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A Preliminary Study: Body Dysmorphic Disorder in Division I Women's Collegiate Soccer Players

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By

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The prevalence of Body Dysmorphic Disorder (BDD) among collegiate athletes has not been clearly determined. The purpose of this study was to determine if there are symptoms of body dysmorphic disorder found in Division I women's soccer players. The researcher hypothesized that there would be some symptoms found within the participants of sport and that there was a need to research this area further.

The study consisted of four participants who participated in semi-structured interviews. The subjects were asked a series of questions from the Yale-Brown Obsessive Compulsive Scale Modified for Body Dysmorphic Disorder (BDD-YBOCS) to determine if they indicated any symptoms of BDD.

The prevalence of symptoms of BDD found among these four participants was very low. There was only one athlete who scored high on the questions that could be questionable of whether the indicators or symptoms of BDD were present.

In conclusion there was not enough evidence to support the research hypothesis. The sample used was not a clear representation of all Division I women's soccer players. Further research is needed to determine if BDD symptoms are found among Division I women's soccer players.

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Chapter 1

Introduction

Body Dysmorphic Disorder (BDD) is a condition commonly associated with collegiate athletes in a variety of college sports. Body dysmorphic disorder is a distressing or impairing preoccupation with a nonexistent or slight defect in body appearance (Pope, Gruber, Choi, Olivardia, & Phillips, 1997). The disorder can be found in men and women. When found in male athletes it appears to be more of a form of muscle dysmorphia, a perception that the athlete is too small or not muscular enough, and when found among female athletes it is more about a specific aspect of their appearance; they perceive they do not look like the athlete that is commonly associated with their sport. Body dysmorphic is also found along the obsessive-compulsive disorder spectrum, which is why individuals who struggle with BDD tend to have preoccupations or become obsessed with their particular perceived body defect. When determining the subjects to participate in the study it was determined that women collegiate soccer players were potentially important collegiate athletes to observe and interview. There has been no research done in this particular area, which underlines the question of whether it is prevalent in the sport.

In this study, the context of the study and the research question are clearly stated. The researcher provides an overall description of body dysmorphic disorder and some of the symptoms that can be associated with it. The researcher then explains the differences found between body dysmorphic disorder and other related disorders. Muscle dysmorphia is also briefly touched on so that the psychological aspect of this disorder can be seen in other forms of the disorder. Muscle dysmorphia can be seen, as it's own

disorder and could be examined more fully in another study. All limitations are stated as well as the results found by the researcher. In the conclusions section is a brief discussion of the study and how the study can be used to stimulate further research on the topic of body dysmorphic disorder and women's collegiate soccer players.

Context of Problem

Body Dysmorphic Disorder is found to be present among a number of different types of athletes. The disorder seems to mainly appear in those sports where athletes are to be a certain perceived type or body figure. For example in football the athlete is perceived to be more successful when they are bigger and faster, thus the athletes perceive they have to continue to lift weights and have a perceived view that they should be a certain size, even if they have already reached that size. Wrestling or body building is another male sport in which BDD can be observed. There is also a prevalence of BDD in women's sports such as gymnastics or ballet. Those athletes are more likely to be thin or skinny in nature, so athletes become obsessed with losing weight or having a small BMI (body mass index). Looking through the literature there was not a lot of information on those sports that weight is not as much a factor for the athlete to succeed. In this study, the researcher examined Division I women's collegiate soccer players to determine if indicators of BDD were prevalent among this type of athlete.

Research Question or Hypothesis

The purpose of this study was to explore the possibility of the existence of indicators of Body Dysmorphic Disorder among Division I women's collegiate soccer players. The research questions for the this study are:

1. Are there indicators and symptoms of BDD among women's collegiate soccer players?
2. If there are indicators or symptoms of BDD what is the severity of the indicator or symptom?
3. To what extent do the indicators or symptoms affect the athlete's performance?

Definitions

Body Dysmorphic Disorder (BDD)—characterized by imagined or slight defects in one's appearance; body image dissatisfaction; psychological disorder.

Muscle dysmorphia—is a form of obsessive-compulsive disorder that is more specifically subcategorized as body dysmorphic disorder; the compulsion is to achieve the desired levels of muscularity; bodybuilders.

Reverse anorexia nervosa—person who perceives themselves as two small or weak when in actuality they are large and muscular; term used before body dysmorphic disorder was introduced.

Athlete—refers specifically to those individuals who are currently competing at the varsity level of women's collegiate soccer at a Division I institution.

Researchers—refers to the athletic trainer and the psychiatrists that are working together to perform this study; they will also be administering the survey.

Survey/questionnaire/exam—refers to the Yale-Brown Obsessive Compulsive Scale Modified for Body Dysmorphic Disorder (BDD-YBOCS).

Body Image vs. Body defects—body image is the perception one has about the appearance of their body where body defect is the person's perception of a certain body

part they see is abnormal or not perfect for them. They usually become obsessed about fixing this aspect of their appearance.

Defect/Flaw—refers to part of the body the athlete feels is not perfect. A flaw/defect could be their facial features, a scar, or even another body part such as an arm or leg.

Delimitations

This study was focused on Division I women soccer athletes only. The objective was to look at only these athletes and the indicators and symptoms of BDD as clearly defined by the research question. Because of the time constraint researchers were only able to procure athletes from schools that were known by the researchers; a convenience sample.

In terms of demographics the only distinctions that were made was that the data was based on gender and age. There was also a distinction in what sport was examined. The sport (women's soccer) was of considerable importance, as there was minimal research, if any, that indicated BDD among women soccer players. Conversely, demographics based on race, ethnicity, SES, and/or nationality were not included as a variable.

This study was done as a preliminary study for future researchers. For the purposes of this study, the researchers were only looking at Division I women soccer players from a single Midwestern state.

The BDD-YBOC survey was used because it was available to the researcher free of charge. Another reason this survey was selected was because of the ease of administration of the survey; 10-15 minutes. This was the only survey used in this study.

Limitations

Only women's soccer players from Division I institutions were surveyed, so no student athletes in the Division II or Division III settings, where there may be different outside pressures were represented. This sample does not serve as a representative sample for women's soccer players as a whole.

The results may also be limited due to the time constraint of the survey. The survey is a 10-15 minute process and some athletes may not have time to sit down and take the survey with the researcher. There may also be limits to the results as there will be a researcher in the room with the athlete which may cause an influence on the athletes' answers.

Due to the time to complete the study (eight months) there were limitations about how many athletes were able to participate in the study.

In this study the survey was used only to try to determine if there were symptoms of BDD among the athletes. For the purpose of this study, the survey was not used to diagnose the athlete with BDD. This survey has been used in previous studies to help with diagnosing patients with BDD.

Chapter 2

Review of Literature

Body dysmorphic disorder (BDD) is a psychological disorder in which the person is preoccupied with an imagined or slight defect in their physical appearance (K. A. Phillips, Quinn, & Stout, 2008). BDD is a disorder that can affect a lot of people. The disorder can sometimes be chronic and debilitating and can become markedly excessive (Mulkens & Jansen, 2009). Individuals usually have problems with such areas such as their nose, ears, skin, hair or any other body part. With this disorder come things such as avoidance of certain activities and increasing others such as grooming, mirror checking and other types of ritualistic behaviors (U. Buhlmann, Etcoff, & Wilhelm, 2008).

Since the 1800s body dysmorphic disorder has been the term used for individuals that have distress about a certain flaw or defect about their body (Chung, 2001). Morselli first introduced BDD to psychiatric literature in 1891 and was then included in the Diagnostic and Statistical Manual of Mental Disorders—III in 1987 (Neziroglu, Roberts, & Yaryura-Tobias, 2004). Although it has been a term used for over a century, wasn't until the DSM-III and the ICD-10 came out that BDD was found in the diagnostic systems (Grant & Phillips, 2005). BDD has been classified as a somatoform disorder and is also considered to be a disorder that is very similar to obsessive compulsive disorder (OCD). Prevalence of BDD in the public is found more commonly in adolescence and early adulthood (Neziroglu et al., 2004). Although many studies show the prevalence of BDD beginning between ages 14-20 it is still hard to truly get a feel for the amount of cases, as some individuals may not be honest with questionnaires and surveys. It is hard

to truly track all cases of BDD unless individuals are honest with the researchers. Throughout the literature BDD has been known to have several different causes.

Causes of BDD vary from environmental to personal. One cause seen in the literature was the presence of childhood trauma. Types of childhood trauma include physical abuse and sexual abuse. "Abusive experiences may result in body dissatisfaction, intense feelings of body shame and body image distortion" (Semiz et al., 2008). A recent study showed the relationship between childhood traumatisation and BDD which include such behaviors as childhood maltreatment like emotional neglect (68.0%), emotional abuse (56.0%), physical abuse (34.7%), physical neglect (33.3%), and sexual abuse (28.0%) (Semiz et al., 2008). As children get older body dissatisfaction and body image distortion tends to lead to BDD. Some authors do believe that body dissatisfaction and body image distortion is a major aspect of BDD.

Another cause that is found in the literature is the presence of the media. Media these days put a lot of pressure to be a certain body type and size. Even items such as Barbie dolls and Action figures tend to express to kids that they should be a certain size or shape (Pope & Olivardia, 1999). To go along with that, one study about the effects of attentional training on body dissatisfaction showed that those individuals that were around negative shape/weight related information increases body dissatisfaction. Negative food words also resulted in a greater dietary restriction (Smith & Rieger, 2009). Another study looked at the regional brain volumes and symptom severity in body dysmorphic disorder and found that symptom severity correlates significantly with the size of the left IFG and the right amygdale (Feusner et al., 2009). These causes are only a

few that may explain why some subjects may develop BDD. They also may explain why some subjects with BDD may have more severe symptoms then others.

Individuals with body dysmorphic disorder, as stated above, see a defect in part of the appearance. Usually the areas that individuals find the most flaws are the head or face and usually involve the skin, hair or nose. They seem to think of themselves as "hideous" or "ugly." Although to the main public it may seem that the flaw the individual is obsessed over is very minimal, but to that individual it is seen as a major defect. Thoughts about these defects tend to go through the individual's mind anywhere from three to eight hours a day depending on the severity (Grant & Phillips, 2005). Some symptoms depend on the level of functioning. There are many behaviors that come along with this disorder that can be seen as a symptom. Some behaviors include mirror gazing or avoiding. Individuals with BDD are constantly look at themselves in the mirror or reflective surface leading to excessive grooming, skin picking, and reassurance checking, while others may totally avoid mirrors and reflective surfaces because they do not want to see the defect or see themselves with the defect (Neziroglu et al., 2004).

Individuals with BDD show special attention to their defect and believe that others do as well. BDD patients also avoid social interactions which could lead to being housebound (U. Buhlmann, Teachman, Naumann, Fehlinger, & Rief, 2009). They tend to camouflage or cover-up the "defected" area. These attitudes or beliefs also tend to lead to the individual having a low self-esteem or a feeling of shame (U. Buhlmann & Wilhelm, 2004; U. Buhlmann & Wilhelm, 2004). In some studies individuals show higher levels of perfectionism in patients with BDD then the healthy control group (U. Buhlmann & Wilhelm, 2004). Individuals will also go to extremes to try and fix their

defect. Cosmetic surgery is a common area where BDD is found. Individuals can become so obsessed with fixing their imagined or believed defect that they become addicted to cosmetic surgery.

In a study by Clerkin and Teachman they looked at the perceptual and cognitive biases in BDD. They found that individuals with BDD symptoms usually had a more negative thought process about their appearance then those with less or no symptoms. They showed that individuals with BDD tend to "overvalue" their physical appearance (Clerkin & Teachman, 2008). Cognitive bias in BDD individuals "interpret normal visual input, such as minor flaws, in a biased way that results in further negative mental, emotional and behavioral consequences" where with perceptual bias it is believed that persons with BDD may have distorted visual perceptions (Clerkin & Teachman, 2008). Cognitive factors can play a role in patient's symptoms of BDD. Information processing is the way individuals interpret information and those individuals with BDD tend to look more at the smaller details then the whole picture (U. Buhlmann & Wilhelm, 2004). Patients with BDD tend to not only look at their appearance, but the appearance of others and compare themselves to the other individual. This type of behavior tends to show where they are more attentive to their beauty ideal and their imagined ugliness (U. Buhlmann & Wilhelm, 2004).

Body dysmorphic disorder is a disorder that has very similar symptoms as some other psychiatric disorders. Such disorders include: anxiety disorders such as Obsessive-Compulsive Disorder (OCD), social phobia disorders, eating disorders, impulse control disorders and depressive disorders (Allen & Hollander, 2004). When thinking about BDD it is easy to see how similar the disorder is to OCD. OCD is characterized by

repetitive behaviors and intrusive thoughts along with prominent obsessions (Allen & Hollander, 2004; Grant & Phillips, 2005). Individuals with OCD or BDD are usually perfectionist, but the difference is that BDD patients usually obsess over their appearance flaw where as OCD patients can obsess over many domains (Allen & Hollander, 2004). There are other characteristics that are very similar in each disorder. There are a few research articles that discuss the similarities and differences between these two disorders. In one article it found there were similarities in demographic characteristics, age of onset and illness duration, most functioning measures and most co-morbidity (K. A. Phillips et al., 2007). While there are a few research articles on these two disorders they both have less media coverage and there is limited exposure to the nature and treatment of the two disorders in professional training (Lovell & Bee, 2008).

Although very similar there are differences between the two disorders, for example, BDD is considered a somatoform disorder where OCD is classified as an anxiety disorder. Some aspects of BDD that are not seen as much with OCD patients include they are least likely to be married, have poorer insight, and usually think about suicide a lot more then OCD patients (Grant & Phillips, 2005). Individuals with BDD also have the compulsive, repetitive behavior as those of OCD except they usually focus on the appearance flaw. Individuals with OCD have repetitive behaviors related to an obsessive fear, avoidance of situations, or reassurance seeking (Allen & Hollander, 2004). In one study it showed that substance abuse disorders were found more in BDD patients then in OCD patients as well as BDD patients were more likely to have lifetime major depressive disorder or any mood disorder (K. A. Phillips et al., 2007). There are many similarities as well as many differences between OCD and BDD. Some individuals

may have both disorders, but it is important for professionals to have the appropriate training and understanding of both disorders to make the appropriate diagnosis.

Another type of disorder that can be vey similar to BDD are pathological grooming impulsive control disorders. These disorders include trichotillomania (TTM) and psychogenic excoriation (PE). These disorders can mimic BDD symptoms, but there are some differences. TTM is a disorder that is characterized by hair pulling from different parts of the body. Although TTM is seen in some patients with BDD, the major differences are the ultimate goal (Allen & Hollander, 2004). People with BDD are looking to make their appearance better where those with TTM have constant urges and sensations to pull out their hair. TTM is also usually found mostly in women then BDD which is found equally in both men and women (Allen & Hollander, 2004). PE is considered to be a behavior in which people try to pick, scratch, squeeze or damage their skin in some other way. Usually PE goes along with TTM and is usually seen as a symptom of BDD (Allen & Hollander, 2004).

Eating disorders are also seen to be very similar to BDD. Symptoms of some eating disorders can be seen in BDD individuals. Anorexia nervosa is very similar in terms of the body image dissatisfaction and a preoccupation with perceived flaws (Allen & Hollander, 2004; Grant & Phillips, 2005). Self-esteem is seen as a big part of these disorders as they individuals usually have a lower self-esteem due to their obsessions about their appearance. Other similarities between eating disorders and BDD include prominent obsessive and compulsive features and frantically avoiding situations or clothing that would reveal their feature of concern (Allen & Hollander, 2004). Behaviors that are similar include dieting, excessive exercise, body measuring, and mirror checking,

however individuals with eating disorders look at their overall body weight and size, whereas individuals with BDD tend to look at specific parts of their body(Allen & Hollander, 2004). BDD also responds better to SRIs then eating disorders such as anorexia nervosa or bulimia (Grant & Phillips, 2005). It is important to understand the differences between these two disorders. Eating disorders can also be seen by themselves or could be seen along with BDD disorder.

Social phobia is a symptom of BDD, but it is also seen as another type of disorder. Social phobia is a very common disorder found amongst the overall population. In BDD individuals it is found anywhere from 12-69% and in social phobia individuals, BDD is found 12 to 13% of the time (Allen & Hollander, 2004). One symptom found amongst individuals with either disorder is the fear of other's evaluations of themselves. The focus of distress is different amongst individuals with social phobia and those with BDD. Individuals with BDD usually focus on their flaw or defect in their appearance where individuals with social phobia usually focus on their behaviors which may be seen to them as humiliating or embarrassing for them (Allen & Hollander, 2004). Usually adults with social phobia realize their fears are unrealistic, but children do not, as well with social phobia, compulsive repetitive behaviors are not seen (Allen & Hollander, 2004). Both BDD and social phobia have similarities, but they also have their differences. Social phobia is an aspect of BDD in which people avoid situations due to their appearance versus their actual behaviors. Again, it is important to understand and know the differences between the disorders in order to treat them correctly.

Body dysmorphic disorder is found equally amongst men and women. The prevalence of BDD is from about 0.7% to 13%, but this could be lower due to the fact

that some participants in studies may not reveal their symptoms or may not want to be interviewed due to shame (Neziroglu et al., 2004). Research suggests that BDD is found more in adolescence and early adulthood, but usually less severe and more common in girls. Girls tend to also have eating disorders associated or that exist co-morbidly with BDD (Neziroglu et al., 2004). BDD can also be seen later on in life especially during life changes such as pregnancy or after failed plastic surgery (Neziroglu et al., 2004). There are also incidences of BDD amongst sports participation. Usually those sports that focus on weight increases the incidence of eating disorders as well as BDD. Athletes that focus on high muscle mass as a major contributing factor to success at a sport usually leads to Muscle Dysmorphia (MD)(Grieve, 2007).

Muscle Dysmorphia is known to be a sub-category under body dysmorphic disorder. Also known as "reverse anorexia," muscle dysmorphia "the primary focus is not on how thin a person can get but rather on how large or muscular" (Leone, Sedory, & Gray, 2005). The prevalence of muscle dysmorphia is seen in sports that require a certain size to compete in. Sports such as football, wrestling and bodybuilding are some sports that athletes are more likely to develop muscle dysmorphia. Muscle dysmorphia is also an obsessive-compulsive disorder and is predominately seen in males then females (Leone et al., 2005).

There are three main components that will diagnosis someone with muscle dysmorphia. Those components are "(a) a preoccupation with the idea that the body is not muscular or lean enough, (b) a clinically significant impairment in life activities as a result of the preoccupation with insufficient musculature, and (c) the preoccupation is focused on having insufficient musculature, or being too small and not on other aspects

of appearance" (Davey & Bishop, 2006). Other symptoms of muscle dysmorphia, are similar to body dysmorphic disorder in that the person will possibly continuously check there appearance in mirrors and things such as seeking reassurance about their appearance. The belief is that due to socioculture influences, such as the idea that all men should have a specific build, mainly a muscular mesomorphic build (Davey & Bishop, 2006). In a study by Maida and Armstrong they found that "BDD alone was not as powerful a predictor of MD [muscle dysmorphia] as the combination of BDD, obsessive –compulsive disorder (OCD), body dissatisfaction (BDIS), and hostility (HOS)" (Maida & Armstrong, 2005). There are many elements of muscle dysmorphia and some are seen through BDD.

As stated above muscle dysmorphia is similar to BDD in that it can be seen within the OCD spectrum. Muscle dysmorphia, as stated in the literature is more related to males then females as well as more in athletes then non-athletes. When looking at athletes it is easy to see that some sports that require specific weights and builds will cause athletes to develop ideal body images they feel is appropriate for their sport. Some go to the extremes seen in body dysmorphic disorder, OCD, muscle dysmorphia and even eating disorders. Elite athletes train for long hours and sometime become preoccupied with their weight and become so preoccupied with their muscularity and body mass for performance reasons (Chung, 2001). For example sports like football and rugby have the idealization that you need to be big and muscular to be successful whereas in gymnastics or dance it's more that you need to lean and thin to be successful. For women the social ideal is to be thin so you see more of the issues with their appearance and eating disorders (Grieve, 2007).

There are many pressures in collegiate athletics. There are pressures on coaches to be successful, which intern can cause pressure on athletes to be successful. There are also social pressures that athletes experience at the collegiate level. When looking at women's collegiate athletics it has came a long way from where it started. There are a lot more pressures that women experience today when it comes to sports. There is little research about body dysmorphic disorder and the bigger sports such as women's basketball and women's soccer to name a few. The literature talks of women's sports such as gymnastics, ballet, and other forms of dance and the effects of body dysmorphic disorder. The study presented here is to mainly focus on one of the sports that have not been found in the literature. Division I women's collegiate soccer is not a highly talked about topic when it comes to body dysmorphic disorder or muscle dysmorphia. Presented below is a preliminary study that will hopefully bring light to the subject and possibly determine if there is a need to research further, body dysmorphic disorder in women's collegiate soccer players.

Chapter 3

Methodology

In collegiate athletics many student-athletes experience pressures from head coaches, strength coaches, the community, and others. Types of pressures that athletes can feel are those to be perfect at every aspect of the game. These types of pressures can also come from the coach being pressured to win or be at the top of the conference. Sometimes this can leave an athlete feeling like they need to do things such as changing diets, or increasing or decreasing workouts. Ultimately these pressures can sometimes lead student-athletes to believe that they have to be developed in a certain way to be a successful student-athlete. This study examined Division I women soccer players and their perceptions of their bodies. The investigation began by looking at the indicators and symptoms of BDD and if they were present in women soccer players.

It should be noted that the primary researcher was accompanied by a physician when the interviews were conducted with student-athletes. The physician's practice is largely focused on the medical treatment college athletes.

Research Design

This study used both qualitative and quantitative measures. A brief questionnaire was used to interview collegiate soccer players. It was a casual interview in which the researcher sat and talked with the participant about their feelings of or perceptions about body image. The interviewer then moved to the questions found on the BDD-YBOCS and recorded the responses of the interviewee. The questionnaire used a Likert Scale for answers. The participants were given the possible answers and they were instructed to choose one of those answers on the scale that best related to them. Using the results of

the questionnaire, the researcher was able to observe whether there were any indications or symptoms of BDD among the participants. Again, the researcher did not use the BDD-YBOCS questionnaire as a way to diagnosis the participant; it was used only to understand if symptoms existed.

Research Question/Hypothesis

The purpose of this study was to look at Division I women soccer players and determine if indicators and symptoms of BDD were present. There is minimal research on women soccer players and this study should serve as a pilot study to see if there could be a purpose to conduct additional research. The study may also assist other researchers to investigate if BDD is present in other sports not associated with gaining or losing weight for performance (i.e. wrestling, bodybuilding, football, gymnastics, etc).

Population/Sample

The sample used for this study was a convenience sample. Due to the administration of the questionnaire, we were only able to look at one Division I school. The school was located in Nebraska. The purpose of the study and what the study was about was explained to all coaches, athletic trainers, and athletes involved. Since the primary season for college soccer is in the fall the test was administered in the spring because of the time commitments of women's soccer players; they were more readily available to participate in a study during the spring. The coach of the women's soccer team signed a permission form allowing their soccer players to participate in the study. The athletes were instructed on how the test was to be performed and the researcher indicated that player names, identification of the school, and other information that might be used to identify and individual were confidential.

The subjects were all female and were between the ages of 18 and 24. They volunteered for the interview. The interviews were scheduled on a day chosen by the researcher and at a time that was convenient for the athlete. In addition to gender, age and sport, no other factors were looked at (i.e. ethnicity, SES, etc.) during this study.

Instrument

The instrument used for this study was the Yale-Brown Obsessive Compulsive Scale Modified for Body Dysmorphic Disorder (BDD-YBOCS). This scale is a 12-item semi-structured instrument that was designed to look at the severity of body dysmorphic disorder of the athlete in the past week. The scale was administered by a clinician or research assistant. Items on the scale assess obsessional preoccupations, compulsive behaviors, insight, and avoidance of activities. Each item was scored from a range of 0 (no symptoms) to 4 (extreme symptoms). This scale was not intended to primarily be used as a diagnostic instrument. To get the total for the score the researcher added the total of the scores from items 1-12.

When administered the test only took approximately 10-15 minutes to complete. The reliability of this test was 0.80 and Pearson correlations between each item and the total score ranged from 0.29 to 0.58. The joint reliability for individual items ranged from 0.79 to 1.0 and for the total score joint reliability was 0.99. Test-retest reliability was 0.88. Convergent validity showed significant correlation with scores on a 7-point scale mirroring DSM-IV-TR criteria for BDD. BDD-YBOCS scores were positively correlated with the Clinical Global Impressions (CGI) and the Beck Depression Inventory (BDI). BDD-YBOCS scores were negatively correlated with the Global Assessment of Functioning Scale (GAF Scale).

The BDD-YBOCS is used mainly in treatment studies of BDD. It also helps to assess the severity of the disorder and change with treatment in a clinical setting. It is a scale that is easily administered and is capable of assessing any presentation of BDD. There are limitations to this scale. The items that measure resistance to obsessions and to compulsions are problematic in the Y-BOCS, and they are weaker in the BDD-YBOCS.

Data Collection Procedures

The researcher contacted the coach after approval from the IRB. At that point the researcher received a signed copy from the coach that they give permission for the researcher to talk with their team about the study. The researcher then set a time to meet with the team as a whole and get volunteers to take part in the study. The purpose of the study and the reason for choosing the participants was clearly explained in the team meeting. Once volunteers were found the researcher passed out contact information sheets that were to be used to set up interview times. All information collected that relates to the participant will only be for the researchers use and will not be available for any other person. The athletes then signed up for an interview time and day that was set by the researcher. Once the times and days were established the researcher then contacted the participant the day before their interview to remind them of their time.

The interviews took place in the team locker room. The door was locked and only one athlete was interviewed at a time. The interviews were spaced 30 minutes apart, which allowed plenty of time for the participants to get there and not be waiting outside the door. All information from those interviews was kept confidential. The athlete was asked a series of questions from the BDD-YBOCS and the researcher wrote down their answers. Once the interview was over the researcher allowed the participant to ask any

questions they may have and once all questions were asked and answered the participant was allowed to leave. There will be no follow-up to this questionnaire and only the answers from this study were analyzed.

Data Analysis

The results of the interviews were quite interesting. As the number of participants allowed it was seen there was not enough data to get a true feel of body dysmorphic disorder in women's collegiate soccer players as a whole. Overall the participants did not have the same concern. One participant was more worried about eating habits and the future then an actual aspect of her body. Another participant was worried about her arms and another about her skin and legs. As seen there is not a similarity between the participants concerns. No participant interviewed had the same concern as that of another participant. As stated before if there were more participants in the study we may have seen an overlap in what athletes are most concerned with.

Out of a total possible score of 48 the highest score made was 19, which indicates very minimal symptoms of body dysmorphic disorder. The average total score across participants was 13, which again is a low scale to indicate that body dysmorphic disorder is present. When breaking down the interview questions that first 5 items of the questionnaire look at BDD-related preoccupations. The highest score made out of a possible 20 was 10 and the lowest score was 2. The average score of the first 5 items was 5.75. The second 5 items of the questionnaire rates the BDD-related behaviors. Out of a possible 20 points the highest score was 9 and the lowest was 2. The average score of the second 5 items was 5.75. When looking at insight and avoidance it was seen that most all

participants had good insight and a strong hold on their concerns. The highest score on either of those questions was a 1 out of a possible 4.

Chapter 4

Conclusion

Body dysmorphic disorder is a disorder that can be found in men and women. BDD is classified through the concerns about an appearance flaw that could possibly leave the subject to such extremes as avoiding normal everyday activities. "BDD appears to commence during adolescence, is not gender specific, and is often comorbid with OCD, social phobia, depression and personality disorders" {{20 Neziroglu, Fugen 2004; }}. This study is a study about the symptoms of body dysmorphic disorder in women's collegiate athletes. In looking at women athletes it was decided to look at soccer players at the collegiate level, as there is little research in that area.

The participants in this study did showed only minimal indicators of body dysmorphic disorder. There was about a 27% chance that the participants may develop the disorder or symptoms of the disorder. All participants had a low probability of developing the disorder in full. Further, the participants also had a very good insight about the appearance flaws and how they viewed themselves to everyone else in their sport. There was only one participant that seemed to have a stronger degree of symptoms related to body dysmorphic disorder, but they did not seem so extreme as to avoid certain aspects of her everyday life. No participant was concerned of about the same appearance flaw.

Athletes tend to a have a multiplicity pressures on them to be successful. Through the interviews conducted it was seen that their appearance flaws that they pointed out, did not interfere with their playing ability. They were able to do all necessary tasks to be successful at their sport. There was also little concern about the

appearance flaw while performing those tasks for their sport. Most of the participants stated that they may look at their appearance once or twice before activities, but for the most part they were not too concerned about the appearance flaw they had discussed.

In this study it was hard to really see if there were symptoms of body dysmorphic disorder in women's collegiate soccer players. As there were only 4 participants, it was not really a good representation of women's collegiate soccer players as a whole. There needs to be more participants involved with the study to truly get a good representation. In future studies it would be better to have more participants as well as participants from different aspects of the nation. Another aspect to add to future studies would also be to look at all women's soccer players in all division. Further the study presented here was successful in determining that further research needs to be conducted to truly see if body dysmorphic disorder is present in women's DI collegiate soccer players.

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Appendix A

IRB Approval

University of Nebraska Lincoln

April 30, 2010

Tammy Jones
Department of Educational Administration
5621 Briar Rosa Ln #14 Lincoln, NE 68516

Larry Dlugosh
Department of Educational Administration
141C TEAC, UNL, 68588-0360

IRB Number: 20100410610EP
Project ID: 10610
Project Title: Body Dysmorphic Disorder in Division I Women's Collegiate Soccer Players

Dear Tammy:

This letter is to officially notify you of the approval of your project by the Institutional Review Board (IRB) for the Protection of Human Subjects. It is the Board's opinion that you have provided adequate safeguards for the rights and welfare of the participants in this study based on the information provided. Your proposal is in compliance with this institution's Federal Wide Assurance 00002258 and the DHHS Regulations for the Protection of Human Subjects (45 CFR 46).This protocol has been reviewed expedited, category 7.

Date of EP Review: 03/11/2010

You are authorized to implement this study as of the Date of Final Approval: 04/30/2010. This approval is Valid Until: 04/29/2011.

We wish to remind you that the principal investigator is responsible for reporting to this Board any of the following events within 48 hours of the event:
* Any serious event (including on-site and off-site adverse events, injuries, side effects, deaths, or other problems) which in the opinion of the local investigator was unanticipated, involved risk to subjects or others, and was possibly related to the research procedures;
* Any serious accidental or unintentional change to the IRB-approved protocol that involves risk or has the potential to recur;
* Any publication in the literature, safety monitoring report, interim result or other finding that indicates an unexpected change to the risk/benefit ratio of the research;
* Any breach in confidentiality or compromise in data privacy related to the subject or others; or
* Any complaint of a subject that indicates an unanticipated risk or that cannot be resolved by the research staff.

For projects which continue beyond one year from the starting date, the IRB will request continuing review and update of the research project. Your study will be due for continuing review as indicated above. The investigator must also advise the Board when this study is finished or discontinued by completing the enclosed Protocol Final Report form and returning it to the Institutional Review Board.

If you have any questions, please contact the IRB office at 472-6965.

Sincerely,
{Mario's Signature}
Mario Scalora, Ph.D.
Chair for the IRB

Appendix B

Script for Recruiting Participants

Script for Recruiting Participants

This script will take place after the approval of the coach to allow us to talk with his team and ask for volunteers for the study. The researchers will be present during the meeting with the team as a group to inform the soccer team of what the study is about.

The script:

Body image is an important aspect of all sports. In looking at different areas to study I have decided to look at the different perceptions that athletes have about body image. With the help of our sport psychiatrist I have chosen this topic as well as an appropriate method for looking at the way that some athletes believe body image should be for certain sports. Soccer is a sport that has not been touched on, in terms of body image. Female athletes have been looked at but not a specific sport such as soccer. I wanted to do something different and I wanted to look at female soccer players.

All information related to you and the institution will remain confidential. Results will only be seen by the researchers and only used for research purposes. All contact information will also be confidential. Anything related to you, the participant, or the institution that can be used for identification will be locked in a filing cabinet in my office.

I come to you today to ask for volunteers to take part in this study. Dr. Stull and I will be the main researchers and will be the ones doing the interviews if you choose to participate. The interviews will take about 15 minutes of your time. Again this is voluntary and if you do decide to participate in this study you can withdraw at any point. I will be glad to take any questions that you may have at this time.

After all questions are answered, the researcher will distribute the participant information sheet and explain it to potential participants:

The researcher will distribute participant information sheets. Please complete all information the sheet and return it to the researcher before you leave. All contact information on this sheet will only be seen by the researchers and will not be used for anything but contacting you about when and where the interviews will take place. Again please feel free to ask any questions you may have.

Appendix C

Participant Informed Consent Form

Body Dysmorphic Disorder in Women's Division I Collegiate Soccer Players
Participant Informed Consent Form

This research project is intended to explore body dysmorphic symptoms in Division I women soccer players. In order to participate in this study you must be at least 19 years of age but no older than 24. You have been invited to participate in this study because of your involvement with a Division I collegiate women's soccer program.

This study is voluntary. Participation in this study will require about 10-15 minutes of your time. You will be interviewed by the researcher and your responses will be recorded. Questions will be pertaining to body dysmorphic disorder symptoms and will not be used to diagnosis any disorders. The interview is only used as a research tool.

It is not our intent to embarrass you or make you feel uncomfortable during the interview. If you do have any discomforts from the study you can receive psychological treatment with a UNL Psychologist or one of our own Sport Psychologist or Sport Psychiatrist. If you are at a different institution then UNL then you will be allowed to follow up with your on campus psychological and counseling services.

The information gained from this study will help to see if there are symptoms of BDD in women's collegiate soccer players. This is a topic that has not been touched on by many researchers. The benefits from this study are to help clinicians become more familiar with the symptoms of BDD.

Any information obtained through this study will be completely confidential. All participants will be anonymous. Colleges or universities in this study will also be anonymous. Data will only be accessed by the primary researcher. Data will be kept in a locked cabinet in the office of the primary researcher. Data will also be kept for 3 years. The information of this study may be published in sport psychology and athletic training journals, but all identities and data will be anonymous.

Interviews will take place in selected rooms decided on by the researchers. If you are at UNL the interviews will take place in the Athletic Medicine training rooms in the back examining rooms. For Creighton and NC State there will be a room or office assigned for the interviews determined with the help of the researcher and participating institutions.

As a participant you have the right to ask questions and have those answers before beginning the research study. You may contact the primary or secondary investigator (See names on page 2) if you have any questions concerning, injury related to the research, psychological concerns, or to voice any complaints about the research. Please contact The University of Nebraska-Lincoln Institutional Review Board (402) 472-6965 for any concerns listed below:

- If you wish to speak to someone other than the research staff
- To voice any concerns about the research
- Concerns about the research process

- If the research staff could not be reached

Again participation in this study is voluntary. You may refuse to participate or withdraw from the study at any time without harming your relationship with the athletic medicine department or your soccer program.

You are making the decision to voluntarily participate in this research study. Your signature below certifies that you have read and understood the information presented before you. You will be given a copy of this consent form for your records.

_____ _____

Signature of Research Participant Date

Name and Phone Numbers of Researchers

Tammy Jones, LAT, ATC, Primary Investigator	Cell: (910) 330-1595 Office: (402) 472-2791 e-mail: tjones@huskers.com
Dr. Todd Stull, UNL Sport Psychiatrist	Office: (402) 552-2112 twstull@unmc.edu
Dr. Larry Dlugosh, Secondary Investigator	Office: 402-472-0975 ldlugosh1@unl.edu

Appendix D

Approval for Interviewing (Coach)

Approval for Interviewing Soccer Players

I _____ coach of _____ women's soccer team hereby give my permission for Tammy Jones and Dr. Todd Stull to interview my athletes as part of the study for BDD in DI collegiate soccer players. They have met with me or have called me to inform me about the purpose of the study and the methods by which they are collecting data.

I understand all risks involved with this study. I also understand that I may call them or contact them at any time if any questions arise. I understand that I may stop the study at any time.

Please accept this as my official approval to use my team as part of this study.

_____ _____

Printed Name of Coach Printed name of Researcher

_____ _____

Signature of Coach Signature of Researcher

Appendix E

Information about Participant

Information about participants

Dear _____

Please fill out the following information. All information will be kept confidential and will only be used for contacting participants for the purpose of this study only.

Name: _____

Age: _____

E-mail: _____

Phone Number *: _____

Times to best reach you at: _____

Times and days best available for interviewing: _____

*optional

Appendix F

BDD-YBOCS Instrument

INSTRUCTIONS FOR THE BDD-YBOCS (8/97)

Purpose: This rating scale is designed to rate the severity and type of symptoms in individuals with body dysmorphic disorder (BDD). BDD is defined as a preoccupation with an imagined or slight defect in appearance--for example, "thinning" hair, a "large" nose, or a "scarred" face. The scale is derived from the Yale-Brown Obsessive Compulsive Scale (Y-BOCS). Like the Y-BOCS, the first 5 items rate BDD-related *preoccupations*, and the second 5 items rate BDD-related *behaviors*. The BDD-YBOCS also rates *insight* (item 11) and *avoidance* (item 12).

Format: This rating scale is intended for use as a semi-structured interview. The interviewer should assess the items in the listed order and read the questions provided. However, the interviewer is free to ask additional questions for purposes of clarification. In general, the ratings should depend on the patient's report; however, the final rating is based on the interviewer's clinical judgment.

- Brackets [ ] indicate material that should be read, filling in the body parts of concern.
- Parentheses ( ) in the probes indicate optional material that may be read.
- Italicized items are instructions and reminders to the interviewer.

Sources of Information: If the patient volunteers information at any time during the interview, that information should be considered. Ratings should be based primarily on reports and observations gained during the interview. Additional information supplied by others (e.g., spouse or parent) may be included in a determination of the ratings only if it is judged that 1) such information is essential to adequately assessing symptom severity, *and* 2) consistent week-to-week reporting can be ensured by having the same informant(s) present for each rating session. If you judge that the information being provided is grossly inaccurate, then the reliability of the patient or informant is in doubt and should be noted accordingly on the interview.

Ratings: Rate each item ***during the past week*** up until and including the time of the interview. Scores should reflect the average (mean) occurrence of each item for the entire week. For questions 1 through 5 (which rate BDD related preoccupations), rate the *total* (composite) effect of *all* body parts of concern. For items 6 through 10 (which rate BDD-related behaviors), also rate the *total* (composite) effect of *all* behaviors. For items 9 and 10 (resistance and control items), if the patient's responses differ for different behaviors, select the response that represents an average score for the different behaviors. For item 12, do <u>not</u> rate avoidance of compulsive behaviors such as looking at mirrors; instead, rate the extent to which the patient avoids activities that contribute to adequate functioning--e.g., avoidance of social interactions or work-related activities.

The preoccupation questions use the word "defect" to describe the disliked body areas. Some individuals, however, find this word too "strong" and prefer a word such as "flaw" or "appearance." Such terms can be substituted for the word "defect" as long as it is clear

that the interviewer is asking about disliked aspects of the person's physical appearance that meet criteria for BDD (see diagnostic questions below).

Questions 6-10 use the word "activities," but words such as "behaviors" or "compulsive behaviors" can be substituted if it is clear that the interviewer is asking about BDD-related repetitive behaviors (see below for a list of sample behaviors).

Question 2 provides examples of functional impairment in italics with Y/N for the interviewer to indicate yes or no. It is important to ask about all of these items. However, this is not an exhaustive list of areas of impairment, and the interviewer needs to ask about and include any other types of interference in functioning that the individual experiences as a result of their BDD symptoms.

Diagnosing BDD: Before proceeding with questions 1-5, you must first determine that the patient has BDD and identify the body parts with which he or she is excessively concerned. The diagnosis is made if the person is preoccupied with an imagined defect in appearance; if a slight physical anomaly is present, the person's concern must be markedly excessive. Any body part can be the focus of concern, and patients are commonly preoccupied with multiple body parts. In addition, the preoccupation must have caused clinically significant distress or impairment in social, occupational, or other important areas of functioning. Finally, to receive a diagnosis of BDD the preoccupation cannot be better accounted for by another mental disorder (for example, the person's concern cannot be limited to body shape and size if he or she has anorexia nervosa). It is important that only those concerns related to perceived ugliness, appearance defects or flaws, or unattractiveness be rated. For example, if a patient dislikes his self-inflicted wounds because they remind him that he is mentally ill, do not rate this concern with the BDD YBOCS.

To determine whether the person has BDD, and to identify the body parts of concern, the following questions should be asked:

"Are you very worried about your appearance in any way?

IF YES: What is your concern? Do you think (body part) is especially unattractive? What about the appearance of your face, skin, hair, nose, or the shape/*size*/other aspect of any other part of your body?

Does this concern preoccupy you? That is, you think about it a lot, and wish you could worry about it less? How much time do you spend thinking about your appearance each day if you add up all the time it goes through your mind? (A total of 1 or more hours a day is considered compatible with the diagnosis of BDD.)

What effect does this preoccupation have on your life? Does it cause you a lot of distress? Does your concern have any effect on your family or friends?

List body parts of concern here:

Identifying BDD Behaviors: Associated behaviors, which are inquired about with questions 6 through 10, must also be identified before asking these questions. These behaviors can be identified by asking the patient whether he/she engages in any repetitive or time-consuming behaviors in association with his/her concern about the "defect." The following behaviors, which are common in BDD, should be specifically asked about *(check all that apply):*

____Checking the "defect" in mirrors or other reflecting surfaces (or checking it directly if visible without the use of a mirror)

Seeking reassurance from others about the appearance of the body part

____Asking others to look at or verify the existence of the "deformity"

____Requests for surgery, dermatologic treatment, or other treatment

____Comparing the body part with the same body part of others

____Touching the body part

Grooming behaviors (for example, hair combing, hair styling, or shaving)

____Skin picking

____Skin cleansing routines

____Applying makeup

____Camouflaging (for example, with makeup or with hats or other clothing); when asking question 6, however, only rate time spent selecting or fixing camouflage (such as hat), not the time spent wearing it.

____Selecting or changing clothing

Excessive exercise (rate time over 1 hour a day)

____Other; describe:_____

On repeated testing, you should review and, if necessary, revise the list of "defects" and associated behaviors before doing the ratings. It is useful to be aware of past symptoms because they may re-appear during subsequent testing.

BODY DYSMORPHIC DISORDER MODIFICATION OF THE Y-BOCS (BDD-YBOCS)©

(Adult version)

For each item circle the number of the response which best characterizes the patient during the **past week**.

---

1. **TIME OCCUPIED BY THOUGHTS ABOUT BODY DEFECT**

How much of your time is occupied by THOUGHTS about a defect or flaw in your appearance [list body parts of concern]?

0 = None
1 = Mild (less than 1 hr/day)
2 = Moderate (1-3 hrs/day)
3 = Severe (greater than 3 and up to 8 hrs/day)
4 = Extreme (greater than 8 hrs/day)

---

2. **INTERFERENCE DUE TO THOUGHTS ABOUT BODY DEFECT**

How much do your THOUGHTS about your body defect(s) interfere with your social or work (role) functioning? (Is there anything you aren't doing or can't do because of them?)

Examples include:

Y/N Spending time with friends
Y/N Dating
Y/N Attending social functions
Y/N Doing things w/family in and outside of home
Y/N Going to school/work each day
Y/N Being on time for or missing school/work
Y/N Focusing at school/work
Y/N Productivity at school/work
Y/N Doing homework or maintaining grades
Y/N Daily activities

0 = None
1 = Mild, slight interference with social, occupational, or role activities, but overall performance not impaired
2 = Moderate, definite interference with social, occupational, or role performance, but still manageable
3 = Severe, causes substantial impairment in social, occupational, or role performance
4 = Extreme, incapacitating

---

3. **DISTRESS ASSOCIATED WITH THOUGHTS ABOUT BODY DEFECT**

How much distress do your THOUGHTS about your body defect(s) cause you?

Rate "disturbing" feelings or anxiety that seem to be triggered by these thoughts, not general anxiety or anxiety associated with other symptoms.

0 = None
1 = Mild, not too disturbing
2 = Moderate, disturbing
3 = Severe, very disturbing
4 = Extreme, disabling distress

---

4. **RESISTANCE AGAINST THOUGHTS OF BODY DEFECT**

How much of an effort do you make to resist these THOUGHTS?
How often do you try to disregard them or turn your attention away from these thoughts as they enter your mind?

Only rate effort made to resist, NOT success or failure in actually controlling the thoughts. How much patient resists the thoughts may or may not correlate with ability to control them.

0 = Makes an effort to always resist, or symptoms so minimal doesn't need to actively resist
1 = Tries to resist most of time
2 = Makes some effort to resist
3 = Yields to all such thoughts without attempting to control them but yields with some reluctance
4 = Completely and willingly yields to all such thoughts

---

5. **DEGREE OF CONTROL OVER THOUGHTS ABOUT BODY DEFECT**

How much control do you have over your THOUGHTS about your body defect(s)?
How successful are you in stopping or diverting these thoughts?

0 = Complete control, or no need for control because thoughts are so minimal
1 = Much control, usually able to stop or divert these thoughts with some effort and concentration
2 = Moderate control, sometimes able to stop or divert these thoughts
3 = Little control, rarely successful in stopping thoughts, can only divert attention with difficulty
4 = No control, experienced as completely involuntary, rarely able to even momentarily divert attention

---

6. **TIME SPENT IN ACTIVITIES RELATED TO BODY DEFECT**

The next several questions are about the activities/behaviors you do in relation to your body defects.

How much time do you spend in ACTIVITIES related to your concern over your appearance?

0 = None
1 = Mild (spends less than 1 hr/day)
2 = Moderate (1-3 hrs/day)
3 = Severe (spends more than 3 and up to 8 hours/day)
4 = Extreme (spends more than 8 hrs/day)

Go through list of activities with pt (ask questions 6-10 about all that apply)

___Checking mirrors/other surfaces
___Grooming activities
___Applying makeup
Excessive exercise (time beyond 1 hr. a day)
___Selecting/changing clothing or other cover up (rate time spent selecting/changing clothes, not time wearing them)
___Scrutinizing others' appearance (comparing)
___Questioning others about or discussing your appearance
___Picking at skin
___Touching the body areas
___ Other

7. **INTERFERENCE DUE TO ACTIVITIES RELATED TO BODY DEFECT**

How much do these ACTIVITIES interfere with your social or work (role) functioning? (Is there anything you don't do because of them?)

0 = None
1 = Mild, slight interference with social, occupational, or role activities, but overall performance not impaired
2 = Moderate, definite interference with social, occupational, or role performance, but still manageable
3 = Severe, causes substantial impairment in social, occupational, or role performance
4 = Extreme, incapacitating

8. **DISTRESS ASSOCIATED WITH ACTIVITIES RELATED TO BODY DEFECT**

How would you feel if you were prevented from performing these ACTIVITIES? How anxious would you become?

Rate degree of distress/frustration patient would experience if performance of the activities were suddenly interrupted.

0 = None
1 = Mild, only slightly anxious if behavior prevented
2 = Moderate, reports that anxiety would mount but remain manageable if behavior is prevented
3 = Severe, prominent and very disturbing increase in anxiety if behavior is interrupted
4 = Extreme, incapacitating anxiety from any intervention aimed at modifying activity

9. **RESISTANCE AGAINST COMPULSIONS**

How much of an effort do you make to resist these ACTIVITIES?

Only rate effort made to resist, NOT success or failure in actually controlling the activities. How much the patient resists these behaviors may or may not correlate with his/her ability to control them.

0 = Makes an effort to always resist, or symptoms so minimal doesn't need to actively resist
1 = Tries to resist most of the time
2 = Makes some effort to resist
3 = Yields to almost all of these behaviors without attempting to control them, but does so with some reluctance
4 = Completely and willingly yields to all behaviors related to body defect

10. **DEGREE OF CONTROL OVER COMPULSIVE BEHAVIOR**

How strong is the drive to perform these behaviors? How much control do you have over them?

0 = Complete control, or control is unnecessary because symptoms are mild
1 = Much control, experiences pressure to perform the behavior, but usually able to exercise voluntary control over it
2 = Moderate control, strong pressure to perform behavior, can control it only with difficulty
3 = Little control, very strong drive to perform behavior, must be carried to completion, can delay only with difficulty
4 = No control, drive to perform behavior experienced as completely involuntary and overpowering, rarely able to even momentarily delay activity

11. **INSIGHT**

Is it possible that your defect might be less noticeable or less unattractive than you think it is?

How convinced are you that [fill in body part] is as unattractive as you think it is?

Can anyone convince you that it doesn't look so bad?

0 = Excellent insight, fully rational
1 = Good insight. Readily acknowledges absurdity of thoughts (but doesn't seem completely convinced that there isn't something besides anxiety to be concerned about)
2 = Fair insight. Reluctantly admits that thoughts seem unreasonable but wavers
3 = Poor insight. Maintains that thoughts are not unreasonable
4 = Lacks insight, delusional. Definitely convinced that concerns are reasonable, unresponsive to contrary evidence

12. **AVOIDANCE**

Have you been avoiding doing anything, going any place, or being with anyone because of your thoughts or behaviors related to your body defects?
If YES, then ask: What do you avoid?

Rate degree to which patient deliberately tries to avoid things such as social interactions or work-related activities. Do <u>not</u> include avoidance of mirrors or avoidance of compulsive behaviors.

0 = No deliberate avoidance
1 = Mild, minimal avoidance
2 = Moderate, some avoidance clearly present
3 = Severe, much avoidance, avoidance prominent
4 = Extreme, very extensive avoidance; patient avoids almost all activities

Brackets [ ] indicate material that should be read, filling in the body parts of concern.
Parentheses ( ) or the probes indicate optional material that may be read.
Italicized items are instructions and reminders to the interviewer.

Phillips KA, Hollander E, Rasmussen SA, Aronowitz BR, DeCaria C, Goodman WK. A severity rating scale for body dysmorphic disorder: development, reliability, and validity of a modified version of the Yale-Brown Obsessive Compulsive Scale. Psychopharmacol Bull 1997;33:17-22.

