uniforms in their sport. These individuals would have a lower body image score and higher drive for muscularity score than those with non-revealing uniforms. It was also expected that their perceived actual body image would be larger than their ideal, which would be a physique that was thinner and leaner. This research may provide sport professionals working with female athletes with a better understanding of the risk factors that influence female athlete psychological issues such as poor self-esteem, distorted body image and even disordered eating.

A total of 59 collegiate female athletes took part in the study. Each athlete was required to complete a questionnaire packet which included the BSQ, Stunkard Scales DMS, and demographics. Mean scores from the Body Shape Questionnaire, Stunkard
Scales, and Drive for Muscularity Scale were compared for each group in relation to uniform type.

The hypothesis that a negative body image would be linked to athletes wearing more revealing uniforms was not supported. The non-revealing uniform group chose a significantly smaller ideal body shape on the Stunkard Ideal Body Scale, than the revealing uniform group. The Stunkard Reality Body Scale scores were significantly higher between the two groups than the Stunkard Ideal Body Scale scores. Both groups had a low to moderate drive for muscularity and no to mild body dissatisfaction.

There were few differences between the non-revealing and revealing uniform groups. The non-revealing uniform group indicated a leaner/thinner body image as their perceived ideal as compared to their perceived actual body image than the revealing uniform group. This could be due to specific sport demands requiring a larger body shape as ideal for being successful. It was hypothesized that a more negative body image and a want to be leaner would be associated with athletes wearing more revealing uniforms. Therefore, the hypothesis was rejected. These individuals may be influenced by their coaches, teammates, their year in college and year in the sport. These individuals may have initially possessed high levels of body dissatisfaction or they may have a larger build due to the requirements of their specific sport though height and weight was not provided by the subjects. In a sport such as distance running a lean body size is preferable, in swimming a lean and tall body size is ideal, in a sport such as soccer or throwing more muscular legs or arms are ideal for performance. Therefore, calculating a BMI to compare to their ideal body image was not possible. These female athletes likely did not choose their specific sport based on uniform type. It is more likely these female athletes have a specific body type that is ideal for a specific sport which
has allowed them, along with their talent, to excel in their sport at the NCAA Division I level.

**Comparison of Ideal and Reality Body Image Scores**

A comparison of Stunkard Scale scores rating reality and ideal body image for subjects in both the revealing and non-revealing uniform groups demonstrated that these athletes selected a smaller ideal body shape than what has been reported in the literature for college age non-athlete females. Kong and Harris (2014) compared general or societal body image and sporting body or athletic body image dissatisfaction and disordered eating behaviors in female athletes. These athletes were in both leanness and non-leaness focused sports. An online questionnaire was used and found that these athletes had a higher body dissatisfaction (Kong and Harris, 2014). While another study found that involvement in collegiate athletics provides some protection from body image concerns (Varnes, Stellefson, Janellefson, Dorman, Dodd & Miller, 2013). This same study stated that athletes experienced better body image perceptions than non-athletes, prior to 2001. Since 2001, with the use of media, female athletes have been objectified with an emphasis on being athletic and thin (Varnes et al., 2013). This suggests that athletes may hold themselves to a smaller ideal body image due to their high activity levels in sport. The Stunkard Scale Ideal body image score revealed no significant difference between the two groups with 26 of these athletes having an ideal body image rating falling in the image 3 rating out of the 9 silhouettes. The Stunkard Scale Reality body image score however, was significantly different between the two groups. The revealing uniform group had thirteen of the athletes felt their reality body size was a 4 rating, and twelve of the non-revealing uniform group felt their reality body size was a 3 rating out of the 9 silhouettes. The revealing uniform group and the non-
revealing uniform group showed no significant difference within their respective group with comparing the Stunkard Scale perceived reality and ideal test. Both groups chose silhouettes between #2 and #5. In the revealing uniform group 60.6% chose silhouette #3 or #4 as their perceived body image. In the non-revealing uniform group 73% chose silhouettes #3 or #4. For the ideal body image silhouettes #2 through #4 were chosen by the revealing uniform group with 78.8% choosing silhouette #2 or #3; and the non-revealing uniform group choosing silhouettes #2 through #5 with 92.3% choosing silhouettes #3 or #4.

A 'normal' or 'healthy' score for the Stunkard Scale is considered to be Silhouette 4 corresponding to a BMI of 23 which falls within the health range for women (Hartley, 2012). Any discrepancy between the two figure selections (ideal vs reality) suggests body dissatisfaction. The Stunkard Body Image Scale scores suggest that the revealing uniform group desired a leaner body type as compared to where they perceived their body to be. Whereas the non-revealing uniform group had scores that represented their ideal body type to be the same or similar to that of their perceived body type. These group scores compare with the normal value with 34% of the female athletes choosing silhouette #4 which is part of the healthy range. The revealing uniform group selected significantly different body image ratings for the ideal and reality image assessments, as compared to the non-revealing uniform group. This finding suggests that both groups of athletes perceive the ideal body type to be leaner due to the nature of the sport, rather than having body dissatisfaction. The ideal body image for the revealing uniform group was a silhouette smaller than the non-revealing uniform group. The implications of these finding are that uniform type may have influence on these feelings.

These results suggested that the revealing uniform group may perceive an ideal body size as being leaner that the non-revealing group due to their greater exposure of
skin as compared to those in non-revealing uniforms. This may have been due to those individuals being engaged in a sport where a leaner figure is ideal for competition. It cannot be stated conclusively that a negative self-perception of body image is directly related to uniform type. In a study by Kong and Harris (2014), elite athletes from leanness and non-leanness focused sports, with revealing and non-revealing uniforms, felt pressure from society and their coaches concerning body shape. The lean sports included long distance running, lightweight boxing and rowing, cycling, and gymnastics. Non-lean sports included football, netball, soccer, hockey, baseball and waterpolo. The study investigated the role of body image in both sport and non-sport contexts as well as outside influences such as the role of competition, motivation and pressure from coaches. Female athletes, regardless of sport or uniform type, experience pressure from social norms, as well as their specific sport to fit the stereotype (Kong & Harris, 2014).

**Body Shape Questionnaire**

The results for the BSQ-34 for subjects in both groups demonstrated that these athletes had a mild dissatisfaction with their perceived body image. A 'normal' or 'healthy' BSQ-34 score range is having no to mild body dissatisfaction. Both the revealing and non-revealing uniform groups had high percentages of mild dissatisfaction with 70% and 69% of the subjects falling into this range respectively. In a study by Najma and Ashfaq (2012) participants completed the BSQ, among other questionnaires such as the Eating Attitudes Test, Physical Activities Test and Body Figure Preferences Test. The findings of this study indicated a positive relationship between physical fitness and body shape concern. Women had a higher body dissatisfaction, as well as having differing views on their current and ideal body shape when compared to men. This study further examined the relation between physical fitness and body shape satisfaction by
sex. They found that body size dissatisfaction is more common in women than in men. The women were more likely to choose a slimmer ideal body size, than their actual body size which is consistent with the findings of the present study (Najma & Ashfaq, 2012). Only female athletes were assessed in the present study, but according to the results both the revealing and non-revealing group chose a slimmer ideal body size on the Stunkard Scale. According to the BSQ results female collegiate athletes scored significantly lower than female non-athletes. This result is not consistent with other findings of college-athletes being more at risk of disordered eating than female non-athletes (De Pietro & Silverira, 2009; Lentillon-Kaestner, et al., 2014; Mouron, et al., 2014; Varnes, et al., 2013). Oliveira et al., (2003) found that the distortion of body image was more likely in non-athletes than it was in athletes. The subjects in this study were not elite athletes. The EAT-26 was used to assess these athletes' attitudes and behaviors toward disordered eating and the BSQ was used to assess the degree of body image dissatisfaction of each athlete. The BSQ "... differentiates two aspects of body image: the accuracy of body size estimates, and the feelings towards the body" (Oliveira et al., 2003, p. 360). Their results found no sign of disordered eating in this group of athletes but found some mild distortion of body image combined with worryment about body weight. The BSQ results indicated that distortion of body image was higher in non-athletes than in athletes (Oliveira et al., 2003). A study on lean verses non-lean sports, body dissatisfaction and self-esteem in Division I athletes revealed the female athletes in non-lean sports such as basketball and soccer had high levels of body dissatisfaction (Milligan & Pritchard, 2006). In a study by Milligan and Pritchard, (2006), the BSQ was used to assess body dissatisfaction in athletes. The authors grouped sports into non-lean sports and lean sports. Non-lean sports included basketball, tennis, golf, soccer and skiing, and lean sports included track and wrestling. The results showed that female
athletes in non-lean sports had higher body dissatisfaction. It was then concluded that disordered eating for these individuals could be predicted by: body dissatisfaction, low self-esteem, and the type of sport they participated in (lean verses non-lean). Though, it is not likely that participating in a lean sport puts athletes at a greater risk of disordered eating. The results revealed that females athletes who participated in sports such as basketball, tennis, golf, soccer and skillling (non-lean sports) displayed the higher levels of body dissatisfaction (Milligan & Pritchard, 2006).

These results suggest that the athletes in the present study differ from those in previous research, in that they are not highly dissatisfied with their bodies. The BSQ-34 scores indicate that both uniform groups have mild body dissatisfaction, which falls into the healthy category for this test. This finding means that both groups have mild body dissatisfaction, despite the type of uniform worn. An implication of these findings were that uniform type may not be a factor in these feelings. Assuming these athletes are striving to develop a greater fitness level on the basis of strength and power to meet the needs of their sport performance rather than to be more lean as it relates to attractiveness. Another reason these athletes may differ from previous research could be due to their coaching staff. The coaches of these athletes may not be pushing them to meet "ideal" body standards for their specific sport, therefore fostering a more body positive environment.

**Drive for Muscularity**

The results for the DMS for subjects in both the revealing uniform and non-revealing uniform groups demonstrated that these athletes, regardless of uniform group, have a low to moderate drive for muscularity. Body dissatisfaction and the drive for muscularity may not be parallel constructs (Bergeron & Tylka, 2007). A greater drive for
muscularity could be developed for a variety of reasons such as higher confidence, needs of the sport, and greater concerns about other areas of body image. Female athletes are faced with challenges from their sport and society. Female athletes are expected to have a certain level of muscularity while also conforming to societal norms of femininity. A study on women by Jacobi and Cash (1994), using the DMS, found that 78% wanted to be more muscular and 4% wanted to be less muscular. The female athletes in the present study have DMS scores that differ from the general population because of the demands of their specific sport, which may require them to be muscular in order to compete competitively. A study conducted by Steinfeldt and colleagues (2011) used the DMS to assess US athletes in the Midwest. Their results showed female student-athletes reported higher DMS scores than female non-athletes. The female student-athletes strived to be more muscular for reasons such as, functionality (45%), health (42%), external (21%) and internal gratification (18%), while 16% did not have a drive to become more muscular (Steinfeldt, Carter, Benton, & Steinfeldt, 2011). The current study only assessed athletes, though it can be assumed their reasons to be more muscular were related to reasons similar to those in the above study since these athletes scored overall in the healthy range on the DMS.

The 'normal' or 'healthy' range of DMS scores is having a low to moderate drive for muscularity (McCreary, 2007). Having no drive or a high drive is unhealthy. Fifty-one percent of the revealing uniform group subjects indicated that they had a moderate drive for muscularity while 45.5% had a low drive for muscularity and 3.5% had a high drive for muscularity. Forty-six percent of the non-revealing uniform group had a moderate drive for muscularity and 50% indicated a low drive for muscularity, while only 4% had a high drive for muscularity. These results for both the revealing and non-revealing uniform groups fell into the healthy ranges.
The DMS scores indicated that both uniform groups have a moderate to low drive for muscularity, which falls into the healthy category for this test. This finding means that both groups have a health drive for muscularity, despite the type of uniform worn. The implications of these finding are that uniform type may not be a factor in these feelings.

**Limitations.**

There were certain limitations that were inherent and unavoidable in this study. Only one school in the Midwest was assessed. There was a relatively low response rate from the athletic teams contacted overall. Only volunteers participated in this study, which may not be representative of the entire female athlete population, in particular those athletes with greater body dissatisfaction may have been less likely to participate. Some of the athletes assessed were in sports that were out of season at the time of the study, which may have changed their perception and feelings about their uniforms, possibly lessening their feelings due to not having worn their uniform recently. Athletes in-season may be more confident in their body and have a greater likelihood of participating.

**Recommendations for future studies.**

Future studies in this area should attempt to include a much larger number of subjects from each sport team and include a larger number and variety of sport. Subjects should be from a more diverse sampling of schools. Research may also need to be more focused on the issue of objectification of collegiate female athletes participating in more objectified sports because their psychological risks appear to be associated with objectification and not necessarily with uniform type or negative body image.
CHAPTER V

Summary and Conclusions

The purpose of this study was to investigate whether collegiate sport teams in which female participants are required to wear more revealing uniforms have a more negative self-perception of body image and greater drive for muscularity than those with non-revealing uniforms. In addition, the athlete's perceived body image and their ideal body image were compared.

Summary

The current study assessed fifty-nine female collegiate NCAA Division I athletes, thirty-three in the revealing uniform category and twenty-six in the non-revealing uniform category. These athletes voluntarily participated in this study. Fifty-nine questionnaires out of seventy-four distributed were completed and returned, for an overall response rate of 79.73 percent. Dependent measures included the Stunkard Scale, Drive for Muscularity, and Body Shape Questionnaire. The Stunkard Scale examined how an individual perceives her own physical appearance, as well as her ideal physical appearance using 9 schematic silhouettes. The DMS examined the individual's perception on her muscularity. The BSQ-34 examined body shape preoccupations that an individual may have on her body image.

The results demonstrated that athletes with revealing uniform types view their ideal body type to be more similar to their current body type than athletes with non-revealing uniforms who view the ideal body type to be leaner than their current body type. This could be due to those athletes in revealing uniforms are typically in a lean or
performance sport where their body size is often leaner than those in non-revealing uniforms. The female athletes in this study, were not at all or only mildly dissatisfied with their body shape regardless of uniform type. The female athletes in this study had a moderate to low drive for muscularity regardless of uniform type.

Conclusion

Collegiate sport teams in which female participants were required to wear uniforms that are more revealing, had a similar self-perception of body image and drive for muscularity as compared with those who wear non-revealing uniforms. From the results of this study it was concluded that the type of uniform a female athlete wears to compete in her sport has little impact on self-perception of body image or drive for muscularity.
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APPENDIX A

Introduction to the questionnaire.

The introduction to the questionnaire introduced the researcher and the purpose of the study, as well as indicated informed consent to participate.

**Body Image Survey**

**Welcome to My Survey!**

Hi, my name is Mary Gillespie, I'm a graduate student here at Eastern Illinois University in the Kinesiology and Sport Studies program. This project is for my thesis research examining body image in female athletes. I would greatly appreciate your participation in this study. Please complete the questionnaire packet as honestly and completely as you can. Your participation in this study is completely voluntary, if you would rather not participate, you may decline to accept the survey. By completing the survey you are indicating your voluntary, informed consent to participate. Thank you for your time in helping me with my research!

Thank you, again, for participating in our survey. Your feedback is very important!
APPENDIX B

Demographics.

This part of the questionnaire obtained ethnicity, sport team and position, how their uniform makes them feel and if their uniform hinders their performance, physically or mentally and why.

<table>
<thead>
<tr>
<th>Body Image Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographics</td>
</tr>
</tbody>
</table>

Answer the following questions

5. Please indicate your race/ethnicity
   - African American
   - Asian/Pacific Islander
   - Black
   - Caucasian/White
   - Hispanic/Latino
   - Indian
   - Other
   - Preference Not Stated

6. Which of the following sports do you participate in?
   - Baseball
   - Cross Country
   - Golf
   - Rugby
   - Soccer
   - Swimming
   - Tennis
   - Track & Field
   - Volleyball
   - Other (please specify)

7. What position/event are you?

8. Does your uniform make you feel uncomfortable? If so, how?

9. Do you believe your uniform hinders your performance, physically or mentally? If so, why?
APPENDIX C

Stunkard Scale.

The Stunkard Scale is a series of images of progressively heavier body types labeled 1 through 9 is used for the assessment of perceived and ideal body type.

Body Image Survey

Please take the time to look at each of the 9 figures and answer the following questions regarding them. Answer each question with the numbers below the figure.

1. Which of these 9 figures do you think most closely resembles your body at the present time?

2. If you could choose, which of these 9 figures which would you most like to look like?
APPENDIX D

The Drive for Muscularity Scale.

The Drive for Muscularity Scale is a 15-item, self-report, survey where participants indicate the extent to which a series of attitudes and behaviors are descriptive of themselves which represents the individuals perception of their muscularity or lack thereof.

Muscularity Scale

Please fill in the following items for each one with the number that best applies to you.

3. Answer the following:

<table>
<thead>
<tr>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>I believe I have a muscular body.</td>
</tr>
<tr>
<td>I try to maintain a muscular physique.</td>
</tr>
<tr>
<td>I enhance my muscularity through exercise.</td>
</tr>
<tr>
<td>I feel confident about my muscularity.</td>
</tr>
<tr>
<td>I believe I am attractive due to my muscularity.</td>
</tr>
<tr>
<td>I respect those who are muscular.</td>
</tr>
<tr>
<td>I believe muscularity is important.</td>
</tr>
<tr>
<td>I try to maintain a muscular physique in social situations.</td>
</tr>
<tr>
<td>I feel confident about my muscularity in social situations.</td>
</tr>
<tr>
<td>I believe muscularity is important to others.</td>
</tr>
<tr>
<td>I respect those who are muscular in social situations.</td>
</tr>
<tr>
<td>I feel confident about my muscularity in public.</td>
</tr>
<tr>
<td>I believe muscularity is important in public.</td>
</tr>
<tr>
<td>I respect those who are muscular in public.</td>
</tr>
<tr>
<td>I feel confident about my muscularity when interacting with others.</td>
</tr>
<tr>
<td>I believe muscularity is important when interacting with others.</td>
</tr>
<tr>
<td>I respect those who are muscular when interacting with others.</td>
</tr>
</tbody>
</table>

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APPENDIX E

Body Shape Questionnaire.

The Body Shape Questionnaire assess body concerns, satisfaction with body shape, weight and physical appearance, and self-depreciation due to physical appearance and the experience of feeling fat.

<table>
<thead>
<tr>
<th>Body Shape Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I think I am overweight.</td>
</tr>
<tr>
<td>2. I think I am underweight.</td>
</tr>
<tr>
<td>3. I am about the right weight.</td>
</tr>
<tr>
<td>4. I am not sure what my weight is.</td>
</tr>
<tr>
<td>5. I am not sure if I am overweight or underweight.</td>
</tr>
<tr>
<td>6. I am not sure if I am fat or thin.</td>
</tr>
<tr>
<td>7. I am not sure if I am too fit or too fat.</td>
</tr>
<tr>
<td>8. I am not sure if I am too thin or too fat.</td>
</tr>
<tr>
<td>9. I am not sure if I am too fit or too thin.</td>
</tr>
<tr>
<td>10. I am not sure if I am too fit or too fat.</td>
</tr>
</tbody>
</table>

4. Answer the following:

- How do you feel about your body shape?
- How do you think others feel about your body shape?
- How do you think you would like others to feel about your body shape?
- How do you think you would like others to think you are?
- How do you think you would like others to think you are not?
- How do you think you would like others to think you are fat or thin?
- How do you think you would like others to think you are fit or fat?
- How do you think you would like others to think you are fit or thin?
- How do you think you would like others to think you are fat or thin?
- How do you think you would like others to think you are fit or fat?