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THE RELATIONSHIPS BETWEEN ALEXITHYMIA, PERFECTIONISM, SELF-ESTEEM, ETHNICITY AND BODY IMAGE DISTURBANCE

by

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## The Relationships between Alexithymia, Perfectionism, Self-Esteem, Ethnicity and Body Image Disturbance

### **Literature Review**

#### **Body Image**

Body image, as described by Birchchnell, Lacey, and Harte, involves physiological, conceptual, and emotional components (1985). The cognitive ability to recognize size and weight (physiological), capacity to hold a mental image of one's body in her mind (conceptual), and the attitudes towards the form and weight of one's body (emotional) contribute to the development of body image (Birchchnell et al., 1985). In modern culture, the primary foci pertaining to body image appear to be on one's weight and shape of the body (Tiggemann & Lynch, 2001). Recent data suggests that 80 percent of women in the United States are dissatisfied with their appearance (Ross, 2013). This negative attitude towards the body extends to young American girls. For instance, it is documented that 50-70 percent of normal weight girls believe they are overweight, with 81 percent of ten year old girls reportedly feeling afraid of becoming overweight. Additionally, 35 percent of 6-12 year old girls have a desire to diet and 42 percent of first through third grade girls have a desire to lose weight (Ross, 2013).

#### **Theoretical Perspectives on Development of Body Dissatisfaction**

Psychoanalytic theory paints negative views of one's physical appearance as a reflection of a harsh, critical superego that attacks the self for thoughts and feelings that are perceived to be unacceptable (Freud, 1936). Anna Freud described a defense mechanism employed by the ego known as "turning against the self" which refers to the redirection of these unacceptable, negative emotions towards a person (i.e., anger or criticism) against the self. Holding one's feelings inside can often feel safer than expressing those emotions. Freud

posited that individuals often fear that others cannot tolerate their feelings of anger or criticism towards them and, therefore, they turn those feelings against themselves instead, making them unaware of the emotions they are really experiencing towards their environment. Therefore, one could begin to believe that their body is “disgusting” as they are, in reality, disgusted by the treatment they have received from others. Further, this anger towards others turned into hatred towards the body can result in self-harm behaviors such as cutting, which have been described as indicative of the person’s unconscious need to punish themselves for the negative thoughts and feelings they have towards others (Freud, 1936).

Body dissatisfaction has been connected to specific negative experiences in childhood such as sexual and physical abuse (Turner & Paivio, 2002), parental neglect or criticism (Burns, 1980), and familial instability (Krystal, 1978). It has been suggested that turning one’s emotions against one’s self develops out of an individual’s need to feel in control after these types of traumas (Zlotnick, Mattia, & Zimmerman, 2001). By blaming the self for these situations rather than the unreliable or abusive caregivers, the person can believe that, if she were only “good enough,” then these negative events and the poor treatment she received could have been prevented. This irrational belief of needing to be “good enough” or “perfect” in order to change an overly critical or neglectful environment can extend to the belief that the perfection of one’s body can lead to control over one’s environment. Further, Sorotzkin explained that the need for perfection in one’s self, which would include physical appearance, and the desire to scrutinize any physical imperfection is representative of a harsh superego that has internalized parental criticism (1998). Horney also previously theorized that the need to appear perfect stemmed from being deprived of affection and approval in childhood (1950). This deficit leads to continual seeking of approval, admiration, and

recognition from others in later life to fill this relational need. Consequently, any perceived errors (which one could argue includes physical flaws) are considered intolerable and must be avoided as they fear these imperfections will lead to loss of love and acceptance yet again (Horney, 1950).

### **Body Dissatisfaction and Body Distortion**

Researchers have distinguished between body dissatisfaction and body distortion (Freeman, Beach, Davis, & Solyom, 1985; Perez-Lopez & Petretic, 2004). While body dissatisfaction relates to a negative emotional view of the body, body distortion describes a conceptual inaccuracy in the view of one's body (Freeman et al., 1985). Perez-Lopez and Petretic (2004) described body distortion as existing on three levels: perceptual, subjective, and socio-cultural. Disturbance in the perceptual realm involves an inaccuracy in assessing the size of one's body (similar to the physiological component of body image described by Birthchnell et al., 1985). A study by Cash and Deagle (1997) showed a trend in patients with bulimia and anorexia to overestimate their body size. This was supported in later studies by Farrell, Lee, and Shafran (2005) and Skrzypek, Wehmeier, and Remschmidt (2001). Other research has indicated that, in non-eating disordered samples, the mental representation of one's body size tends to be underestimated (Vocks et al., 2007). It has been suggested that body distortion does not reflect faulty sensory processing but rather inaccurate information processing (Ahrberg, 2011). For instance, Jansen, Nederkoorn, and Mulkens (2005) described that individuals with distorted body images attend more to areas of their body that they perceive to be unattractive, which increases overall body dissatisfaction. Subjective body distortion relates to the influences of bullying based on one's body size and negative ideas about one's body based on premature body development. The socio-cultural explanation of body distortion states that disturbance in the view of one's body is due to the

pressure that society places on individuals to attain an ideal physical shape that is not realistic (Perez-Lopez & Petretic, 2004). Specifically, the societal pressure to be beautiful, physically fit, and able to manage one's weight has been shown to be positively related to poor body satisfaction (Keeton, Cash, & Brown, 1990; Loosemoore & Moriarty, 1990; Strauman & Glenberg, 1994).

The research literature has consistently supported a positive relationship between body distortion and body image dissatisfaction (Etu & Gray, 2010; Ferguson, Munoz, Contreras, & Velasquez, 2011; Gardner & Tockerman, 1993; Kasper, 2001). Williamson, Gleaves, Watkins, and Schlundt (1993) described that, as fear of fatness and body dissatisfaction increased, body distortion also increased. This also was observed in a later study by Gleaves (1995) in a sample which included individuals with and without disordered eating behaviors. The positive correlation between body distortion and body dissatisfaction was also observed with obese individuals in a study by Drewnowski and Yee (1987). A study by Sarwer, Wadden, and Foster (1998), which found no relationship between body image dissatisfaction and BMI among obese women, also indicated that the predictors of body dissatisfaction are more complex than weight alone and that one's perceptions about her body can more significantly affect body image satisfaction than her objective weight.

A study by Saules, Collings, Wiedemann, and Fowler (2009) attempted to show a relationship between susceptibility to changes in body image based on situational stressors and problematic eating behaviors (i.e., binge eating disorder and obesity). While this hypothesis was not supported, the study *did* show positive relationships between body dissatisfaction and BMI, binge eating, and depression. A limitation of this study was that 75 percent of the sample consisted of Caucasian females and individuals of other ethnicities

were underrepresented. The positive correlation between body dissatisfaction and BMI was also supported in a study by Dalley, Buunk, and Umit (2009) where neuroticism was a moderating variable. The correlation between body dissatisfaction and body distortion was also found in an earlier study that examined the effect of one's view of menstruation on these variables (Sosnowski, 2001). In this sample of European-American women, those who anticipated menses and viewed the onset of menstruation in a negative light had greater body distortion (Sosnowski, 2001).

### **Measurement of Body Distortion**

Numerous techniques have been developed to examine accuracy in one's perception of her body size. The photo distortion technique involves participants altering a manipulated picture of themselves until it resembles what they believe to be their body size (Alleback, Hallberg, & Epsmark, 1976; Probst, Vandereycken, van Coppenolle, & Pieters, 1998; Vocks et al., 2007). A related body distortion measure is the whole-image technique which involves participants adjusting a real image of another person to match their own body size (Gardner, 1996). This technique also has been performed using mirrors which adjust to different sizes (Traub & Orbach, 1964). Another technique to measure the perceptual component of body image is the body site technique in which participants are asked to create a distance between two points that matches the width of their body parts (Gardner, 1996). The chest, hips, waist, stomach, and thighs are commonly measured areas in these studies (Gardner, 1996). Thompson and Spana (1988) used a similar technique with a light beam apparatus where they asked participants to adjust the length of a light beam to match the width of their body. One of the most common types of body distortion measurement is the silhouette technique (Holmqvist, 2010; Thompson & Gray, 1995). This involves presenting participants with

silhouettes of females with varying weight types ranging from underweight to obese (Thompson & Gray, 1995). Individuals are instructed to select the silhouette which they believe represents their body size and this is compared to the silhouette which most accurately reflects their body size (determined by matching silhouettes with corresponding BMIs). The discrepancy between the participants' perceived body size and actual body size indicates the degree to which their perceptions of their body size are distorted (Thompson & Gray, 1995).

While various methods have been used to measure degree of body distortion, the most common procedure is to divide the estimated size by the actual size and multiply by 100 which provides the body distortion index (BDI) (Thompson, 1987). The BDI produces a percentage of over or underestimation in body size or body mass index (BMI). BMI ((weight in pounds x 703)/(height in inches<sup>2</sup>)) is a helpful measurement in classifying weight class. The range for normal BMI is 20–25 (Garrow & Webster, 1985).

### **Internalization of the Thin Ideal**

It has been recognized that Western society has supported an ideal body type that is thin and getting thinner (Singh, 1993). A study by Guaraldi, Orlandi, Boselli, and O'Donnell (1999) found that having an ideal body image that differed from that of the mainstream sociocultural standard was protective against body dissatisfaction. They discovered that 88.46 percent of women in their study endorsed an ideal body image that was in accordance with that of the mainstream culture. This supported work done by Silberstein, Striegel-Moore, Timko, and Rodin (1988) who found that 75.3 percent of their sample internalized an ideal body image that was very tall and thin. As stated by Anschutz (2009), internalization of the thin ideal occurs when the individual has adopted the cultural ideal for body type

(thinness) as her own standard of attractiveness and participates in behaviors to attain this ideal (i.e., disordered eating behaviors, dieting, or ruminating about the size and shape of her body). Individuals who participate in these behaviors to achieve the ideal level of beauty also believe this beauty will bring them overall success and satisfaction in life (Levine & Murnen, 2009).

Guaraldi et al.'s (1999) study showed that women who put the greatest level of importance on having a tall and thin body type showed the most body dissatisfaction. Consistent with results of a study by Palta, Prineas, Berman, and Hannan (1982), body dissatisfaction was more likely to be present for women who believed they had a body type closer to the ideal body image than was the reality (body distortion). Women with figures that varied from the ideal body type (e.g., shorter and larger) had less body dissatisfaction. The authors concluded from these findings that there was a positive correlation between internalization of a mainstream sociocultural ideal body image and both body distortion and body dissatisfaction (Guaraldi et al., 1999). Previous research by Striegel-Moore, Mcavay, and Rodin (1986) also showed the connection between one's perceived body size (regardless of actual weight) and acceptance of the societal view of a thin body as the ideal. However, the findings from a 1989 study by Wardle and Foley suggested that those with a thin ideal body image would be likely to overestimate their body size. In a similar study by Williamson (1990), body distortion (defined in this study as the difference between actual body size and the ideal body size decided on by a peer group) led to body dissatisfaction.

The results of the studies above suggest that women who internalize a thin body ideal will also be dissatisfied with their bodies, regardless of being thin, and will continue to strive to attain an ideal lower weight which continues to be just out of their reach, which leads to



more body dissatisfaction. This vicious cycle was shown in a sample where the majority of participants were Hispanic teenage girls and women (Ferguson et al., 2011). In this study, underweight participants had greater body dissatisfaction than participants whose BMI was in the normal range. Further, those with a BMI in the thin category (based on the World Health Organization's (2010) classification criteria) were almost as dissatisfied with their bodies as those in the obese category. Participants' body satisfaction was not shown to be influenced by media exposure to thin-figured women which was contrary to findings by Saules et al. (2009) and Dalley et al. (2009) that showed viewing thin media images led to higher levels of body dissatisfaction. While results of this study are helpful in illuminating the relationship between BMI and body dissatisfaction, the results are limited to the Hispanic population and it would be beneficial to examine these variables in other ethnic groups.

### **Gender and Body Image**

Females have been shown to be more susceptible to body distortion and body dissatisfaction in comparison to males (Arkoff & Weaver, 1966; Thompson & Thompson, 1986). One study found that females of Japanese-American descent exhibited much higher levels of body dissatisfaction than both Japanese-American males and Caucasian-American women (Arkoff & Weaver, 1966). In another study by Thompson & Thompson (1986) that examined a non-eating disordered sample, females were found to rate their bodies as 25% larger than their actual size compared to males who overestimated their body size by 13%. Body dissatisfaction can pertain to negative feelings about one's whole body shape or to particular body parts (Slade, 1994).

Males who *do* show dissatisfaction with their bodies typically are preoccupied with different areas of the body than are women (Moreno & Thelen, 1993; Nagel & Jones, 1992).

The thighs, legs, buttocks, hips, and abdominal region (areas with high fat deposits in females) are common areas of dissatisfaction for women (Furnham & Greaves, 1994; Nagel & Jones, 1992). Additionally, women often are concerned with the attractiveness of their face (Furnham & Greaves, 1994). While women often are concerned with their bodies being too large (Moreno & Thelen, 1993), men tend to be preoccupied either with not being muscular enough or with having too much body fat (Peters & Phelps, 2001). However, one study with female bodybuilders revealed that this population also had a bidirectional body dissatisfaction where some participants were seeking a more muscular frame while others wished to have a thinner body type (Peters & Phelps, 2001). Different from women, men tend to be preoccupied with areas of the body related to upper body strength such as biceps, chest and shoulders (Furnham & Greaves, 1994). Also, men often desire to weigh more while women desire to be lighter. Specifically, a study by Furnham & Greaves (1994) found that males wished to be three pounds heavier while women reported a desire to be seven pounds lighter, on average.

### **Alexithymia and Body Dissatisfaction**

Sifneos first created the term “alexithymia” which stands for “no words for mood” (1973). Four categories have been identified to describe alexithymia: difficulty identifying and expressing feelings, difficulty differentiating emotions from physical sensations, limited capacity for fantasy, and concrete thinking with little capacity for self-awareness or introspection (Taylor, Bagby, & Parker, 1991). Alexithymia has been described to have its origins in a chaotic familial upbringing (Krystal, 1978). Further, alexithymia has been traced to childhood sexual and/or physical abuse (Turner & Paivio, 2002). It has been suggested that the characteristics of alexithymia (i.e., controlling emotional reactions) develop out of an

individual's need to feel in control after these types of traumas (Zlotnick, Mattia, & Zimmerman, 2001).

This is consistent with Anna Freud's description of the defense mechanism "turning against the self" which refers to the redirection of negative emotions towards a person (i.e., anger or criticism) against the self (1936). This method of coping serves two main functions: First, it allows the person to feel more in control of difficult situations where her well-being is reliant upon undependable or abusive caregivers. By blaming the self for these situations rather than the caregivers, the person can believe that, if she were only "good enough," then these negative events and the poor treatment she received could have been prevented. Second, holding one's feelings inside can often feel safer than expressing those emotions. People often fear that others cannot tolerate their feelings of anger or criticism towards them and, therefore, they turn those feelings against themselves instead, making them unaware of the emotions they are really experiencing towards their environment (Freud, 1936).

Most of the clinical research on alexithymia has been conducted with eating disorders populations (e.g., Bydlowski et al., 2005; Carano et al., 2006; De Barardis et al., 2007; Heatherton & Baumeister, 1991). Hilde Bruch (1962) described difficulty in differentiating and expressing emotions as a core issue with eating disorder patients. Similar to Zlotnick et al. (2001) and Freud (1936), Bruch described alexithymia in eating disorder symptomatology as reflective of feeling out of control and ineffective in creating change in one's life (1962). It has been posited that patients with eating disorders experience a deep sense of vulnerability and that alexithymia serves as a way to fight against overwhelming emotions (Corcos & Speranza, 2003). Binge eating disorder has also been described to result from inability to successfully regulate emotions (Wheeler, Greiner, & Boulton, 2005). Similarly, Heatherton

and Baumeister (1991) developed the escape theory of binge eating disorder which holds that participating in bingeing protects against negative feelings by distracting the person from what they are feeling and keeping these feeling out of conscious awareness.

Indeed, alexithymic patients have been shown to have much higher levels of emotional distress than non-alexithymics (de Groot, Rodin, & Olmstead, 1995; Taylor, Parker, Bagby, & Bourke, 1996) and alexithymia is directly related to severity of eating disorder symptoms (e.g., Bydlowski et al., 2005; Carano et al., 2006; Cochrane, Brewerton, Wilson, & Hodges, 1993; De Barardis et al., 2007; Schmidt, Jiwany, & Treasure, 1993). In a study by Delaney (2002), binge eaters were more likely to have difficulty identifying their emotions and less able to understand physical sensations than healthy controls. Additionally, Wheeler et al. (2005) found a positive association between alexithymia and binge eating. This study further found a mediating effect of alexithymia between death of a parent and childhood abuse with eating disorders (Wheeler et al., 2005). In related studies, childhood emotional abuse and disordered eating was mediated by alexithymia (Hund & Espelage, 2006; Mazzeo & Espelage, 2002).

Fewer studies have examined the relationship between alexithymia and body dissatisfaction (Newman, 2004). Carano et al. (2006) found alexithymia to be directly related to body dissatisfaction. This relationship was supported in a later study which found those high in body dissatisfaction to have difficulty recognizing when they were feeling angry (Ridout et al., 2010). In an interesting study by De Barardis et al. (2005) of women with premenstrual dysphoric disorder, women high in alexithymia evaluated their bodies more negatively than women low in alexithymia. Newman (2004) examined differences in body dissatisfaction and alexithymia in Caucasian and African American college students and

found that, while African Americans experienced less body dissatisfaction and pressure to be thin, they were just as likely as Caucasians to have difficulty identifying and expressing their feelings and distinguishing emotion from somatic symptoms. Furthermore, Franzoni et al.'s (2013) findings suggested that alexithymia resulted from unprocessed trauma and associated feelings of shame and that this shame was related to body dissatisfaction. Given the proposed relationship between alexithymia and body dissatisfaction (Carano et al., 2011), it is possible that the tendency to criticize one's body could reflect Anna Freud's theory of an individual's defensive style of turning criticism and anger against herself.

### **Perfectionism and Body Dissatisfaction**

Studies have showed perfectionism to be strongly related to body dissatisfaction (e.g., Brannan & Petrie, 2008; Casale, Biondi, & Pacini, 2011; Chan & Owens, 2006).

Perfectionism has been defined as "a personality characteristic involving a tendency to place excessive emphasis on precision and organization, the setting of and striving for unrealistic personal standards, critical self-evaluation if these standards are not reached, excessive concern over mistakes, and doubts about the quality of personal achievements" (Castro-Fornieles et al., 2007, p. 562). To first discuss overall theoretical models of perfectionism, it has been described by Burns (1980) as the expectance of achieving excellence and then criticizing one's self for not reaching this goal. Hamachek (1978) described that some perfectionism can be adaptive while other perfectionism can enter the neurotic, maladaptive realm. He stated that normal perfectionism is present for individuals who possess a strong need for achievement and set practical goals for themselves, which leads to increases in self-esteem and overall life satisfaction. However, neurotic perfectionism he described as being motivated by a fear of failing, yet these individuals create unreasonable criteria to meet so as to not become a failure (Hamachek, 1978). This neurotic type of perfectionism is associated

with various forms of psychological disturbance (Blatt, 1995; Flett, Hewitt, Blankstein, & Mosher, 1995).

Similar to the perfectionism model by Hamachek (1978), Slade and Owens (1998) developed the dual process model of perfectionism which is based on behavioral theories of reinforcement. It posits that there are negative and positive forms of perfectionism, with negative perfectionism being motivated by negative reinforcement or the fear of failing (called the avoidance orientation) and positive reinforcement which is characterized by the motivation to achieve (referred to as the approach orientation). The negative form of perfectionism is such named because the perfectionist is constantly dissatisfied by continuing to attempt to reach unreasonable standards and failing, while the positive perfectionist experiences more life satisfaction because she can adjust her expectations based on results and constructive criticism from others. To put it another way, positive perfectionists strive to become their ideal self while negative perfectionists struggle to avoid becoming their feared self (i.e., a failure) (Slade & Owens, 1998).

Pathological and non-pathological categories of perfectionism have also been identified by Anthony and Swinson (1998). Pathological perfectionism involves setting inflexible standards for the self even when these standards prove to be impossible to attain. For non-pathological perfectionism, while it also involves high achievement standards, the goals are not as rigid as these perfectionists are able to keep in their sights which behaviors are helpful to their success and which behaviors are not (i.e., continuing to pursue a goal which will not come to fruition) (Anthony & Swinson, 1998). According to Rosen (1992), due to perfectionists' need to be perfect when it comes to appearance as well, they often engage in compulsive body-checking and mirror-checking behaviors as well as avoid

situations where they could feel anxiety due to issues related to body dissatisfaction.

### **Multidimensional Models of Perfectionism**

It has been suggested that a multidimensional view of perfectionism, or identifying multiple reasons why the individual strives to achieve at such a high level, could be most helpful in understanding the role that this variable plays in the development and maintenance of body dissatisfaction (Franco-Paredes, Mancilla-Díaz, Vázquez-Arévalo, López-Aguilar, & Álvarez-Rayón, 2005; Frost, Marten, Lahart, & Rosenblate, 1990a; Hewitt, Flett, & Ediger, 1995). Studies by Dunkley, Blankstein, Halsall, Williams, and Winkworth (2000) and Frost, Heimberg, Holt, Mattia, and Neubauer (1993) supported two dimensions of perfectionism (personal standards and evaluative concerns). Personal standards (PS) perfectionism consists of creating unrealistically high standards, while evaluative concerns (EC) is characterized by excessive concern over mistakes and self-doubt and criticism about performance (Frost et al., 1993). In addition to self-criticism, EC perfectionism is also defined by the belief that others will be just as critical of them for not being perfect (Hewitt & Flett, 1991).

A study by Boone (2011) examined PS and EC in relation to body dissatisfaction and thin ideal internalization, which they believed to be one example of a perfectionist's tendency to strive for excellence. This study built upon past research which examined the meditational effect of thin ideal internalization on the positive correlation between perfectionism and body dissatisfaction (Tissot & Crowther, 2008). Boone (2011) argued that, because individuals high in EC perfectionism can harbor feelings of failure and insecurity, these individuals may gain confidence and a sense of control by striving for a thin physique. Results showed that EC perfectionism was associated with both body dissatisfaction and perceived pressure to be thin (Boone, 2011), supporting Hewitt and Flett's (1991) proposition that EC perfectionists

are self-critical and believe others to be critical of them as well. This study also supported Thompson et al.'s (1999) findings that women who strive for perfection believe that a perfect body will bring them social success and positive self-worth. A possible limitation to Boone's (2011) study is the homogenous Caucasian sample. Also, the sample included individuals with bulimic symptomatology and the results may not generalize to a non-clinical population.

**Multidimensional Perfectionism Model.** Another multidimensional model of perfectionism, developed by Hewitt and Flett (1991), identified three spheres of perfectionism: self-oriented perfectionism (SOP), socially prescribed perfectionism (SPP), and other-oriented perfectionism (OOP). Regarding SOP, this is an intrapersonal perfectionism dimension, involving stringently criticizing one's performance and creating unrealistically high self-standards. Brannan and Petrie (2008) found a relationship between body dissatisfaction and SOP and concluded that women who strive to be perfect extend this standard to their physical appearance, and feel they are failures for not having bodies they are proud of. A limitation of Brannan and Petrie's study is that it only included Caucasian women. SOP has also been linked with depression (Hewitt & Flett, 1993a; Hewitt, Flett, & Ediger, 1996), neuroticism, poor self-esteem and a need for approval (Hewitt & Flett, 1991). Although, SOP can be beneficial at non-clinical levels as it is associated with high levels of achievement and self-actualization (Hewitt, 1995).

SPP is an interpersonal construct referring to the belief that others stress perfection in the person and so the person must, therefore, work to achieve extremely high standards to avoid failure and criticism from others (Hewitt & Flett, 1991). Studies by Chang (1998) and Hewitt, Norton, Flett, Callander, and Cowan (1998) revealed that SPP increases one's risk for suicide attempts. Additionally, Tissot and Crowther (2008) showed that SOP had a



meditational effect on the relationship of SPP with thin ideal internalization and body dissatisfaction.

The third interpersonal perfectionism category is OOP which refers to the belief that other people should achieve perfection which leads to harsh criticism of others' actions (Hewitt & Flett, 1991). Since individuals high in OOP are often disappointed by others when they, inevitably, fail to achieve their unrealistic expectations for them, this often results in marriage and relationship problems in areas such as difficulty trusting others and harboring feelings of hostility and blame towards others (Habke, Hewitt, & Flett, 1999; Hewitt, Flett, & Mikail, 1995). OOP also has been associated with body image avoidance (i.e., avoidance of wearing form-fitting clothing, physical intimacy, and socializing), suggesting that individuals' criticism of others' failures in such areas as beauty can be reflective of the perfectionists' own feelings of self-criticism. However, lesser degrees of OOP can lead to positive qualities such as good motivational and leadership abilities (Hewitt & Flett, 1991). All three perfectionistic spheres in this model have been observed to be positively correlated with body dissatisfaction as well as poor self-esteem, disordered eating behaviors, depression, anxiety, and procrastination (Hewitt, Flett, & Turnbull, 1992). However, the perfectionistic striving subscale of self-orientated perfectionism has been found to be negatively related to depression and positively related to self-esteem (Campbell and Di Paula, 2002).

**Frost's Multidimensional Perfectionism Model.** Frost's perfectionism model is another widely accepted description of perfectionism from a multidimensional standpoint (Frost, Marten, Lahart, & Robenblate, 1990b). Frost described perfectionism as being composed of 6 components: setting very high personal standards, being highly concerned

over making mistakes, doubting one's actions, perceiving parents to have high achievement expectations for the person, believing parents to be critical of one's behaviors, and focusing on organization (Frost et al., 1990b). While the combination of setting high personal standards with low concerns over mistakes and doubt about actions has been shown to be directly related to self-esteem and overall life satisfaction (Flett, Hewitt, Blankstein, & O'Brien, 1991; Flett & Hewitt, 2002; Rice & Mirzadeh, 2000), high personal standards combined with high concerns over mistakes, doubting actions, and parental criticism/expectations has been associated with anxiety (Frost & Henderson, 1991), procrastination (Solomon & Rothblum, 1984), low self-confidence (Hall, Kerr, & Matthews, 1998), self-sabotaging behaviors (Hobden & Pliner, 1995), and body dissatisfaction (Frost et al., 1990a). In addition, Striegel-Moore et al. (1986) found body dissatisfaction to increase (as evidenced by reports of feeling fatter) when women were experiencing a high level of concern over mistakes and perceived failures. This model of perfectionism has been considered to be more comprehensive than other multidimensional perfectionism models as it includes not only values (i.e., organization and high personal standards) and thoughts (i.e., concern over mistakes) characteristic of perfectionists but also takes into account perfectionistic behaviors (i.e., doubting actions) and even considers antecedents to perfectionism (i.e., parenting experiences) (Stallman, 2011).

Consistent with Frost's model of perfectionism, parental criticism has been discussed as being especially important in the development of perfectionism and body dissatisfaction (e.g., Burns, 1980; Blatt, 1995; Hollender, 1965; Parker, 1997). Parker's work with school children revealed that children who experienced high levels of criticism and expectations from parents had negative perfectionistic traits, which included concern over making

mistakes, doubt about their actions, and unrealistic goals for their achievements (1997). Children who experienced lower levels of parental criticism and parental expectations had more realistic standards, less self-doubt, and less anxiety regarding perceived mistakes (Parker, 1997). Guilt, shame, and basing self-worth on what one achieves are also characteristics of individuals who grew up perceiving that their parents expected perfection from them (Hollender, 1965). These feelings can lead the perfectionist to make attempts to win their parents' affection through exemplary performance and to attempt to avoid failing out of concern that this would result in criticism and loss of parental love (Burns, 1980). Furthermore, Blatt (1995) stated that self-worth attached to achievement resulted in poor body esteem, unstable self-esteem, and low overall self-esteem. The experiencing of extreme forms of criticism and punishment (i.e., neglect or emotional, physical and sexual abuse) in childhood also has been associated with perfectionistic traits and body dissatisfaction through internalizing critical views of the self (Blatt, 1995; Dunkley, 2010; Glassman, Weierich, Hooley, Deliberto, & Nock, 2007). In other words, children from harsh, punitive parental environments often grow into adults with maladaptive perfectionism and they repeat the patterns they grew up with by continuing to punish themselves through self-blame and criticism (Blatt, 1995; Slaney, Rice, & Ashby, 2002).

### **Other Perspectives on Perfectionism**

Another theory that has been employed to highlight the importance of the relationship between perfectionism and body dissatisfaction is sociocultural theory which stresses the influence of internalization of the thin ideal on these two variables (Boone, 2011; Tissot & Crowther, 2008; van den Berg et al., 2002). According to this theory, women are more likely to develop body dissatisfaction when they experience pressure from others (especially from

parents, friends, romantic partners, and the media) to lose weight (similar to socially-prescribed perfectionism) (Cafri et al., 2005; McKee, 2006). However, it has been shown that the individual must internalize the message that only thinness is acceptable (similar to self-oriented perfectionism) for the greatest levels of body dissatisfaction to occur (Tissot & Crowther, 2008). This is supported by developmental theories of perfectionism where children who are exposed to pressures to be perfect while growing up are seen to internalize these perfectionistic standards and live by them later in life (Flett, Hewitt, Oliver, & Macdonald, 2002).

The relationship between perfectionism and body dissatisfaction has also been examined using self-discrepancy theory (Higgins, 1987). This theory holds that individuals have various ideal selves, such as the ideal self they create for themselves as well as the ideal self they believe other people have for them. When there is a discrepancy between a person's actual physical appearance and their own ideal self, they can experience what Higgins (1987) labeled as "dejection-related emotions" (p. 322) such as body dissatisfaction. In the event that there is an incongruity between individuals' perception of others' ideal self for them and their actual body size, feelings such as embarrassment and shame about the body can follow (Higgins, 1987). This has found to be particularly true for individuals with perfectionistic tendencies and low self-esteem (Forbes et al., 2001; Tantleff-Dunn & Lindner, 2011).

A few studies have examined perfectionism in relation to both self-esteem and body dissatisfaction (Shaw, Stice, & Springer, 2004; Stice, 2001; Vohs, Voelz, Pettit, Bardone, Katz, Abramson, & Joiner, 2001). In a study by Shaw et al. (2004), individuals high in all three areas of body dissatisfaction, perfectionism, and self-esteem were shown to have healthy eating behaviors. Although, individuals high in body dissatisfaction and

perfectionism, but low in self-esteem, showed more binge eating behaviors. Shaw et al. (2004) attributed this pattern to the ability for individuals' with adequate self-esteem to consider being overweight as an impermanent state that they are able to change (in spite of high perfectionism), while individuals lacking in self-esteem do not believe they can control their weight loss, resulting in problems related to emotional and food regulation.

Casale (2011) found a significant interaction effect between perfectionism and body dissatisfaction. One study found that negative (neurotic) perfectionism is related to specific eating disorder symptoms, including drive for thinness, bulimia, and body dissatisfaction (Chan & Owens, 2006). Neurotic perfectionism was also found to be related to attractiveness and weight preoccupation in a study by Davis, Claridge, and Fox (2000). The authors concluded from these results that more physically beautiful women can become hyperfocused on and attempt to perfect their body weight because, due to receiving a great deal of praise for their attractiveness during their youth, they can begin to base their sense of self-worth on their ability to maintain their perfect appearance (Davis et al., 2000). This coincides with results by Pokrajac-Bulian (2005) which suggested that young females can become overly involved with developing a perfect body as a method of filling the existential needs for life meaning and emotional satisfaction. In an interesting study by McKee (2006) on perfectionism and body dissatisfaction, it was found that perfectionism (related to needing to appear physically perfect in public) was associated with body dissatisfaction (i.e., feeling negative about the body and larger discrepancies between actual and ideal body size). Ruggiero (2003) examined the relationship between body dissatisfaction and perfectionism in both stressful (e.g., when participants were taking a test or being graded on a task) and non-stressful settings and found the two variables to be strongly related in both conditions.

However, one study of adolescent girls did not find a relationship between body dissatisfaction and perfectionism (Wojtowicz & von Ranson, 2012).

### **Perfectionism, Body Dissatisfaction and Disordered Eating**

Cafri, Yamamiya, Brannick, and Thompson (2005) also examined perfectionism and body dissatisfaction in a sample of women suffering from bulimia. They observed that body dissatisfaction as well as thin ideal internalization moderated the relationship between Frost's high personal standards perfectionism and binge eating. In both this study and Boone's (2011) study, perfectionism was considered to precede thin ideal internalization and perceived pressure to be thin and it was failing to meet these unreasonably high standards for the body that led to body dissatisfaction and, subsequently, to eating disordered behaviors. Glassman et al. (2007) further observed that self-criticism mediated the relationship between perfectionistic traits and body dissatisfaction in a sample of patients with binge eating disorder. Bardone-Cone, Abramson, Vohs, Heatherton, and Joiner (2006) also described the relationship between perfectionism and body dissatisfaction in relation to the development of binge eating behaviors. Specifically, they found that individuals high in perfectionism and low in self-efficacy were the most likely to feel hopeless about losing weight and develop binge eating as a method to reduce weight loss-related anxiety. This formula has been coined the vulnerability-stress model with perfectionism and poor agency being the vulnerability factors and stress referring to anxiety surrounding body dissatisfaction (Bardone-Cone et al., 2006). These findings supported an earlier study by Heatherton and Baumeister (1991) where the greatest incidences of binge eating behaviors in a non-clinical sample were observed in perfectionistic participants with low self-efficacy. It has been suggested that women who present with perfectionism but higher self-efficacy related to weight loss can avoid eating

disordered behaviors and, instead, will utilize healthier weight loss strategies (i.e., dieting or exercise) to combat body dissatisfaction (Heatherton & Baumeister, 1991).

Much less research has been conducted comparing perfectionism and body distortion relative to the work done on perfectionism and body dissatisfaction (Bardone, Vohs, Abramson, Heatherton, & Joiner, 2000; Vohs et al., 2001; Welch, Miller, Ghaderi, & Vaillancourt, 2009). It has been suggested that individuals with body distortion underestimate their attractiveness or overestimate their body size due to a need to be perfect (Buhlmann, Etcoff, & Wilhelm, 2008; Veale & Lambrou, 2002). This was supported in studies where perfectionistic self-criticism was seen to be directly related to concerns about body size and overestimating one's weight and body size (body distortion) (Fairburn, Cooper, & Shafran, 2003; Hrabosky, Masheb, White, & Grilo, 2007). According to researchers such as Veale, Kinderman, Riley, and Lambrou (2003), additional studies need to be conducted on perfectionism and body distortion to better understand if body distortion is affected by perfectionism through an unrealistic body-ideal, disturbed perception of the actual body, or a combination of the two.

### **Perfectionistic Self-Presentation**

Perfectionistic self-presentation (PSP), a construct related to perfectionism, is defined as taking great strides to appear perfect to others by not showing defects or weaknesses in relation to performance, competence, or physical appearance (Hewitt & Flett, 1991). It differs from perfectionism in that this variable refers to one's personal drive for perfection while PSP is concerned with a desire to present one's self to others as perfect (Hewitt & Flett, 1991). It has also been described as the effort to showcase one's perfectionism to others through three avenues: self-promotion (or engaging in behaviors to prove one's perfectionist

nature), non-disclosure of imperfection (evading the communication of one's imperfections), and non-display of imperfection (which is trying to hide imperfect qualities about the self in the presence of others) (Hewitt et al., 2003). To put it differently, perfectionistic self-presenters attempt to appear perfect in public by stressing their achievements (self-promotion) or by concealing their faults (non-display and non-disclosure of imperfection) (Hewitt et al., 2003). PSP has been shown to be more closely related to self-oriented and socially-prescribed perfectionism than other-oriented perfectionism given the perfectionistic self-presenter's focus on appearing perfect but not requiring actual perfection from themselves or others (Hewitt & Flett, 1991). Drawing from Sullivan's interpersonal theory of personality development (1938/2000), PSP points to the importance of how the interpersonal interactions are affected in individuals suffering from perfectionism (Hewitt et al., 2003). Hewitt and his colleagues view PSP as an important aspect of personality and a global and stable form of interpersonal interaction (2003). Buss and Finn (1987) also have described PSP as an interpersonal style and a behavioral trait of perfectionism.

Bem (1972) previously commented on a maladaptive form of self-presentation that was representative of a neurotic personality style. However, Schlenker and Weigold (1992) argued that there exist both positive and negative aspects of self-presentation. Still, Hewitt et al. (2003) believe that PSP leads to distress for the self and others, regardless of some adaptive or useful outcomes that may also result from this personality style. Sorotzkin examined perfectionistic self-presentation as it related to feelings of shame in narcissistic perfectionism and to feelings of guilt in neurotic perfectionism (1985; 1998). He expanded upon Rothstein's (1991) work who theorized a child's deep sense of inferiority from an overcritical and/or neglectful environment as leading to the development of the belief that



only by being perfect (or grandiose) can he/she lessen feelings of inferiority. Sortozkin (1998) stated that perfectionism in narcissistic patients serves as a way to avoid shame for not fulfilling their grandiose fantasies of themselves. Therefore, narcissistic injuries and a sense of shame develop when the perfectionistic self-presenter views others as seeing them as less than perfect, which leads to further feelings of inferiority. Perfectionistic self-presentation from a neurotic standpoint, however, serves as a way to avoid guilt feelings that accompany a harsh superego that has internalized parental criticism (1998). In other words, the narcissistic perfectionist, with their feelings of superiority, attempts to depict him/herself as perfect to others (i.e., the self-promotion subtype of PSP) while the neurotic perfectionist strives to earn acceptance by hiding imperfections from others (i.e., the non-disclosure and non-display of imperfection PSP subtypes) (Sorotzkin, 1998). Earlier work by Sorotzkin also described self-presentational propensities as reflecting the perfectionist's desire to be included and admired by others where the guise of perfection protects them against rejection (1985). Hobden and Pliner (1995) described that PSP can also lead these individuals to avoid opportunities for growth if they believe there is a possibility that they will not perform perfectly and others will think them a failure.

Frost et al. (1995) also commented on this idea by stating that individuals high in the avoidance PSP subtypes (i.e., non-display and non-disclosure of imperfection) will avoid situations where they could be potentially ridiculed or asked to reveal a form of imperfection. This is consistent with Karen Horney's (1950) view of the perfectionist's need to avoid criticism by concealing his/her flaws before others can take notice of them. Horney described that, when children are deprived of affection and approval, it can lead to neurotic needs in relationships later in life. For instance, they may constantly seek the approval, admiration,

and recognition from people that they were denied in their youth by striving to appear perfect. Therefore, any perceived errors are considered intolerable and must be avoided as they fear mistakes will lead to loss of love and acceptance again (Horney, 1950).

These avoidance PSP subtypes have been shown to increase anxiety in social situations (Flett, Hewitt, Endler, & Tassone, 1994; McGee, Hewitt, Sherry, Parkin, & Flett, 2005) and to limit the level of intimacy in interpersonal relationships for these individuals (Alden, Bieling, & Wallace, 1994; Derlega, Metts, Petronio, & Margulis, 1993; Hewitt et al., 2003; Meleshko & Alden, 1993; Weisinger & Lobenz, 1981). A study examining PSP in married couples found husbands' non-display of imperfection to be positively related to wives' sexual dissatisfaction and wives' PSP to be related to less personal sexual satisfaction (Habke, Hewitt, & Flett, 1999). The fear of displaying and/or disclosing imperfection to others has also been observed to be related with lower levels of verbal expression in social situations (Flett, Hewitt, & DeRosa, 1996).

### **Perfectionistic Self-presentation and Body Dissatisfaction**

While self-presentation is a newer concept and has not been researched in great depth as of this time, recent studies have indicated there is a significant, positive relationship between perfectionistic self-presentation and body dissatisfaction (Penkal & Kurdek, 2007; Rudiger, Cash, Roehrig, & Thompson, 2007; Sherry, Vriend, Hewitt, Flett, & Wardrop, 2009). Sherry et al. (2009) posited that, due to the fear of displaying faults that accompanies perfectionistic self-presentation, perfectionistic individuals tend to hyperfocus on flaws pertaining to their bodies as well, leading to negative feelings about their bodies and efforts to cover up what they believe to be physical defects. Further, Hewitt et al. (2003) stated that PSP is heightened in those who negatively evaluate their bodies and that a characteristic of

PSP includes fixating on how ones' body appears in public. Flett and Hewitt (2005) described that body dissatisfaction will be especially heightened in individuals with PSP who have poor confidence in their ability to solve problems and who utilize emotion-focused coping (i.e., blaming the self for mistakes). Therefore, it can be suggested that individuals with PSP who blame themselves for being overweight and feel they will be ineffective in modifying their weight will experience an elevation in body dissatisfaction. Additionally, one's ability to have a positive self-presentation of the body has been shown to be affected by the cultural view of the ideal body shape (Leary, 1992) and the thin body ideal in Western society has been linked with insecurity among females regarding their bodies being perceived positively in public (Krane, Stiles-Shipley, Waldron, & Michalenok, 2001).

### **Social Physique Anxiety**

Hart, Leary, and Rejeski (1989) introduced social physique anxiety (SPA), an element of PSP which is the emotional reaction to individuals' worry about others criticizing their bodies (Leary, 1992). SPA has been linked to body dissatisfaction such as discrepancies between one's actual and ideal body types (Hart et al., 1989). Additionally, a relationship between SPA and eating disturbance (typically associated with body dissatisfaction) has been shown to be moderated by BMI (Haase & Prapavessis, 1998). Corning, Krumm, and Smitham (2006) also stated that, when perfectionistic individuals believe others are negatively evaluating their bodies, this results in negative body image and the belief that they are incapable of attaining the thinner body shape of their peers. An earlier study by Oates-Johnson (2004) similarly found that preoccupation with how others perceive one's body, need for others to approve of one's body, and avoidance subtypes of PSP were present for women dissatisfied with their weight. Further, Oates-Johnson suggested that weight

preoccupied women feared to fail in weight-loss attempts as they likely believed this would lead to social rejection based upon peers' criticism of their weight (2004). A related study by Baratelli (2009) with young adult females from Venezuela found that fear of others' criticizing their physical appearance was the most significant predictor of body dissatisfaction. Kehoe's (2003) findings similarly showed that the fear of negative body evaluation common in PSP moderated the relationship between body dissatisfaction and thin ideal internalization.

PSP has been observed to be strongly, negatively associated with self-esteem as well, a variable consistently related to body dissatisfaction. Hewitt and Flett (1993b) found PSP to be the best predictor of self-esteem, even beyond the variance accounted for by the non-self presentational perfectionism domains. The authors concluded that perfectionistic self-presenters attempt to portray a perfect physical physique to others to counterbalance feelings of low self-worth (Hewitt & Flett, 1993b). Baumeister, Tice, and Hutton's (1989) findings also pointed to how the concealment PSP subtypes can reflect individuals with low self-esteem's reluctance to reveal any flaws to others which would further damage their views of themselves.

### **Perfectionistic Self-Presentation, Alexithymia and Body Dissatisfaction**

Hayaki, Friedman, and Brownell (2002) indicated that, among perfectionistic self-presenters, the tendency to conceal imperfect aspects of the self can lead to difficulties with overall emotional expression. The ability to talk about one's feelings is thought to be negatively associated with body dissatisfaction (Hayaki et al., 2002). Similarly, De Berardis et al. (2009) suggested that individuals high in PSP would prohibit themselves from having and revealing emotions that may be perceived by others as negative (such as anger and

sadness). Results of this study found alexithymia (defined in this study as difficulty in expressing and identifying one's emotions) to be positively associated with body dissatisfaction (De Barardis et al., 2009). This was supported in a subsequent study which found alexithymia to predispose individuals to develop perfectionism and body image disturbance (Ruggiero, Scarone, Marcero, Bertelli, & Sassaroli, 2011). A study by Quinton and Wagner (2005) did not find a relationship between alexithymia and body dissatisfaction; however, difficulty with emotional expression was found to predict perfectionism (Quinton and Wagner, 2005).

### **Self-esteem and Body Dissatisfaction**

A strong, negative association has been shown to exist between self-esteem and body dissatisfaction (Button, Loan, Davies, & Sonuga-Barke, 1997; Brytek, 2010; Johnson & Wardle, 2005; Tiggemann, 2005). It has been suggested by Allgood-Merten, Lewinsohn, and Hops (1990) that body image is one crucial aspect of self-esteem and that body satisfaction is important for self-esteem preservation. Various definitions of and perspectives on self-esteem have been offered. Rosenberg (1979) defined self-esteem as a one-dimensional and comprehensive construct referring to a person's assessment of his/her sense of worth. Alternatively, Tafarodi and Swan (1995) argued that self-esteem was bidimensional in nature, with an affective (self-liking) and cognitive (self-competence) component. Self-liking is defined as one's opinion of one's self based on feedback and acceptance from others, while self-competence refers to one's belief that he/she is a capable individual (Tafarodi & Swan, 1995). In two studies by Franzoi and Shields (1984) and Rosen and Alan (1986), self-esteem was examined as a global construct and lower self-esteem was related to lower body satisfaction. In a later study by Brytek (2010), self-esteem was examined as a global construct as well as specifically in social, familial, and professional settings. This study of

female participants who were suffering with obesity showed a correlation between body dissatisfaction and all of the four above-mentioned aspects of self-esteem (Brytek, 2010).

Tiggemann's (2005) and Conneely's (2004) findings also supported a relationship between body dissatisfaction and poor self-esteem. A positive correlation between self-esteem and body satisfaction and negative correlation between self-esteem and body dissatisfaction was observed in a study by Heaton with a sample of postpartum women (2011). Studies by Bas, Asci, Karabudak, and Kiziltan (2004), Green and Pritchard (2003), and Koff, Rierdan, and Stubbs (1990) also added to the research supporting a positive correlation between body satisfaction and self-esteem in both males and females.

Thompson and Altabe (1991) found the relationship between body satisfaction and self-esteem to be significant as well, especially among female participants. This stronger correlation between self-esteem and body dissatisfaction for females versus males was also seen in a study by Levine and Smolak (2002). This was further supported in study by Furnham, Badmin, and Sneade (2002) which showed that body dissatisfaction was related with low self-esteem to a higher degree in girls in comparison to boys. Given the correlational nature of the study, it could not be determined whether low self-esteem led to body dissatisfaction in this sample or if being dissatisfied with their bodies contributed to poor self-esteem (Furnham et al., 2002).

Body dissatisfaction was also found to predict an increase in low self-esteem in a study by Johnson & Wardle (2005), and a study by Abell and Richards (1996) found decreases in self-esteem to be related to greater body dissatisfaction. It has also been shown that women with higher acceptable weights for themselves have higher self-esteem than women who believe they should be at a lower weight (Beamer, 1999). These results were

echoed in a later study by Laliberte, Newton, McCabe, and Mills (2007) who found that stronger views on weight control were associated with lower self-esteem and body dissatisfaction. Additionally, this study revealed that participants who stressed the importance of weight control were more likely to strive to lose weight, attempt to have a thin body, and restrict their eating. Further, individuals who felt they should be able to control their weight and were solely responsible for their weight had more body dissatisfaction and poorer self-esteem, which the authors attributed to feelings of failure that these participants would have when they did not achieve the unrealistic and unattainable thin ideal (Laliberte et al., 2007). It also has been suggested that, when women feel that, no matter how hard they try, they cannot lose enough weight or change their bodies enough to reach the thin ideal (external-fate beliefs), this can lead to the development of poor self-esteem and symptoms of depression (i.e., helplessness and hopelessness) (Furnham & Greaves, 1994).

A related study by Tiggemann and R  utel (2001) found that women who focused on being thin and spent many hours watching television (where the media portrays a very thin body as the ideal body type) had low self-esteem. Body dissatisfaction and self-esteem were also shown here to be related. Further, emphasizing a slim body continued to predict poor self-esteem even when body dissatisfaction was controlled for (Tiggemann & R  utel, 2001). The negative correlation between body dissatisfaction and self-esteem was observed in a study by Joiner, Schmidt, and Wonderlich (1997) with a sample of individuals with bulimia and unipolar depression, which indicated that self-esteem and body dissatisfaction were important factors in the development and maintenance of both of these disorders. The relationship of body dissatisfaction with negative affect, restrictive dieting, and poor self-esteem was also illustrated by Stice (1994). However, one study of adolescents did not find

low self-esteem to be related to depression and anxiety in overweight and underweight individuals (Kostanski & Gullone, 1998). Although, a significant relationship was found between body mass index and body dissatisfaction (Kostanski & Gullone, 1998).

Additionally, a study by Kasper (2001) found that poorer self-esteem was associated with greater body dissatisfaction (defined in this study as negative feelings and thoughts towards their bodies and a discrepancy between participants' ideal body size and their perceptions of their actual body size), regardless of their mood. Allgood et al.'s (1990) study similarly showed that the correlation between body dissatisfaction and depression was insignificant after controlling for self-esteem.

### **Body Esteem**

Studies have also demonstrated the degree to which low self-esteem can create difficulties in other areas of a person's life beyond body dissatisfaction (Henry, Anshel & Michael, 2006; Striegel-Moore, 1990). One study found self-esteem to be associated with social physique anxiety (or consistent worrisome thoughts related to others' opinion of one's physical appearance) and body dissatisfaction in groups of both athletic and non-athletic adolescents (Henry et al., 2006). The authors discussed that, in this study, body size and weight were important predictors of self-esteem and that physical appearance was believed by adolescents to be predictive of success in interpersonal relationships with peers (Henry et al., 2006). The results of a more recent study by Koyuncu, Tok, Canpolat, and Catikkas (2010) replicated those of Henry et al. (2006) in finding that greater self-esteem was related to less social physique anxiety and greater body satisfaction in both female athlete and non-athlete groups. Additionally, research by Martin, Engels, Wirth, and Smith (1997) found that global self-esteem was significantly related to social physique anxiety in elite college female



athletes.

A study by Striegel-Moore (1990) showed that poor self-esteem was related to greater feelings of ineffectiveness, interpersonal distrust, and difficulties with identifying emotions. Self-esteem was shown to be lower among lesbian students than heterosexual students in this sample. Further, overall self-esteem was related to esteem related specifically to one's body and this body esteem had a stronger relationship with self-esteem among lesbians than heterosexuals (Striegel-Moore, 1990). Another study of body esteem and overall self-esteem also found a strong positive relationship between body cathexis (ratings of body parts) and self-cathexis (ratings of self-worth) (Secord & Jourard, 1953). In a third study on body esteem, Roberts and Good (2010) examined the big five personality traits (e.g., openness, conscientiousness, extraversion, agreeableness, and neuroticism) as they related to changes in body esteem in women after viewing media images portraying women with the "thin ideal" body type. Results of the study showed that only the neuroticism trait was related with negative changes in body esteem after exposure to these images, with women higher in neuroticism experiencing more body dissatisfaction after viewing the thin images. Women who scored highly on the neuroticism trait also experienced a greater decrease in body dissatisfaction than less neurotic women after watching images of larger women. The other four, more positive, personality traits were related to healthier self-appraisals after viewing the idealized images, which indicated that the thin ideal media images may only impact the body satisfaction of women who also experience neuroticism (Roberts & Good, 2010). It is plausible that women with higher levels of neuroticism are also more prone to internalizing the thin ideal, where the thin media image is accepted as the ideal body type and then serves as the comparison model for the individual's own body (Stice, Mazotti, Weibel, & Agras,

2000).

As described by Stice and Shaw (2002), when the internalized thin ideal is not reached, body dissatisfaction is a result. Given that the more neurotic women in Roberts and Good's (2010) study also experienced greater shifts towards body satisfaction after viewing images of heavier women, this malleable body image also provides evidence for the argument that these women base their self-esteem on messages from external factors (such as the media) regarding what is an acceptable body rather than their own beliefs of what a healthy weight is. Johnson (2006) examined the detrimental effect of a thin ideal internalization and found that this variable, along with negative attitudes about physical appearance and poor self-esteem, was predictive of body dissatisfaction. In a 25 study meta-analysis on this topic, greater body dissatisfaction was present in women after they viewed thin images in comparison to images of average-weight models, overweight models, or inanimate objects (Groesz, Levine, & Murnen, 2002). Cepeda (2005) added to this line of research in finding that internalization of the thin ideal was associated with poorer self-esteem and greater body dissatisfaction.

### **Effects of Enhancing Self-Esteem on Body Dissatisfaction**

Self-affirmation, or increasing one's self-image (Steele, 1988), has been suggested to be protective against body dissatisfaction by reducing the amount of importance placed on body shape and weight for self-esteem maintenance. Steele (1988) proposed that, even if one is preoccupied by body image concerns, self-affirming in other areas (such as being a kind person) can enhance one's overall self-image. A study by Armitage (2012) attempted to assess if self-affirmation could impact body dissatisfaction and to observe if self-esteem mediated the relationship between these two variables. Self-affirmation was shown to affect

body dissatisfaction in adolescent girls but not boys, where encouraging the importance of kindness moved girls' sense of self-importance away from their physical appearance (e.g., facial beauty, body size, and weight). The author suggested that the boys' self-esteem was not as affected by the self-affirmation technique as were girls' because the boys did not place as much value on physical attractiveness as girls from the onset of the study (Armitage, 2012). This is consistent with work by Furnham and Greaves (1994) which showed that, given the emphasis that society puts on female physicality, body satisfaction was more important for self-esteem and overall well-being in females than males due to the fact that males typically have other self-worth contingencies (i.e., high earning career).

The study by Armitage (2012) illustrates the concept that individuals are driven to have a solid sense of self-worth (Steele, 1988) and that altering the spheres from which individuals develop their self-esteem (i.e., from being outwardly attractive to a good person) can positively impact body dissatisfaction and overall self-satisfaction (Armitage, 2012). This appears to provide support for therapeutic techniques which do not necessarily directly challenge thoughts, beliefs, feelings, and behaviors related to body image but rather help the patients become more confident in, and kinder to, themselves which, in turn, leads to a reduction in self-defeating ruminative thoughts about one's appearance. Possible limitations to this study include the study's participants being mostly Caucasian as well as nearly half of the girls in the experimental group having more positive body satisfaction scores before the intervention (scores greater than the mean plus one standard deviation above those in the control group).

To elaborate on how ruminating on negative thoughts about one's appearance can negatively impact body image, a study by Etu and Gray (2010) examined the relationship

between cognitive rumination and body image distress by asking participants to read a body image-related vignette intended to elicit negative feelings about one's body. Participants were then placed in either a rumination group (where participants were instructed to think more about the negative body image vignette) or a distraction group (where participants' attention was drawn away from the distressing vignette). Results revealed that individuals in the rumination group had significantly more body dissatisfaction and anxiety than those in the distraction group (Etu & Gray, 2010).

Verplanken, Friberg, Wang, Trafimow, and Woolf (2007) found that it was not ruminating on negative thoughts about one's body alone that led to poor self-esteem but rather the degree to which individuals' negative self-beliefs were a habitual practice for them. Verplanken et al. (2007) further observed that habitual negative self-thinking continued to predict eating disturbance and self-esteem when body dissatisfaction was controlled for. The relationships between self-esteem, eating disordered behaviors, and body dissatisfaction were found previously in studies by Stice, Presnell, and Spangler (2002) and Thompson, Heinberg, Altabe, and Tantleff-Dunn (1999).

Thompson et al. (1999) created the Tripartite Influence Model to illustrate the various factors associated with body dissatisfaction. This model describes sociocultural factors (e.g., pressure from peers, family, and media to develop a thin body; comparing one's appearance to others; internalizing the thin ideal) as precursors to body dissatisfaction (van den Berg, Thompson, Brandon, & Covert, 2002). The Tripartite Influence Model also suggests that body dissatisfaction leads directly to problems with eating regulation and that eating disturbance mediates the connection of body dissatisfaction to both self-esteem and depression (Thompson et al., 1999).

### **Self-Esteem, Body Image and Eating Concerns**

In general, much of the literature in the realm of body dissatisfaction is focused on eating disorder populations (e.g., Grilo & Macheb, 2005; Makri-Botsari, 2009; Matz, Foster, Faith, & Wadden, 2002; Shin & Shin, 2008). One study of adolescent students revealed that adolescents with higher levels of body dissatisfaction (related to weight and overall physical appearance) also endorsed more eating disorder pathology, lower self-esteem, and poorer self-perception than the students who displayed less body dissatisfaction (Makri-Botsari, 2009). Grilo and Macheb (2005) investigated the relationship between self-esteem and body dissatisfaction in a binge-eating disorder sample. They found a negative correlation between self-esteem and body dissatisfaction (Grilo & Macheb, 2005). Comparable findings on the relationship between these two variables was observed in a study which included women who struggled with morbid obesity (Grilo, Macheb, Brody, Burke-Martindale, & Rothschild, 2005).

Self-esteem also was related to body dissatisfaction in a study of 79 obese and non-obese women (Sarwer, Wadden, & Foster, 1998). Results additionally showed that 72 percent of obese women versus 49 percent of non-obese women in this sample reported moderate to severe body dissatisfaction with specific body parts. Forty-seven percent of the obese women and 42 percent of non-obese women described feeling the most dissatisfaction with their abdominal area or waist size. Surprisingly, only eight obese women stated that they were more dissatisfied with their body as a whole than any specific body part. Taken as a whole, Sarwer et al.'s (1998) results indicate that obese women can also have more specific, rather than global, body image distress and that body dissatisfaction for these women likely involves factors other than simply being obese (such as poor self-esteem). In another study

with obese women without binge eating habits who were interested in beginning a weight loss program, self-esteem, teasing in adulthood, and internalization of the thin ideal were predictors of body dissatisfaction (Matz et al., 2002). Conversely, the experience of being teased in childhood was not predictive of self-esteem or body dissatisfaction (Matz et al., 2002).

### **Self-Esteem and Body Image during Adolescence**

Jones and Newman (2009) examined the relevance of body dissatisfaction and self-esteem issues in adolescents in their study on appearance teasing. They concluded that appearance teasing partly mediated the relationship between body dissatisfaction and self-esteem and that early adolescents' body image and self-esteem can be greatly harmed by critical and harsh comments by peers (Jones & Newman, 2009). Numerous other studies have considered the effect of adolescents' body dissatisfaction on their self-esteem, mood, and overall level of emotional distress (Cash, 2002; Keery, van den Berg, & Thompson, 2004; van den Berg et al., 2010; Wertheim, Koerner, & Paxton, 2001; Wichstrom, 1999). A five year longitudinal study by Paxton (2006) found body dissatisfaction to be a risk factor for both depression and low self-esteem in adolescent boys and girls over the five year period. Paxton (2006) concluded that a vicious cycle exists among adolescents prone to body dissatisfaction in that it leads to mood disturbance and poor self-esteem, creating more body dissatisfaction, then worse feelings about the self, etc. As described by Shroff and Thompson (2006), adolescence is a critical time for self-image development as weight gain occurs during puberty. This is a difficult time to shift away from the thin ideal body type during a period of development where adolescents long for acceptance and inclusion by peers (Berndt & Hestenes, 1996) in addition to the pressures of increasing academic challenges and new

romantic relationship demands (Shroff & Thompson, 2006). Suppressing emotions, internalizing the thin ideal, and comparing physical appearance also have been positively related to body dissatisfaction, eating disturbance, and poor self-esteem among adolescents (Shroff & Thompson, 2006).

There appear to be differences in the relationship between self-esteem and body dissatisfaction for adolescent boys and girls (Furnham et al., 2002; Pokrajac-Bulian, 2005). According to a study by Pokrajac-Bulian (2005), body dissatisfaction is more closely related to self-esteem in girls than in boys. In an earlier study, body dissatisfaction was shown not to affect self-esteem in boys, while it did affect self-esteem development in girls (Furnham et al., 2002). However, a study by Silberstein et al. (1988) revealed that self-esteem was affected by body dissatisfaction in boys regardless of if they desired to weigh more or less. Although, within the same study, a relationship between body dissatisfaction and self-esteem among girls was not supported as adolescent females scored similarly on self-esteem measures irrespective of being satisfied with their body or desiring a thinner body (Silberstein et al., 1988).

The positive relationship between body satisfaction and self-esteem has been acknowledged in children as well (Taylor, Wilson, Slater, & Mohr, 2012). A study by Shin and Shin (2008) with Korean children indicated that obese children had greater levels of body dissatisfaction and poorer self-esteem than the overweight and normal weight participants, although higher rates of depression were not observed in the obese group. Body dissatisfaction was shown to mediate the relationships between obesity with self-esteem and depression. Significantly lower levels of self-esteem and higher levels of depression were observed in obese children with body dissatisfaction, but both obese children and normal

weight children had lower levels of depression and higher self-esteem when body dissatisfaction was not present (Shin & Shin, 2008).

The relationships between body dissatisfaction, depression, and self-esteem have also been observed in various studies with non-clinical samples (e.g., Fabian & Thompson, 1989; Mable, Balance, & Galgan, 1986; McCauley, Mintz, & Glenn, 1988). In a study by Noles, Cash, and Winstead (1985), depressed individuals had greater body dissatisfaction, poorer self-image, and viewed themselves as less attractive in comparison to non-depressed individuals. Interestingly, while the depressed participants negatively distorted their physical attractiveness (believing it was less attractive than was the objective reality), the non-depressed participants overestimated their physical attractiveness (positive distortion) (Noles, Cash, & Winstead, 1985). A later study by Baker, Williamson, and Sylve (1995) also showed that negative mood resulted in overestimation of body size and greater body dissatisfaction. These studies' findings support Beck's cognitive hypothesis which holds that people who are depressed will be dissatisfied with their body and will negatively distort their body image (1976).

### **Self-Esteem and Body Distortion**

While little research has been done on self-esteem, body dissatisfaction, and body distortion in one study (Buhlmann et al., 2008; Thompson & Thompson, 1986), it is an interesting relationship to examine more fully. In 1960, Weinberg found that body distortion was related to lower self-esteem in females. A study by Garner and Garfinkel (1982) also found a negative correlation between self-esteem and body size overestimation in a sample of anorexic patients. Furthermore, in a unique study by Tiggemann (1996), when actual weight was controlled for, self-esteem, depression, and restrictive dieting were associated with



feeling “fat.” This indicates that individuals can perceive themselves to be overweight, even without actually being overweight, if they do not hold themselves in high esteem. Yet, work by Fabian and Thompson (1989) did not find a relationship between self-esteem with body esteem, body distortion, or eating problems.

Females have been shown to have higher levels of body distortion and lower self-esteem in comparison to males (Thompson & Thompson, 1986). In addition to the significant negative correlation between overall body distortion and self-esteem in females, Thompson and Thompson found a negative relationship between self-esteem and females’ distortion of their thighs as well as a positive correlation for self-esteem and males’ distortion of their waist size (1986). The males’ desire to see their waist size as larger coincides with other research on the bidirectional nature of male body dissatisfaction, with men desiring either a larger (more muscular) build or thinner frame (Kostanski & Gullone, 1998; Nagel & Jones, 1992).

### **Ethnicity and Body Dissatisfaction**

The relationship between ethnicity and body dissatisfaction has been documented in various studies (e.g., Barry & Grilo, 2002; Halpern, Udry, Campbell, & Suchindran, 1999; Wassenaar et al., 2000). An important ethnic consideration in the development of body dissatisfaction appears to be that a culture’s ideal body size and shape can impact one’s feasibility to reach an accepted weight and, thus, be satisfied with one’s appearance (Striegel-Moore, Schreiber, Pike, Wilfley, & Rodin, 1995). Usmiani and Daniluk (1997) stated that the degree of discrepancy between one’s actual body size and what is considered to be the ideal body shape is culturally defined and one must meet the cultural standards for beauty to feel confident and desirable.

### **African American Considerations**

The ideal body size among African American women is larger and more shapely (and, therefore, more realistically attainable) compared to the body type favored among Caucasian women and in other American ethnic minority groups (Halpern et al., 1999; Neumark-Sztainer et al., 2002). According to Roberts, Cunningham, and Dreher (2012), African American women's beliefs about an attractive body shape are consistent with the larger body size preferred by African American men. However, Caucasian women accept the thin ideal promoted in Western society and even overestimate Caucasian male's preference for a thin body (Roberts et al., 2012). Studies suggest that the ability for African American women to correctly identify the body shape desired by African American men (being larger than that for Caucasian women) leads to greater body satisfaction for these women (Greenberg & LaPorte, 1996; Patel & Gray, 2001; Powell & Kahn, 1995). A study by Roberts et al. (2012) found Caucasian males to favor thinner females, to put more pressure on their partners to lose weight, and to be more resentful of their partners being overweight than African American males. Additionally, this study discovered that African American women are more likely to experience body dissatisfaction, have thinner body ideals, and weigh less when they date Caucasian versus African American men (Roberts et al., 2012).

African American women are believed to receive less social pressure to be thin (Striegel-Moore et al., 1995) than Caucasian women which Allan et al. (1993) suggested to reflect African Americans' resistance to conform to the beauty standards of the privileged, White culture. In addition, African Americans are thought to place more importance on internal beauty factors (i.e., creativity, unique personality, clothing style, and self-confidence), while

Caucasian women can focus on a rigid set of physical attributes (i.e., thinness, height, blonde hair, blue eyes, small nose, etc.) (Collins, 1990; Parker, Nichter, Vuckovic, Sims, & Ritenbaugh, 1995). This can provide more opportunities for African American than Caucasian females to find aspects of the self about which to feel positive and for less criticalness for not being thin (Grabe, 2008). Engle (2010) found higher rates of body satisfaction and less attempts to hide physical features among African Americans than Caucasians, even though African American women spent more time improving their appearance through grooming and selecting clothing.

Various studies also suggest that African Americans are less likely to be critical of themselves for overeating (Casper & Offer, 1990) and are less likely to feel a need to lose weight or diet due to their most realistic cultural weight standard (Akan & Grilo, 1995; Allan, Mayo, & Michel, 1993; Casper & Offer, 1990). Singh and Young (1995) also discussed the importance of waist-hip ratio in female attractiveness. They argued that, because larger African American women can maintain a similar waist-hip ratio (curvaceous shape in spite of having both larger hips/buttocks and waists) to Caucasian women (with smaller hips and waists), African American men may continue to find African American women desirable mates even when these women are overweight (Singh & Young, 1995).

### **Body Image in Non-Western Cultures**

Ethnographic studies have also indicated a historical preference for a larger female body size in many non-Western societies (Brown & Konner, 1987; Ford & Beach, 1951). Frisch and her colleagues suggested that favoring a larger body type could reflect the evolutionary significance for female bodies needing enough body fat to menstruate and conceive (Frisch, 1990; Frisch & McArthur, 1974). Further, it has been theorized that body

size has become associated more with social class than level of physical beauty in non-Western, undeveloped countries, where larger bodies are connected with wealth (Singh & Luis, 1995). Conversely, thinness may be representative of poverty in these countries (Singh & Luis, 1995). Brink's (1989) work also illustrated this when it was found that Nigerian girls were sent to rooms to eat large amounts of food (known as fattening rooms) to become larger as a sign of affluence. Additionally, in Brazil, the Tupinamba people have a term for being too thin but not for being too heavy, indicating that being overweight may possibly be both more accepted (due its association with social status) and more rare (Brown & Konner, 1987). However, it appears that acceptance of more plumpness may be limited to specific body parts as Brown and Konner (1987) showed 90 percent of the undeveloped countries in their study to favor higher fat deposits only on the hip and leg regions.

In the more socioeconomically depressed regions of the South Pacific, they also idealize larger body shapes as a symbol of power, wealth (Brewis & McGarvey, 2000), and abundance in resources such as food (Swami and Toveé, 2005; 2006; Swami, Knight, Toveé, Davies, & Furnham, 2007). Yet, research by Brewer and others suggested that body dissatisfaction may be increasing among Pacific females as the thin ideal becomes increasingly more accepted (Brewis & McGarvey, 2000; Brewis, McGarvey, Jones, & Swinburn, 1998). The idealization of the thin ideal also appears to be reaching Maori women in New Zealand (Metcalf, Scragg, Willoughby, Finau, & Tipene-Leach, 2000). Even though these women are significantly more overweight and obese than European women, the Maori have described thinness as important for self-confidence, peer approval, and overall happiness (Burns, 2012).

### **Body Dissatisfaction in Caucasians**

The research has suggested many possibilities for why thinner bodies are more preferred among European and Caucasian Americans. Haarbo, Marslew, Goltfredsen, and Christiansen (1991) observed that post-menopausal women experience an increase in waist size which may lead to the association between larger body size and unsuitability for child-bearing (Singh, 1994). The belief among European women that small waist sizes are positively associated with physical attractiveness has also been believed to motivate rib-removal surgeries (Morris, 1985) and fashions such as corsets and thick belts to shrink waist size (Posnick, 1991). Furthermore, in Western countries, thinness has also become associated with a healthy body free from heart disease, diabetes, and other illnesses (Thornhill, 1993). Buss and Schmitt (1993) further examined the connection between thinness and female reproductive health and found that Caucasian males sought thin partners for long-term relationships (with the potential for child-bearing) but not necessarily for short-term relationships.

### **Evolutionary Perspective on Body Dissatisfaction**

To describe the relationship between ethnicity and body dissatisfaction from an evolutionary perspective in more detail, Wade (2000) stated that, for Caucasian females, the thin body is thought to make one more competitive in mate selection. Consequently, body dissatisfaction is thought to result when individuals perceive their bodies to differ from the ideal and to be less physically attractive, making them less sexually competitive (Buss, 1989). Additionally, this perspective holds that, as competition for mates increases, body dissatisfaction will also increase (Wade, 2000). According to Anderson, Crawford, Nadeau, and Lindberg (1992), affluent countries which favor the thin ideal also support monogamy, a

woman's choice to choose a mate, legal divorce, and later marital age for females. Anderson and colleagues (1992) argued that these factors lead to a larger number of available males compared to females, resulting in greater female competition for mates (Geary, 2010), and lower body satisfaction (Anderson et al., 1992). This relationship between competition for mates and body dissatisfaction was supported in studies by Munoz (2012) and Ferguson et al. (2011). Munoz found that peer competition accounted for significantly more variance in predicting body dissatisfaction than any effects of media on promoting the thin ideal (2012). Ferguson et al. (2011) additionally found that body dissatisfaction increased in females when an attractive male was present. This was especially true for young adult women of child-bearing age who were contending for sexual partners (Ferguson et al., 2011). It has also been shown that Caucasian girls' views towards their bodies were more connected to their friendships with males than with females, indicating that these females place a great deal of importance on the role of their beauty in succeeding in opposite-sex relationships (Striegel-Moore et al., 1986). However, a sense of belonging and intimacy in female friendships with same-sex peers was related to body dissatisfaction (i.e., a desire to be thinner) in a study by Gerner and Wilson (2005), suggesting that females may view physical attractiveness as important for relationships with both sexes. This potentially creates a problematic situation for females from majority cultures (with a focus on attaining the thin ideal) if they feel they have to be beautiful to maintain friendships with same-sex peers but this physical attractiveness also makes them more appealing to males, as this may create jealousy in other females and disrupt those relationships.

### **Comparing Body Dissatisfaction in African Americans and Caucasians**

Some studies suggest there are no differences in body dissatisfaction between African

American and Caucasian women (Caldwell, Brownell, & Wilfley, 1997; Cachelin, Rebeck, Chung, & Pelayo, 2002; Cash, Melynck, & Hrabosky, 2004; James, 2001; Shaw, Ramirez, Trost, Randall, & Stice, 2004). A university-based study by Watsky (2012) also found no moderating effect of ethnicity on the relationship between attachment style and body dissatisfaction. A meta-analysis conducted by Roberts (1993) indicated that the ethnic differences for body dissatisfaction for these two groups are shrinking possibly due to minorities' exposure to the thin ideal in media and worsening of body image among African Americans or even improvement in Caucasians' body esteem due to more accessibility to minorities in media. Cash, Morrow, Hrabosky, and Perry (2004) examined reports on body satisfaction for African American and Caucasian women between 1983 and 2001. They found that, while Caucasians experienced decreases in body satisfaction in the early 1990s, body satisfaction improved by 1995 for both ethnic groups and the groups had very similar levels of body satisfaction between 1995 and 2001 (Cash et al., 2004). Other studies have also commented on the improvement in body satisfaction among Caucasian females in the 1990s (Cash & Henry, 1995; Heatherton, Mahamedi, Striepe, Field, & Keel, 1997).

Still, most studies continue to indicate there are differences in body dissatisfaction between African American and Caucasian American women (e.g., Abood & Chandler, 1997; Casper & Offer, 1990; Chandler, Abood, Dae, & Cleveland, 1994; Douglas, 1992; Mobley, Slaney, & Rice, 2005; Perez & Joiner, 2003). A majority of the findings suggest that African American women have greater body satisfaction than Caucasian women (Ackard, Croll, & Kearney-Cook, 2002; Duncan, Anton, Newton, & Perri, 2003; Rucker & Cash, 1992; Story, French, & Resnick, 1995; Williamson, Kahn, & Byers, 1991) and this finding has been reliable across all ages of females, including children (Adams et al., 2000), undergraduate

students (Bissell, 2004; O'Neill, 2003), and older adults (Duncan et al., 2003; Shulman & Home, 2003). Also, in a longitudinal study of adolescents which spanned five years, both African American boys and girls consistently reported better body satisfaction than Caucasian boys and girls (Paxton, Eisenberg, & Neumark-Sztainer, 2006). O'Neill (2003) and Wildes, Emery, and Simons (2001) found the body dissatisfaction discrepancy for these two ethnicities to be most prominent among undergraduate women than any other age group, while Roberts (2006) found the largest differences at age 25 with this difference vanishing by age 40.

In a study by Wassenaar et al. (2000), Caucasian women had significantly higher levels of body dissatisfaction compared to African American women. However, African American women scored higher on measures of drive for thinness (Wassenaar et al., 2000). Casper & Offer (1990) also found greater body dissatisfaction among Caucasian women, where Caucasians reported feeling overweight while African American women were more concerned with being underweight. Perez & Joiner (2003) found similar results but the authors cited use of self-report rather than BMI for measuring body size as a study limitation. However, a majority of studies on body dissatisfaction use self-perception of body size and self-report of height and weight in determining body image (e.g., Holmqvist, 2010; Thompson & Gray, 1995).

A study by Douglas (1992) also found Caucasian female undergraduate students to have greater body dissatisfaction than African American females; although, all women, regardless of ethnicity, perceived their bodies to be larger than was the reality. Further, a negative correlation between femininity and body distortion was present for both African American and Caucasian women (Douglas, 1992). Alternatively, a study by Fitzgibbon et al.



(1998) found African American women were more accurate in body size estimations even at higher BMI, while Caucasian women reported feeling heavier regardless of actual weight.

Research by Wagner (2009) showed African Americans to have higher body satisfaction (related to overall body and specific body parts) than Caucasians. African American participants also placed less value on the importance of appearance than did Caucasian participants (Wagner, 2009). DeBraganza and Hausenblas (2010) showed African American women's body satisfaction to be less affected by viewing thin media images than Caucasian women's. African American women are also less likely to base their self-worth on body weight, making them more satisfied with themselves than Caucasian women, even at heavier weights (Nichter, 2000).

Researchers have also studied the effects of peer influence on the development or protection against body dissatisfaction among African Americans and Caucasians (Brown, Bakken, Ameringer, & Mahon, 2008; Kandel, 1978; Woelders, Larsen, Scholte, Cillessen, & Engels, 2010). Woelders et al. (2010) found adolescent girls to have similar scores on body dissatisfaction as well as eating difficulties as their friends of the same ethnicity. These findings were replicated in a study by Rayner, Schniering, Rapee, Taylor, and Hutchinson (2013) where girls scored very similarly on measures of body dissatisfaction in relation to their friends. Kandel described that individual first select friends based on similarities (such as ethnicity and physical fitness level) and then, through the process of socialization, friends become more similar to each other and influence the each other's beliefs about attractiveness (Brown et al., 2008). In a related study on depression among African American teens, it was observed that these teenagers experienced increases in depression when living with Caucasians than among African Americans, suggesting the negative emotional impact of

mainstream culture and immersion into a Caucasian peer group on ethnic minorities (Wight, Aneshensel, Botticello, & Sepulveda, 2005). This could also explain why African Americans experience increases in body dissatisfaction in teenage through young adulthood years, at a time where they are socializing more with Caucasian Americans at college (Wildes et al., 2001). It would be interesting to observe if African Americans would experience the same increase in body dissatisfaction in that developmental period if they did not attend college or attended a historically African American college (Roberts, 2006) where less social pressure to be thin would exist. Further, a study by Carroll (2005) of White and Black Bahamian adolescents indicated no difference in body dissatisfaction between the two ethnic groups, suggesting that body dissatisfaction variations by race may differ across countries. However, it could not be inferred from this study if White girls in the Bahamas had greater body satisfaction than in America or if Black Bahamian girls experienced more body dissatisfaction than African Americans. In a study comparing African American and Jamaican women, there also was no significant difference in body dissatisfaction or ideal body image, although the drive to be thin was more present for the Jamaican women (Williams, 2007).

A few studies have found social pressure to be thin to be positively associated with body dissatisfaction for African Americans (Phan & Tylka, 2006; Lester & Petrie, 2008). However, in studies where African Americans were found to have high levels of body dissatisfaction, it was not typically social pressure to be thin that contributed to this distress but rather a realistic concern about being obese (Petersons et al., 2000; Smith, Thompson, Raczynski, & Hilner, 1999). Work by Imarogbe (2004) also found experiencing racial discrimination as a significant predictor of body dissatisfaction among African American

women. Furthermore, two studies found ethnic differences in body dissatisfaction to disappear after controlling for socioeconomic status (Caldwell et al., 1997; Gardner, Friedman, & Jackson, 1999), implying class to be of greater influence than race on the development of body image. This is consistent with Sobal and Stunkard's (1989) research which found no differences in body dissatisfaction between African Americans and Caucasians after controlling for income, marital status, and BMI. This further supported other research where degree of assimilation for middle to upper class African American females at a largely Caucasian university predicted body dissatisfaction (Abrams, Allen, & Gray, 1992; Harris, 1994).

Also, in a study observing eating disorder behaviors (a related concept to body dissatisfaction), eating disturbances were found to be comparable for African American and Caucasian women of middle and upper classes (French et al., 1997; Rand & Kuldau, 1992; Wilfley et al., 1996). However, a few studies showed African American women to have higher body satisfaction than Caucasian women, regardless of socioeconomic status (Johnson, Heineman, Heiss, Hames, & Tyroler, 1986). Studies of the moderating effect of income on the relationship between ethnicity and body dissatisfaction appear to be limited by including a larger proportion of Caucasian to African American females and underrepresenting participants of lower income (Caldwell et al., 1997).

Furthermore, a study by Twamley and Davis (1999) showed nonconformity and low familial pressure to diet as more significant predictors of body satisfaction in African American women than social pressure to be thin and internalizing the thin ideal. In interesting research by Lovejoy (2001), it was suggested that more positive body image for African American women may not reflect less pressure to conform to the thin ideal but rather

a form of denial of weight-related problems. African American are typically more overweight with higher rates of obesity than Caucasians (Kumanyika, 1987) and Ullman and Filipas (2005) proposed that this group's maintenance of body satisfaction in spite of obesity is also reflective of a defensive coping mechanism to ameliorate the negative effects of oppressive treatment (such as sexual assault and racism). A study by Rand and Kuldau (1990) corroborated African American females' denial of weight difficulties in spite of being significantly overweight. Due to the high rates of obesity among African Americans, some have stated that a small amount of body dissatisfaction would facilitate weight-loss efforts through exercise and healthy eating (Heinberg, Thompson, & Matzon, 2001). However, a study by Russell and Cox (2003) indicated that social physique anxiety (a concept related to body dissatisfaction) was associated with either poor or excessive motivation to exercise.

### **Comparing Body Dissatisfaction in Asians and Caucasians**

There are mixed results regarding body dissatisfaction differences between Asians and Caucasian Americans (Akiba, 1998). Some of the literature supports greater levels of body dissatisfaction for Caucasian Americans than for Chinese (Akan & Grilo, 1995; Akiba, 1998; Chen & Swalm, 1998; Franzoi & Chang, 2002; Tykla, 2004). Other studies indicate no differences in body dissatisfaction between the two ethnic groups (Arriaza & Mann, 2001; Cash, Melnyk, & Hrabosky, 2004; Siegel, 2002). However, studies of individuals from more affluent areas in East Asia have found higher levels of body dissatisfaction among Asian than Caucasian American females (Haudek, Rorty, & Henker, 1999; Jung & Forbes, 2007; Jung & Lee, 2006; Kowner, 2002; Mukai, Kambara, & Sasaki, 1998; Shih & Kubo, 2005; Wildes et al., 2001). Davis and Katzman (1998) compared body satisfaction in Asian Americans and Asians living in Hong Kong (an affluent area in China) and found those living in Hong Kong

to have higher body dissatisfaction than Asian Americans. Lee and Lee (2000) also found Hong Kong females to be more prone to body dissatisfaction than females in Hunan and Shenzhen (less affluent areas of China). Interestingly, results of studies of Hong Kong and White, Australian women revealed no significant differences in feelings about their body and weight (Lake, Staiger, & Glowinski, 2000; Sheffield & Sofronoff, 2005). Two studies of Korean and American females found more dissatisfaction with the body among Koreans (Jung & Forbes, 2007; Jung & Lee, 2006). Japanese females were also found to be more displeased with their bodies than Americans in studies by Kowner (2002) and Mukai et al. (1998). Further, Japanese females have been found to have more body dissatisfaction than Taiwanese females (Shih & Kubo, 2005) even though both areas are more Westernized. Caucasians have also been shown to be more dissatisfied with their bodies than Taiwanese (Yang et al., 2005). Furthermore, a study which included numerous groups of Asian descent as well as Pacific Islanders found no differences in body dissatisfaction for Hawaiians or Asian American women of Japanese, Filipino, Chinese, or multiethnic heritage (Yates, Edman, & Aruguete, 2004).

Evans and McConnell (2003) described dissatisfaction with race-specific body parts among Asian women as being indicative of a desire to blend in with the beauty standards of mainstream America. An example of this desire for Asian women to appear more Western is the popularity in Korea for females to have reconstructive surgery to create double eye-lids and skinner noses (Kawamura, 2002). Dissatisfaction with breast size (Forbes & Frederick, 2008) eyes (Koff, Benavage, & Wong, 2001; Mintz & Kashubeck, 1999), face (Mintz & Kashubeck, 1999), and skin color (Sahay & Piran, 1997) among Asian females in Canada and America has also been documented. Intriguingly, Mintz and Kashubeck (1999) did not

find Asian American women to have higher levels of overall body dissatisfaction compared to Caucasian Americans even when Asian Americans were found to be dissatisfied with their eyes and face. Kowner (2002) drew upon this finding by suggesting that the higher rates of body dissatisfaction in Japanese and Korean women is reflective of East Asian women's desire to look more Western and is not necessarily tied to internalization of thin ideal.

Contrary to Kowner's proposition that Asian Americans may be spared from a preoccupation with being thin, Sanders and Heiss (1998) found that Asians shared Caucasian women's desire to lose weight and Asian Americans, in fact, had a greater fear of being fat. Chen and Swalm (1998) similarly concluded from their findings that Chinese women had greater body satisfaction if they were thinner. Additionally, in a sample of middle school children, Xanthopoulos et al. (2011) found obese, Asian American females to have the highest levels of body dissatisfaction compared to children of females and males of other ethnicities and weight classes. Studies examining level of acculturation in Asian Americans have not found this to be significantly related to body dissatisfaction (Akan & Grilo, 1995; Ogden & Elder, 1998).

Regarding body image comparisons between Asian Americans and other American ethnic groups, Altabe (1998) found Caucasian and Hispanic Americans to have more body dissatisfaction in comparison to Asian and African Americans. Mayville, Katz, Gipson, and Cabral's (1999) findings supported this in their study of adolescent boys and girls where African Americans of both genders were less likely than Caucasians, Asians, and Hispanics to endorse body dissatisfaction. This was consistent with a study by Vander wal and Thomas (2004) who found higher rates of body dissatisfaction for Hispanic than African American children. Wildes et al. (2001) observed similar results in their meta-analysis; however,

Hispanic women were underrepresented compared to African Americans in these studies and contributors to body dissatisfaction (i.e., perfectionism and self-esteem) were not included.

Various explanations have been offered as to why some studies indicate large differences in body dissatisfaction across African American and Caucasian women but more comparable levels between Caucasians and other minority groups. For instance, Lovejoy (2001) suggested that the gender identity and role for African American women has become more independent and self-reliant than for Caucasian women as racism and economic uncertainty in the African American community may have made it more perilous for these women to rely more passively on a male for support. Harris (1996) further proposed a more androgynous gender identity for African American women to reflect their focus on their maternal function rather than their need to maintain a thin body to attract partners. It has also been noted that Hispanic women's greater proclivity for perfectionism and focus on physical appearance, in comparison to African American women, can lead to more reliance on attaining the thin ideal for self-esteem maintenance (Greenberg & LaPorte, 1996; Jackson & McGill, 1996).

Work by Neumark-Sztainer et al. (2002) revealed opposite findings where African American girls actually had the highest levels of body dissatisfaction, with Caucasian, Asian, Hispanic, and Native Americans scoring similarly. The African American women were also the least likely of the four groups to overestimate their weight (Altabe, 1998). Wilkosz and colleagues examined body dissatisfaction in both genders and observed Asian boys to have the highest body image disturbance followed by Hispanic girls, Asian girls, Hispanic boys, and Caucasian girls and boys (Wilkosz, Chen, Kennedy, & Rankin, 2001). Another clinical study with adolescent inpatients suffering from eating disorders found higher rates of body

dissatisfaction among Caucasian girls compared with Hispanic and African American girls (White & Grilo, 2005).

### **Comparing Body Dissatisfaction in Hispanics and Caucasians**

Most studies directly comparing body dissatisfaction with Hispanics and Caucasians have found higher rates among Caucasian women (e.g., Barry & Grilo, 2002; Franko & Herrera, 1997; Suldo & Sandberg, 2000; Warren, Gleaves, Cepeda-Benito, Fernandez, & Rodriguez, 2005). Research by Warren et al. (2005) found ethnicity to mediate the relationship between body dissatisfaction and internalization of the thin ideal. More specifically, they found greater levels of body dissatisfaction among Caucasian versus Hispanic women. Warren and colleagues reflected that it would have benefited this study to include a measure of ethnic identity to better understand the degree to which Hispanic participants identified with the Mexican or American culture and how this could have impacted degree of body dissatisfaction (2005). Demarest and Allen additionally found Caucasian women to have more variance between their actual and ideal bodies than Hispanic women (2000). An earlier study finding's suggested Caucasian female college students had more body dissatisfaction than Guatemalan American females (Franko & Herrera, 1997). Gleaves et al. (2000) as well as Carlson and McAndrew (2004) similarly found higher body dissatisfaction among Caucasian than Spanish individuals of normal weight. Furthermore, a study by Ferguson et al. (2011) found Mexican women women's body dissatisfaction to be unaffected by viewing television images portraying the thin ideal.

Researchers have suggested that Hispanic women are more protected from poor body image because of the idealization of a fuller shaped woman (Chamorro & Flores-Ortiz, 2000). Gil-Kashiwabara (2002) further described that a larger physique is indicative of



wealth, good health, and high status in the Hispanic culture. Further, the focus on interdependence and familial relationships (familismo) in Hispanic communities may put less pressure on individualistic concerns such as attractiveness (Santiago-Rivera, Arredondo, & Gallardo-Cooper, 2002). Studies of acculturation in Hispanic women have shown that women low in acculturation had larger ideal body sizes than highly acculturated Hispanics (Lopez, Blix, & Blix, 1995). Acculturation research in Hispanic women has also found similar levels of eating disorders (Joiner & Kashubeck, 1996) and body distortion (Guinn, Semper, & Jorgensen, 1997) among Caucasian women and Hispanic women who have acculturated to American culture.

Other studies have suggested no differences in body dissatisfaction between Caucasians and Hispanics (Grabe, Ward, & Hyde, 2008; Lipschuetz, 2009). Gleaves et al. (2000) found Spanish males to be as dissatisfied with their bodies as American males. However, the two groups differed in how their dissatisfaction was expressed in that American men wished to be more muscular while Spanish men had a desire to be thinner (Gleaves et al., 2000). A few studies have also suggested more body dissatisfaction in Hispanics than Caucasians (McComb & Clopton, 2002; Robinson et al., 1996). McComb and Clopton found Hispanic female university students to have greater body dissatisfaction and drive for thinness than Caucasian counterparts (2002). In a study of middle school Caucasian and Hispanic girls, Robinson and others (1996) found Hispanic girls with the lowest body weights to have the greatest levels of body dissatisfaction. Avila and Avila (1995) hypothesized that a possible contributor to higher body dissatisfaction in some Hispanic women is the traditional female gender role in Hispanic culture which may contribute to higher levels of pressure to have a petite figure.

Santiago-Rivera et al. (2002) proposed that studies of body dissatisfaction in Hispanic women are limited by the grouping of all Hispanic cultures into one class without observing variances among the different Hispanic countries. However, a few researchers have examined body dissatisfaction between specific Hispanic populations (e.g., Raich et al., 2001; Gomez-Peresmitre & Garcia, 2000; McArthur, Holbert, & Peña, 2005; Toro et al., 2006). Raich et al. (2001) and Toro et al. (2006) compared Spanish and Mexican women and found higher rates of body dissatisfaction in the former, more affluent, group. However, a study by Gomez-Peresmitre and Garcia (2000) had opposite findings. McArthur et al. (2005) conducted a cross-cultural study of six Latin American cities in Argentina, Guatemala, Cuba, Peru, Panama, and Chile and found adolescents girls from all countries to have body dissatisfaction. Additionally, females from Argentina (the most affluent country of the six) had the largest percentage of females state an interest in being more thin (McArthur et al., 2005). Meehan and Katzman (2001) described how Argentineans identify more with Western culture than other Latin American groups and may, therefore, have beauty standards that coincide with the thin ideal. This was supported by a study which found no significant differences in body dissatisfaction between Swedish and Argentinean adolescents (Holmqvist, Lunde, & Frisen, 2007).

### **Comparing Body Dissatisfaction in Europeans and Americans**

Various studies have examined the differences in body image between Americans and Europeans (e.g., Bohne et al., 2002; Holmqvist, 2010; Lipinski & Pope, 2002). Bohne et al. (2002) found similar body image dissatisfaction among American and German university students. In comparing Americans, Europeans, and Australians, Holmqvist (2010) found the highest rates of body dissatisfaction to be for Americans. In a study of males, however,

Americans were no more dissatisfied with their bodies than Samoan and Western European men (Lipinski & Pope, 2002). A qualitative study comparing American and French adolescent boys' and girls' feelings about their appearance interestingly found that the two groups of girls, while both being dissatisfied with their faces, had different ideal faces (Ferron, 1997). For example, although American girls desired fuller lips and higher cheekbone structure, French girls complained of not having enough of a "baby-face" defined by full eyelashes and pale, clear skin. Regarding the boys, French boys were actually more dissatisfied with their bodies than the Americans (Ferron, 1997).

### **Comparing Body Dissatisfaction in Middle Easterners and Caucasians**

Differences in body image disturbance between American and Middle Eastern peoples have also been documented (Akiba, 1998). Akiba (1998) reported Americans were more dissatisfied with their bodies than Iranians and went on to suggest that the lack of a "body-conscious" Western media presence in Iran protected them against a preoccupation and displeasure with their bodies. Studies of Israeli and American females found the Israeli women to have lower rates of body dissatisfaction (Barak, Sirota, Tessler, Achiron, & Lampl, 1994; Heesacker, Samson, & Shir, 2000; Safir, Flaisher-Kellner, & Rosenmann, 2005). Researchers have explained this difference by focusing on the more familial nature of Israeli families who place less value on thinness (Heesacker et al., 2000). However, more recently, Yang et al. (2005) described an increase in body dissatisfaction in Eastern cultures as media and Western advertising has increased its presence in these countries. A study by Barak et al. (1994) with male college students also found Israelis more likely to be dissatisfied with upper body strength than American males. This feeling regarding their torso strength may be reflective of the three year army commitment required of Israeli males before attending

college which is centered on physical strength and endurance (Barak et al., 1994). Two other cross-cultural studies related to male dissatisfaction with body strength examined satisfaction with muscularity in American, Ukrainian, and Ghanaian males (Frederick et al., 2007a; Frederick, Forbes, Grigorian, & Jarcho, 2007b). In both studies, Americans were found to be more dissatisfied with their muscularity than the other ethnic groups (Frederick et al., 2007a; Frederick et al., 2007b). However, Grogan (1999) has stated that Ghanaian males tend to have more well-defined musculature than American males and greater muscular satisfaction for Ghanaian males may simply indicate that they have already achieved their desired muscularity.

### **International Studies of Body Dissatisfaction**

Concerning countries outside of the United States, Australia has been shown to have high rates of body dissatisfaction among its citizens (Tiggemann & R  utel, 2001), although not as high as in America (Tiggemann & Rothblum, 1988). Australian females have also been shown to have poorer body image than Estonians and Italians (Tiggemann & R  utel, 2001; Tiggemann, Verri, & Scaravaggi, 2005). Moreover, Australians' body image was more negatively impacted than Italians' following their reading of fashion magazines. Australian females, again, had more body dissatisfaction in a study where they were compared with Pakistani females, although both groups reported a desire to be thinner (Mahmud & Crittenden, 2007). The authors described that they were not surprised by these findings as the Islamic faith, which is prominent in Pakistan, forbids critical comments about others in such areas as their appearance (Mahmud & Crittenden, 2007). Alternatively, a qualitative study of Australian and Fijian females did not find significant differences in body dissatisfaction (Williams, Ricciardelli, McCabe, Waqa, & Bavadra, 2006). There also were no significant

ethnic differences in body dissatisfaction in a study comparing Australian children/adolescents from Chinese, Vietnamese, Italian, Greek, and European backgrounds, although age and gender effects were present (Wang, Byrne, Kenardy, & Hills, 2005).

In other cross-cultural research, a large international study of 12 countries in Europe, Asia, and Africa revealed that females in the Westernized countries (i.e., Sweden, Germany, Spain, France, and Italy) had greater body dissatisfaction and smaller body ideals than less affluent countries (i.e., Tunisia, Ghana, Gabon, and India) (Jaeger et al., 2002). Although, there was a positive correlation between BMI and body dissatisfaction among women from all participating countries (Jaeger et al., 2002). Contradictory to research indicating the positive relationship between affluence and body dissatisfaction, one study found Indian females to have as much body dissatisfaction as Canadian females of higher socioeconomic status (Gupta, Chaturvedi, Chandarana, & Johnson, 2001).

### **Ethnicity, Self-Esteem and Body Image**

A few studies have examined how the relationship between body dissatisfaction and self-esteem varies based on ethnicity (Eitel, 2003; Garcia-Rea, 2007; van den Berg, Mond, Eisenberg, Ackard, & Neumark-Sztainer, 2010). A study of undergraduate Caucasian, Hispanic, and African American women did not find differences in the relationship between body dissatisfaction and self-esteem across the three ethnic groups (Garcia-Rea, 2007). However, low self-esteem, internalization of the thin ideal, and family's focus on weight and physical appearance were associated with great body dissatisfaction among all ethnic groups (Garcia-Rea, 2007). Alternately, a study by Eitel (2003) found differences in body satisfaction and self-esteem among African American and Caucasian women, where African American women had higher self-esteem and body satisfaction than Caucasian women.

Furthermore, self-esteem was determined to stay consistent over the lifespan for both African American and Caucasian women (Eitel, 2003). In a school-based study of diverse 11-18 year old boys and girls, self-esteem and body dissatisfaction were found to be more strongly related for Caucasian girls of normal weight from high socioeconomic backgrounds than for girls who were African American, Asian, underweight, or from low socioeconomic backgrounds (van den Berg et al., 2010). There also was a significant relationship between body dissatisfaction and self-esteem among the adolescent boys and, interestingly, the strength of this relationship did not vary to a significant degree by demographic membership (van den Berg et al., 2010).

### **Cultural Considerations for Perfectionism**

Although much research has been conducted on perfectionism, variances in perfectionism based on ethnic differences have not been fully examined (Castro & Rice, 2003). Ethnicity can be defined as a sense of belonging to a cultural group and observing the cultural practices and norms of that group (American Psychological Association, 2003). According to Katz (1985) and Phinney (1996), ethnic groups are commonly defined by culture of origin, race, and physical characteristics (e.g., skin color, hair color/texture, and facial features). Very little is known about how perfectionism differs for Hispanic individuals; although, Triandis, Bontempo, Villareal, Asai, and Lucca (1988) proposed that perceived parental criticism and expectations may be particularly high in this cultural group due to its collectivistic nature.

A few studies have suggested perfectionism does not vary significantly for Asian American and Caucasian students (Arale, 2010; Chow, 2003). In another study of Asian and Caucasian American college students, Chang (1998) used Frost's (1990b) multidimensional

perfectionism model to examine difference in perfectionism among the two ethnicities. Results showed Asian American students to have greater levels of doubting about actions, concern over making mistakes, and parental expectations and criticism in comparison to Caucasian students. However, personal standards and organization did not vary based on ethnicity (Chang, 1998). This supported Peng and Wright's (1994) analysis of the National Education Longitudinal study of 25,000 students where Asian Americans were found to have very high perceived parental expectations compared to students of other ethnicities. Sue and Okazaki (1990) hypothesized that high perceived parental expectations for Asian Americans develops out of the intense pressure in Asian families to achieve and the parental criticism and feelings of guilt that ensue when these achievement demands are not met. Asian Americans high in maladaptive perfectionism were also seen to observe Asian cultural practices more strictly, have less self-confidence to perform academically, and be greater procrastinators (Yao, 2010). Davis and Katzman (1999) also observed that Chinese American immigrants experienced more perfectionism during the assimilation process.

A study of Asian American, Caucasian American, and African American college students revealed that the Asian American students experienced more perfectionistic tendencies (e.g., concern over mistakes, doubt about actions, and parental criticism and expectations) than the other groups (Castro & Rice, 2003). Furthermore, the Asian American and African American students were more likely than the Caucasian students to report high perceptions of parental expectations. African American and Caucasian participants scored comparably on concern over mistakes, doubts about actions, and parental criticism, while all three groups had similar degrees of personal standards and organization (Castro & Rice, 2003).

Regarding differences in perfectionism among African American and Caucasian individuals, Nilsson, Paul, Lupini, and Tatem (1999) utilized Frost's (1990b) and Hewitt and Flett's (1991) multidimensional perfectionism models in their study which found African American participants to score higher than Caucasians in parental expectations and other-oriented perfectionism. Alternately, African Americans had less concern over mistakes and perceived parental criticism than Caucasians (Nilsson et al., 1999). Garner and Olmstead (1984) and Garner, Olmstead, and Polivy (1983) also found differences in African American and Caucasian participants' scores on perfectionism in a sample with eating disorder symptomatology. In a longitudinal study of adolescent girls, African American girls were significantly higher in perfectionism than Caucasian girls (Striegel-Moore et al., 2000). Another study of adolescents found that African American males and females were higher in SOP and OOP than were Caucasian adolescents (van Hanswijck de Jonge & Waller, 2003). Although, no difference was found between the ethnic groups on their perception of pressure from others to perform well (van Hanswijck de Jonge & Waller, 2003). Additionally, no difference in maladaptive perfectionism for African American and Caucasian females was observed in a study by Chang, Watkins, and Banks (2004). Still, Caucasian women were higher in adaptive perfectionism (Chang et al., 2004).

African American ethnic identity and SPP were shown to be related in a study by Heads (2009). It has been suggested that African Americans scored higher on this type of perfectionism (concerned with perceiving others to be very critical of their efforts) due to the pressure of racial discrimination leading African American parents to advise their children to strive harder than their Caucasian peers to compensate for White privilege (Chao, Mallinckrodt, & Wei, 2012). Hines and Boyd-Franklin (1996) also described that African



American parents may put pressure on their children to succeed out of fear that their children will fail from the disadvantage of racial discrimination. They argued that this is particularly true of middle-class African American families whose parents experienced financial difficulties and had to work very hard to attain financial security. However, Hines and Boyd-Franklin (1996) also discuss that, since African American families can greatly value the importance of a strong character rather than financial status alone as an indicator of personal success, this may lead to African American parents approving of their children's hard work and achievements, even if high status is not reached.

Studies of South African White and Black individuals have shown similar trends in perfectionism and perfectionism-related variables as seen in the studies comparing African Americans and Caucasians (Edwards, d'Agrela, Geach, & Welman, 2003; Wassenaar, le Grange, Winship, & Lachenicht, 2000). Wassenaar et al. (2000) found that Black women had higher levels of perfectionism, including a higher drive for thinness, in comparison to White women. Further, Edwards et al. (2003) observed higher perfectionism scores among Black women compared with White women. These researchers stated that, due to the South African Apartheid which limited Blacks' opportunities, Black women may develop very high self-standards and place excessive pressure on themselves to achieve (Edwards et al., 2003). The trend for Black women to fear the process of maturing into adulthood has also been suggested to reflect their belief that there are more pressures on them to succeed than there are for White women in South Africa (Wassenaar et al., 2000).

### **Ethnicity and Perfectionistic Self-Presentation**

Research has yet to be conducted examining the effect of ethnicity on PSP. However, one study with related concepts found that perfectionism (marked by self-criticism and

expectation for others to be perfect) moderated the relationship between body dissatisfaction and bulimia in African American women (Bardone-Cone et al., 2009). This study was conducted at a predominantly Caucasian university and it would be interesting to explore if the same relationship between perfectionism and body image for African Americans is present at a university with a higher percentage of African American students (Root, 2001). Still, this indicates that preoccupation with one's physical appearance and the appearance of others can be present even among ethnic groups that accept larger ideal body types (Freedman, Carter, Sbrocco, & Gray, 2004).

### **Ethnic Identity and Body Dissatisfaction**

It has been argued that, to better understand the development of body dissatisfaction, ethnic identity must be included as a predictor variable (Striegel-Moore & Smolak, 1996). As described by James (2001), if the body is thought to vary from the culturally body ideal, body dissatisfaction will be the result. Other authors agree that people appraise their bodies based on the body type valued by the culture (Franzoi & Klaiber, 2007) and compare themselves to others of similar age and ethnicity (Festinger, 1954; Salovey & Rodin, 1984). The sociocultural perspective of body dissatisfaction suggests that women who identify with the White majority culture's standards for physical attractiveness will be more dissatisfied with their bodies (Rogers Wood & Petrie, 2010). Alternatively, women who have strong ethnic identity in a minority culture that accepts a more realistic body shape may be more protected from negative views of their bodies (Rogers Wood & Petrie, 2010).

### **Ethnic Identity among African Americans**

While this is still a burgeoning area of research, studies on ethnic identity and body dissatisfaction for African Americans have been documented (e.g., Petersons et al., 2000; Rogers Wood & Petrie, 2010; Watsky, 2012; Wilcox, 2007). Identification with the African

American culture has been associated with less body dissatisfaction (Osvold & Sodowsky, 1993; Parker et al., 1995; Petersons et al., 2000). Watsky (2012) found ethnic identity to moderate the relationship between anxious attachment and body dissatisfaction where ethnic identity was protective against body dissatisfaction for African Americans. Similar results were found by Rogers Wood and Petrie (2010) when ethnic identity in African American female college students was shown to be negatively associated with pressure to be thin, internalization of the thin ideal, and body dissatisfaction. The researchers concluded that the African American women in their sample who were strong in ethnic identity received positive messages from their families, churches, peers, and cultural media programs regarding accepting their natural body types (Rogers Wood & Petrie, 2010). Wilcox (2007) found both ethnic and feminine identities to be negatively related to body dissatisfaction.

Findings by Imarogbe (2004) further revealed a negative relationship for African Americans between both Afrocentrism and ethnic identity with body dissatisfaction related to lips, skin color, and hair. African American women high in ethnic identity have also been shown to be less vulnerable to body dissatisfaction and drive for thinness after watching thin ideal rap videos than women with less ethnic identity internalization (Zhang, Dixon, & Conrad, 2009). In addition, in a study by Turnage (2004) of high school African American females, ethnic identity achievement predicted body satisfaction and self-esteem.

Harris (1995) looked at African American ethnic identity more specifically. Three racial attitudes (i.e., pro-Black/anti-White, pro-Black/White-neutral, and transition to incorporating more Black perspectives over White perspectives) were associated with less body dissatisfaction and more focus on healthy living (Harris, 1995). Oney, Cole, and Sellers (2011) examined centrality (ethnic identification), private regard (positive attitude towards

ethnic group), and public regard (others' positive attitude towards ethnic group) as they related to body dissatisfaction in a sample of African American male and female college students. It was found that the relationship between body dissatisfaction and self-esteem was moderated by all three ethnic-related categories (Oney et al., 2011).

In a study comparing ethnic identity in both African American and Caucasian females, Petersons et al. (2000) observed ethnic identity in Caucasian females to be associated with higher levels body dissatisfaction and drive for thinness, while ethnic identity in African American females was not related to these outcome variables (Petersons et al., 2000). A later study found no relationship between ethnic identity and body dissatisfaction for either African American or Caucasians (Baugh, Mullis, Mullis, Hicks, & Peterson, 2010). Bessellieu (1997) also found no relationship between positive ethnic identity and body satisfaction among African American women, although negative feelings about African American culture was related to more body dissatisfaction.

### **Multiethnic Comparisons of Body Dissatisfaction**

In a study of Caucasian, African American, Asian, and Hispanic women ranging from adolescents to elderly females, ethnic and female identities were significant predictors of body dissatisfaction for all ethnic groups except Caucasians (Gilmore, 2001). Yokoyama (2003) examined ethnic identity in Asian Americans and found a positive relationship between ethnic identity formation and body satisfaction. Women who had less developed ethnic identities had more dissatisfaction with their face, limbs, hips/abdomen, and height (Yokoyama, 2003). These findings were consistent with a later study by Phan and Tykla (2006). A study by Song (2010) of Korean adolescent girls similarly found a positive relationship between ethnic identity and body satisfaction. Newman, Sontag, and Salvato

(2006) also found a positive relationship between ethnic identity and positive body image in a longitudinal study of teenage rural American Indians.

A study of Mexican American college females, however, did not show ethnic identity to protect against body dissatisfaction (Bettendorf & Fischer, 2009). However, ethnic identity did function as a moderator of acculturation and disordered eating where poor ethnic identity with high acculturation to American culture led to undereating (Bettendorf & Fischer, 2009). Alternatively, a study of female Mexican American children revealed that strong Mexican identity was associated with more body dissatisfaction (Ayala, Mickens, Galindo, & Elder, 2007). Ayala and colleagues suggested that the dissonance of identifying more with the Mexican culture while living in America may create a negative self-image (2007).

A few studies of ethnic identity in New Zealand had mixed results (Ngamanu, 2006; Talwar et al., 2012). Ngamanu (2006) did not find a significant effect of ethnic identity in Maori and Pakeha New Zealand females. However, Talwar et al. (2012) observed that stronger ethnic identity among Maori college females was related to less worry about body weight. Moreover, BMI was more strongly related to body dissatisfaction for European New Zealanders than for the Maori, who were more protected from body image concerns even at higher weights (Talwar et al., 2012). Research examining the effect of ethnic identity on body distortion is not yet available. This would be greatly beneficial to better understand how non-majority cultural values may protect against not only negative views of the body but also misperceptions of physical appearance.

### **Introduction to Present Study**

The literature has consistently supported a positive relationship between body distortion (a conceptual inaccuracy in the view of one's body as described by Freeman, Beach, Davis, and Solyom, 1985) and body image dissatisfaction (Etu & Gray, 2010; Ferguson, Munoz, Contreras, & Velasquez, 2011; Gardner & Tockerman, 1993; Kasper, 2001). While body dissatisfaction and body distortion are common among individuals diagnosed with disorders concerning difficulty regulating eating (i.e., bulimia, anorexia, and obesity) (Cash & Deagle, 1997; Kopyt, 2000), these problems are also present for asymptomatic individuals (Altabe & Thompson, 1992; Vocks, Legenbauer, Rüdell, & Troje, 2007). In fact, dissatisfaction with one's body has been labeled a "normative discontent" given that it is now so common-place among women in developed countries (Rodin, Silberstein, & Striegel-Moore, 1985). Due to the high prevalence rate of body image disturbance, it is important to continue to better understand the various complex contributors to the development of body dissatisfaction and body distortion that will allow clinicians to target successful interventions towards these issues. Research also shows that body dissatisfaction is related to more severe forms of psychopathology (i.e., eating disorders (De Barardis et al., 2007) and personality disorders (Sansone & Levitt, 2005)) which decrease overall life satisfaction (Hamachek, 1978). Further, there is a gap in understanding the predictors of body distortion as this construct is seldom assessed in non-clinical populations, including a lack of research with figure drawings to assess distorted body image (Gillen, 2011), in spite of the fact that this technique does not require much time to administer (Gardner & Brown, 2010).

One study conducted in the United States showed that 50 percent of all women

reported overall body dissatisfaction (Cash & Henry, 1995). Negative body evaluation has seen a dramatic rise over the past few decades (Garner, 1997). This is an important trend as body dissatisfaction has been shown to correspond with overall life dissatisfaction (Stokes & Frederick-Recascino, 2003). At a time where a very thin ideal body shape is being portrayed in the media (Wiseman, Gray, Mosimann, & Ahrens, 1992), the average female weight appears to have become increasingly heavier (Garner & Garfinkel, 1980; Spitzer, Henderson, & Zivian, 1999). The societal pressure to be thin is, therefore, creating frustration for women who are moving further away, rather than closer to, the ideal body and who believe they must lose weight in order to be accepted as a normal-looking woman (Mintz & Betz, 1986). Further, Caucasian women have been shown to overestimate the male desire for a slim body type (Forbes, Adams-Curtis, Rade, & Jaberg, 2001). Survey research by Wooley and Wooley (1984) of 33,000 women found that 45 percent of participants believed they were too fat, and even underweight women categorized their bodies as overweight (body distortion).

For the purposes of the current study, inaccuracy in the perception of one's body was referred to as body distortion rather than body dysmorphia or body dysmorphic disorder as this study's participants were not assumed to be a clinical population and were not assigned diagnoses. Body dysmorphic disorder (BDD) is a psychiatric illness which involves a preoccupation with an imagined defect or magnification of a minor defect in appearance, resulting in significant impairment or distress in social, occupational, or other important areas of functioning (American Psychiatric Association, 2000). This illness affects 1-2 percent of the general population (Rief, Buhlmann, Wilhelm, Borkenhagen, & Braehler, 2006) and typically presents when individuals are 16-18 years old (Phillips, 2005). Excessive mirror checking and beautifying is common among these individuals and these compulsive patterns

of repetitive behavior are very time-consuming and mentally exhausting (Sarwer & Crerand, 2008). With BDD, any body part can be an area of fixation; however, the nose, skin, and hair are the most common problem areas (Phillips, McElroy, Keck, Pope, & Hudson, 1993). Body distortion in the present study, however, examined women's perceptual inaccuracies of their body as a whole rather than specific body parts.

This study focused only on women as past studies have indicated that men and women differ in their types of body dissatisfaction and body distortion (Furnham & Greaves, 1994; Moreno & Thelen, 1993; Nagel & Jones, 1992; Peters & Phelps, 2001). For instance, men often distort their degree of muscle while women tend to misperceive their amount of fat deposit (Nagel & Jones, 1992). Regarding body dissatisfaction, research indicates that there is a unidirectional dissatisfaction for women as they desire to weigh less (Peters & Phelps, 2001). However, for men, body image dissatisfaction is bidirectional as they desire to be both more muscular and thinner (Kostanski & Gullone, 1998).

This study mostly included college-age participants as past research has shown that body image disturbance is most prevalent and severe in late adolescence, particularly in freshman college students (Striegel-Moore & Franko, 2002). However, women under age 65 were not excluded as longitudinal and cross-sectional studies have revealed that body dissatisfaction appears to remain fairly constant throughout the lifespan (Lewis & Cachelin, 2001; Siegel, 2010; Stevens & Tiggemann, 1998; Tom, Chen, Liao, & Shao, 2005). Still, stress related to body image concerns appears to decrease with age after adolescence (Striegel-Moore & Franko, 2002; Tiggemann, 2004). Specifically, older women tend to report a larger ideal body size, less preoccupation with appearance, and less dieting efforts (Striegel-Moore & Franko, 2002).



The relationship between alexithymia and body dissatisfaction/satisfaction was examined in this study. Alexithymia is defined as difficulty with identifying and expressing emotions (Taylor, Bagby, & Parker, 1991). This is a burgeoning field of research and early studies have found positive relationships between alexithymia and body dissatisfaction (Carano et al., 2006; 2011; De Barardis et al., 2005; Franzoni et al., 2013; Newman, 2004; Ridout, Thom, & Wallis, 2010).

Regarding perfectionism, this variable has been shown to be positively related to body dissatisfaction (Brannan & Petrie, 2008; Casale, Biondi, & Pacini, 2011; Chan & Owens, 2006; Tissot & Crowther, 2008). However, most of the research observing the correlation between these two variables has been conducted in eating disorder studies with clinical populations (Bardone, Weishuhn, & Boyd, 2009; Vocks et al., 2007; Welch, Miller, Ghaderi, & Vaillancourt, 2009). Additionally, there have been few studies observing the direct effects of perfectionism on body distortion, which was examined in this study.

Perfectionistic self-presentation (PSP), defined as taking great strides to appear perfect to others by not showing defects or weaknesses in relation to performance, competence, or physical appearance (Hewitt & Flett, 1991), was examined in this study as it related to body dissatisfaction/satisfaction and body distortion. Given that this is a relatively new concept, little research has been conducted on PSP and body distortion, although early studies have shown a positive correlation between body dissatisfaction and aspects of PSP (Baratelli, 2009; Hewitt et al., 2003).

Poor self-esteem has been widely accepted as a significant predictor of body dissatisfaction (Brytek-Matera, 2010; Forbes, Adams-Curtis, Rade, & Jaberg, 2001; Johnson & Wardle, 2005; Tiggemann, 2005) and was included in the present study as well. The

relationship between self-esteem and body distortion has been rarely examined, however (Buhlmann, Teachman, Gerbershagen, Kikul, & Rief, 2008). This research aimed to expand upon this literature.

The effect of ethnicity on body dissatisfaction/satisfaction and body distortion was also investigated in this study. It has been observed that the discrepancy in body dissatisfaction between Caucasian and African American women is shrinking (Roberts, 2006). It is uncertain if Caucasian women are becoming more satisfied with their bodies or African American women are becoming more susceptible to body dissatisfaction (Roberts, 2006), but it was thought that it would be helpful to add to the literature in this area to help shed light on variations in body image based on ethnicity.

Concerning ethnic identity, or the degree to which individuals accept and affirm their ethnic heritage (Rogers Wood & Petrie, 2010), this variable has been examined to a small degree as it relates to body dissatisfaction (e.g., Petersons, Rojhani, Steinhaus, & Larkin, 2000; Talwar, Carter, & Gleaves, 2012). These preliminary studies have begun to show that ethnic identity is a protective factor against body dissatisfaction for ethnic minorities (Ngamanu, 2006) but that strong ethnic identity in Caucasian females is related to higher levels of body dissatisfaction (Harris, 1995). The current study attempted to add a significant contribution to research on ethnic identity as it relates to body image by being one of the first to examine ethnic identity's relationship to body distortion. The findings attempted to advocate for cultural changes that would promote healthier body satisfaction and self-esteem.

It was expected that, through examination of the relationships among alexithymia, perfectionism, perfectionistic self-presentation (PSP), self-esteem, ethnicity, ethnic identity, body dissatisfaction/satisfaction, and body distortion, the contributors to disturbances in body

image would be better understood. This research expanded upon the literature on the relationships between predictors of body dissatisfaction/satisfaction (i.e., alexithymia, perfectionism, PSP, self-esteem, ethnicity, and ethnic identity) and body distortion. The relationships of body distortion to PSP and ethnic identity were yet to be examined. Given the continual rise in body image disturbance in recent decades, even among ethnic minorities and in non-Western countries (Garner, 1997; Rodin et al., 1985), it was important to add to the knowledge about risk factors for body-related issues in order to better understand how to target interventions to improve body image and overall life satisfaction.

### **Hypotheses**

We expected that this study would support the findings of previous research on predictors of body dissatisfaction and that these predictors would play a significant role in the development of body distortion. Specifically, the following hypotheses were offered:

1. Greater alexithymia would be related to more body dissatisfaction/less body satisfaction as suggested in early studies by Newman (2004) and Carano et al. (2006).
2. Higher perfectionism would be related to more body dissatisfaction/less body satisfaction as suggested in previous studies (Brannan & Petrie, 2008; Casale et al., 2011; Chan & Owens, 2006; Tissot & Crowther, 2008). Consistent with past research (Purdon et al., 1999), it was expected that each of the three perfectionism factor subscales (Fear of Mistakes, Perceived Parental Pressure, and Goal/Achievement Orientation) would be positively associated with body dissatisfaction and negatively associated with body satisfaction.
3. Perfectionistic self-presentation would be positively associated with body dissatisfaction and negatively associated with body satisfaction consistent with prior

- research (Baratelli, 2009; Hewitt et al., 2003).
4. Self-esteem would be negatively related to body dissatisfaction and positively related to body satisfaction as indicated in past research (Brytek-Matera, 2010; Forbes et al., 2001; Johnson & Wardle, 2005; Tiggemann, 2005).
  5. Caucasian participants would report more body dissatisfaction/less body satisfaction than ethnic minority participants as found in the literature (Barry & Grilo, 2002; Halpern et al., 1999; Wassenaar et al., 2000).
  6. Stronger ethnic identity would be negatively associated with body dissatisfaction and positively associated with body satisfaction in agreement with past studies (Osvold & Sodowsky, 1993; Parker et al., 1995; Petersons et al., 2000; Rogers Wood & Petrie, 2010).
  7. Higher body dissatisfaction/lower body satisfaction would be related to more body distortion (Etu & Gray, 2010; Ferguson et al., 2011; Gardner & Tockerman, 1993; Kasper, 2001).
  8. The predictors of body dissatisfaction/satisfaction would be related to body distortion based on research linking body dissatisfaction and body distortion (e.g., Etu & Gray, 2010; Ferguson et al., 2011).
  9. Body dissatisfaction/satisfaction would mediate the effect of predictors of body dissatisfaction/satisfaction on body distortion. To current knowledge, this mediational relationship had yet to be examined. We expected that, given the literature on the relationship between body dissatisfaction and body distortion (Kasper, 2001), body distortion would not be present in the absence of the less severe body image disturbance of body dissatisfaction.

## Method

### Participants

Participants included 151 females of all ethnicities between the ages of 18 and 65 ( $M_{age} = 29.98$  years,  $SD = 11.87$ ). This is a common age range for participants in body dissatisfaction studies (e.g., Stevens & Tiggemann, 1998; Tiggemann & Rüütel, 2001; Tom et al., 2005). Various studies have shown body dissatisfaction to be consistent throughout the lifespan with no differences between young, middle, and older adult cohorts (e.g., Lewis & Cachelin, 2001; Siegel, 2010; Tiggemann, 1992; Tiggemann & Lynch, 2001; Webster & Tiggemann, 2003), although less research is available on body dissatisfaction in elderly women over 65. Of the 151 participants, 3.3% ( $n = 5$ ) identified as Asian American, 9.3% ( $n = 14$ ) as African American, 2.6% ( $n = 4$ ) as Hispanic, 74.8% ( $n = 113$ ) as White, 2.0% ( $n = 3$ ) as European American, 2.0% ( $n = 3$ ) as Middle Eastern American, 4.6% ( $n = 7$ ) as Biracial, and 1.3% ( $n = 2$ ) as another racial category. Participants were recruited from the University of Detroit Mercy, Detroit metro communities, and Canada through the use of electronic announcements and flyers.

The study aimed to recruit 150 participants to detect a medium effect size (with statistical power level of .80 and probability level of .05) through the use of regression analyses. To minimize error from possible outliers, a question was included in the last survey asking participants to answer with “1” for that item. No participants were excluded from the study as a result of answering incorrectly to this question. Two participants were excluded from the study due to incomplete responses and one male participant was excluded. Thirty-two participants (17%) were excluded from the remaining sample due to scoring at or above 20 on the Eating Attitudes Test. It was believed that high scorers on an eating disorders measure would skew the body image data given the significant relationship found between

eating disorder pathology and body dissatisfaction (De Barardis et al., 2005). Interestingly, the percentage of participants that reached the eating disorders threshold on the EAT was much higher than in the general population (0.5-3.7% for anorexia, 1.1-4.2% for bulimia, and 2-5% for binge-eating disorder) (The National Institute of Mental Health, 2013). The mean EAT score for the remaining participants was in the low range ( $M = 7.91$ ,  $SD = 5.18$ ).

## Measures

**Alexithymia.** The Toronto Alexithymia Scale (TAS) (Taylor, Ryan, & Bagby, 1985) was used to measure alexithymia. The 20-item measure has three factors: 1) difficulties identifying feelings and distinguishing them from bodily sensations (DIF), 2) difficulties describing feelings (DDF), and 3) externally-oriented thinking (EOT). These factors align with the theoretical alexithymia construct. The scale uses a 5-point Likert scale ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). Five items are negatively keyed and higher scores are indicative of greater levels of alexithymia (Taylor, Ryan, & Bagby, 1985). Scores equal to or greater than 61 are indicative of alexithymia (Bagby, Parker, & Taylor, 1994). The TAS has demonstrated solid internal consistency (Cronbach’s  $\alpha = .81$ ) and test-retest reliability (.77). Adequate convergent and concurrent validity has also been established (Bagby et al., 1994). Good reliability and validity have been found in both clinical (Troop, 1995) and non-clinical samples (Swift, Stephenson, & Royce, 2006).

**Perfectionism.** The Frost Multidimensional Perfectionism Scale (FMPS) (Frost et al., 1990a; 1993) was used to measure perfectionism. This scale gives an overall perfectionism score as well as six subscale scores and three factor scores. The six subscales related to perfectionism are: Concern Over Mistakes (CM), Doubts About Actions (DA), Personal Standards (PS), Parental Expectations (PE), Parental Criticism (PC), and Organization (OR). The total perfectionism score is obtained by adding the scores of all the subscales, except the

OR subscale with was not found to correlate sufficiently with the other subscales or the overall score (Purdon et al., 1999). The scale is 35 items with a 5-point Likert scale ranging from “strongly disagree” to “strongly agree.” Possible scores on the FMPS range from 35 to 175, with higher scores indicating a greater amount of perfectionism (Fischer & Corcoran, 2007). Scores lower than 105 are considered within normal limits (2007).

Purdon et al. (1999) found that three factors described the scale well: Fear of Mistakes (comprised of CM and DA subscales), Goal/Achievement Orientation (comprised of PS and OR subscales), and Perceived Parental Pressure (comprised of PE and PC subscales). For these three factors, there was high internal consistency, with Cronbach’s Alpha scores being .91, .85, and .91, respectively. The alpha for the total scale was also .90 in another sample (Fischer & Corcoran, 2007). Further, Cronbach’s alpha for PS perfectionism was .77 in a study by Boone (2011). Frost et al. (1990a) found the following internal consistency reliabilities for the FMPS subscales: .93 (OR), .88 (CM), .84 (PC), .83 (PE), and .77 (DA). The scale has also shown good construct and concurrent validity when compared with other scales (Fischer & Corcoran, 2007; Frost et al., 1993). For this study, the three factor subscales were used as measures of perfectionism to observe if there were differences in the relationship between the maladaptive perfectionism subscales (Fear of Mistakes and Perceived Parental Pressure) and the more adaptive subscale (Goal/Achievement Orientation) with body dissatisfaction and body distortion.

This perfectionism scale was chosen over other multidimensional perfectionism scales as the FMPS is the most exhaustive by including values, thoughts, and behaviors descriptive of perfectionists as well as items pertaining to experiences that lead to the development of perfectionism in the first place (i.e., parental expectations and criticism). The

FMPS contains both maladaptive (concern over mistake and doubt about actions) and adaptive (organization and personal standards) perfectionism components similar to the Hewitt and Flett model of perfectionism (Hewitt et al., 2003) and additionally contains antecedents to perfectionism. Further, the FMPS has been showed to have a good fit for use with the young adult population, particularly among university students (Stallman, 2011).

**Perfectionistic Self-Presentation.** The perfectionistic self-presentation scale (PSPS) (Hewitt & Flett, 1993b) was used to measure the degree to which one feels a needs to present one's self as perfect to others. The PSPS is a 27-item measure which includes three categories of perfectionistic self-presentation: The 10-item Need to Appear Perfect subscale (or self-promotion), the 10-item Avoid Appearing Imperfect subscale (or non-display of imperfection), and the 7-item Avoid Disclosure of Imperfection subscale (or non-disclosure of imperfection). The measure uses a Likert scale ranging from 1 ("disagree strongly") to 7 ("agree strongly") and higher scores are indicative of more perfectionistic self-presentation (Hewitt & Flett, 1993b). The PSPS has shown good internal consistency (Cash et al., 2004) of .94 for females and .92 for male as well as solid test-retest reliability with adequate convergent and discriminant validities (Hewitt et al., 2003). Additionally, there is support for factorial stability and construct and predictive validities for the PSPS in clinical and non-clinical university settings (Habke et al., 1999; Hewitt et al., 1995).

**Self-Esteem.** The Rosenberg Self-Esteem Scale (RSES) (Rosenberg, 1979) was used to measure self-esteem. This measure of global self-esteem is comprised of 10 items which capture one's thoughts and feelings about the self. The scale utilizes a 4-point Likert scale ranging from "strongly agree" to "strongly disagree." Scores range from 0 to 30 with higher scores indicating greater levels of self-esteem (Rosenberg, 1979). The RSES has shown good



internal consistency (Cronbach's alpha of .82), test-retest reliability (Cronbach's alpha greater than .85) and convergent validity with reported self-esteem from clinical interviews and ratings from peers (Cronbach's alpha of .51) (Demo, 1985; Rosenberg, 1979). Silber and Tippett (1965) also found the RSES to be correlated with a measure of self-ideal discrepancy ( $r=.67$ ) and self-image ( $r=.83$ ).

**Ethnic Identity.** The Multigroup Ethnic Identity Measure (MEIM) (Phinney, 1992; Roberts et al., 1999) was used to measure ethnic identity. The 12-item measure examines ethnic identity based on level of Exploration (or learning more about their ethnic group and participating in ethnic-related activities) and Commitment (devotion to belonging to an ethnic group). A 4-point Likert scale ranging from 1 ("strongly disagree") to 4 ("strongly agree") is used where higher scores are associated with more developed ethnic identity (Phinney, 1992). The overall score is attained by taking the mean of the 12 item scores. Therefore, possible scores range from 1 to 4. In a diverse male and female adolescent sample, Roberts et al. (1999) found internal consistency Cronbach's alphas for the MEIM to range from .81 to .86 for Commitment and .55 to .76 for Exploration. Phinney (1992) found similar reliability values (.86 for Commitment and .77 for Exploration). Adequate concurrent validity with measures of psychological health has also been documented for the MEIM (Roberts et al., 1999). Additionally, in a diverse study of American Indian and Asian, African, Hispanic, and Caucasian American students, reliability coefficients were .81 for high school students and .90 for college students.

On the MEIM, participants were also asked to indicate which ethnic group they most identified with. The following ethnicity categories were used: 1) Asian or Asian American, including Chinese, Japanese, and others; 2) Black or African American; 3) Hispanic of

Latino, including Mexican American, Central American, and others; 4) White, Caucasian, Anglo; not Hispanic or Middle Eastern; 5) European American; 6) American Indian/Native American; 7) Middle Eastern American; 8) Biracial, Mixed, Parents are from two different groups; 9) Other.

Participants also provided additional demographic information (sex, age, religion, SES, and education level). Religion was included as an exploratory variable as some studies have observed religious faith to be a protective factor against psychological distress (e.g., Laurencelle, Abell, & Schwartz, 2002), body image dissatisfaction (Weinberger-Litman, 2008), and self-objectification (Davis-Quirarte, 2007). Further, age and SES were explored as possible covariates given that some studies have suggested body dissatisfaction to vary based on age (Roberts et al., 2006) and socioeconomic status (Davis & Katzman, 1998).

**Body Dissatisfaction.** The Multidimensional Body-Self Relations Questionnaire (MBSRQ) (Brown, Cash, & Mikulka, 1990) was used to measure body dissatisfaction in this study. The 69-item MBSRQ uses a 5-point Likert type scale ranging from 1 to 5. The initial sampling included 2,052 males and females ranging from ages 15 to 87. Ten factors were found: Appearance Evaluation (AE), Appearance Orientation (AO), Fitness Evaluation (FE), Fitness Orientation (FO), Health Evaluation (HE), Health Orientation (HO), Illness Orientation (IO), Overweight Preoccupation (OP), Self-Classified Weight (SW), and the Body Areas Satisfaction (BAS) (Brown et al., 1990). For females and males, the factor solutions accounted for 51 percent and 53.9 percent, respectively, of the total variance. Also, for females, all items had factor loadings greater than .40 after varimax rotation was performed. A majority of the Pearson intercorrelations were less than 10 percent for both males and females (Brown et al., 1990). The MBSRQ has also shown good internal

consistency (with alphas ranging from .75 to .90) and adequate to excellent test-retest reliability with alphas ranging from .49 to .91 (Banasiak, Wertheim, Koerner, & Voudouris, 2001). All MBSRQ subscales have demonstrated acceptable convergent, discriminant, and construct validities (Cash et al., 2004).

For the purposes of this study, the Appearance Evaluation (AE) and Body Areas Satisfaction (BAS) subscales were focused on for measures of body dissatisfaction as they related more specifically to this study's predictions. The AE subscale involves 7 items (with scores ranging from 1 ("definitely disagree") to 5 ("definitely agree")) which relate to one's satisfaction with physical appearance (Cash et al., 2004). Higher scores are indicative of more positive feelings about one's appearance. The BAS subscale includes 8 items (with scores ranging from 1 ("very dissatisfied") to 5 ("very satisfied")) which pertain to satisfaction with specific body parts (i.e. face, hair, torso, etc.). Higher scores are indicative of satisfaction with more discrete areas of the body. Subscale scores are computed by summing scores for each item (Cash et al., 2004).

Participants were then asked to report their height and weight which was converted into their actual BMI through the use of the following formula:  $[(\text{weight in pounds})/(\text{height in inches})^2] \times 703$  (Garrow & Webster, 1985). Self-report of height and weight has been utilized in most health-related studies to determine BMI due to its convenience and adequate reliability (Wilkosz et al., 2011). Participants were also asked to report their ideal height and weight. The difference between actual BMI and ideal BMI was calculated to provide an additional assessment of degree of body dissatisfaction.

**Body Distortion.** The Photographic Figure Rating Scale (PFRS) (Swami, Salem, Furnham, & Toveé, 2008) was utilized to measure body distortion in this study. The PFRS is

a selection of ten picture images of the front side of real-life women of varying sizes. The women are dressed in tight grey (ethnic neutral color) spandex and their faces are blotted out to provide more of a focus on the body than on facial attractiveness. Each photographed woman represents a certain BMI weight class, with subsequent pictures increasing in weight. Two photographs are associated with each BMI weight class (Swami et al., 2008). The five BMI weight classifications include: underweight ( $BMI < 20$ ), normal weight ( $20 < BMI < 25$ ), borderline ( $25 < BMI < 27$ ), overweight ( $27 < BMI < 30$ ), and obese ( $BMI > 30$ ) (Caldwell et al., 1997). The corresponding BMIs for each of the ten photographs of the PFRS are as follows: 12.51, 14.72, 16.65, 18.45, 20.33, 23.09, 26.94, 29.26, 35.92, and 41.23 (Swami et al., 2008). The PFRS has shown good construct validity as body dissatisfaction with the PFRS was negatively correlated with body satisfaction ( $r = -.35$ ). Further, the photographs were modeled after naturally existing human body shapes which added ecological validity to the scale (Toveé, Maisey, Emery, & Cornelissen, 1999). Test-retest reliability of the discrepancy between current and ideal body size from the PFRS also was observed to be strong ( $r = .85$ ). Further, the PFRS had stronger correlations with participant BMI ( $r = .80$  at initial test and  $r = .83$  at three week follow-up) than another measure of body image (Swami et al., 2008).

On the PFRS, the participants were asked to “indicate the number of the image that you feel most accurately depicts your current body size.” The discrepancy between participants’ actual BMI and perceived BMI served as a measure of body distortion. An objective measure of the discrepancy between actual and perceived BMI was obtained by dividing the perceived size by the actual size and multiplying by 100 which provided the body distortion index (BDI) (Thompson, 1987). The BDI produces a percentage of over or

underestimation in body size. A BDI value of 100 indicates complete accuracy in body size estimation while scores greater (overestimation) or less (underestimation) than 100 indicate inaccuracies in prediction of actual body size. As suggested by Thompson (1987), absolute values of the BDI were used to measure degree of perceptual inaccuracy.

**Eating Disorders Screening.** Given the relationship found between eating disorders and body dissatisfaction (De Barardis et al., 2005), the Eating Attitudes Test (EAT) (Garner & Garfinkel, 1979) was used to screen out individuals with disordered eating behaviors to limit the chance of significant outlying scores on body dissatisfaction and body distortion. The EAT is a 26 item measure with three subscales: Dieting, Bulimia and Food Preoccupation, and Oral control. The measure uses a 6 point Likert scale ranging from “always” to “never.” Higher overall scores on the EAT are associated with a greater presence of disordered eating behaviors. Total scores at or above 20 indicate possible problems with dieting, food preoccupation or other eating disordered behaviors (Garner & Garfinkel, 1979). The EAT has good overall reliability (Cronbach’s coefficient alpha of .83) (Koslowsky et al., 1992). In one study, the Dieting scale was found to be the most reliable (.90) and to account for 26 percent of the variance. The Oral Control scale accounted for 8.5 percent of the variance with a reliability of .74 and the Bulimia and Food Preoccupation scale accounted for 5.5 percent of the variance with a reliability of .56 (Koslowsky et al., 1992). Intercorrelations for these factors also ranged from .90 to .20 (Koslowsky et al., 1992).

## **Procedures**

Participants completed an online survey through the use of Survey Gizmo. Participants were required to give their informed consent before beginning the study. In the informed consent form, volunteers were reminded of their rights as participants, including the right to decline to answer any question(s) and to discontinue participation at any time without

penalty. Each informed consent form also included the statement that it was important for each participant to complete the surveys privately because the questions were of a private, personal nature and honest answers were needed. Participants were instructed to read the directions at the top of each measure fully before completing them. Consenting participants then provided demographic information (sex, age, religion, SES, and education level) and completed eight self-report surveys (TAS, FMPS, PSPS, RSES, MEIM, MBSRQ, PFRS, and EAT) electronically. It took participants approximately 20 minutes to complete the survey. To address the contingency that some participants could have been affected emotionally in unanticipated ways after completing the measures, participants were debriefed and provided contact information for mental health facilities in the area. Contact information for this researcher was provided should participants have had any questions or concerns pertaining to the study. Extra credit incentive was provided to University of Detroit Mercy students for their participation in the study. To protect participant anonymity, surveys were identified by numbers only and data will be kept on a password-protected personal computer until destroyed.

### **Statistical Analysis**

This quantitative study employed a nonexperimental research design. The data analyses utilized in this study included: multiple regression, one-way ANOVA's, independent samples t-tests, and Pearson Correlation Matrix. The independent/predictor variables included: alexithymia (measured by total score on the TAS: higher scores indicative of greater alexithymia), perfectionism (measured by total scores on the three factor subscales of the FMPS (Fear of Mistakes, Perceived Parental Pressure, and Goal/Achievement Orientation): higher scores indicative of greater perfectionism), perfectionistic self-

presentation (measured by total score on the PSPS: higher scores indicative of greater PSP), self-esteem (measured by total score on the RSES: higher scores indicative of greater self-esteem), ethnicity, and ethnic identity (measured by mean of the item scores on the MEIM: higher scores indicative of stronger ethnic identity). The mediating variables included body satisfaction (measured by AE and BAS subscale scores of the MBSRQ: higher scores indicative of greater body satisfaction) and body dissatisfaction (measured by absolute value of the actual and ideal BMI discrepancy: greater discrepancies indicative of greater body dissatisfaction). The dependent variable included body distortion (measured by the BDI: greater deviations from 100 indicative of greater body distortion). Exploratory variables were age, religion, parent SES, participant SES, parent education, and participant education.

Intercorrelations for the independent, body image, and exploratory variables were obtained through the use of a Pearson correlation matrix. Hypothesis 1 was tested using a Pearson correlation to examine the relationship between alexithymia and body dissatisfaction/satisfaction. Hypothesis 2 was tested using a Pearson correlation to examine the relationship between perfectionism and body dissatisfaction/satisfaction. Hypothesis 3 was tested using a Pearson correlation to examine the relationship between perfectionistic self-presentation and body dissatisfaction/satisfaction. Hypothesis 4 was tested using a Pearson correlation to examine the relationship between self-esteem and body dissatisfaction/satisfaction. Hypothesis 5 was tested using an independent samples t-test to examine the relationship between ethnic differences and body dissatisfaction/satisfaction. Hypothesis 6 was tested using a Pearson correlation to examine the relationship between ethnic identity and body dissatisfaction/satisfaction. Hypothesis 7 was tested using a Pearson correlation to examine the relationship between body dissatisfaction/satisfaction and body

distortion.

A Pearson correlation matrix was also used to test the relationships in Hypothesis 8 between the predictors of body dissatisfaction/satisfaction and body distortion. Separate multiple regressions were further used to test the relationships between Appearance Evaluation, Body Areas Satisfaction, and Body Dissatisfaction with the significant independent variables. Ethnicity and Goal/Achievement Orientation were not found to be significantly related to body satisfaction/dissatisfaction measures and were, therefore, excluded from the multiple regression analyses.

The mediational effect proposed in Hypothesis 9 was tested by conducting the steps in the mediational model described by Baron and Kenny (1986). Specifically, a series of four regressions were used in the following sequence: 1) Standard linear regression was used to examine the effects of the independent variable on the mediational variables. 2) Standard linear regression was used to test the effect of the independent variable on the dependent variable. 3) Standard linear regression was used to test the effect of the mediator variables on the outcome variable. 4) Standard multiple regression was performed to observe the effect of the independent and mediational variables on the dependent variable. The effect of the independent variable on the dependent variable in step three was compared to that of step two, where a smaller effect for step three was considered to be indicative of a mediational effect. Ethnic identity was the only independent variable found to be significantly correlated with both body satisfaction variables (mediators) and body distortion (dependent variable). Ethnic identity, however, was not found to be significantly correlated with the possible mediator of body dissatisfaction which was then excluded from the mediation process. Therefore, a series of regressions was performed to test possible mediation (by Appearance



Evaluation and Body Areas Satisfaction) between ethnic identity and body distortion. First, two simple regression analyses with ethnic identity predicting Appearance Evaluation and Body Areas Satisfaction were conducted. Second, a simple regression analysis with ethnic identity predicting body distortion was conducted. Third, two simple regression analyses with Appearance Evaluation and Body Areas Satisfaction predicting body distortion were conducted. Fourth, a multiple regression analysis with ethnic identity and the two mediator variables (Appearance Evaluation and Body Areas Satisfaction) on body distortion was conducted to determine if the body satisfaction variables mediated the relationship between ethnic identity and body distortion.

**Additional Analyses.** Additional Analyses were also conducted in order to determine the most suitable groupings for the exploratory variables which were found to be significantly correlated with one or more body image variables: age, religion, parent SES, and parent education level. Age was initially condensed into five categories: 18-25, 26-35, 36-45, 46-55, and 56-65. However, insufficient distribution in the 46-55 category led to a grouping of this category with the 56-65 category, creating four age categories. The relationships between age and the body image variables were then explored through the use of a one-way ANOVA. Regarding religious affiliation, an insufficient number of participants identified as Buddhist, Hindu, Muslim, Jewish, or Other Religion to be included in exploratory analysis. Therefore, religion was divided into two categories: Roman Catholic and Other Christian Denomination (comprised of Protestant Christian, Evangelical Christian, and Other Christian Denomination). The relationships between religion and independent and body image variables were then explored through the use of an independent samples t-test. The three categories for parent SES (i.e., lower class, middle class, and upper class) were

deemed appropriate and their relationships with body image variables were examined through the use of a one-way ANOVA. Parent education levels were initially categorized into the following seven groups: less than 7 (years), grades 7-9, grades 10-11, high school diploma, college 1-3 years, undergraduate degree, and graduate degree. Due to an insufficient number of participants in the first three categories, they were grouped into the fourth category, creating four categories. The relationships between parent education level and the body image variables were then explored through the use of a one-way ANOVA.

**Data Cleaning.** Data in the excel file generated from Survey Gizmo were screened in order to prepare for entry into PASW. Primarily, reporting values were coded into numerical form. Also, height and weight entries were checked that they were entered accurately in inches and pounds, respectively. Surveys were flagged and removed at this time for missing data or male responders. The data was then uploaded into PASW for statistical analyses.

Using PASW, data was transformed from raw into scale scores (including reverse scoring), creating new variables which could be analyzed. Total scores were calculated for the TAS, FMPS subscales, PSPS, RSES, and EAT. Means were calculated for the MEIM. Additionally, means were obtained for the AE and BAS subscales of the MBSRQ. BMI was calculated using the following formula:  $[(\text{weight in pounds})/(\text{height in inches})^2] \times 703$  (Garrow & Webster, 1985). A measure of body dissatisfaction was obtained by calculating the discrepancy between ideal and actual BMI. An objective measure of the discrepancy between actual and perceived BMI was obtained by dividing the perceived size by the actual size and multiplying by 100 which provided the body distortion index (BDI) (Thompson, 1987). The BDI produced a percentage of over or underestimation in body size. Lastly, data was screened for EAT scores in the clinical range (De Barardis et al., 2005).

## Results

### Descriptive statistics

Tables 1 and 2 present the demographic characteristics of all participants, including age, religion, parent SES, parent education, participant SES, and participant education. Most participants fell into the youngest age category, were middle class, highly educated, and had parents of similar educational and SES backgrounds. Nearly half of the participants identified as Roman Catholic, 60% identified as belonging to a Christian denomination, and 31% identified as “other,” which included responses such as “spiritual” and “free-thinker.” Table 3 presents descriptive statistics (means and standard deviations) for all variables. The total scores for appearance evaluation and body areas satisfaction varied slightly from those in the original sample by Brown et al. (1990) (23.32 versus 23.52 and 27.19 versus 25.84). Additionally, the mean score on TAS was lower in this sample ( $M = 41.40$ ,  $SD = 10.99$ ) than another sample ( $M = 47.85$ ,  $SD = 9.30$ ) (Bagby et al., 1990). There also was a notable difference in the scores on the RSES in this sample ( $M = 21.66$ ,  $SD = 5.27$ ,  $range = 9-30$ ) and a comparable sample ( $M = 28.6$ ,  $SD = 8.2$ ,  $range 9-40$ ) (Bardone et al., 2000). Lastly, scores on the MEIM appeared to be similar in this sample ( $M = 2.72$ ,  $SD = .58$ ) compared to another sample ( $M = 2.56$ ,  $SD = .90$ ).

Interestingly, regarding the body distortion data, a higher number of women underestimated their body size ( $n = 84$ , 56%) than overestimated their body size ( $n = 67$ , 44%). Further, 13.9% had BMIs in the “underweight” category ( $n = 21$ ), followed by 47.1% in the “normal weight” category ( $n = 71$ ), 23.2% in the “overweight” category ( $n = 35$ ), and 15.9% in the “obese” category ( $n = 24$ ). The percentage of overweight participants in this sample was less than that for another sample (37.9%) examining body image variables (Butryn, Juarascio, & Lowe, 2011). However, in this same comparative sample, the

percentage of obese participants (13.6%) was lower than that of the current sample (Butryn et al., 2011).

### **Preliminary Analyses**

Pearson correlations were conducted to observe the intercorrelations among the independent variables. Alexithymia was found to be positively correlated with fear of mistakes and perfectionistic self-presentation and negatively correlated with self-esteem (Table 4). Consistent with past research (Fischer & Corcoran, 2007; Frost et al., 1993), the three perfectionism factors were shown to be positively correlated with each other as well as with perfectionistic self-presentation (Table 4). However, while fear of mistakes, perceived parental pressure, and perfectionistic self-presentation were negatively correlated with self-esteem, goal/achievement orientation was positively correlated with self-esteem (Table 4). Pearson correlations among the body image variables revealed intercorrelations in the expected directions (e.g., Etu & Gray, 2012; Kasper, 2001), where body satisfaction variables (i.e., appearance evaluation and body areas satisfaction) were positively correlated with each other and negatively correlated with body dissatisfaction and body distortion (Table 5). Body dissatisfaction was also negatively correlated with body distortion (Table 5).

Table 1

*Demographic Characteristics of Participants (N = 151)*

Characteristic	<i>n</i>	%
Age at time of survey (years)		
18-25	66	44
26-35	56	37
36-45	13	9
46-55	3	2
56-65	13	9
Religious Affiliation		
Roman Catholic	45	30
Protestant Christian	16	11
Evangelical Christian	4	3
Other Christian denomination	24	16
Buddhist	1	<1
Hindu	1	<1
Muslim	5	3
Jewish	9	6
Other	46	31

*Note.* Totals of percentages are not 100 because of rounding.

Table 2

*SES Characteristics of Participants (N = 151)*

Characteristic	<i>n</i>	%
<b>Parent SES</b>		
Lower class	28	19
Middle class	104	69
Upper class	19	13
<b>Highest parent education level completed</b>		
Less than 7	0	0
Grades 7-9	2	1
Grades 10-11	4	3
High school diploma	31	21
College 1-3 years	18	12
Undergraduate degree (B.A., B.S., etc.)	43	29
Graduate degree (M.D., Ph.D., M.A., etc.)	53	35
<b>Participant SES</b>		
Lower class	26	17
Middle class	104	69
Upper class	21	14
<b>Highest participant education level completed</b>		
Less than 7	0	0
Grades 7-9	0	0
Grades 10-11	0	0
High school diploma	7	5
College 1-3 years	44	29
Undergraduate degree (B.A., B.S., etc.)	46	31
Graduate degree (M.D., Ph.D., M.A., etc.)	54	36

*Note.* Totals of percentages are not 100 because of rounding

Table 3

*Participant Characteristics (N = 151)*

Characteristic	<i>M</i>	<i>SD</i>
Appearance Evaluation MBSRQ Subscale	23.32	6.00
Body Areas Satisfaction MBSRQ Subscale	27.19	5.53
Body Dissatisfaction	15.13	11.74
Body Distortion Index	86.29	23.51
Toronto Alexithymia Scale	41.40	10.99
Fear of Mistakes FMPS Subscale	32.93	9.26
Goal/Achievement Orientation FMPS Subscale	47.88	7.66
Perceived Parental Pressure FMPS Subscale	23.32	6.85
Perfectionistic Self-Presentation Scale	101.06	28.25
Rosenberg Self-Esteem Scale	21.66	5.27
Multigroup Ethnic Identity Measure	2.72	.58
Age at time of survey (years)	29.98	11.87
Parent SES	1.94	.56
Participant SES	1.97	.56
Highest parent education level completed	5.69	1.29
Highest participant education level completed	5.97	.92

Table 4

*Intercorrelations among Independent Variables*

Measure	1	2	3	4	5	6	7
1. TAS	—						
2. Fear of Mistakes	.44**	—					
3. Goal/Achievement Orientation	-.04	.24**	—				
4. Perceived Parental Pressure	.07	.50**	.12	—			
5. PSPS	.36**	.73**	.36**	.41**	—		
6. RSES	-.46**	-.51**	.21**	-.18*	-.47**	—	
7. MEIM	.03	-.01	.21**	.06	-.02	.18*	—

*Note.* TAS = Toronto Alexithymia Scale; PSPS = Perfectionistic Self-Presentation Scale; RSES = Rosenberg Self-Esteem Scale; MEIM = Multigroup Ethnic Identity Measure.

\* $p < .05$ . \*\* $p < .01$ .

Table 5

*Intercorrelations among Body Image Variables*

Measure	1	2	3	4
1. Appearance Evaluation	—			
2. Body Areas Satisfaction	.83**	—		
3. Body Dissatisfaction	-.57**	-.56**	—	
4. Body Distortion Index	-.28**	-.27**	.24**	—

\* $p < .05$ . \*\* $p < .01$ .



## Tests of Hypotheses

The following five hypotheses were tested through the use of Pearson correlations with a two-tailed test of significance as represented in Table 6: The first hypothesis stated that there would be a positive relationship between a higher score on a measure of alexithymia (TAS) and a higher score on a measure of body dissatisfaction (BD) and negative relationships between a higher score on the TAS and higher scores on two measures of body satisfaction (AE and BAS). Modest, but statistically significant, negative correlations ( $r < .30$ ) were found between TAS and both AE and BAS indicating that alexithymia is related to body satisfaction. However, a significant relationship was not found between TAS and BD ( $r = .08, p > .05$ ) indicating that body dissatisfaction is not related to alexithymia.

The second hypothesis stated that there would be a positive relationship between higher scores on three measures of perfectionism (i.e., fear of mistakes (FM), goal/achievement orientation (G/A), and perceived parental pressure (PP)) and BD and a negative relationship between the perfectionism variables and body satisfaction variables. Modest, negative correlations were found between FM with AE and BAS indicating that fear of making mistakes is related to body satisfaction. However, a relationship was not found between FM and BD ( $r = .02, p > .05$ ). No significant correlations were found between G/A and any of the body satisfaction/dissatisfaction variables (Table 6). Concerning PP, results were similar to those of FM, with negative correlations with AE and BAS. A positive correlation was also found between PP and BD as expected. The correlation was quite modest yet statistically significant given the study's robust sample size. Perceived parental pressure was the only predictor variable found to be related to body dissatisfaction.

The third hypothesis stated that there would be a positive relationship between higher

scores on a measure of perfectionistic self-presentation (PSPS) and BD and a negative relationship between higher scores on the PSPS and body satisfaction. Very modest, negative correlations were found between PSPS and both AE and BAS indicating that perfectionistic self-presentation and body satisfaction are related. The fourth hypothesis stated that there would be a negative relationship between higher scores on a measure of self-esteem (RSES) and BD and a positive relationship between higher scores on the RSES and body satisfaction. Moderate, positive correlations were found between RSES with both AE and BAS indicating that self-esteem and body satisfaction are related. This was the strongest relationship found between a predictor variable and body image variable. The sixth hypothesis stated that there would be a negative relationship between higher scores on a measure of ethnic identity (MEIM) and BD and a positive relationship between higher scores on the MEIM and body satisfaction. Modest, but statistically significant, positive correlations were found between MEIM and both AE and BAS indicating that ethnic identity is related to body satisfaction.

The fifth hypothesis stated that White participants would score higher on a measure of body dissatisfaction and lower on two measures of body satisfaction than non-White participants. An independent samples t-test was conducted to examine the relationship between ethnicity and BD as well as the relationships between ethnicity and both AE and BAS. Results indicated no significant mean differences between ethnicities for BD ( $t(149) = 1.12, p > .05$ ), AE ( $t(149) = -0.57, p > .05$ ) or BAS ( $t(149) = -0.01, p > .05$ ) (Table 7) indicating that there is no relationship between ethnicity and body dissatisfaction/satisfaction.

As previously stated, a Pearson correlation was used to test hypothesis 7 which stated that a higher score on a measure of body dissatisfaction and lower scores on two measures of body satisfaction would be positively correlated with body distortion. Modest, negative

correlations were found between BDI and both AE,  $r = -.28, p < .01$ , and BAS,  $r = -.27, p < .01$ , indicating that body satisfaction is related to body distortion. Further, a modest, positive correlation was found between BD and BDI,  $r = .24, p < .01$ , indicating that body dissatisfaction is related to body distortion.

Hypothesis 8 stated that the significant predictors of body dissatisfaction would be positively correlated with higher scores on the BDI and that the significant predictors of body satisfaction would be negatively correlated with higher scores on the BDI. A Pearson correlation was conducted to examine the relationship between the predictors of body dissatisfaction/satisfaction and body distortion. A very modest, but significantly significant, negative correlation was found between MEIM and BDI (Table 6) indicating that ethnic identity is related to body distortion. All other relationships between predictors of body dissatisfaction/satisfaction and body distortion were not significant.

Table 6

*Correlations of Independent Variables with Measures of Body Image Disturbance*

Independent Variable	Measure			
	AE	BAS	BD	BDI
TAS	-.20*	-.21*	.08	-.12
Fear of Mistakes	-.33**	-.31**	.02	-.05
Goal/Achievement Orientation	.04	.08	-.11	-.02
Perceived Parental Pressure	-.25**	-.24**	.16*	.04
PSPS	-.26**	-.27**	.10	.20
RSES	.47**	.44**	-.16	-.05
MEIM	.20*	.25**	-.13	-.17*

*Note.* TAS = Toronto Alexithymia Scale; PSPS = Perfectionistic Self-Presentation Scale; RSES = Rosenberg Self-Esteem Scale; MEIM = Multigroup Ethnic Identity Measure; AE = Appearance Evaluation; BAS = Body Areas Satisfaction; BD = Body Dissatisfaction; BDI = Body Distortion Index.

\* $p < .05$ . \*\* $p < .01$ .

Table 7

*Group Differences for White Participants and Non-White Participants*

Measure	White		Non-White		<i>t</i> (149)	<i>p</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
AE	23.49	5.69	22.84	6.90	-0.57	.568	0.10
BAS	27.19	5.26	27.18	6.36	-0.01	.992	0.00
BD	14.51	11.13	16.98	13.37	1.12	.264	0.20
BDI	86.36	23.03	86.06	25.22	-0.07	.946	0.01
TAS	40.68	10.56	43.53	12.09	1.38	.168	0.25
FM	32.17	8.95	35.18	9.93	1.75	.083	0.32
G/A	47.96	7.59	47.63	7.96	-0.23	.817	0.04
PP	22.23	6.88	26.58	5.67	3.51	.001	0.69
PSPS	98.46	29.14	108.79	24.14	1.97	.051	0.39
RSES	22.23	5.21	19.95	5.13	-2.35	.020	0.44
MEIM	2.64	.55	2.96	.60	3.00	.003	0.55
P SES	1.99	.53	1.79	.62	-1.79	.078	0.35
SES	1.99	.59	1.89	.45	-0.92	.359	0.19
P Ed	5.75	1.21	5.50	1.48	-0.95	.348	0.18
Ed	5.99	.93	5.92	.88	-0.41	.685	0.08

*Note.* AE = Appearance Evaluation; BAS = Body Areas Satisfaction; BD = Body Dissatisfaction; BDI = Body Distortion Index; TAS = Toronto Alexithymia Scale; FM = Fear of Mistakes; G/A = Goal/Achievement; PP = Perceived Parental Pressure; PSPS = Perfectionistic Self-Presentation Scale; RSES = Rosenberg Self-Esteem Scale; MEIM = Multigroup Ethnic Identity Measure; P SES = Parent SES; P Ed = Parent Education; Ed = Education

**Regression Analyses.** To further explore the relationships between the predictor variables and body dissatisfaction/satisfaction, a series of regressions was performed. A standard multiple regression was performed between appearance evaluation as the dependent variable and the significant predictors of body satisfaction (i.e., alexithymia, fear of mistakes, perceived parental pressures, PSP, self-esteem, and ethnic identity) as the independent variables. Analysis was performed using PASW REGRESSION for evaluation of assumptions.

Results of evaluation of assumptions did not require transformation or exclusion of variables to reduce skewness or outliers,  $N = 151$ . Normality, linearity, and homoscedasticity of residuals were met. No cases had missing data. The use of Mahalanobis distance found one outlier but Cooke's distance revealed that the case did not have undue influence on the data. Review of the tolerance statistics indicated that all of the IVs were tolerated in the model.

Table 8 displays the unstandardized regression coefficients ( $B$ ), standard errors ( $SE$   $B$ ), standardized regression coefficients ( $\beta$ ),  $t$  values, and significance values. Regression results indicate that the overall model significantly predicts appearance evaluation,  $R^2 = .271$ ,  $R^2_{adj} = .240$ ,  $F(6,144) = 8.90$ ,  $p < .001$ . This model accounts for 27.1% of variance in appearance evaluation. However, self-esteem is the only variable of six to significantly contribute to the model,  $\beta = .40$ ,  $t(144) = 4.48$ ,  $p < .001$ . The semi-partial correlation further reveals that self-esteem uniquely accounts for 10.17% of variability in appearance evaluation.

These results support hypothesis 1 regarding the relationship between self-esteem and body satisfaction. While alexithymia, fear of mistakes, perceived parental pressure, PSP, and ethnic identity were found to be significantly correlated with appearance evaluation using

Pearson correlations, these relationships were no longer significant in this regression model. This shows that self-esteem appears to be much more closely linked with body satisfaction than the other predictor variables. However, in this regression model, the contributions of perceived parental pressure ( $\beta=-.16$ ,  $t(144)=-1.92$ ,  $p=.057$ ) and ethnic identity ( $\beta=.14$ ,  $t(144)=1.88$ ,  $p=.062$ ) towards explaining the variance in appearance evaluation approached significance.

A standard multiple regression was then performed between body areas satisfaction as the dependent variable and the significant predictors of body satisfaction (i.e., alexithymia, fear of mistakes, perceived parental pressures, PSP, self-esteem, and ethnic identity) as the independent variables. Analysis was performed using PASW REGRESSION for evaluation of assumptions.

Results of evaluation of assumptions did not require transformation or exclusion of variables to reduce skewness or outliers,  $N = 151$ . Normality, linearity, and homoscedasticity of residuals were met. No cases had missing data. The use of Mahalanobis distance did not show any outlier cases. Review of the tolerance statistics indicated that all of the IVs were tolerated in the model.

Table 9 displays the unstandardized regression coefficients ( $B$ ), standard errors ( $SE$ ), standardized regression coefficients ( $\beta$ ),  $t$  values, and significance values. Regression results indicate that the overall model significantly predicts body areas satisfaction,  $R^2=.257$ ,  $R^2_{adj}=.226$ ,  $F(6,144)=8.30$ ,  $p<.001$ . This model accounts for 25.7% of variance in body areas satisfaction. Three of the variables significantly contribute to the model. Self-esteem uniquely accounts for 7.24% of variability in body areas satisfaction,  $\beta=.34$ ,  $t(144)=3.74$ ,  $p<.001$ . This supports the relationship in hypothesis 1 between self-esteem and body

satisfaction. Further, ethnic identity accounts for 3.61% of variability in body areas satisfaction,  $\beta=.20$ ,  $t(144)=2.65$ ,  $p<.01$ , which supports the relationship in hypothesis 6 between ethnic identity and body satisfaction. Perceived parental pressure accounts for only 2.10% of variability in body areas satisfaction,  $\beta=-.17$ ,  $t(144)=-2.02$ ,  $p<.05$ , adding some support to the inverse relationship in hypothesis 2 between perfectionism and body satisfaction. While alexithymia, fear of mistakes, and PSP were found to be significantly correlated with body areas satisfaction using Pearson correlations, these relationships were no longer significant in this regression model. This, again, adds support to self-esteem as the most significant predictor of body satisfaction.

A third standard multiple regression was performed between body dissatisfaction as the dependent variable and the independent variables (i.e., alexithymia, fear of mistakes, perceived parental pressures, PSP, self-esteem, and ethnic identity). Analysis was performed using PASW REGRESSION for evaluation of assumptions. Results of evaluation of assumptions did not require transformation or exclusion of variables to reduce skewness or outliers,  $N = 151$ . Normality, linearity, and homoscedasticity of residuals were met. No cases had missing data. The use of Mahalanobis distance found one outlier but Cooke's distance revealed that the case did not have undue influence on the data. Review of the tolerance statistics indicated that all of the IVs were tolerated in the model.

Table 10 displays the unstandardized regression coefficients ( $B$ ), standard errors ( $SE$   $B$ ), standardized regression coefficients ( $\beta$ ),  $t$  values, and significance values. Regression results indicate that the overall model significantly predicts body dissatisfaction,  $R^2=.089$ ,  $R^2_{adj}=.051$ ,  $F(6,144)=2.34$ ,  $p<.05$ . This model accounts for 8.9% of variance in body dissatisfaction. Two variables significantly contribute to the model. Fear of mistakes



uniquely accounts for 2.89% of the variability in body dissatisfaction,  $\beta=-.28$ ,  $t(144)=-2.14$ ,  $p<.05$ , and perceived parental pressure accounts for 4.04% of the variability,  $\beta=-.24$ ,  $t(144)=2.52$ ,  $p<.05$ . The positive association here between perceived parental pressure and body dissatisfaction supports hypothesis 2. However, the inverse relationship between fear of mistakes and body dissatisfaction is in the opposite direction as was predicted in hypothesis 2.

Table 8

*Regression Analysis Summary for Variables Predicting Appearance Evaluation*

Variable	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>p</i>
Toronto Alexithymia Scale	0.01	0.05	.02	0.19	.847
Fear of Mistakes	-0.07	0.08	-.10	-0.84	.400
Perceived Parental Pressure	-0.14	0.07	-.16	-1.92	.057
Perfectionistic Self-Presentation	0.01	0.02	.07	0.63	.528
Rosenberg Self-Esteem Scale	0.46	0.10	.40	4.48	.000
Multigroup Ethnic Identity	1.43	0.76	.14	1.88	.062

Note.  $R^2 = .27$  ( $N = 151$ ,  $p < .001$ )

Table 9

*Regression Analysis Summary for Variables Predicting Body Areas Satisfaction*

Variable	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>p</i>
Toronto Alexithymia Scale	-0.02	0.04	-.03	-0.33	.736
Fear of Mistakes	-0.03	0.07	-.04	-0.35	.725
Perceived Parental Pressure	-0.14	0.07	-.17	-2.02	.045
Perfectionistic Self-Presentation	0.00	0.02	.00	0.60	.952
Rosenberg Self-Esteem Scale	0.36	0.10	.34	3.74	.000
Multigroup Ethnic Identity	1.87	0.71	.20	2.65	.009

Note.  $R^2 = .26$  ( $N = 151$ ,  $p < .001$ )

Table 10

*Regression Analysis Summary for Variables Predicting Body Dissatisfaction*

Variable	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>p</i>
Toronto Alexithymia Scale	0.09	0.10	.08	0.89	.377
Fear of Mistakes	-0.36	0.17	-.28	-2.14	.034
Perceived Parental Pressure	0.41	0.16	-.24	2.52	.013
Perfectionistic Self-Presentation	0.04	0.05	.10	0.84	.403
Rosenberg Self-Esteem Scale	-0.34	0.23	-.15	-1.53	.129
Multigroup Ethnic Identity	-2.44	1.66	-.12	-1.47	.143

*Note.*  $R^2 = .09$  ( $N = 151$ ,  $p < .05$ )

**Test of Mediation.** The ninth hypothesis stated that body dissatisfaction/satisfaction would mediate the relationship between the predictors of body dissatisfaction/satisfaction and distortion. Given that ethnic identity was the only body dissatisfaction/satisfaction predictor to be related to body distortion, mediation was only examined with this variable. Further, this mediation included appearance evaluation and body areas satisfaction but excluded body dissatisfaction as this was not found to be related with ethnic identity. Therefore, mediational model hypothesized that AE and BAS would mediate the effects of the relationship between scores on the MEIM and BDI. The mediational effects of AE and BAS were tested by conducting the steps in the mediational model described by Baron and Kenny (1986). The significance value for MEIM was compared for the linear regression analysis between MEIM and BDI and for the multiple regression analysis which included both MEIM and the body satisfaction variables as predictors of BDI.

As shown in Table 11, the significance value and standardized regression coefficient are stronger for MEIM in the linear regression analysis than in the multiple regression analyses with AE and BAS. After AE and BAS are included in the regression models, the ability for scores on the MEIM to predict scores on the BDI diminishes. These results indicate that appearance evaluation and body areas satisfaction mediate the relationship between ethnic identity and body distortion.

In model 1, ethnic identity accounts for 2.8% of the variability in body distortion,  $R^2=.028$ ,  $R^2_{adj}=.022$ ,  $F(1,149)=4.30$ ,  $p<.05$ . In model 2, the overall model accounts for 9.3% of the variability in body distortion,  $R^2=.093$ ,  $R^2_{adj}=.081$ ,  $F(2,148)=7.58$ ,  $p<.01$ . Ethnic identity no longer significantly accounts for variance in body distortion in this model,  $\beta=-.12$ ,  $t(148)=-1.44$ ,  $p>.05$ , while appearance evaluation accounts for 6.5% of variance in body

distortion,  $\beta=-.26$ ,  $t(148)=-3.25$ ,  $p<.01$ . In model 3, the overall model accounts for 8.2% of the variability in body distortion,  $R^2=.082$ ,  $R^2_{adj}=.070$ ,  $F(2,148)=6.65$ ,  $p<.01$ . Again, addition of body satisfaction into the model diminished ethnic identity's influence on variance in body distortion,  $\beta=-.11$ ,  $t(148)=-1.33$ ,  $p>.05$ . Body areas satisfaction accounts for 5.4% of the variability in body distortion in this model,  $\beta=-.24$ ,  $t(148)=-2.96$ ,  $p<.01$ .

### **Additional Analyses**

Exploratory analyses were conducted with demographic variables, including age, parent SES, participant SES, parent education, participant education, ethnicity and religion. Pearson correlations were conducted between the continuous exploratory variables and the independent and body image variables. Age was found to be positively correlated with self-esteem (Table 13). Regarding parent SES, positive correlations were found with appearance evaluation and body areas satisfaction (Table 12), while negative correlations were found with body dissatisfaction (Table 12), alexithymia, and perfectionistic self-presentation (Table 13). Parent education was found to be negatively correlated with alexithymia (Table 13) and positively correlated with appearance evaluation and body dissatisfaction (Table 12). Participant education also was negatively correlated with alexithymia as well as positively correlated with self-esteem (Table 13). Given that no significant correlations were found for participant education or participant SES with the body image variables, these variables were not included in the subsequent ANOVA tests.

Table 11

*Regression Analysis Summary for Mediation Effect of Body Satisfaction Measures between MEIM and Body Distortion*

Variable	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>p</i>
<sup>1</sup> MEIM	-6.80	3.28	-.17	-2.08	.040
<sup>2</sup> MEIM with AE	-4.67	3.24	-.12	-1.44	.152
<sup>3</sup> MEIM with BAS	-4.39	3.30	-.11	-1.33	.185

*Note.* MEIM = Multigroup Ethnic Identity Measure; AE = Appearance Evaluation; BAS = Body Areas Satisfaction.

Table 12

*Correlations of Exploratory Variables with Measures of Body Image Disturbance*

Exploratory Variable	Measure			
	AE	BAS	BD	BDI
Age	-.11	-.16	.03	.15
Parent SES	.28**	.24**	-.23**	-.05
Participant SES	.05	.07	-.05	.04
Parent Education	.21*	.11	.20*	-.00
Participant Education	.01	-.10	.04	.00

*Note.* AE = Appearance Evaluation; BAS = Body Areas Satisfaction; BD = Body Dissatisfaction; BDI = Body Distortion Index.

\* $p < .05$ . \*\* $p < .01$ .

Table 13

*Correlations of Independent Variables with Participant Characteristics*

Independent Variable	Characteristic				
	Age	Parent SES	Participant SES	Parent Ed	Participant Ed
TAS	-.16	-.27**	-.02	-.28**	-.30**
Fear of Mistakes	-.15	-.15	-.06	-.04	-.11
Goal/Achievement	-.07	-.00	.07	.09	-.02
Parental Pressure	-.01	.01	-.03	.10	.09
PSPS	-.13	-.17*	-.04	-.10	-.12
RSES	.17*	.15	.15	.15	.20*
MEIM	-.11	.10	.16	.04	-.07

*Note.* TAS = Toronto Alexithymia Scale; PSPS = Perfectionistic Self-Presentation Scale; RSES = Rosenberg Self-Esteem Scale; MEIM = Multigroup Ethnic Identity Measure; Parent Ed = Parent Education; Participant Ed = Participant Education.

\* $p < .05$ . \*\* $p < .01$ .

**ANOVA Exploratory Analyses.** A one-way analysis of variance was conducted to investigate body image differences in age category. ANOVA results showed that homogeneity of variances was not met for body dissatisfaction ( $p < .05$ ) and this variable was further explored with the Brown-Forsythe test, a robust F test. Significant main effects were found for body areas satisfaction ( $F(3,147) = 3.66, p < .05$ ) and body dissatisfaction ( $F(3,147) = 2.60, p < .05$ ). The Tukey HSD post hoc test was conducted to determine which age categories were significantly different. Results revealed that body areas satisfaction for the age categories of 18-25 ( $M = 28.77, SD = 5.38$ ) and 26-35 ( $M = 26, SD = 5.65$ ) differed from each other but this was not true of the older age categories. These results suggest that satisfaction with areas of the body is higher for women between 18-25 than 26-35. This trend was also true for body dissatisfaction where more dissatisfaction was present for 26-35 year olds ( $M = 18.44, SD = 13.78$ ) than for 18-25 year olds ( $M = 12.78, SD = 9.97$ ).

A one-way analysis of variance was conducted to investigate body image differences in level of parent education. ANOVA results showed that homogeneity of variances was not met for body dissatisfaction ( $p < .05$ ) and this variable was further explored with the Brown-Forsythe test, a robust F test. A significant main effect was found for body dissatisfaction ( $F(3,147) = 3.38, p < .05$ ) and the Tukey HSD post hoc test revealed that women whose parents received 1-3 years of college education had more body dissatisfaction ( $M = 20.82, SD = 15.34$ ) than women whose parents received graduate degrees ( $M = 12.09, SD = 9.51$ ).

A one-way analysis of variance was conducted to investigate body image differences in parent SES. ANOVA results showed that homogeneity of variances was not met for appearance evaluation or body dissatisfaction ( $p < .05$ ) and these variables were further analyzed with the Brown-Forsythe test, a robust F test. Results showed main effects for body



areas satisfaction ( $F(2,148)=6.15, p<.01$ ), appearance evaluation ( $F(2,148)=7.37, p=.001$ ), and body dissatisfaction ( $F(2,148)=5.60, p<.01$ ). The Tukey HSD post hoc test was conducted to determine which levels of parent SES were significantly different. Results revealed that body areas satisfaction significantly differed between lower parent SES ( $M = 24, SD = 6.09$ ) and middle parent SES ( $M = 27.87, SD = 4.97$ ) as well as between lower parent SES and upper parent SES ( $M = 28.21, SD = 6.21$ ). Similar trends were found for appearance evaluation and body dissatisfaction as well. These results suggest that overall body satisfaction and satisfaction with areas of the body is highest for participants in this sample whose parents were of upper SES and lowest for participants with parents of lower SES.

**Independent Samples t-Tests Exploratory Analyses.** Ethnicity was explored in more depth as it related to the other independent variables. Independent samples t-tests were conducted for this analysis to examine differences in the independent variables based on if the participants were of the majority culture (White) or an ethnic minority culture. Results showed that perceived parental pressure, self-esteem, and ethnic identity all varied based on ethnicity. Specifically, White participants reported experiencing less parental pressure than non-White participants ( $Ms = 22.23$  vs.  $26.58, t(149) = 3.51, p = .001$ ). Unexpectedly, self-esteem was significantly higher for White participants than ethnic minorities ( $Ms = 22.23$  vs.  $19.95, t(149) = -.2.35, p <.05$ ) which is inconsistent with previous research (Eitel, 2003). However, ethnic identity varied in the anticipated direction, with ethnic minorities scoring higher on ethnic identity than Caucasians ( $Ms = 2.96$  vs.  $2.64, t(149) = 3.00, p <.01$ ).

Religious affiliation was also considered as an exploratory variable. Specifically, trends were compared between Roman Catholics and participants belonging to other

Christian denominations. Perceived parental pressure, self-esteem, appearance evaluation, body areas satisfaction, and parent SES did not meet Levene's test for equality of variances and, therefore, equal variances were not assumed in exploring significant group differences. Table 14 shows that alexithymia and PSP were significantly lower among Catholics than non-Catholic Christians while self-esteem was significantly higher for Catholic women.

Table 14

*Group Differences for Roman Catholic Participants and Participants of Other Christian Denominations*

Measure	Roman Catholic		Other Christian Denominations		<i>t</i> (87)	<i>p</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
AE	24.62	5.19	22.05	7.20	1.93	.057	0.41
BAS	28.62	4.91	26.41	6.30	1.85	.069	0.39
BD	14.43	10.84	15.77	12.21	-0.54	.588	0.12
BDI	86.51	23.03	86.38	25.21	0.03	.980	0.01
TAS	38.53	9.75	44.61	11.96	-2.63	.010	0.56
FM	31.38	9.86	34.25	8.77	-1.45	.151	0.31
G/A	48.62	6.43	48.41	7.00	0.15	.881	0.03
PP	22.24	5.88	24.02	7.80	-1.21	.229	0.26
PSPS	95.78	27.89	109.55	27.73	-2.34	.022	0.50
RSES	24.04	4.67	20.48	5.88	3.17	.002	0.67
MEIM	2.85	.53	2.68	.66	1.38	.172	0.28
Parent SES	2.02	.50	1.82	.58	1.77	.080	0.37
SES	2.11	.57	1.98	.55	1.12	.264	0.23
Parent Ed	5.60	1.39	5.66	1.18	-0.22	.829	0.05
Education	5.87	.94	6.00	.94	-0.67	.506	0.14

*Note.* AE = Appearance Evaluation; BAS = Body Areas Satisfaction; BD = Body Dissatisfaction; BDI = Body Distortion Index; TAS = Toronto Alexithymia Scale; FM = Fear of Mistakes; G/A = Goal/Achievement; PP = Perceived Parental Pressure; PSPS = Perfectionistic Self-Presentation Scale; RSES = Rosenberg Self-Esteem Scale; MEIM = Multigroup Ethnic Identity Measure; Parent Ed = Parent Education.

## **Discussion**

### **Overview**

This study attempted to examine the relationships between alexithymia, perfectionism, self-esteem, ethnicity and body image disturbance among females between the ages of 18 and 65. There were noticeable gaps in the literature on the potential importance that the role of alexithymia could play in the development of body image problems as well as little research on contributors to body distortion, the more severe form of body dissatisfaction. The rates of body dissatisfaction are startling, especially given the increase in body image disturbance even among women in less developed nations (Rodin et al., 1985). Body image issues are also related to more severe psychological difficulties (i.e., eating pathology, personality disorders, and depression (Hamachek, 1978)) and it is crucial that researchers contribute to furthering knowledge on contributors to and healing strategies for body image disturbance to lessen psychological suffering in these individuals.

Overall, results of this study showed that greater body satisfaction was found to be related to higher self-esteem and ethnic identity as well as lower levels of alexithymia, perfectionism, and perfectionistic self-presentation. Additionally, body satisfaction successfully mediated the relationship between ethnic identity and body distortion. Age, parent education, and parent SES were also found to be related to body satisfaction while body dissatisfaction was only found to be related to perceived parental pressure.

### **Alexithymia and Perfectionism**

As predicted, women who had difficulty identifying and expressing their emotions were also concerned with making mistakes and needing to appear perfect in front of others. This was consistent with the work of Hayaki et al. (2002) which indicated that perfectionistic

self-presentation, including the desire to hide imperfections, led to disruptions in overall emotional expression. As suggested by De Barardis et al. (2009), the need to appear perfect would motivate a perfectionistic self-presenter to cover up feelings, such as frustration and disappointment, if they believed others would view these emotions as negative. Of course, directionality could not be assumed given the correlational nature of the relationship between alexithymia and perfectionism in this study and, therefore, it could also be true that alexithymia may be present first for individuals which leads to a proclivity towards perfectionistic tendencies (Ruggiero et al., 2011).

### **Alexithymia and Self-Esteem**

Alexithymia was also found to be inversely related to self-esteem as was expected. One would expect that individuals high in self-esteem would first need to “know” who they are in order to take pride in who they are. By definition, those high in alexithymia have little self-awareness and ability to reflect on themselves (Taylor et al., 1991). Further, this relationship supported Anna Freud’s theory of “turning against the self” (1936) in which inability to identify and express negative feelings towards others leads to a redirection of those emotions back against the self. This results in a poor view of the self and higher levels of emotional distress, such as depressive symptomology (de Groot et al., 1995; Parker et al., 1996), which correlates highly with poor self-esteem. (e.g., Fabian & Thompson, 1989; Mable, Balance, & Galgan, 1986; McCauley, Mintz, & Glenn, 1988; Shin & Shin, 2008).

### **Self-Esteem and Perfectionism**

Regarding the relationships between self-esteem and perfectionism variables, self-esteem was shown to have a negative relationship with perfectionistic self-presentation, fear of mistakes, and perceived parental pressure. This coincides with work by Rice and Mirzadeh

(2000) which linked negative perfectionism and poor self-esteem. However, individuals higher in goal/achievement orientation had higher self-esteem. This pattern was consistent with work by Hamachek (1978) and Blatt et al. (1995) who observed that neurotic forms of perfectionism were associated with psychological problems while normal perfectionism (such as the need to achieve and desire to attain realistic goals) were related to healthy self-esteem. These results also supported Flett's multidimensional model of perfectionism which explained that high personal standards were directly related to self-esteem while concern over mistakes and parental criticism/expectations were associated with anxiety (Flett et al., 1991; Flett & Hewitt, 2002). These findings on both the adaptive and maladaptive (in the more extreme) forms of perfectionism suggest that psychologists may benefit from more consistent use of both types of perfectionism (such as "normal" and "maladaptive") rather than lumping all perfectionistic tendencies into one category of perfectionism. This could help stress that some degree of perfectionism, such as goal direction and high achievement, are adaptive when they do not cause distress.

### **Alexithymia and Body Satisfaction**

Additionally, alexithymia was found to be inversely related to body satisfaction. This finding was consistent with past studies which linked difficulties with emotional expression to negative feelings about the body (Carano et al., 2006; De Barardis et al., 2009; Franzoni et al., 2013; Hayaki et al., 2002; Ridout et al., 2010). This result connected with Freudian theory which described body dissatisfaction as an unconscious, nonverbal communication of anger or shame which the person could not express verbally (Freud, 1936). According to this theory, when emotions are experienced by the ego as too overwhelming, feelings of reproach towards others become experienced within the self. Therefore, dissatisfaction with one's

body could be representative of one's negative feelings towards others. Similarly, critical views of the body can serve as punishment for what are perceived to be unacceptable sexual or aggressive feelings that have been repressed (Freud, 1936).

### **Perfectionism and Body Satisfaction**

Another important finding was the relationship between perfectionism and body satisfaction. Specifically, fear of mistakes and perceived parental pressure were found to be inversely related to body satisfaction as predicted based on past findings (Casale, 2011; Ruggiero, 2003). This adds support to the theory that perfectionism may extend to the arena of body image, where those who experience pressure to be perfect may also strive to have a perfect body (Cafri et al., 2005; McKee, 2006). This finding also lends support to psychodynamic theory regarding development where pressure from and criticism by parents and others can lead to an internalization of critical views of the self which extends to one's view of the body (Flett et al., 2002). This study found that perceived parental pressure was also associated with body dissatisfaction. Interestingly, parental pressure was the only variable found to be related to body dissatisfaction. This was not expected and one possible explanation for the lack of relationships with body dissatisfaction could be that the discrepancy between actual and ideal BMI may not be as valid or reliable a measure as the scales of the Multidimensional Body Self-Relations Questionnaire which were used to measure body satisfaction. For instance, the participants' self-report of actual height and weight may not have been accurate. Further, on the Photographic Figure Rating Scale (which was used to measure ideal BMI), some of the images appear to represent body figures of slightly different heights and, if participants based their ideal BMI more on height than weight or shape, this may have contributed to unhelpful variations in actual versus ideal BMI

discrepancies.

An interesting finding was that goal/achievement orientation was not significantly related to body satisfaction but there was a trend in the opposite direction with body image than was for the other perfectionism variables. This would support the earlier recommendation for the utilization of a “normal” or “healthy” form of perfectionism that could help motivate one to fulfill their aims and which could actually build self-confidence. However, this result was somewhat unexpected as this more positive perfectionism factor had been less studied than the overall measures of perfectionism and there have been mixed results on how positive perfectionism is related to other aspects of the self (Flett et al., 1991; Frost et al., 1990a). For instance, high personal standards was found to be related to less body dissatisfaction when there were less concern over mistakes and doubt about actions (Flett et al., 1991). However, another study found high personal standards to be associated with more body dissatisfaction when in combination with fear of mistakes (Frost et al., 1990a).

### **PSP and Body Satisfaction**

Perfectionistic self-presentation was found to be related to less body satisfaction. This was consistent with past studies (Penkal & Kurdek, 2007; Rudiger, Cash, Roehrig, & Thompson, 2007; Sherry, Vriend, Hewitt, Flett, & Wardrop, 2009) which suggested that the need to appear perfect to others can lead to a preoccupation with perceived bodily imperfections. Also as expected, self-esteem was found to be related to body satisfaction. This was the strongest relationship found between a predictor variable and body image variable which was not surprising given the large literature on the relationship between self-esteem and body image ((Button, Loan, Davies, & Sonuga-Barke, 1997; Brytek, 2010; Johnson & Wardle, 2005; Tiggemann, 2005).



### **Ethnicity and Body Image**

Unexpectedly, no relationship was found between ethnicity and body dissatisfaction/satisfaction. Many previous studies observed differences in body dissatisfaction between Caucasian American women and ethnic minority women (e.g., Abood & Chandler, 1997; Casper & Offer, 1990; Chandler, Abood, Dae, & Cleveland, 1994; Douglas, 1992; Mobley, Slaney, & Rice, 2005; Perez & Joiner, 2003). The largest minority group in the current study was for African Americans and the majority of findings suggested that African American women had greater body satisfaction than Caucasian women (Ackard, Croll, & Kearney-Cook, 2002; Duncan, Anton, Newton, & Perri, 2003; Rucker & Cash, 1992; Story, French, & Resnick, 1995; Williamson, Kahn, & Byers, 1991).

However, the results of the current study are more in line with the growing research that has pointed to less differences in body dissatisfaction between African American and Caucasian women (Caldwell, Brownell, & Wilfley, 1997; Cachelin, Rebeck, Chung, & Pelayo, 2002; Cash, Melynck, & Hrabosky, 2004; James, 2001; Shaw, Ramirez, Trost, Randall, & Stice, 2004). These findings appear to support Robert's (1993) meta-analysis which indicated that the ethnic differences for body dissatisfaction for these two groups were shrinking possibly due to minorities' exposure to the thin ideal in media and worsening of body image among African Americans or even improvement in Caucasians' body esteem due to more accessibility to minorities in media. In contrast to ethnicity, ethnic identity was found to be related to body satisfaction. This was consistent with past research on the positive effects of identification with African American culture on body image (Osvold & Sodowsky, 1993; Parker et al., 1995; Petersons et al., 2000).

## **Body Image Models**

**Appearance Evaluation.** The combination of independent variables (alexithymia, fear of mistakes, perceived parental pressure, perfectionistic self-presentation, self-esteem, and ethnic identity) best predicted appearance evaluation, followed by body areas satisfaction, and body dissatisfaction. The multiple regression analyses showed that the model accounted for 27.1 percent of the variance in appearance evaluation. Interestingly, only self-esteem significantly contributed to the model, while alexithymia, fear of mistakes, perceived parental pressure, perfectionistic self-presentation, and ethnic identity did not. Still, perceived parental pressure and ethnic identity approached significance. Self-esteem explained 10.17 percent of the variability in appearance evaluation suggesting that judgment of one's overall appearance is determined, in part, by how one feels about their general worth as a person.

This is consistent with studies connecting higher self-esteem with less social physique anxiety (Henry et al., 2006; Koyuncu et al., 2010; Martin et al., 1997). Further, it supports the concept of body esteem as described by Striegel-Moore (1990) where regard for one's body is an extension of global self-esteem. The present study's findings on self-esteem and overall body satisfaction, in conjunction with past research, point to the importance of self-affirmation (Steele, 1988), or increasing self-esteem, through avenues such as insight-oriented psychotherapy in order to improve body satisfaction.

**Body Areas Satisfaction.** Regarding body areas satisfaction, self-esteem accounted for the most variability, followed by ethnic identity and then perceived parental pressure. It is interesting that self-esteem accounted for less of the variance with body areas satisfaction than for appearance evaluation (7.24 versus 10.17 percent), indicating that self-esteem may

influence feelings about one's overall physical appearance more than feelings about specific body parts. This relationship between self-esteem and satisfaction with specific body areas supports the early study by Secord and Jourard (1953) on the positive relationship between body cathexis (the worth one gives her body) and self-cathexis (self-worth).

It is also important that the current study found self-esteem to have more predictive power than the perfectionism variables for both appearance evaluation and body areas satisfaction. Similar to findings by Steele (1988), this suggests that, even though a perfectionist may be overly concerned with physical appearance, one's view of her body can still be positive in the presence of a positive overall self-image. The dominance of self-esteem in this study to predict body satisfaction points to the potential effectiveness of psychological treatments for image disturbance that are geared more towards helping people gain insight into unconscious sources of harsh views of themselves (such as ego therapy (Freud, 1936)) without the need for as much focus on more cognitive behavioral interventions which may attempt to actively discourage one's negative preoccupation towards the self and the body.

### **The Role of Body Distortion**

An important finding for this study was that both measures of body satisfaction were negatively associated with body distortion and body dissatisfaction was positively associated with body distortion. This supports past studies linking body dissatisfaction and body distortion (Etu & Gray, 2010; Ferguson, Munoz, Contreras, & Velasquez, 2011; Gardner & Tockerman, 1993; Kasper, 2001). Only one of the significant predictors of body dissatisfaction was associated with body distortion: ethnic identity. This study showed a negative relationship between ethnic identity and body distortion. This is an important

finding as, to this writer's knowledge, there have been no prior studies examining these two variables. Rogers Wood and Petrie discussed the importance of a focus on internal versus external beauty as a source of self-acceptance and that, at least among African Americans, activities that strengthened ethnic identity (such as family and peer gatherings, church functions, and positive cultural programs) had positive effects on body image as well (Rogers Wood & Petrie, 2010). It is hoped that this finding will encourage further research to examine how positive cultural values may protect against negative misperceptions of physical appearance. Additional analyses revealed that appearance evaluation and body areas satisfaction fully mediated the relationship between ethnic identity and body distortion according to the mediational steps by Baron and Kenny (1986). Therefore, the relationship between ethnic identity and body distortion disappeared when body satisfaction was taken into account and stronger ethnic identity was related to less body distortion because of the presence of body satisfaction. This suggests that stronger ethnic identity leads to greater body satisfaction which then is related to body distortion.

### **Exploratory Findings**

**Age and Body Image.** Consistent with the literature (Meier, Orth, Denissen, & Kühnel, 2011), self-esteem was higher for women who were older. It has been documented that younger women, especially in adolescence and early adulthood, experience more self-consciousness as this is a crucial period for procuring a mate (Roberts et al., 2006). Further, young women tend to have more emotional lability, stress-related to academic pressures, and the burden of changing bodies due to pubertal development (Roberts et al., 2006). However, ANOVA results showed that body areas satisfaction was higher for women between the ages of 18 and 25 than between 26 and 35. This is inconsistent with past studies on the effects of

aging on body image which either supported no differences in body dissatisfaction across age groups (e.g., Lewis & Cachelin, 2001; Siegel, 2010; Tiggemann, 1992; Tiggemann & Lynch, 2001; Webster & Tiggemann, 2003) or higher body satisfaction in older age groups than adolescents (Striegel-Moore & Franko, 2002; Tiggemann, 2004). This unique finding may suggest that the trends in body dissatisfaction with age may be different for overall body dissatisfaction than for dissatisfaction with specific body parts. For example, while women's overall body satisfaction may improve over time (possibly due to increases in self-esteem as described above), older women may still be plagued more so than younger women by changes specific to certain body parts (i.e., looser skin, wrinkles, age spots, etc.).

**SES and Body Image.** Regarding socioeconomic status variables, higher parent SES, parent education, and participant education were associated with more body satisfaction and lower SES and education were associated with more body dissatisfaction, alexithymia, and perfectionistic self-presentation. Specifically, satisfaction with areas of the body was highest for participants in this sample whose parents were of upper SES and lowest for participants with parents of lower SES. Higher participant education was also related to greater self-esteem. These results were not expected given that past studies suggested greater levels of emotional distress and body dissatisfaction among women with higher education and of higher SES (van den Berg et al., 2010; Wang et al., 2005).

It is possible that the relationships with education level were skewed given that this sample was highly educated. According to the United States Census Bureau education data from 2012 including adults of ages 25 and over, only 3.07 percent and 8.05 percent of adults were granted doctoral and master's degrees, respectively. However, in the current study, 36 percent of participants and 35 percent of participants' parents obtained a graduate degree.

The level of graduate education in this sample was more than three times that of the national average (U.S. Census Bureau, 2012) which potentially limits the study's ability to generalize to the general population. Past studies have suggested that women from families of high SES (correlated highly with education level) experience more pressure on themselves which leads to body image complaints (Akan & Grilo, 1995). However, given the higher than average number of very educated women in this sample, combined with the relationship between education level and body satisfaction, it is possible that greater education protected the women in this study from body image issues by allowing them to place their worth on other factors (such as intelligence) than physical attractiveness. Further, Striegel-Moore et al. (2000) noted that most studies on body image are conducted with upper middle-class samples and that SES differences in body dissatisfaction may disappear with the inclusion of lower SES classifications such as was found in a study by Stevens and Tiggemann (1998). Kumanyika (1987) also made the connection between poorer social class and obesity. Therefore, another possibility is that the more highly educated women in this sample were more aware of the positive effects of a healthy weight and diet, leading to less difficulty maintaining a thin physique and, therefore, less concern over body weight. Women in higher SES regions also tend to have access to more healthy food options, compared to the "food deserts" in poorer areas, which allow them to maintain a healthy lifestyle and weight.

The sampling bias towards a highly educated sample could reflect the fact that this researcher recruited acquaintances from her community, peer group, colleagues, church, and university who shared similar SES and educational backgrounds. It is also possible that the online recruiting method, in itself, attracted a sample that was more affluent. For instance, according to a study by Payne and Barnfather (2012), Black individuals of lower SES groups

were less likely to spend as much time on the internet in comparison to White, highly educated individuals.

**Ethnicity.** Results on ethnicity showed significantly higher ethnic identity for ethnic minorities compared to Caucasian women which coincided with past research (Abrams et al., 1992). However, self-esteem was found to be higher for White women which was not in agreement with a study by Eitel (2003). Interestingly, perceived parental pressure was higher for non-White women which supports research by Castro and Rice (2003) but conflicts with another study (Nilsson et al., 1999). The relationship between perfectionism and ethnicity has not yet been fully explored and this study adds some support to the complex nature of this area of study. These findings may support Heads' theory that African American families place extra pressure on their children to succeed given the obstacles this race has experienced due to discrimination (2009).

**Religion.** Lastly, differences in alexithymia, perfectionistic self-presentation, and self-esteem were found based on religious affiliation. Catholic women were less likely to have difficulty with emotional expression and needing to appear perfect than non-Catholic Christians. Further, Catholic women were found to have greater self-esteem than non-Catholics. While it is difficult to attribute meaning to the difference in alexithymia, PSP, and self-esteem based on these different branches of Christianity, it may still support general findings on the importance of religious faith for reducing overall anxiety (Pardini, Planteb, Shermanc, & Stump, 2000) and improving emotional well-being (Laurencelle et al., 2002).

## **Clinical Implications**

**Psychodynamic Perspective.** This study's findings on the psychological contributors to body dissatisfaction (i.e., alexithymia, perfectionism, and self-esteem) point to the theoretical basis that body image problems can represent more complex, intrapsychic disturbances which must be considered and addressed in psychotherapy. For example, individuals who present for treatment with body image concerns can be gently guided by the therapists to explore negative emotions which may be outside of conscious awareness (alexithymia) to reduce the tendency for individuals to turn those feelings against themselves (Freud, 1936). This study shows that, without help with understanding their feelings, individuals could begin attacking themselves with negative emotion such as by criticizing their bodies.

The results on perfectionism and self-esteem with body dissatisfaction further support the proposition that there is significant psychological meaning to symptoms of body image disturbance. Most notably from this study was the relationship between parental criticism and body dissatisfaction. As suggested by previous theorists (e.g., Burns, 1980; Hollender, 1965; Horney, 1950; Parker, 1997; Sorotzkin, 1998), deficits in healthy parental expectations or parental support in early life can lead to perfectionistic patterns in adulthood to continue to achieve with the hope of attaining parental love and acceptance and to combat feelings of guilt and shame over perceived failures. It is important for clinicians to recognize in therapeutic practice that the drive for perfectionism can extend to the need for perfection in physical appearance in order to target interventions towards exploring an underlying internalization of harsh parental views of the self.



**Sociocultural Perspective.** The differences in body image variables found in this study based on ethnicity and ethnic identity lend itself to explanations based on social learning theory. The sociocultural view of body image disturbance holds that one's view of the physical body develops out of societal pressure towards achieving a certain ideal physique (Perez-Lopez & Petretic, 2004). While past research suggested that African American women were more protected against the internalization of a thin ideal and, therefore, against body image problems (such as due to a larger ideal body type (Halpern et al., 1999), less concern with overeating (Casper & Offer, 1990), less social pressure to be thin (Striegel-Moore et al., 1995), and evolutionary adaptiveness of larger waist-hip ratios in child-bearing (Singh & Young, 1995)), the current study did not find African Americans or other ethnic minorities to have a more positive body image than Caucasians.

It is possible, as the meta-analysis by Roberts (1993) revealed, that the ethnic differences for body dissatisfaction for these Caucasians and ethnic minorities are shrinking possibly due to a combination of minorities' exposure to the thin ideal in the media and worsening of body image among African Americans or even improvement in Caucasians' body esteem due to more accessibility to minorities of healthy weight in media. However, Singh (1993) has described that the thin ideal body type has only been getting thinner in Western culture and it seems more likely that African Americans and other minorities may be adopting the majority culture ideal for a thin body type, leading to poorer body satisfaction (Anschutz, 2009). Wildes et al. (2001) described that African Americans experience increases in body image disturbance in the adolescent and young adult periods due to opportunities for socialization with more Caucasians in high school and at university. With the mean age in the current study being in the young adulthood range and with the sample

including many college students, it adds support that the body image of ethnic minorities may have been negatively influenced by the majority culture's view of thinness. Cafri et al. (2005) and McKee (2006) also reported the increases in body dissatisfaction in ethnic minorities of this age group due to pressure from peers to lose weight. Additionally, Roberts et al. (2012) noted that African American women are more likely to internalize a thinner ideal, strive for lower body weights, and have higher rates of body dissatisfaction while dating Caucasian men which may have also contributed to the more similar body dissatisfaction levels in African American and Caucasian women in the current sample who are attending a multiracial university.

The lack of variation in body satisfaction based on ethnicity may also reflect a greater influence of socioeconomic status than race on body image (Caldwell et al., 1997; Gardner, Friedman, & Jackson, 1999; Sobal & Stunkard, 1989). The lack of significant differences in SES or education level between White and non-White participants in this study may, therefore, have led to similar rates of body dissatisfaction. The influence of SES on body image is important for psychologists to consider from a hierarchy of needs perspective to facilitate clients' abilities to fulfill basic needs first as a path to gaining psychological health as well. This points to the possible role of incorporating social workers in work with psychologists to help address basic socioeconomic needs clients may have (such as healthy nutrition) as a way to prevent development of body issues.

It was particularly interesting that the current study found higher rates of perceived parental pressure and lower rates of self-esteem among minority women. These findings may reflect effects of racial discrimination which has been described to influence parents of African American children to put pressure on them to have higher expectations for

themselves to compensate for White privilege (Chao, Mallinckrodt, & Wei, 2012). Hines and Boyd-Franklin (1996) argued that this is particularly true of middle-class (of which the current sample was predominantly comprised of) African American families whose parents experienced financial difficulties and had to work very hard to attain financial security. With this material in mind, clinicians may benefit in their work with minority women to consider that these women who strive for perfection may also have the fantasy that this perfection is needed for social notoriety and self-value (Thompson et al., 1999).

In addition, this study's results on ethnic identity point to the importance that clinicians should place on cultural identity formation for their clients as this was shown to protect against body dissatisfaction. This expanded on previous studies which described identification with African American culture as negatively correlated with drive for thinness, thin ideal internalization (Rogers Wood & Petrie, 2010), and body image disturbance (Osvold & Sadowsky, 1993; Parker et al., 1995; Petersons et al., 2000). Specifically, clinical interventions which encourage interactions with individuals who support positive ethnic identity messages (such as with families, churches, peer groups, and cultural media programs) could be very beneficial in combating poor body esteem (Rogers Wood & Petrie, 2010).

### **Suggested Changes to Model**

Given the results of the current study, three changes are recommended to strengthen the model. First, it could benefit from the use of a hierarchical regression given the knowledge of self-esteem as the most consistently strong predictor of body satisfaction followed by perfectionism, perfectionistic self-presentation, ethnic identity, and alexithymia. Second, ethnicity could be removed from the model as a predictor of body

satisfaction/dissatisfaction as the results of this study were in line with past research which indicated that, with acculturation, body image in African Americans in particular has become more similar to that of Caucasians (Roberts, 1993). Third, changes to the perfectionism construct are recommended. Given the evidence for two separate types of perfectionism (normal and maladaptive) (Frost et al., 1993), it would be helpful for the model to include a maladaptive perfectionism measure (such as the Fear of Mistakes and Perceived Parental Pressure subscales of the FMPS or the Multidimensional Perfectionism Scale) and a measure of normal perfectionism (such as the Goal/Achievement Orientation subscale of the FMPS utilized in the current study).

### **Limitations**

The use of multiple ANOVAs could have, potentially, led to an increased Type I error rate in which significant differences were found when they did not truly exist. This study also utilized a convenience sample by recruiting through a university and through the use of online surveys and, therefore, the demographics for the participants may differ from those of the general population, limiting the ability for the study's findings to generalize to the general public. For instance, the average age of the participants was approximately 30 years old, there were an insufficient number of 46-55 year olds in the distribution, and women over the age of 65 were not included in the study. Further, 60 percent of participants were Christian and the data was not examined based on differences across non-Christian religions or faith systems to which a large number of the participants identified with (40 percent). However, given the wide variety of responses for "other religion," these participants could not be grouped together.

A significant limitation regarding external reliability also appears to be that the

participants' education levels did not reflect those of the general population (they were much more educated than the general public) which may have contributed to the study's unexpected trend in higher body satisfaction among those with higher education. As stated before, this rather idiosyncratic sample could have reflected the use of an online survey which may have made the research study less available to individuals from lower SES with less internet access. This more affluent and educated sample could have also influenced perfectionism scores (especially regarding goal/achievement) due to the likelihood that these women (who pursued graduate degrees) were highly driven and high achieving.

Additionally, nearly 75 percent of participants were White and the smaller group for ethnic minorities may have limited the study's statistical power to identify more significant group differences based on ethnicity. The study was also limited by the inclusion of all ethnic minorities into one category. While this was done to increase power for this ethnicity group, it may have ignored variances in body image among ethnicity minorities and possibly contributed to less differences between Caucasians and African Americans than would have possibly been found with a more robust groups of African American participants. Further, it was unclear if the three participants who identified as European American were raised in Europe versus the United States making it difficult to ascertain their level of acculturation to American society and potentially limiting differences in body image between the Caucasian and European American groupings.

This study also did not include males given the literature to suggest that there are differences in body image for men and women (Furnham & Greaves, 1994; Moreno & Thelen, 1993; Nagel & Jones, 1992; Peters & Phelps, 2001). For instance, women tend to have a more unidirectional dissatisfaction with their bodies in wanting to weigh less (Peters

& Phelps, 2001) while body dissatisfaction in men can be bidirectional as they desire to be both more muscular and thinner (Kostanski & Gullone, 1998). Therefore, the study's findings may not be reflective of patterns in body dissatisfaction that exist for men.

The participants also appeared to be a more emotionally "healthy" sample in some ways which may have lent itself to finding more positive associations with body satisfaction than may truly exist in the general population. For example, the average for satisfaction with one's body parts was higher in this study than in the original sample using the body areas satisfaction subscale of the MBSRQ (27.19 versus 25.84) (Brown et al., 1990). Furthermore, the average score on alexithymia for the current sample was much lower (41.40) than in another widely cited study (Bagby et al., 1990). Also, more than half of the women in the present study underestimated their body size and there were less overweight participants in this sample than comparative samples which suggested that these women could have been less likely to be concerned about their weight. Examination of the scores on the Eating Attitudes Test for participants who were not screened out also revealed that most of the participants had lower scores on this screener which could be another indication of less body concerns in this sample. However, it was very interesting to see that 17 percent of the sample scored in the clinical range on the EAT and needed to be excluded from the study. The percentage of participants that reached the eating disorders threshold on the EAT was much higher than in the general population (0.5-3.7% for anorexia, 1.1-4.2% for bulimia, and 2-5% for binge-eating disorder) (The National Institute of Mental Health, 2013). This surprising finding adds support to the important need for more research on and the development of treatment interventions for women with body image problems.

### **Recommendations for Future Research**

It would be beneficial for the study to be replicated with a more evenly distributed sample to include more individuals of lower SES, ethnic minorities, older age groups, and various religious affiliations. This would help strengthen the ability of this study's findings to extend to more individuals than middle class, Caucasian, Christian, young adults. It would be particularly interesting if this study were replicated with male participants to observe possible differences in body satisfaction/dissatisfaction and body distortion given the more bidirectional pattern (desire for both more musculature and thinner waist) of male body image disturbance (Kostanski & Gullone, 1998). For instance, given males' tendency to overestimated their body size by 13% (Slade, 1994) and tendency to be preoccupied with different areas of the body than women (i.e., biceps and chest) (Moreno & Thelen, 1993; Nagel & Jones, 1992), this may lead to different relationships for male body satisfaction with factors such as perfectionism and ethnicity. Perhaps the desire to be larger in some areas and smaller in others predisposes males to or is a reflection of more perfectionistic tendencies or perhaps the striving towards more musculature could make one appear thinner than is reality, leading to less pressure for weight loss. Differences in body image for males based on ethnicity have also been found such as in a study by Ricciardelli et al. (2007) which found non-White males to strive for more dramatic body transformation than White males. Although, a similarity for both men and women appears to be that body dissatisfaction can pertain to negative feelings about one's whole body shape or to particular body parts (Slade, 1994).

Another specific area of future study could be to examine the nature of differences in alexithymia in males in comparison to females as they relate to body image and the other

related variables (such as perfectionism and self-esteem). Levant (1995) described a “normative male alexithymia” in which he stated traditional gender roles inhibit males from emotional expression, particularly feelings which elicit a sense of vulnerability or attachment. Although, he described that, historically, males do not struggle as much as women with the expression of aggression or lustful feelings (Levant, 1995). It appears that it is yet to be explored in the research if alexithymia in males could also be related to negative self-worth, perfectionism, and body dissatisfaction according to the “turning against the self” theory as was found in the current study.

It is further recommended that researchers continue to research alexithymia in larger studies to examine the effects of emotional inhibition across many individuals with varying demographic backgrounds and psychological problems. While, often times, clinical psychotherapy case studies are utilized to discuss an individual’s difficulty with identifying or expressing emotion, capacity for abstract thinking, and difficulty distinguishing between emotions and physical sensations, it is believed that this area of research could greatly benefit from including subclinical populations as well to explore this topic more fully. Given the anticipated increased role of psychologists in primary health care settings (Chamberlin, 2010), one area of alexithymia which could be especially relevant to investigate more could be how difficulties with emotional identification and expression can be misinterpreted by patients and physicians as a medical illness (Ginsburg & Link, 1989). Similar to the current study’s finding on the relationship between alexithymia and body dissatisfaction, these patients in the primary care setting could be communicating their fear that something is “wrong” with them which may represent the deeply psychological impact they are experiencing from their discomfort about their thoughts and feelings.



Additionally, it may be interesting to explore additional sociocultural variables (such as family size and relationship status) as they relate to body image. Individuals who grow up with more siblings may experience more competitiveness within their families possibly leading to a drive for perfectionism or negative comparisons of their bodies with female siblings close in age. Further, larger families may put more pressure on parents (particularly single mother households) which could lead to more emotional difficulties (such as alexithymia) for parents and children (Usmiani & Daniluk, 1997). Relationship status could also be considered as it relates to body image. Past research has shown a positive relationship between self-esteem and being in a satisfying, committed relationship (Wade, 2000) and this may extend to body esteem as well.

Finally, the mediational relationship in this study of body satisfaction with ethnic identity and body distortion presents an exciting new area of research which should be investigated further. For instance, the relationship between ethnic identity and body satisfaction/body distortion could be examined in males. The positive effect of ethnic identity on poor body image is important. With the negative influence of the thin ideal portrayed in social media (Boone, 2011), the possibility for positive social influence on body satisfaction through avenues such as ethnic identity should continue to be explored.

## **Conclusion**

Body image concerns continue to impact a significant number of women. The high percentage of women who needed to be screened out of this study due to eating disorders scores in the clinical range points to the pervasiveness of the body dissatisfaction problem as a normative discontent. The current study makes an important contribution to gaining a further understanding of the relationships between body image disturbance, alexithymia,

perfectionism, self-esteem, and ethnicity. Overall, the results indicated that self-esteem was the most significant predictor of body satisfaction. Additionally, lower levels of alexithymia, perfectionism, and perfectionistic self-presentation and higher levels of ethnic identity were associated with greater body satisfaction. Body satisfaction also was found to mediate the relationship between ethnic identity and body distortion. Further, body satisfaction was found to vary based on age, parent education, and parent SES. These findings present important information on psychosocial factors which promote or combat critical views of one's self and her body.

## References

- Abell, S.C., & Richards, M.H. (1996). The relationship between body shape satisfaction and self-esteem: An investigation of gender and class differences. *Journal of Youth and Adolescence, 25*, 691-70. Retrieved from EBSCOhost
- Aboud, D.A., & Chandler, S.B. (1997). Race and the role of weight, weight change, and body dissatisfaction in eating disorders. *American Journal of Health Behavior, 21*, 21–25. Retrieved from EBSCOhost
- Abrams, K.K., Allen, L., & Gray, J.J. (1992). Disordered eating attitudes and behaviors, psychological adjustment, and ethnic identity: A comparison of black and white female college students. *International Journal of Eating Disorders, 14*, 49–57. Retrieved from EBSCOhost
- Ackard, D.M., Croll, J.K., & Kearney-Cooke, A. (2002). Dieting frequency among college females: Association with disordered eating, body image and related psychological problems. *Journal of Psychosomatic Research, 52*, 129–136. Retrieved from EBSCOhost
- Adams, K., Sargent, R.G., Thomson, S. H., Richter, D., Corwin, S.J., & Rogan, T.J. (2000). A study of body weight concerns and weight control practices of 4th and 7th grade adolescents. *Ethnicity & Health, 5*, 79–94. Retrieved from EBSCOhost
- Ahrberg, M. (2011). Body image disturbance in binge eating disorder: A review. *European Eating Disorders Review, 19*(5), 375-381. Retrieved from EBSCOhost
- Akan, G.E., & Grilo, C.M. (1995). Sociocultural influences on eating attitudes and behavior, body image and psychological functioning: A comparison of African American, Asian American and Caucasian college women. *International Journal of Eating Disorders, 18*, 181-187. Retrieved from EBSCOhost
- Akiba, D. (1998). Cultural variations in body esteem: How young adults in Iran and the United States view their own appearances. *The Journal of Social Psychology, 138*, 539–540. Retrieved from EBSCOhost
- Alden, L.E., Bieling, P., & Wallace, S.T. (1994). Perfectionism in an interpersonal context: A self-regulation analysis of dysphoria and social anxiety. *Cognitive Therapy and Research, 18*, 297–316. Retrieved from EBSCOhost
- Allan, J.D., Mayo, K., & Michel, Y. (1993). Body size values of White and Black women. *Research in Nursing and Health, 16*, 323–333. Retrieved from EBSCOhost
- Allebeck, P., Hallberg, D., & Espmark, S. (1976). Body Image: An apparatus for measuring disturbances in estimation of size and shape. *Journal of Psychosomatic Research, 20*, 583-589. Retrieved from EBSCOhost

- Allgood-Merten, B., Lewinsohn, P., & Hops, H. (1990). Sex differences and adolescent depression. *Journal of Abnormal Psychology, 99*, 55-63. Retrieved from EBSCOhost
- Altabe M (1998) Ethnicity and body image: Quantitative and qualitative analysis. *International Journal of Eating Disorders, 23*, 153–159. Retrieved from EBSCOhost
- Altabe, M., & Thompson, J.K. (1992). Size estimation versus figural ratings of body image disturbance: Relation to body dissatisfaction and eating dysfunction. *International Journal of Eating Disorders, 11*, 397– 402. Retrieved from EBSCOhost
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders (4th ed.)*. American Psychiatric Association: Washington, DC (text revision)
- American Psychological Association. (2003). Guidelines on multicultural education, training, research, practice, and organizational change for psychologists. *American Psychologists, 58*, 377–402. Retrieved from EBSCOhost
- Anderson, J.L., Crawford, C.B., Nadeau, J., & Lindberg, T. (1992). Was the Duchess of Windsor right? A cross-cultural review of the socioecology of ideals of female body shape. *Ethology and Sociobiology, 13*, 197-227. Retrieved from EBSCOhost
- Anschutz, D. (2009). Watching your weight? The relations between watching soaps and music television and body dissatisfaction and restrained eating in young girls. *Psychology & Health, 24*(9), 1035-1050. Retrieved from EBSCOhost
- Anthony, M. M., & Swinson, R. (1998). *When perfect isn't good enough: Strategies for coping with perfectionism*. Oakland, CA: New Harbinger
- Arale, K.M. (2010). The connection between perfectionism and depression, anxiety, and anger with consideration of ethnicity. *Dissertation Abstracts International, 70* (7-B), 4474. Retrieved from EBSCOhost
- Arkoff, A., & Weaver, H.B. (1966). Body image and body dissatisfaction in Japanese-Americans. *The Journal Of Social Psychology, 68*(2), 323-330. doi:10.1080/00224545.1966.9919694
- Armitage, C.J. (2012). Evidence that self-affirmation reduces body dissatisfaction by basing self-esteem on domains other than body weight and shape. *Journal Of Child Psychology & Psychiatry, 53*(1), 81-88. Retrieved from EBSCOhost
- Arriaza, C.A., & Mann, T. (2001). Ethnic differences in eating disorder symptoms among college students: The confounding role of body mass index. *Journal of American College Health, 49*, 309–315. Retrieved from EBSCOhost

- Avila, D.L., & Avila, A.L. (1995). Mexican-Americans. In N.A. Vacc & S.B. DeVaney (Eds.), *Experiencing and counseling multicultural and diverse populations* (3rd ed., pp. 119–146). Philadelphia: Accelerated Development
- Ayala, G. X., Mickens, L., Galindo, P., & Elder, J. P. (2007). Acculturation and body image perception among Latino youth. *Ethnicity & Health, 12*(1), 21-41. doi:10.1080/13557850600824294
- Bagby, R.M., Parker, J.D.A. & Taylor, G.J. (1994). The twenty-item Toronto Alexithymia Scale-I. Item selection and cross-validation of the factor structure. *Journal of Psychosomatic Research, 38*, 23-32. Retrieved from EBSCOhost
- Baker, J.D., Williamson, D.A., & Sylve, C. (1995). Body image disturbance, memory bias, and body dysphoria: Effects of negative mood induction. *Behavior Therapy, 26*(4), 747-759. doi:10.1016/S0005-7894(05)80043-7
- Banasiak, S.J., Wertheim, E.H., Koerner, J., & Voudouris, N.J. (2001). Test-retest reliability and internal consistency of a variety of measures of dietary restraint and body concerns in a sample of adolescent girls. *International Journal of Eating Disorders, 29*, 85–89. doi: 10.1002/1098-108X(200101)29:1<85::AID-EAT14>3.0.CO;2-G
- Barak, Y., Sirota, P., Tessler, M., Achiron, A., & Lampl, Y. (1994). Body esteem in Israeli university students. *Israel Journal of Psychiatry and Related Sciences, 31*, 292–295. Retrieved from EBSCOhost
- Baratelli, A. (2009). Sociocultural influences on body image dissatisfaction in Venezuelan college-aged women. *Dissertation Abstracts International, 70*(5-A), 1806. Retrieved from EBSCOhost
- Bardone-Cone, A.M., Abramson, L.Y., Vohs, K.D., Heatherton, T.F., & Joiner, T.E. Jr. (2006). Predicting bulimic symptoms: An interactive model of self-efficacy, perfectionism, and perceived weight status. *Behaviour Research and Therapy, 44*, 27–42. Retrieved from EBSCOhost
- Bardone, A.M., Vohs, K.D., Abramson, L.Y., Heatherton, T.F., & Joiner, T.E. (2000). The confluence of perfectionism, body dissatisfaction, and low self-esteem predicts bulimic symptoms: Clinical implications. *Behavior Therapy, 31*(2), 265-280. doi:10.1016/S0005-7894(00)80015-5
- Bardone-Cone, A.M., Weishuhn, A.S., & Boyd, C.A. (2009). Perfectionism and bulimic symptoms in African American college women: Dimensions of perfectionism and their interactions with perceived weight status. *Journal Of Counseling Psychology, 56*(2), 266-275. doi:10.1037/a0015003
- Baron, R.M., & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal*

- of Personality and Social Psychology*, 51, 1173-1182. Retrieved from EBSCOhost
- Barry, D.T., & Grilo, C.M. (2002). Eating and body image disturbances in adolescent psychiatric inpatients: Gender and ethnicity patterns. *International Journal of Eating Disorders*, 32, 335–343. Retrieved from EBSCOhost
- Bas, M., Asci, F.H., Karabudak, E., & Kiziltan, G. (2004). Eating attitudes and their psychological correlates among Turkish adolescents. *Adolescence*, 39, 593-599. Retrieved from EBSCOhost
- Baugh, E., Mullis, R., Mullis, A., Hicks, M., & Peterson, G. (2010). Ethnic identity and body image among Black and White college females. *Journal Of American College Health*, 59(2), 105-109. doi:10.1080/07448481.2010.483713
- Baumeister, R.F., Tice, D.M., & Hutton, D.G. (1989). Self-presentational motivations and personality differences in self-esteem. *Journal of Personality*, 57, 547-579. Retrieved from EBSCOhost
- Beamer, L. (1999). Psychological and sociocultural determinants of a preoccupation with thinness in college women. *Dissertation Abstracts International*, 60(4-B), 1911. Retrieved from EBSCOhost
- Beck, A.T. (1976). *Cognitive therapy and the emotional disorders*. New York: International Universities Press
- Bem, D.J. (1972). Constructing cross-situational consistencies in behavior: Some thoughts on Alker's critique of Mischel. *Journal of Personality*, 40, 17–26. Retrieved from EBSCOhost
- Berndt, T.J., & Hestenes, S.L. (1996). The developmental course of social support: Family and peers. In L. Smolak, M.P. Levine, & R. Striegel-Moore (Eds.), *The developmental psychopathology of eating disorders: Implications for research, prevention and treatment* (pp. 77–106). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Bessellieu, L. (1997). The meaning of weight and body image in African-American women. *Dissertation Abstracts International*, 58(3-B), 152. Retrieved from EBSCOhost
- Bettendorf, S.K., & Fischer, A.R. (2009). Cultural strengths as moderators of the relationship between acculturation to the mainstream U.S. society and eating- and body-related concerns among Mexican American women. *Journal of Counseling Psychology*, 56, 430–440. doi:10.1037/a0016382
- Birtchnell, S.A., Lacey, J.H., & Harte, S. (1985). Body image distortion in bulimia nervosa. *British Journal of Psychiatry*, 147, 408-412. Retrieved from EBSCOhost

- Bissell, K. (2004). Must-see TV or ESPN: Entertainment and sports media exposure and body-image distortion in college women. *Journal of Communication, 54*, 5–21. Retrieved from EBSCOhost
- Blatt, S. J. (1995). The destructiveness of perfectionism: Implications for the treatment of depression. *American Psychologist, 50*, 1003-1020. Retrieved from EBSCOhost
- Bohne, A., Wilhelm, S., Keuthen, N.J., Florin, I., Baer, L., & Jenike, M.A. (2002). Prevalence of body dysmorphic disorder in a German college student sample. *Psychiatry Research, 109*, 101–104. Retrieved from EBSCOhost
- Boone, L. (2011). Perfectionism, body dissatisfaction, and bulimic symptoms: The intervening role of perceived pressure to be thin and thin ideal internalization. *Journal of Social & Clinical Psychology, 30*(10), 1043-1068. Retrieved from EBSCOhost
- Brannan, M.E., & Petrie, T.A. (2008). Moderators of the body dissatisfaction-eating disorder symptomatology relationship: Replication and extension. *Journal of Counseling Psychology, 55*(2), 263-275. doi:10.1037/0022-0167.55.2.263
- Brewis, A.A., & McGarvey, S.T. (2000). Body image, body size and Samoan ecological and individual modernization. *Ecology of Food and Nutrition, 39*, 105–120. doi: 10.1080/03670244.2000.999160910.1080/03670244.2000.9991609
- Brewis, A.A., McGarvey, S.T., Jones, J., & Swinburn, B.A., (1998). Perceptions of body size in Pacific Islanders. *International Journal of Obesity, 22*, 185-189. Retrieved from EBSCOhost
- Brink, P.S. (1989). The fattening room among the Annang of Nigeria. *Medical Anthropology, 12*, 131-143. Retrieved from EBSCOhost
- Brown, B.B., Bakken, J.P., Ameringer, S.W., & Mahon, S.D. (2008). A comprehensive conceptualization of the peer influence process in adolescence. In M.J. Prinstein & K.A. Dodge (Eds.), *Understanding peer influence in children and adolescents* (pp. 17–44). New York, NY: Guilford Press.
- Brown, P.J. & Konner, M. (1987). An anthropological perspective on obesity. *Human Obesity, 499*, 29-46. doi: 10.1111/j.1749-6632.1987.tb36195.x
- Brown, T.A., Cash, T.F., & Mikulka, P.J. (1990). Attitudinal body-image assessment: Factor analysis of the body-self relations questionnaire. *Journal of Personality Assessment, 55*(1/2), 135. Retrieved from Psychology and Behavioral Sciences Collection database
- Bruch, H. (1962). Perceptual and conceptual disturbances in anorexia nervosa. *Psychosomatic Medicine, 24*, 187–194. Retrieved from EBSCOhost

- Brytek-Matera, A. (2010). Body image among obese women: Consequences and degree of body dissatisfaction, relationship with low self-esteem and coping strategies. *Psychiatria Polska*, 44(2), 267-275. Retrieved from EBSCOhost
- Buhlmann, U., Etcoff, N.L., & Wilhelm, S. (2008). Facial attractiveness ratings and perfectionism in body dysmorphic disorder and obsessive-compulsive disorder. *Journal of Anxiety Disorders*, 22, 540-547. doi:10.1016/j.janxdis.2007.05.004
- Buhlmann, U., Teachman, B.A., Gerbershagen, A., Kikul, J., & Rief, W. (2008). Implicit and explicit self-esteem and attractiveness beliefs among individuals with body dysmorphic disorder. *Cognitive Therapy & Research*, 32(2), 213-225. Retrieved from EBSCOhost
- Burns, D. D. (1980). The perfectionist's script for self-defeat. *Psychology Today*, 13, 34-52. Retrieved from EBSCOhost
- Burns, M. (2012). Research and statistics. *Eating Difficulties Education Network (EDEN)*. Retrieved from <http://www.eden.org.nz/research-statistics/>
- Buss, A.H., & Finn, S.E. (1987). Classification of personality traits. *Journal of Personality and Social Psychology*, 52, 432-444. Retrieved from EBSCOhost
- Buss, D.M. (1989). Sex differences in human mate preferences: Evolutionary hypotheses tested in 37 cultures. *Behavioral and Brain Sciences*, 12, 1-49. Retrieved from EBSCOhost
- Buss, D.M., & Schmitt, D.P. (1993). Sexual strategies theory: An evolutionary perspective on human mating. *Psychological Review*, 100, 204-232. Retrieved from EBSCOhost
- Butryn, M.L., Juarascio, A., & Lowe, M.R. (2011). The relation of weight suppression and BMI to bulimic symptoms. *International Journal Of Eating Disorders*, 44(7), 612-617. doi:10.1002/eat.20881
- Button, E.J., Loan, P., Davies, J., & Sonuga-Barke, E.J. S. (1997). Self-esteem, eating problems, and psychological well-being in a cohort of schoolgirls aged 15-16: A questionnaire and interview study. *International Journal of Eating Disorders*, 21, 39-47. Retrieved from EBSCOhost
- Bydlowski, S., Corcos, M., Jeammet, P., Paterniti, S., Berthoz, S., ...Laurier, C.(2005). Emotion-processing deficits in eating disorders. *International Journal of Eating Disorders*, 37, 321-329. Retrieved from EBSCOhost
- Cachelin, F.M., Rebeck, R.M., Chung, G.H., & Pelayo, E. (2002). Does ethnicity influence body size preference? A comparison of body image and body size. *Obesity Research*, 10, 158-166. Retrieved from EBSCOhost



- Cafri, G., Yamamiya, Y., Brannick, M., & Thompson, J. K. (2005). The influence of sociocultural factors on body image: A meta-analysis. *Clinical Psychology-Science and Practice, 12*, 421-433. Retrieved from EBSCOhost
- Caldwell, M.B., Brownell, K.D., & Wilfley, D.E. (1997). Relationship of weight, body dissatisfaction, and self-esteem in African American and White female dieters. *International Journal of Eating Disorders, 22*, 127-130. Retrieved from EBSCOhost
- Campbell, J.D., & Di Paula, A. (2002). Perfectionistic self-beliefs: Their relation to personality and goal pursuit. In G. L. Flett & P. L. Hewitt (Eds.), *Perfectionism* (pp. 181-198). Washington, DC: American Psychological Association
- Carano, A., De Berardis, D., Gambi, F., Di Paolo, C., Campanella, D., Pelusi, L., . . . Ferro, M.F. (2006). Alexithymia and body image in adult outpatients with binge eating disorder. *International Journal of Eating Disorders, 39*, 332-340. Retrieved from EBSCOhost
- Carano, A.A., Totaro, E.E., De Berardis, D.D., Mancini, L.L., Faiella, F.F., Pontalti, I.I., . . . Mariani, G.G. (2011). Correlations between bodily dissatisfaction, alexithymia, and dissociation in eating disorders. *Italian Journal of Psychopathology, 17*(2), 174-182. Retrieved from EBSCOhost
- Carlson, E.A., & McAndrew, F.T. (2004). Body shape ideals and perceptions of body shape in Spanish and American college students. *Perceptual and Motor Skills, 99*, 1071-1074. Retrieved from EBSCOhost
- Carroll, M. (2005). Body image dissatisfaction in Bahamian adolescent girls. *Dissertation Abstracts International, 65*(9-B), 4820. Retrieved from EBSCOhost
- Casale, S., Biondi, V., & Pacini, S. (2011). Drive for thinness and bulimia: Directive and interactive effect of body dissatisfaction and perfectionism. *Counseling, 4*(2), 163-179. Retrieved from EBSCOhost
- Cash, T.F. (2002). Cognitive behavioral perspectives on body image. In T. F. Cash & T. Pruzinski (Eds.), *Body image: A handbook of theory, research and clinical practice* (pp. 38-46). New York: Guilford
- Cash, T.F., & Deagle, E.A. (1997). The nature and extent of body image disturbance in anorexia nervosa and bulimia nervosa: A meta analysis. *The International Journal of Eating Disorders, 22*, 107-125. Retrieved from EBSCOhost
- Cash, T.F., & Henry, P.E. (1995). Women's body images: The results of a national survey in the U.S.A. *Sex Roles, 33*, 19-28. Retrieved from EBSCOhost

- Cash, T.F., Melnyk, S.E., & Hrabosky, J.I. (2004). The assessment of body image investment: An extensive revision of the Appearance Schemas Inventory. *International Journal of Eating Disorders, 35*, 305–316. Retrieved from EBSCOhost
- Cash, T.F., Morrow, J., Hrabosky, J., & Perry, A. (2004). How has body image changed? A cross-sectional investigation of college women and men from 1983 to 2001. *Journal of Consulting and Clinical Psychology, 72*, 1081–1089. Retrieved from EBSCOhost
- Casper, R.C., & Offer, D. (1990). Weight and dieting concerns in adolescents. Fashion or symptom? *Pediatrics, 86*, 384-390. Retrieved from EBSCOhost
- Castro-Fornieles, J., Gaul, P., Lahortiga, F., Gila, A., Casulà, V., Fuhrmann, C., ...Toro, J. (2007). Self-oriented perfectionism in eating disorders. *International Journal of Eating Disorders, 40*(6), 562-568. Retrieved from CINAHL database
- Castro, J.R., & Rice, K.G. (2003). Perfectionism and ethnicity: Implications for depressive symptoms and self-reported academic achievement. *Cultural Diversity And Ethnic Minority Psychology, 9*(1), 64-78. doi:10.1037/1099-9809.9.1.64
- Cepeda, J.P. (2005). The effects of acculturation, internalization of the beauty ideal, and viewing beauty ideal images on self-esteem and body dissatisfaction among Mexican American women. *Dissertation Abstracts International, 65*(8-B), 4336. Retrieved from EBSCOhost
- Chamberlin, J. (2010). Moving into primary care. *Monitor, 41*(9), 68. Retrieved from <http://www.apa.org/monitor/2010/10/primary-care.aspx>
- Chamorro, R., & Flores-Ortiz, Y. (2000). Acculturation and disordered eating patterns among Mexican American women. *International Journal of Eating Disorders, 28*, 125–129. Retrieved from EBSCOhost
- Chandler, B., Abood, A., Dae, T., & Cleveland, Z. (1994). Pathogenic eating studies and behaviors and body dissatisfaction differences among Black and White college students. *Journal of Treatment and Prevention, 2*, 319-328. Retrieved from EBSCOhost
- Chang, E.C. (1998). Cultural differences, perfectionism, and suicide risk in a college population: Does social problem solving still matter? *Cognitive Therapy and Research, 22*, 237–254. Retrieved from EBSCOhost
- Chang, E.C., Watkins, A., & Banks, K. (2004). How Adaptive and Maladaptive Perfectionism Relate to Positive and Negative Psychological Functioning: Testing a Stress-Mediation Model in Black and White Female College Students. *Journal Of Counseling Psychology, 51*(1), 93-102. doi:10.1037/0022-0167.51.1.93
- Chan, C.K.Y., & Owens, R.G. (2006). Perfectionism and eating disorder symptomatology in

- Chinese immigrants: Mediating and moderating effects of ethnic identity and acculturation. *Psychology & Health*, 21(1), 49-63. doi:10.1080/14768320500105312
- Chao, R., Mallinckrodt, B., & Wei, M. (2012). Co-occurring presenting problems in African American college clients reporting racial discrimination distress. *Professional Psychology: Research And Practice*, 43(3), 199-207. doi:10.1037/a0027861
- Chen, W., & Swalm, R.L. (1998). Chinese and American college students' body-image: Perceived body shape and body affect. *Perceptual Motor Skills*, 87, 395-403. Retrieved from EBSCOhost
- Chow, G. (2003). The cultural context of perfectionism and psychological outcome: Investigating a stress-mediated model with Asian American and European American students. *Dissertation Abstracts International*, 63 (10-B), 4893. Retrieved from EBSCOhost
- Cochrane, C., Brewerton, T., Wilson, D., & Hodges, E. (1993). Alexithymia in the eating disorders. *International Journal of Eating Disorders*, 14, 219-222. Retrieved from EBSCOhost
- Collins, P.H. (1990). *Black feminist thought: Knowledge, consciousness, and the politics of empowerment*. New York: Routledge
- Conneely, R.J. (2004). Prediction of body dissatisfaction in undergraduate women using thin-ideal internalization, body mass index, perceived body size, self-esteem and social comparison. *Dissertation Abstracts International Section A*, 65(2-A), 418. Retrieved from EBSCOhost
- Corcos, M., & Speranza, M. (2003). *Psychopathologie de l'Alexithymie (Psychopathology of Alexithymia)*. Paris, France: Dunod
- Corning, A.F., Krumm, A.J., & Smitham, L.A. (2006). Differential social comparison processes in women with and without eating disorder symptoms. *Journal of Counseling Psychology*, 53(3), 338-349. Retrieved from EBSCOhost
- Dalley, S.E., Buunk, A.P., & Umit, T. (2009). Female body dissatisfaction after exposure to overweight and thin media images: The role of body mass index and neuroticism. *Personality And Individual Differences*, 47(1), 47-51. doi:10.1016/j.paid.2009.01.044
- Davis, C., & Katzman, M.A. (1998). Chinese men and women in the United States and Hong Kong: Body and self-esteem ratings as a prelude to dieting and exercise. *International Journal of Eating Disorders*, 23, 99-102. Retrieved from EBSCOhost
- Davis, C., & Katzman, M.A. (1999). Perfection as acculturation: psychological correlates of eating problems in Chinese male and female students living in the United States. *International Journal of Eating Disorders*, 25, 65-70. Retrieved from EBSCOhost

- Davis, C., Claridge, G., & Fox, J. (2000). Not just a pretty dace: Physical attractiveness and perfectionism in the risk for eating disorder. *International Journal Of Eating Disorders*, 27(1), 67-73. Retrieved from EBSCOhost
- Davis-Quirarte, L.R. (2007). *The role of spirituality in self-objectification and body-image dissatisfaction in women*. Fuller Theological Seminary: Pasadena, CA
- De Berardis, D., Serroni, N., Campanella, D., Carano, A., Gambi, F., Valchera, A., . . . Ferro, M.F. (2009). Alexithymia and its relationships with dissociative experiences, body dissatisfaction and eating disturbances in a non-clinical female sample. *Cognitive Therapy & Research*, 33(5), 471-479. Retrieved from EBSCOhost
- De Berardis, D., Campanella, D., Gambi, F., Sepede, G., Carano, A., Pelusi, L., . . . Ferro, M.F. (2005). Alexithymia and body image disturbances in women with Premenstrual Dysphoric Disorder. *Journal of Psychosomatic Obstetrics & Gynaecology*, 26(4), 257-264. Retrieved from EBSCOhost
- De Berardis, D., Carano, A., Gambi, F., Campanella, D., Giannetti, P., Ceci, A., . . . Ferro, F. (2007). Alexithymia and its relationships with body checking and body image in a non-clinical female sample. *Eating Behaviors*, 8(3), 296-304. doi:10.1016/j.eatbeh.2006.11.005
- DeBraganza, N., & Hausenblas, H.A. (2010). Media exposure of the ideal physique on women's body dissatisfaction and mood: The moderating effects of ethnicity. *Journal Of Black Studies*, 40(4), 700-716. doi:10.1177/0021934708317723
- de Groot, J., Rodin, G., & Olmsted, M. (1995). Alexithymia, depression, and treatment outcome in bulimia nervosa. *Comprehensive Psychiatry*, 36, 53-60. Retrieved from EBSCOhost
- Delaney, L. (2002). The relationships of alexithymia, body image distortion, and body image dissatisfaction to binge eating in obese populations. *Dissertation Abstracts International*, 63(3-B), 1558. Retrieved from EBSCOhost
- Demarest, J., & Allen, R. (2000). Body image: Gender, ethnic, and age differences. *Journal of Social Psychology*, 140, 465-472. Retrieved from EBSCOhost
- Demo, D.H. (1985). The measurement of self-esteem: Refining our methods. *Journal of Personality and Social Psychology*, 48, 1490-1502. Retrieved from EBSCOhost
- Derlega, V., Metts, S., Petronio, S., & Margulis, S. (1993). *Self-disclosure*. Newbury Park, CA: Sag.
- Douglas, L.A. (1992). The impact of racial identification and gender identity on body distortion and body dissatisfaction. *Dissertation Abstracts International*, 53(4-B), 2057. Retrieved from EBSCOhost

- Drewnowski, A., & Yee, D.K. (1987). Men and body image: Are males satisfied with their body weight? *Psychosomatic Medicine*, *49*, 626-634. Retrieved from EBSCOhost
- Duncan, G.E., Anton, S.D., Newton, R.L., & Perri, M.G. (2003). Comparison of perceived health to physiological measures of health in Black and White women. *Preventive Medicine: An International Journal Devoted to Practice & Theory*, *36*, 624-628. Retrieved from EBSCOhost
- Dunkley, D.M. (2010). Childhood maltreatment, depressive symptoms, and body dissatisfaction in patients with binge eating disorder: The mediating role of self-criticism. *International Journal Of Eating Disorders*, *43*(3), 274-281. Retrieved from EBSCOhost
- Dunkley, D.M., Blankstein, K.R., Halsall, J., Williams, M., & Winkworth, G. (2000). The relation between perfectionism and distress: Hassles, coping, and perceived social support as mediators and moderators. *Journal of Counseling Psychology*, *47*, 437-453. Retrieved from EBSCOhost
- Edwards, D., d'Agrela, A., Geach, M., & Welman, M. (2003). Disturbances of attitudes and behaviours related to eating in Black and White females at high school and university in South Africa. *Journal of Psychology in Africa; South of the Sahara, the Caribbean, and Afro-Latin America*, *13*(1), 16-33. Retrieved from EBSCOhost
- Eitel, B.J. (2003). Body image satisfaction, appearance importance, and self-esteem: A comparison of Caucasian and African-American women across the adult lifespan. *Dissertation Abstracts International*, *63*(11-B), 5511. Retrieved from EBSCOhost
- Engle, E.K. (2010). The Body-Image Behaviors Inventory-3: Development and validation of the Body-Image Compulsive Actions Scale and Body-Image Avoidance Scale. *Dissertation Abstracts International*, *71*(5-B), 3353. Retrieved from EBSCOhost
- Etu, S.F., & Gray, J.J. (2010). A preliminary investigation of the relationship between induced rumination and state body image dissatisfaction and anxiety. *Body Image*, *7*(1), 82-85. doi:10.1016/j.bodyim.2009.09.004
- Evans, P.C., & McConnell, A.R. (2003). Do racial minorities respond in the same way to mainstream beauty standards? Social comparison processes in Asian, Black, and White women. *Self & Identify*, *2*, 153-167. Retrieved from EBSCOhost
- Fabian, L.J., & Thompson, J.K. (1989). Body image and eating disturbance in young females. *International Journal of Eating Disorders*, *8*, 63-74. Retrieved from EBSCOhost
- Fairburn, C.G., Cooper, Z., & Shafran, R. (2003). Cognitive behaviour therapy for eating

- disorders: A “transdiagnostic” theory and treatment. *Behaviour Research and Therapy*, *41*, 509–528. Retrieved from EBSCOhost
- Farrell, C., Lee, M., & Shafran, R. (2005). Assessment of body size estimation: A review. *European Eating Disorders Review*, *13*, 75–88. Retrieved from EBSCOhost
- Ferguson, C.J., Munoz, M.E., Contreras, S., & Velasquez, K. (2011). Mirror, mirror on the wall: Peer competition, television influences, and body image dissatisfaction. *Journal of Social and Clinical Psychology*, *30*(5), 458-483. Retrieved from EBSCOhost
- Ferguson, C.J., Winegard, B., & Winegard, B.M. (2011). Who is the fairest one of all? How evolution guides peer and media influences on female body dissatisfaction. *Review of General Psychology*, *15*, 11–28. Retrieved from EBSCOhost
- Ferron, C. (1997). Body image in adolescence: Cross-cultural research—results of the preliminary phase of a quantitative survey. *Adolescence*, *32*, 735–745. Retrieved from EBSCOhost
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, *7*, 117-140. Retrieved from EBSCOhost
- Fischer, J., & Corcoran, K. (2007). *Measures for clinical practice and research* (4<sup>th</sup> ed.). New York, NY: Oxford University Press
- Fitzgibbon, M.L., Spring, B., Avellone, M.E., Blackman, L.R., Pingitore, R., & Stolley, M.R. (1998). Correlates of binge eating in Hispanic, Black, and White women. *International Journal of Eating Disorders*, *24*, 43–52. Retrieved from EBSCOhost
- Flett, G.L., Hewitt, P.L., Blankstein, K.R., & Mosher, S.W. (1995). Perfectionism, life events, and depressive symptoms: A test of a diathesis-stress model. *Current Psychology*, *14*, 112-137. Retrieved from EBSCOhost
- Flett, G.L., Hewitt, P.L., & DeRosa, T. (1996). Dimensions of perfectionism, psychosocial adjustment, and social skills. *Personality and Individual Differences*, *20*, 143–150. Retrieved from EBSCOhost
- Flett, G.L., Hewitt, P.L., Endler, N.S., & Tassone, C. (1994). Perfectionism and components of state and trait anxiety. *Current Psychology*, *13*, 326–350. Retrieved from EBSCOhost
- Flett, G.L., Hewitt, P.L., Oliver, J.M., & Macdonald, S. (2002). Perfectionism in children and their parents: A developmental analysis. In G.L. Flett, & P.L. Hewitt (Eds.), *Perfectionism: Theory, research and treatment* (pp. 89–132). Washington, DC: American Psychological Association
- Flett, G.L., & Hewitt, P.L. (2002). Perfectionism and maladjustment: An overview of

- theoretical, definitional, and treatment issues. In G.L. Flett, & P.L. Hewitt (Eds.), *Perfectionism theory, research, and treatment* (pp. 5–31). Washington, DC: American Psychological Association
- Flett, G.L. & Hewitt, P.L. (2005). The perils of perfectionism in sports and exercise. *Current Directions in Psychological Science*, *14*(1), 14-18. Retrieved from Wiley-Blackwell
- Flett, G.L., Hewitt, P.L., Blankstein, K. R., & O'Brien, S. (1991). Perfectionism and learned resourcefulness in depression and self-esteem. *Personality and Individual Differences*, *12*, 61–68. Retrieved from EBSCOhost
- Forbes, G.B., Adams-Curtis, L.E., Rade, B., & Jaberg, P. (2001). Body dissatisfaction in women and men: The role of gender-typing and self-esteem. *Sex Roles*, *44*(7-8), 461-484. doi:10.1023/A:1011982112899
- Forbes, G.B., & Frederick, D.A. (2008). The UCLA body project II: Breast and body dissatisfaction among African, Asian, European, and Hispanic American college women. *Sex Roles*, *58*, 449–457. Retrieved from EBSCOhost
- Ford, C.S., & Beach, F.A. (1951). *Patterns of sexual behavior*. New York: Harper Row
- Franco-Paredes, K., Mancilla-Díaz, J.M., Vázquez-Arévalo, R., López-Aguilar, X., & Álvarez-Rayón, G. (2005). Perfectionism and eating disorders: A review of the literature *European Eating Disorders Review*, *13*(1), 61-70. Retrieved from CINAHL database
- Franko, D.L., & Herrera, I. (1997). Body image differences in Guatemalan-American and White college women. *Eating Disorders: The Journal of Treatment & Prevention*, *5*, 119–127. Retrieved from EBSCOhost
- Franzoni, E., Gualandi, S., Caretti, V., Schimmenti, A., Di Pietro, E., Pellegrini, G., . . . Pellicciari, A. (2013). The relationship between alexithymia, shame, trauma, and body image disorders: Investigation over a large clinical sample. *Neuropsychiatric Disease and Treatment*, *9*, 185-193. Retrieved from EBSCOhost
- Franzoi, S.L., & Chang, Z. (2002). The body esteem of Hmong and Caucasian adults. *Psychology of Women Quarterly*, *26*, 89–91. Retrieved from EBSCOhost
- Franzoi, S., & Shields, S. (1984). The body esteem scale: Multidimensional structure and sex differences in a college population. *Journal of Personality Assessment*, *48*, 173–178. Retrieved from EBSCOhost
- Franzoi, S.L., & Klaiber, J.R. (2007). Body use and reference group impact: With whom do we compare our bodies? *Sex Roles*, *56*, 205-214. Retrieved from EBSCOhost
- Frederick, D.A., Buchanan, G.M., Sadehgi-Azar, L., Peplau, L.A., Haselton, M.G., &

- Berezovskaya, A. (2007a). Desiring the muscular ideal: Men's body satisfaction in the United States, Ukraine, and Ghana. *Psychology of Men and Masculinity*, 8, 103–117. Retrieved from EBSCOhost
- Frederick, D.A., Forbes, G.B., Grigorian, K.E., & Jarcho, J.M. (2007b). The UCLA Body Project I: Gender and ethnic differences in self-objectification and body satisfaction among 2,206 undergraduates. *Sex Roles*, 57, 317–327. Retrieved from EBSCOhost
- Freedman, R.E., Carter, M.M., Sbrocco, T., & Gray, J.J. (2004). Ethnic differences in preference for female weight and waist-to-hip ratio: A comparison of African American and White American college and community samples. *Eating Behaviors*, 5, 191–198. Retrieved from EBSCOhost
- Freeman, R.J., Beach, B., Davis, R., & Solyom, L. (1985). The prediction of relapse in bulimia nervosa. *Journal of Psychiatric Research*, 19, 349–353. Retrieved from EBSCOhost
- French, S.A., Story, M., Neumark-Sztainer, D., Downes, B., Resnick, M., & Blum, R. (1997). Ethnic differences in psychosocial and health behavior correlates of dieting, purging, and binge eating in a population-based sample of adolescent females. *International Journal of Eating Disorders*, 22, 315–322. Retrieved from EBSCOhost
- Freud, A. (1936). *The ego and the mechanisms of defense*. New York: International Universities Press
- Frisch, R.E. (1990). Body fat, menarche, fitness and fertility. In R.E. Frisch (Ed.), *Adipose Tissue and Reproduction* (pp. 66–72). Basil: Karger
- Frisch, R.E., & McArthur, J.W. (1974). Menstrual cycles: Fatness as a determinant of minimum weight for height necessary for their maintenance. *Science*, 185, 548–556. Retrieved from EBSCOhost
- Frost, R.O., Heimberg, R.G., Holt, C.S., Mattia, J.I., & Neubauer, A.L. (1993). A comparison of two measures of perfectionism. *Personality and Individual Differences*, 14, 119–126. Retrieved from EBSCOhost
- Frost, R.O., & Henderson, K.J. (1991). Perfectionism and reactions to athletic competition. *Journal of Sport and Exercise Psychology*, 13, 323–335. Retrieved from EBSCOhost
- Frost, R.O., Marten, P., Lahart, C., & Rosenblate, R. (1990a). The development of perfectionism: A study of daughters and their parents. *Cognitive Therapy and Research*, 15, 245–261. Retrieved from EBSCOhost
- Frost, R.O., Marten, P.A., Lahart, C., & Rosenblate, R. (1990b). The dimensions of perfectionism. *Cognitive Therapy and Research*, 14, 449–468. Retrieved from EBSCOhost



- Frost, R.O., Turcotte, T.A., Heimberg, R.G., Mattia, J. I., Holt, C.S., & Hope, D.A. (1995). Reactions to mistakes among subjects high and low in perfectionistic concern over mistakes. *Cognitive Therapy and Research*, *19*, 207–226. Retrieved from EBSCOhost
- Furnham, A., Badmin, N., & Sneade, I. (2002). Body image dissatisfaction: Gender differences in eating attitudes, self-esteem, and reasons for exercise. *Journal of Psychology: Interdisciplinary and Applied*, *136*(6), 581-596. doi:10.1080/00223980209604820
- Furnham, A. & Greaves, N. (1994). Gender and locus of control correlates of body image dissatisfaction. *European Journal Of Personality*, *8*(3), 183-200. Retrieved from EBSCOhost
- Garcia-Rea, E. (2007). Acculturation and sociocultural influences as predictors of family relationships and body image dissatisfaction in African American, Hispanic American, And European American women. *Dissertation Abstracts International*, *68*(2-B), 1303. Retrieved from EBSCOhost
- Gardner, R.M. (1996). Methodological issues in assessment of the perceptual component of body image disturbance. *British Journal of Psychology*, *87*(2), 327. Retrieved from EBSCOhost
- Gardner, R.M., & Brown, D.L. (2010). Body image assessment: A review of figural drawing scales. *Personality and Individual Differences*, *48*, 107-111. Retrieved from EBSCOhost
- Gardner, R.M., Friedman, B.N., & Jackson, N.A. (1999). Body size estimations, body dissatisfaction, and ideal size preferences in children six through thirteen. *Journal of Youth and Adolescence*, *28*, 603– 618. Retrieved from EBSCOhost
- Gardner, R.M., & Tockerman, Y.R. (1993). Body dissatisfaction as a predictor of body size distortion: A multidimensional analysis of body image. *Genetic, Social, and General Psychology Monographs*, *119*(1), 125-145. Retrieved from EBSCOhost
- Garner, D.M. (1997). The 1997 body image survey results. *Psychology Today*, *30*(1), 74-75, 78, 80, 84. Retrieved from EBSCOhost
- Garner, D.M., & Garfinkel, P.E. (1979). The Eating Attitudes Test: An index of the symptoms of anorexia nervosa. *Psychological Medicine*, *9*, 273-279. Retrieved from EBSCOhost
- Garner, D.M., & Garfinkel, P.E. (1980). Cultural expectations of thinness in women. *Psychological Reports*, *47*, 483-491. Retrieved from EBSCOhost
- Garner, D.M. & Garfinkel, P.E. (1982). Body image in anorexia nervosa: Measurement,

- theory and clinical implications. *International Journal of Psychiatry in Medicine*, *11*, 263-285. Retrieved from EBSCOhost
- Garner, D.M., & Olmsted, M.P. (1984). *The Eating Disorder Inventory manual*. Odessa, FL: Psychological Assessment Resources
- Garner, D.M., Olmsted, M.P., & Polivy, J. (1983). Development and validation of a multidimensional eating disorder inventory for anorexia nervosa and bulimia. *International Journal of Eating Disorders*, *2*, 15–35. Retrieved from EBSCOhost
- Garrow, J.S., & Webster, J. (1985). Quelelet's Index (W/H<sup>2</sup>) as a measure of fatness. *International Journal of Obesity*, *9*, 147–153. Retrieved from EBSCOhost
- Geary, D.C. (2010). *Male/female: The evolution of human sex differences* (2nd ed.). Washington, DC: American Psychological Association.
- Gerner, B., & Wilson, P.H. (2005). The relationship between friendship factors and adolescent girls' body image concern, body dissatisfaction, and restrained eating. *International Journal Of Eating Disorders*, *37*(4), 313-320. doi:10.1002/eat.20094
- Gil-Kashiwabara, E.F. (2002). Body image disturbance and disordered eating in African-American and Latina women. In L. H. Collins & M. R. Dunlap (Eds.), *Charting a new course for feminist psychology* (pp.282–306). Westport, CT: Greenwood Press
- Gillen, M.S. (2011). Body size perceptions in racially/ethnically diverse men and women: Implications for body image and self-esteem. *North American Journal Of Psychology*, *13*(3), 447-467. Retrieved from EBSCOhost
- Gilmore, T.E. (2001). Influence of shame, female identity, and ethnic identity on body image across women's life-span. *Dissertation Abstracts International*, *61*(9-B), 4982. Retrieved from EBSCOhost
- Ginsburg, I.H., & Link, B.G. (1989). Feelings of stigmatization in patients with psoriasis. *Journal of the American Academy of Dermatology*, *20*, 53– 63. Retrieved from EBSCOhost
- Glassman, L.H., Weierich, M.R., Hooley, J.M., Deliberto, T.L., Nock, M.K. (2007). Child maltreatment, non-suicidal self-injury, and the mediating role of self-criticism. *Behaviour Research and Therapy*, *45*, 2483–2490. Retrieved from EBSCOhost
- Gleaves, D.H., Cepeda-Benito, A., Williams, T.L., Cororve, M.B., Fernandez, M.C., & Vila, J. (2000). Body image preferences of self and others: A comparison of Spanish and American male and female college students. *Eating Disorders: The Journal of Treatment and Prevention*, *8*, 269–282. Retrieved from EBSCOhost

- Gleaves, D.E. (1995). Clarifying body-image disturbance: Analysis of a multidimensional model using structural modeling. *Journal Of Personality Assessment*, 64(3), 478. Retrieved from EBSCOhost
- Gomez-Peresmitre', G., & Garcia, M.V.A. (2000). Body image as risk factor for eating disorders: Transcultural comparison between Mexico and Spain. *Clinical and Health*, 11, 35–58. Retrieved from EBSCOhost
- Grabe, S., Ward, L.M., & Hyde, J.S. (2008). The role of the media in body image concerns among women: A meta-analysis of experimental and correlational studies. *Psychological Bulletin*, 134, 460-476. Retrieved from EBSCOhost
- Greenberg, D.R., & LaPorte, D.J. (1996). Racial differences in body type preferences of men and women. *International Journal of Eating Disorders*, 19, 275–278. Retrieved from EBSCOhost
- Green, S.E. & Pritchard, M.E. (2003). Predictors of body image dissatisfaction in adult men and women. *Social Behavior & Personality: An International Journal*, 31(3), 215. Retrieved from EBSCOhost
- Grilo, C.M., Masheb, R.M., Brody, M., Burke-Martindale, C.H., & Rothschild, B.S. (2005). Binge eating and self-esteem predict body image dissatisfaction among obese men and women seeking bariatric surgery. *International Journal of Eating Disorders*, 37(4), 347-351. doi:10.1002/eat.20130
- Grilo, C.M., & Masheb, R.M. (2005). Correlates of body image dissatisfaction in treatment-seeking men and women with binge eating disorder. *International Journal Of Eating Disorders*, 38(2), 162-166. doi:10.1002/eat.20162
- Groesz, L.M., Levine, M.P., & Murnen, S.K. (2002). The effect of experimental presentation of thin media images on body satisfaction: A meta-analytic review. *International Journal of Eating Disorders*, 31, 1-16. Retrieved from EBSCOhost
- Grogan, S. (1999). *Body image: Understanding body dissatisfaction in men, women and children*. London: Routledge.
- Guaraldi, G., Orlandi, E., Boselli, P., & O'Donnell, K.M. (1999). Body image assessed by a video distortion technique: The relationship between ideal and perceived body image and body dissatisfaction. *European Eating Disorders Review*, 7(2), 121-128. doi:10.1002/(SICI)1099-0968(199905)7:2<121::AID-ERV261>3.0.CO;2-T
- Guinn, B., Semper, T., & Jorgensen, L. (1997). Mexican-American female adolescent self-esteem: The effect of body image, exercise behavior, and body fatness. *Hispanic Journal of Behavioral Sciences*, 19, 517-526. Retrieved from EBSCOhost

- Gupta, M.A., Chaturvedi, S.K., Chandarana, P.C., & Johnson, A.M. (2001). Weight-related body image concerns among 18-24-year-old women in Canada and India. An empirical comparative study. *Journal of Psychosomatic Research, 50*, 193–198. Retrieved from EBSCOhost
- Haarbo, J., Marslew, U., Goltfredsen, A., & Christiansen, C. (1991). Postmenopausal hormone replacement therapy prevents central distribution of body fat after menopause. *Metabolism, 40*, 323-326. Retrieved from EBSCOhost
- Haase, A.M., & Prapavessis, H. (1998). Social physique anxiety and eating attitudes: Moderating effects of body mass and gender. *Psychology, Health, and Medicine, 3*, 201-210. Retrieved from EBSCOhost
- Habke, A.M., Hewitt, P.L., & Flett, G.L. (1999). Perfectionism and sexual satisfaction in intimate relationships. *Journal of Psychopathology and Behavior Assessment, 21*, 307–322. Retrieved from EBSCOhost
- Hall, H.K., Kerr, A.W., & Matthews, J. (1998). Precompetitive anxiety in sport: The contribution of achievement goals and perfectionism. *Journal of Sport and Exercise Psychology, 20*, 194–217. Retrieved from EBSCOhost
- Halpern, C.T., Udry, J.R., Campbell, B., & Suchindran, C. (1999). Effects of body fat on weight concerns, dating, and sexual activity: A longitudinal analysis of Black and White adolescent girls. *Developmental Psychology, 35*, 721–736. Retrieved from EBSCOhost
- Hamachek, D.E. (1978). Psychodynamics of normal and neurotic perfectionism. *Psychology: a Journal of Human Behavior, 15*, 27-33. Retrieved from EBSCOhost
- Harris, A.C. (1996). African American and Anglo American gender identities: An empirical study. *Journal of Black Psychology, 22*, 182–194. Retrieved from EBSCOhost
- Harris, S.M. (1994). Racial differences in predictors of college women's body image attitudes. *Women and Health, 21*, 89–103. Retrieved from EBSCOhost
- Harris, S.M. (1995). Family, self, and sociocultural contributions to body-image attitudes of African-American women. *Psychology of Women Quarterly, 19*(1), 129-145. doi:10.1111/j.1471-6402.1995.tb00282.x
- Hart, E.A., Leary, M.R., & Rejeski, W.J. (1989). The measurement of social physique anxiety. *Journal of Sport and Exercise Psychology, 11*, 94-104. Retrieved from EBSCOhost
- Haudek, C., Rorty, M., & Henker, B. (1999). The role of ethnicity and parental bonding in the eating and weight concerns of Asian-American and Caucasian college women.

- International Journal Of Eating Disorders*, 25(4), 425-433. doi:10.1002/(SICI)1098-108X(199905)25:4<425::AID-EAT7>3.0.CO;2-7
- Hayaki, J., Friedman, M.A., & Brownell, K.D. (2002). Emotional expression and body dissatisfaction. *International Journal of Eating Disorders*, 31, 57–62. Retrieved from EBSCOhost
- Heads, A. (2009). Perfectionism and its relationship to racial identity, satisfaction with life, stress and coping. *Dissertation Abstracts International*, 70 (11-B), 7255. Retrieved from EBSCOhost
- Heatherton, T.F., & Baumeister, R.F. (1991). Binge eating as escape from self-awareness. *Psychology Bulletin*, 110, 86–108. Retrieved from EBSCOhost
- Heatherton, T.F., Mahamedi, F., Striepe, M., Field, A.E., & Keel, P. (1997). A 10-year longitudinal study of body weight, dieting, and eating disorder symptoms. *Journal of Abnormal Psychology*, 106, 117–125. Retrieved from EBSCOhost
- Heaton, S. (2011). The relationship between exposure to media and body dissatisfaction, self esteem, and body esteem for first time postpartum mothers. *Dissertation Abstracts International*, 72, 1795. Retrieved from EBSCOhost
- Heesacker, M., Samson, A.W., & Shir, J.L. (2000). Assessment of disordered eating by Israeli and American college women. *College Student Journal*, 34, 572–584. Retrieved from EBSCOhost
- Heinberg, L.J., Thompson, J., & Matzon, J.L. (2001). Body image dissatisfaction as a motivator for healthy lifestyle change: Is some distress beneficial? In R. H. Striegel-Moore, & L. Smolak (Eds.) , *Eating disorders: Innovative directions in research and practice* (pp. 215-232). Washington, DC: American Psychological Association. doi:10.1037/10403-011
- Henry, R.N., Anshel, M.H., & Michael, T. (2006). Effects of aerobic and circuit training on fitness and body image among women. *Journal of Sport Behavior*, 29, 281-303. Retrieved from EBSCOhost
- Hewitt, P. (1995). Perfectionism traits and perfectionistic self-presentation in eating disorder attitudes, characteristics, and symptoms. *International Journal of Eating Disorders*, 18(4), 317-326. Retrieved from EBSCOhost
- Hewitt, P.L., & Flett, G.L. (1991). Perfectionism in the self and social contexts: Conceptualization, assessment, and association with psychopathology. *Journal of Personality and Social Psychology*, 60, 456-470. Retrieved from EBSCOhost
- Hewitt, P.L., & Flett, G.L. (1993a). Dimensions of perfectionism, daily stress, and

- depression: A test of the specific vulnerability hypothesis. *Journal of Abnormal Psychology, 102*, 58–65. Retrieved from EBSCOhost
- Hewitt, P.L., & Flett, G.L. (1993b). *Perfectionistic self-presentation and maladjustment*. Paper presented at the annual conference of the American Psychological Association: Toronto, Canada. Retrieved from EBSCOhost
- Hewitt, P.L., Flett, G.L., & Ediger, E. (1996). Perfectionism and depression: Longitudinal assessment of a specific vulnerability hypothesis. *Journal of Abnormal Psychology, 105*, 276–280. Retrieved from EBSCOhost
- Hewitt, P.L., Flett, G.L., & Mikail, S.F. (1995). Perfectionism and relationship adjustment in pain patients and their spouses. *Journal of Family Psychology, 9*, 335–347. Retrieved from EBSCOhost
- Hewitt, P., Flett, G.L., & Ediger, E.L. (1995). Perfectionism traits and perfectionistic self-presentation in eating disorder attitudes, characteristics, and symptoms. *International Journal of Eating Disorders, 18*(4), 317–326. Retrieved from Psychology and Behavioral Sciences Collection database
- Hewitt, P.L., Flett, G.L., Sherry, S.B., Habke, M., Parkin, M., Lam, R.W., McMurtry, B., Ediger, E., Fairlie, P., & Stein, M. (2003). The interpersonal expression of perfection: Perfectionistic self-presentation and psychological distress. *Journal of Personality and Social Psychology, 84*, 1303–1325. Retrieved from EBSCOhost
- Hewitt, P.L., Flett, G.L., & Turnbull, W. (1992). Perfectionism and Multiphasic Personality Inventory (MMPI) indices of personality disorder. *Journal of Psychopathology and Behavioral Assessment, 14*, 323–335. Retrieved from EBSCOhost
- Hewitt, P.L., Norton, G.R., Flett, G.L., Callander, L., & Cowan, T. (1998). Dimensions of perfectionism, hopelessness, and attempted suicide in a sample of alcoholics. *Suicide and Life Threatening Behavior, 28*, 395–406. Retrieved from EBSCOhost
- Higgins, E.T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review, 94*, 319–340. Retrieved from EBSCOhost
- Hines, P.M., & Boyd-Franklin, N. (1996). African American families. In M. McGoldrick, J. Giordano, & J.K. Pearce (Eds.), *Ethnicity and family therapy* (2nd ed., pp. 66–84). New York: Guilford Press
- Hobden, K., & Pliner, P. (1995). Self-handicapping and dimensions of perfectionism: Self-presentation vs self-protection. *Journal of Research in Personality, 29*, 461–474. Retrieved from EBSCOhost
- Hollender, M.H. (1965). Perfectionism. *Comprehensive Psychiatry, 6*, 94–103. Retrieved from EBSCOhost

- Holmqvist, K. (2010). Body dissatisfaction across cultures: Findings and research problems. *European Eating Disorders Review, 18*(2), 133-146. Retrieved from EBSCOhost
- Holmqvist, K., Lunde, C., & Frise'n, A. (2007). Dieting behaviors, body shape perceptions, and body satisfaction. *Body Image, 4*(2), 191-200. Retrieved from EBSCOhost
- Horney, K. (1950). *Neurosis and human growth: The struggle toward self-realization*. Oxford, England: Norton
- Hrabosky, J.I., Masheb, R.M., White, M.A., & Grilo, C.M. (2007). Overvaluation of shape and weight in binge eating disorder. *Journal of Consulting and Clinical Psychology, 75*, 175-180. Retrieved from EBSCOhost
- Hund, A.R., & Espelage, D.L. (2006). Childhood emotional abuse and disordered eating among undergraduate females: Mediating influence of alexithymia and distress. *Child Abuse & Neglect, 30*(4), 393-407. doi:10.1016/j.chiabu.2005.11.003
- Imarogbe, K. (2004). Perceived racism, Afrocentrism, and black racial identity as predictors of body dissatisfaction in Black Americans. *Dissertation Abstracts International, 64* (11-B), 5766. Retrieved from EBSCOhost
- Jackson, L.A., & McGill, O.D. (1996). Body type preferences and body characteristics associated with attractive and unattractive bodies by African American and Anglo Americans. *Sex Roles, 35*, 295-307. Retrieved from EBSCOhost
- Jaeger, B., Ruggiero, G.M., Edlund, B., Gomez-Perretta, C., Lang, F., & Mohammadkhani, P. (2002). Body dissatisfaction and its interrelations with other risk factors for bulimia nervosa in 12 countries. *Psychotherapy and Psychosomatics, 71*, 54-61. Retrieved from EBSCOhost
- James, K.L. (2001). Body dissatisfaction, drive for thinness, and self-esteem in African American college females. *Psychology in the Schools, 38*(6), 491. Retrieved from EBSCOhost
- Jansen, A., Nederkoorn, C., & Mulken, S. (2005). Selective visual attention for ugly and beautiful body parts in eating disorders. *Behaviour Research and Therapy, 43*, 183-196. Retrieved from EBSCOhost
- Johnson, F., & Wardle, J. (2005). Dietary restraint, body dissatisfaction and psychological distress: A prospect analysis. *Journal of Abnormal Psychology, 114*, 119-125. Retrieved from EBSCOhost
- Johnson, I.L., Heineman, E.F., Heiss, G., Hames, C.G., & Tyroler, H.A. (1986). Cardiovascular disease risk factors and mortality among black women and white

- women aged 40-64 years in Evans County, Georgia. *American Journal of Epidemiology*, 123, 209-220. Retrieved from EBSCOhost
- Johnson, L.L. (2006). Predicting young women's body dissatisfaction and disordered eating during the transition to university. *Dissertation Abstracts International*, 67(1-B), 547. Retrieved from EBSCOhost
- Joiner, G.W., & Kashubeck, S. (1996). Acculturation, body image, self-esteem, and eating disorder symptomatology in adolescent Mexican-American women. *Psychology of Women Quarterly*, 20, 419-435. Retrieved from EBSCOhost
- Joiner, T.E., Schmidt, N.B., & Wonderlich, S.A. (1997). Global self-esteem as contingent on body satisfaction among patients with bulimia nervosa: Lack of diagnostic specificity? *International Journal of Eating Disorders*, 21(1), 67-76. Retrieved from EBSCOhost
- Jones, D., & Newman, J.B. (2009). Early adolescent adjustment and critical evaluations by self and other: The prospective impact of body image dissatisfaction and peer appearance teasing on global self-esteem. *European Journal Of Developmental Science*, 3(1), 17-26. Retrieved from EBSCOhost
- Jung, J., & Forbes, G.B. (2007). Body dissatisfaction and disordered eating among college women in China, South Korea, and the United States: Contrasting predictions from sociocultural and feminist theories. *Psychology of Women Quarterly*, 31, 381-393. Retrieved from EBSCOhost
- Jung, J., & Lee, S.H. (2006). Cross-cultural comparisons of appearance self-schema, body image, self-esteem, and dieting behavior between Korean and U.S. women. *Family and Consumer Sciences Research Journal*, 34, 350-365. Retrieved from EBSCOhost
- Kandel, D.B. (1978). Homophily, selection, and socialization in adolescent friendships. *American Journal of Sociology*, 84, 427-436. doi:10.1086/226792
- Kasper, S. (2001). The impact of self-esteem and depressed mood on body image dissatisfaction. *Dissertation Abstracts International*, 62(2-B), 1086. Retrieved from EBSCOhost
- Katz, J.H. (1985). The sociopolitical nature of counseling. *The Counseling Psychologist*, 13, 615-624. Retrieved from EBSCOhost
- Kawamura, K.Y. (2002). Asian American body images. In T.F. Cash & T. Pruzinsky (Eds.), *Body image: A handbook of theory, research, and clinical practice* (pp. 243-249). New York: Guilford Press
- Keery, H., van den Berg, P., & Thompson, J.K. (2004). An evaluation of the Tripartite



- Influence Model of body dissatisfaction and eating disturbance with adolescent girls. *Body Image*, 1, 237–251. Retrieved from EBSCOhost
- Keeton, W.P., Cash, T.F., & Brown, T.A. (1990). Body image or body images? Comparative multidimensional assessment among college students. *Journal of Personality Assessment*, 54, 213–230. Retrieved from EBSCOhost
- Kehoe, P. (2003). The need for peer approval: Moderating factors between the internalization of the thin ideal and body image dissatisfaction. *Dissertation Abstracts International*, 63(8-B), 3921. Retrieved from EBSCOhost
- Koff, E., Benavage, A., & Wong, B. (2001). Body-image attitudes and psychosocial functioning in Euro-American and Asian-American college women. *Psychological Reports*, 88, 917–928. Retrieved from EBSCOhost
- Koff, E., Rierdan, J., & Stubbs, M.L. (1990). Gender, body image, and self-concept in early adolescence. *Journal of Early Adolescence*, 10, 56-68. Retrieved from EBSCOhost
- Kopyt, D. (2000). Predictors of body image dissatisfaction in obese women seeking weight loss treatment. *Dissertation Abstracts International*, 60(8-B), 4230. Retrieved from EBSCOhost
- Kostanski, M., & Gullone, E. (1998). Adolescent body image dissatisfaction: Relationships with self-esteem, anxiety, and depression controlling for body mass. *Journal Of Child Psychology And Psychiatry*, 39(2), 255-262. doi:10.1017/S0021963097001807
- Kowner, R. (2002). Japanese body image: Structure and esteem scores in a cross-cultural perspective. *International Journal of Psychology*, 37, 149–159. Retrieved from EBSCOhost
- Koyuncu, M., Tok, S., Canpolat, A., & Catikkas, F. (2010). Body image satisfaction and dissatisfaction, social physique anxiety, self-esteem, and body fat ratio in female exercisers and nonexercisers. *Social Behavior And Personality*, 38(4), 561-570. doi:10.2224/sbp.2010.38.4.561
- Krane, V., Stiles-ShIPLEY, J.A., Waldron, J., & Michalenok, J. (2001). Relationships among body satisfaction, social physique anxiety, and eating behaviors in female athletes and exercisers. *Journal of Sport Behavior*, 24, 247-264. Retrieved from EBSCOhost
- Krystal, H. (1978). Trauma and affects. *Psychoanalytic Study of the Child*, 33, 81–116. Retrieved from EBSCOhost
- Kumanyika, S. (1987). Obesity in black women. *Epidemiologic Reviews*, 9, 31-50. Retrieved from EBSCOhost

- Lake, A.J., Staiger, P.K., & Glowinski, H. (2000). Effect of Western culture on women's attitudes to eating and perceptions of body shape. *International Journal of Eating Disorders*, *27*, 83–89. Retrieved from EBSCOhost
- Laliberte, M., Newton, M., McCabe, R., & Mills, J.S. (2007). Controlling your weight versus controlling your lifestyle: How beliefs about weight control affect risk for disordered eating, body dissatisfaction and self-esteem. *Cognitive Therapy And Research*, *31*(6), 853-869. doi:10.1007/s10608-006-9104-z
- Laurencelle, R.M., Abell, S.C., & Schwartz, D.J. (2002). The relation between intrinsic religious faith and psychological well-being. *The International Journal for the Psychology of Religion*, *12*(2), 109-123. Retrieved from EBSCOhost
- Leary, M.R. (1992). Self-presentational processes in exercise and sport. *Journal of Sport and Exercise Psychology*, *14*, 339-351. Retrieved from EBSCOhost
- Lee, S., & Lee, A.M. (2000). Disordered eating in three communities of China: A comparative study of female high school students in Hong Kong, Shenzhen, and rural Hunan. *International Journal of Eating Disorders*, *27*, 317–327. Retrieved from EBSCOhost
- Lester, R., & Petrie, T.A. (1998). Physical, psychological, and societal correlates of bulimic symptomatology among African American college women. *Journal of Counseling Psychology*, *45*, 315–321. doi:10.1037/0022-0167.45.3.315
- Levant, R.F. (1995). *Toward the reconstruction of masculinity*. In R.F. Levant & W.S. Pollack, (Eds.), *A new psychology of men* (pp. 229–251). New York, NY: Basic Books
- Levine, M.P., & Murnen, S. (2009). “Everybody knows that mass media [pick one] are/are not a cause of eating disorders”: A critical review of evidence for a causal link between media, negative body image, and disordered eating in females. *Journal of Clinical and Social Psychology*, *28*, 9-42. Retrieved from EBSCOhost
- Levine, M.P., & Smolak, L. (2002). Body image development in adolescence. In T.F. Cash, & T. Pruzinsky (Eds.), *Body image: A handbook of theory, research, and clinical practice*. London: Guilford Press
- Lewis, D.M., & Cachelin, F.M. (2001). Body image, body dissatisfaction, and eating attitudes in midlife and elderly women. *Eating Disorders*, *9*(1), 29-39. Retrieved from EBSCOhost
- Lipinski, J.P., & Pope, H.G.J. (2002). Body ideals in young Samoan men: A comparison with men in North America and Europe. *International Journal of Men's Health*, *1*, 163–171. Retrieved from EBSCOhost

- Lipschuetz, A.M. (2009). Body image evaluation, investment, and affect: The role of ethnicity and acculturation in college females. *Dissertation Abstracts International*, 70 (4-B), 2578. Retrieved from EBSCOhost
- Loosemore, D.J., & Moriarty, D. (1990). Body dissatisfaction and body image distortion in selected groups of males. *CAHPER Journal*, 56, 11–15. Retrieved from EBSCOhost
- Lopez, E., Blix, G.G., & Blix, A.G. (1995). Body image of Latinas compared to body image of non-Latina White women. *Health Values*, 19, 3-10. Retrieved from EBSCOhost
- Lovejoy, M. (2001). Disturbances in the social body: Differences in body image and eating problems among African American and White women. *Gender & Society*, 15, 239–261. Retrieved from EBSCOhost
- Mable, H.M., Balance, W.D.G., & Galgan, R.J. (1986). Body-image distortion and dissatisfaction in university students. *Perceptual and Motor Skills*, 63, 907-911. Retrieved from EBSCOhost
- Mahmud, N., & Crittenden, N. (2007). A comparative study of body image of Australian and Pakistani young females. *British Journal of Psychology*, 98, 187–197. Retrieved from EBSCOhost
- Makri-Botsari, E. (2009). Dissatisfaction with body image, eating behavior and self-esteem in adolescence. *Psychology: The Journal of The Hellenic Psychological Society*, 16(1), 60-76. Retrieved from EBSCOhost
- Martin, J.J., Engels, H.J., Wirth, J.C., & Smith, K.L. (1997). Predictors of social physique anxiety in elite female youth athletes. *Women in Sport and Physical Activity Journal*, 6, 29-48. Retrieved from EBSCOhost
- Matz, P.E., Foster, G.D., Faith, M.S., & Wadden, T.A. (2002). Correlates of body image dissatisfaction among overweight women. *International Journal of Eating Disorders*, 38(2), 162–166. Retrieved from EBSCOhost
- Mayville, S., Katz, R.C., Gipson, M.T., & Cabral, K. (1999). Assessing the prevalence of body dysmorphic disorder in an ethnically diverse group of adolescents. *Journal of Child And Family Studies*, 8(3), 357-362. doi:10.1023/A:1022023514730
- Mazzeo, S.E., & Espelage, D.L. (2002). Association between childhood physical and emotional abuse and disordered eating behaviors in female undergraduates: An investigation of the mediating role of alexithymia and depression. *Journal of Counseling Psychology*, 49(1), 86-100. doi:10.1037/0022-0167.49.1.86
- McArthur, L.H., Holbert, D., & Peña, M. (2005). An exploration of the attitudinal and

- perceptual dimensions of body image among male and female adolescents from six Latin American cities. *Adolescence*, *40*, 801–816. Retrieved from EBSCOhost
- McCauley, M., Mintz, L., & Glenn A.A. (1988). Body image, self-esteem, and depression proneness: Closing the gender gap. *Sex Roles*, *18*, 381-391. Retrieved from EBSCOhost
- McComb, J.R., & Clopton, J.R. (2002). Explanatory variance in bulimia nervosa. *Women & Health*, *36*, 115–123. Retrieved from EBSCOhost
- McGee, B.J., Hewitt, P.L., Sherry, S.B., Parkin, M., & Flett, G.L. (2005). Perfectionistic self-presentation, body image, and eating disorder symptoms. *Body Image*, *2*, 29–40. Retrieved from EBSCOhost
- Mckee, M.M. (2006). Socially-prescribed perfectionism as a moderator of the relation between public self-consciousness and body dissatisfaction and eating pathology in women. *Dissertation Abstracts International*, *67*(6-B), 3459. Retrieved from EBSCOhost
- Meehan, O.L., & Katzman, M.A. (2001). Argentina: The social body at risk. In M. Nasser, M.A. Katzman, & R.A. Gordon (Eds.), *Eating disorders and cultures in transition* (pp. 142–168). London: Brunner-Routledge
- Meier, L.L., Orth, U., Denissen, J.A., & Kühnel, A. (2011). Age differences in instability, contingency, and level of self-esteem across the life span. *Journal of Research in Personality*, *45*(6), 604-612. doi:10.1016/j.jrp.2011.08.008
- Meleshko, K.G.A., & Alden, L.E. (1993). Anxiety and self-disclosure: Toward a motivational model. *Journal of Personality and Social Psychology*, *64*, 1000–1009. Retrieved from EBSCOhost
- Metcalf, P.A., Scragg, R.K.R., Willoughby, P., Finau, S., & Tipene-Leach, S. (2000). Ethnic differences in perceptions of body size in middle-aged European, Māori and Pacific People living in New Zealand. *International Journal of Obesity*, *24*, 593-599. doi:10.1038/sj.ijo.0801202
- Mintz, L.B., & Betz, N.E. (1986). Sex differences in nature, realism and correlates of body image. *Sex Roles*, *15*, 185-195. Retrieved from EBSCOhost
- Mintz, L.B., & Kashubeck, S. (1999). Body image and disordered eating among Asian American and Caucasian college students: An examination of race and gender differences. *Psychology of Women Quarterly*, *23*, 781–796. Retrieved from EBSCOhost

- Mobley, M., Slaney, R.B., & Rice, K.G. (2005). Cultural validity of the Almost Perfect Scale– Revised for African American college students. *Journal of Counseling Psychology, 52*, 629– 639. doi: 10.1037/0022-0167.52.4.629
- Moreno, A.B., & Thelen, M.H. (1993). A preliminary prevention program for eating disorders in a junior high population. *Journal of Youth and Adolescence, 27*, 109–123. Retrieved from EBSCOhost
- Morris, D. (1985). *Bodywatching*. New York: Crown Publishing
- Mukai, T., Kambara, A., & Sasaki, Y. (1998). Body dissatisfaction, need for social approval, and eating disturbances among Japanese and American college women. *Sex Roles, 39*, 751–763. Retrieved from EBSCOhost
- Muñoz, M.J. (2012). Body dissatisfaction correlates with inter-peer competitiveness, not media exposure: A brief report. *Journal Of Social & Clinical Psychology, 31*(4), 383-392. Retrieved from EBSCOhost
- Nagel, K.L., & Jones, K.H. (1992). Sociological factors in the development of eating disorders. *Adolescence, 27*, 107–113. Retrieved from EBSCOhost
- The National Institute of Mental Health. (2013). *Eating disorders: Facts about eating disorders and the search for solutions*. Retrieved from <http://www.nimh.nih.gov/publicat/nedspdisorder.cfm>
- Newman, D.L., Sontag, L.M., & Salvato, R. (2006). Psychosocial aspects of body mass and body image among rural American Indian adolescents. *Journal Of Youth And Adolescence, 35*(2), 281-291. doi:10.1007/s10964-005-9011-8
- Neumark-Sztainer, D., Croll, J., Story, M., Hannan, P.J., French, S.A., & Perry, C. (2002). Ethnic/racial differences in weight-related concerns and behaviors among adolescent girls and boys: Findings from Project EAT. *Journal of Psychosomatic Research, 53*, 963–974. Retrieved from EBSCOhost
- Newman, L.M. (2004). The role of alexithymia in ethnic groups on eating-related attitudes and behaviors. *Dissertation Abstracts International, 64*(11-B), 5795. Retrieved from EBSCOhost
- Ngamanu, R.E. (2006). *Body image attitudes amongst Māori and Pakeha females*. Unpublished master's thesis. Hamilton, New Zealand: University of Waikato
- Nichter, M. (2000). *Fat talk: What girls and their parents say about dieting*. Boston, MA: Harvard University Press
- Nilsson, J.E., Paul, B.D., Lupini, L.N., & Tatem, B. (1999). Cultural differences in

- perfectionism: A comparison of African American and White college students. *Journal of College Student Development*, 40, 141–150. Retrieved from EBSCOhost
- Noles, S.W., Cash, T.F., & Winstead, B.A. (1985). Body image, physical attractiveness, and depression. *Journal of Consulting And Clinical Psychology*, 53(1), 88-94. doi:10.1037/0022-006X.53.1.88
- Oates-Johnson, T.A. (2004). Sociotropy, body dissatisfaction and perceived social disapproval in dieting women: A prospective diathesis-stress study of dysphoria. *Cognitive Therapy & Research*, 28(6), 715-731. Retrieved from EBSCOhost
- Ogden, J., & Elder, C. (1998). The role of family status and ethnic group on body image and eating behavior. *International Journal of Eating Disorders*, 23, 309–315. Retrieved from EBSCOhost
- O'Neill, S.K. (2003). *Body image among women of color and White women: A meta-analysis*. Unpublished doctoral dissertation. Albany, NY: State University of New York at Albany
- Oney, C.N., Cole, E.R., & Sellers, R.M. (2011). Racial identity and gender as moderators of the relationship between body image and self-esteem for African Americans. *Sex Roles*, 65(7-8), 619-631. doi:10.1007/s11199-011-9962-z
- Osvold, L.L., & Sodowsky, G.R. (1993). Eating disorders of White American, racial and ethnic minority Americans, and in international women. *Journal of Multicultural Counseling and Development*, 21, 143–154. Retrieved from EBSCOhost
- Palta, M., Prineas, R.J., Berman, R., & Hannan, P. (1982). Comparison of self-reported and measured height and weight. *American Journal of Epidemiology*, 115, 223-230. Retrieved from EBSCOhost
- Pardini, D.A., Planteb, T.G., Shermanc, A., & Stump, J.E. (2000). Religious faith and spirituality in substance abuse recovery: Determining the mental health benefits. *Journal of Substance Abuse Treatment*, 19, 347-354. doi: 10.1016/S0740-5472(00)00125-2
- Parker, S., Nichter, M., Vuckovic, N., Sims, C., & Ritenbaugh, C. (1995). Body image and weight concerns among African-American and White adolescent females: Differences that make a difference. *Human Organization*, 54, 103–114. Retrieved from EBSCOhost
- Parker, W.D. (1997). An empirical typology of perfectionism in academically talented children. *American Educational Research Journal*, 34, 545–562. Retrieved from EBSCOhost

- Patel, K.A., & Gray, J.J. (2001). Judgment accuracy in body preferences among African Americans. *Sex Roles, 44*(3-4), 227-235. doi:10.1023/A:1010959221268
- Paxton, S.E. (2006). Body dissatisfaction prospectively predicts depressive mood and low self-esteem in adolescent girls and boys. *Journal of Clinical Child & Adolescent Psychology, 35*(4), 539-549. Retrieved from EBSCOhost
- Paxton, S.J., Eisenberg, M.E., & Neumark-Sztainer, D. (2006). Prospective predictors of body dissatisfaction in adolescent girls and boys: A five-year longitudinal study. *Developmental Psychology, 42*(5), 888-899. doi:10.1037/0012-1649.42.5.888
- Payne, J., & Barnfather, N. (2012). Online data collection in developing nations: An investigation into sample bias in a sample of South African University students. *Social Science Computer Review, 30*(3), 389-397. doi:10.1177/0894439311407419
- Peng, S.S., & Wright, D. (1994). Explanation of academic achievement of Asian American students. *Journal of Educational Research, 87*, 346-352. Retrieved from EBSCOhost
- Penkal, J.L., & Kurdek, L.A. (2007) Gender and race differences in young adults' body dissatisfaction. *Personality and Individual Differences, 43*, 2270-2281. Retrieved from EBSCOhost
- Perez-Lopez, M.S., & Petretic, P. (2004). The etiology and maintenance of body image dissatisfaction in men and women: A review of the literature. In S.P. Shohov (Ed.), *Advances in psychology research, Vol. 28* (pp. 57-102). Hauppauge, NY: Nova Science Publishers
- Perez, M., & Joiner, T.R. (2003). Body image dissatisfaction and disordered eating in black and white women. *International Journal Of Eating Disorders, 33*(3), 342-350. doi:10.1002/eat.10148
- Peters, M., & Phelps, L. (2001). Body image dissatisfaction and distortion, steroid use, and sex differences in college age bodybuilders. *Psychology in the Schools, 38*(3), 283-289. doi:10.1002/pits.1018
- Petersons, M., Rojhani, A., Steinhaus, N., & Larkin, B. (2000). Effect of ethnic identity on attitudes, feelings, and behaviors toward food. *Eating Disorders: Journal of Treatment and Prevention, 8*, 207-219. Retrieved from EBSCOhost
- Phan, T., & Tylka, T.L. (2006). Exploring a model and moderators of disordered eating with Asian American college women. *Journal of Counseling Psychology, 53*, 36-47. doi:10.1037/0022-0167.53.1.36
- Phillips, K.A., McElroy, S.L., Keck, P.E. Jr., Pope, H.G., Jr., & Hudson, J.I. (1993). Body dysmorphic disorder: 30 cases of imagined ugliness. *American Journal of Psychiatry, 150*, 302-308. Retrieved from EBSCOhost

- Phillips, K.A., Menard, W., Fay, C., & Weisberg, R. (2005). Demographic characteristics, phenomenology, comorbidity, and family history in 200 individuals with body dysmorphic disorder. *Psychosomatics*, *46*, 317–325. Retrieved from EBSCOhost
- Phinney, J. S. (1992). The multigroup ethnic identity measure: A new scale for use with diverse groups. *Journal Of Adolescent Research*, *7*(2), 156-176.  
doi:10.1177/074355489272003
- Phinney, J. (1996). When we talk about American ethnic groups, what do we mean? *American Psychologist*, *51*, 918–927. Retrieved from EBSCOhost
- Pokrajac-Bulian, A. (2005). Locus of control and self-esteem as correlates of body dissatisfaction in Croatian university students. *European Eating Disorders Review*, *13*(1), 54-60. Retrieved from EBSCOhost
- Posnick, P. (1991). *The return of the waist*. New York: Vogue.
- Powell, A.D., & Kahn, A.S. (1995). Racial differences in women's desires to be thin. *International Journal of Eating Disorders*, *17*, 191-195. Retrieved from EBSCOhost
- Probst, M., Vandereycken, W., van Coppenolle, H., & Pieters, G. (1998). Body size estimation in anorexia nervosa patients: The significance of overestimation. *Journal of Psychosomatic Research*, *44*, 451–456. Retrieved from EBSCOhost
- Purdon, C., Anthony, M.M., & Swinson, R.P. (1999). Psychometric properties of the frost multidimensional perfectionism scale in a clinical anxiety disorders sample. *Journal of Clinical Psychology*, *55*(10), 1271-1286. Retrieved from Psychology and Behavioral Sciences Collection database
- Quinton, S., & Wagner, H.L. (2005). Alexithymia, ambivalence over emotional expression, and eating attitudes. *Personality and Individual Differences*, *38*(5), 1163-1173.  
doi:10.1016/j.paid.2004.07.013
- Raich, R.M., Mora, M., Sanchez-Carracedo, D., Torras, J., Viladrich, M.C., Zapater, L., Mancilla, J.M., Vazquez, R., & Alvarez-Rayon, G. (2001). A cross-cultural study on eating attitudes and behaviours in two Spanish-speaking countries: Spain and Mexico. *European Eating Disorders Review*, *9*, 53–63. Retrieved from EBSCOhost
- Rand, C.S., & Kuldau, J.M. (1990). The epidemiology of obesity and self-defined weight problems in the general population: Gender, race, age, and social class. *International Journal of Eating Disorders*, *9*, 329-343. Retrieved from EBSCOhost
- Rand, C.S., & Kuldau, J.M. (1992). Epidemiology of bulimia and symptoms in a general population: Sex, age, race, and socioeconomic status. *International Journal of Eating Disorders*, *11*, 37– 44. Retrieved from EBSCOhost



- Rayner, K.E., Schniering, C.A., Rapee, R.M., Taylor, A., & Hutchinson, D.M. (2013). Adolescent girls' friendship networks, body dissatisfaction, and disordered eating: Examining selection and socialization processes. *Journal Of Abnormal Psychology, 122*(1), 93-104. doi:10.1037/a0029304
- Ricciardelli, L.A., McCabe, M.P., Williams, R.J., & Thompson, J. (2007). The role of ethnicity and culture in body image and disordered eating among males. *Clinical Psychology Review, 27*(5), 582-606. doi:10.1016/j.cpr.2007.01.016
- Rice, K.G., & Mirzadeh, S.A. (2000). Perfectionism, attachment, and adjustment. *Journal of Counseling Psychology, 47*, 238–250. Retrieved from EBSCOhost
- Ridout, N., Thom, C., & Wallis, D.J. (2010). Emotion recognition and alexithymia in females with non-clinical disordered eating. *Eating Behaviors, 11*(1), 1-5. doi:10.1016/j.eatbeh.2009.07.008
- Rief, W., Buhlmann, U., Wilhelm, S., Borkenhagen, A., & Brahler, E. (2006). The prevalence of body dysmorphic disorder: A population-based survey. *Psychological Medicine, 36*, 877–885. Retrieved from EBSCOhost
- Roberts, A., Cash, T.F., Feingold, A., & Johnson, B.T. (2006). Are black-white differences in females' body dissatisfaction decreasing? A meta-analytic review. *Journal of Consulting and Clinical Psychology, 74*(6), 1121-1131. doi:10.1037/0022-006X.74.6.1121
- Roberts, A., Cunningham, M., & Dreher, L. (2012). Ethnicity of dating partner, pressure for thinness, and body dissatisfaction. *Journal of Applied Social Psychology, 42*(6), 1415-1438. Retrieved from EBSCOhost
- Roberts, A., & Good, E. (2010). Media images and female body dissatisfaction: The moderating effects of the Five-Factor traits. *Eating Behaviors, 11*(4), 211-216. doi:10.1016/j.eatbeh.2010.04.002
- Roberts, R.E., Phinney, J.S., Mase, L.C., Chen, Y., Roberts, C.R., & Romero, A. (1999). The structure of ethnic identity of young adolescents from diverse ethnocultural groups. *The Journal of Early Adolescence, 19*(3), 301-322. doi:10.1177/0272431699019003001
- Roberts, R. (1993). Ethnicity, body image dissatisfaction, and eating disorders: The differential impact of norms of attractiveness on black and white women. *Dissertation Abstracts International, 53*, 4984. Retrieved from EBSCOhost
- Robinson, T.N., Killen, J.D., Litt, I.F., Hammer, L.D., Wilson, D.M., & Haydel, K.F. (1996). Ethnicity and body dissatisfaction: Are Hispanic and Asian girls at increased risk for eating disorders? *Journal of Adolescent Health, 19*, 384–393. Retrieved from EBSCOhost

- Rodin, J., Silberstein, L.R., & Striegel-Moore, R.H. (1985). Women and weight: A normative discontent. In T.B. Sonderegger (Ed.), *Nebraska symposium on motivation: Vol. 32. Psychology and gender* (pp. 267-307). Lincoln, NE: University of Nebraska Press
- Rogers Wood, N.A., & Petrie, T.A. (2010). Body dissatisfaction, ethnic identity, and disordered eating among African American women. *Journal of Counseling Psychology, 57*(2), 141-153. doi:10.1037/a0018922
- Root, M.P. (2001). Future considerations in research on eating disorders. *Counseling Psychologist, 29*, 754–762. doi:10.1177/0011000001295007
- Rosenberg, M. (1979). *Conceiving the self*. New York: Basic Books
- Rosen, G., & Alan, R. (1986). Relationship of body image to self concept. *Journal of Consulting and Clinical Psychology, 32*, 100–107. Retrieved from EBSCOhost
- Rosen, J.C. (1992). Body-image disorder: Definition, development, and contribution to eating disorders. In J.H. Crowther, D.L. Tennenbaum, S.E. Hobfoll, & M.A. Parris Stephens (Eds.), *The etiology of bulimia nervosa: The individual and familial context*. Washington, DC: Hemisphere
- Ross, C.C. (2013). Why do women hate their bodies? *Psych Central*. Retrieved from <http://psychcentral.com/blog/archives/2012/06/02/why-do-women-hate-their-bodies/>
- Rothstein, A. (1991). On some relationships of fantasies of perfection to the calamities of childhood. *International Journal of Psychoanalysis, 72*, 313-323. Retrieved from EBSCOhost
- Rucker, C.E., & Cash, T.F. (1992). Body images, body-size perceptions, and eating behaviors among African American and White college women. *International Journal of Eating Disorders, 12*, 291-299. Retrieved from EBSCOhost
- Rudiger, J.A., Cash, T.F., Roehrig, M., & Thompson, J.K. (2007). Day-to-day body image states: Prospective predictors of intra-individual level and variability. *Body Image, 4*, 1-9. Retrieved from EBSCOhost
- Ruggiero, G. (2003). Stress situation reveals an association between perfectionism and drive for thinness. *International Journal of Eating Disorders, 34*(2), 220-226. Retrieved from EBSCOhost
- Ruggiero, G.M., Scarone, S.S., Marsero, S.S., Bertelli, S.S., & Sassaroli, S.S. (2011). The relationship between alexithymia and maladaptive perfectionism in eating disorders: A mediation moderation analysis methodology. *Eating And Weight Disorders, 16*(3), 182-187. Retrieved from EBSCOhost
- Russell, W.D., & Cox, R.H. (2003). Social physique anxiety, body dissatisfaction, and self-

- esteem in college females of differing exercise frequency, perceived weight discrepancy, and race. *Journal of Sport Behavior*, 26(3), 297-318. Retrieved from EBSCOhost
- Safir, M.P., Flaisher-Kellner, S., & Rosenmann, A. (2005). When gender differences surpass cultural differences in personal satisfaction with body shape in Israeli college students. *Sex Roles*, 52, 369–378. Retrieved from EBSCOhost
- Sahay, S., & Piran, N. (1997). Skin-color preferences and body satisfaction among South Asian-Canadian and European-Canadian female university students. *The Journal of Social Psychology*, 137, 161–171. Retrieved from EBSCOhost
- Salovey, P., & Rodin, J. (1984). Some antecedents and consequences of social-comparison jealousy. *Journal of Personality and Social Psychology*, 47, 780-792. Retrieved from EBSCOhost
- Sanders, N.M., & Heiss, C.J. (1998). Eating attitudes and body image of Asian and Caucasian college women. *Eating Disorders: The Journal of Treatment & Prevention*, 6, 15–27. Retrieved from EBSCOhost
- Sansone, R.A., & Levitt, J.L. (2005). Personality disorders and eating disorders: Exploring the frontier. *Eating Disorders*, 13, 3-5. Retrieved from EBSCOhost
- Santiago-Rivera, A.L., Arredondo, P., & Gallardo-Cooper, M. (2002). *Counseling Latinos and la familia: A practical guide*. Thousand Oaks, CA: Sage
- Sarwer, D.B., & Crerand, C.E. (2008). Body dysmorphic disorder and appearance enhancing medical treatments. *Body Image*, 5, 50–58. Retrieved from EBSCOhost
- Sarwer, D.B., Wadden, T.A., & Foster, G.D. (1998). Assessment of body image dissatisfaction in obese women: Specificity, severity, and clinical significance. *Journal of Consulting and Clinical Psychology*, 66(4), 651-654. doi:10.1037/0022-006X.66.4.651
- Saules, K.K., Collings, A.S., Wiedemann, A.A., & Fowler, S.L. (2009). The relationship of body image to body mass index and binge eating: The role of cross-situational body image dissatisfaction versus situational reactivity. *Psychological Reports*, 104(3), 909-921. doi:10.2466/PR0.104.3.909-921
- Schlenker, B.R., & Weigold, M.F. (1992). Interpersonal processes involving impression regulation and management. *Annual Review of Psychology*, 43, 133–168. Retrieved from EBSCOhost
- Schmidt, U., Jiwany, A., & Treasure, J. (1993). A controlled study of alexithymia in eating disorders. *Comprehensive Psychiatry*, 34,54–58. Retrieved from EBSCOhost
- Secord, P.F., & Jourard, S.M. (1953). The appraisal of body-cathexis: Body-cathexis and the

- self. *Journal of Consulting Psychology*, 17, 343-347. Retrieved from EBSCOhost
- Shaw, H., Ramirez, L., Trost, A., Randall, P., & Stice, E. (2004). Body image and eating disturbances across ethnic groups: More similarities than differences. *Psychology of Addictive Behaviors*, 18, 12–18. Retrieved from EBSCOhost
- Shaw, H.W., Stice, E., & Springer, D. (2004). Perfectionism, body dissatisfaction, and self-esteem in predicting bulimic symptomatology: Lack of replication. *International Journal of Eating Disorders*, 36(1), 41-47. Retrieved from EBSCOhost
- Sheffield, J.K., Tse, K.H., & Sofronoff, K. (2005). A comparison of body image dissatisfaction and eating disturbance among Australian and Hong Kong women. *European Eating Disorders Review*, 13, 112–124. Retrieved from EBSCOhost
- Sherry, S.B., Vriend, J.L., Hewitt, P.L., Sherry, D.L., Flett, G.L., & Wardrop, A.A. (2009). Perfectionism dimensions, appearance schemas, and body image disturbance in community members and university students. *Body Image*, 6, 83-89. Retrieved from EBSCOhost
- Shih, M.Y., & Kubo, C. (2005). Body shape preference and body satisfaction of Taiwanese and Japanese female college students. *Psychiatry Research*, 133, 263–271. Retrieved from EBSCOhost
- Shin, N., & Shin, M. (2008). Body dissatisfaction, self-esteem, and depression in obese Korean children. *The Journal Of Pediatrics*, 152(4), 502-506. doi:10.1016/j.jpeds.2007.09.020
- Shroff, H., & Thompson, J. (2006). Peer influences, body-image dissatisfaction, eating dysfunction and self-esteem in adolescent girls. *Journal of Health Psychology*, 11(4), 533-551. doi:10.1177/1359105306065015
- Shulman, J.L., & Home, S.G. (2003). The use of self-pleasure: Masturbation and body image among African American and European American women. *Psychology of Women Quarterly*, 27, 262–269. Retrieved from EBSCOhost
- Siegel, I. (2010). Does body weight dissatisfaction change with age? A cross-sectional analysis of American women. *The New School Psychology Bulletin*, 7(1), 42-50. Retrieved from EBSCOhost
- Siegel, J.M. (2002). Body image change and adolescent depressive symptoms. *Journal of Adolescent Research*, 17, 27–41. Retrieved from EBSCOhost
- Sifneos, P.E. (1973). The prevalence of alexithymic characteristics in psychosomatic patients. *Psychotherapy and Psychosomatics*, 22, 255-262. Retrieved from EBSCOhost

- Silber, E., & Tippett, J.S. (1965). Self-esteem: Clinical assessment and measurement validation. *Psychological Reports, 16*(3), 1017-1071. doi:10.2466/pr0.1965.16.3c.1017
- Silberstein, L.R., Striegel-Moore, R.H., Timko, C., & Rodin, J. (1988). Behavioral and psychological implications of body dissatisfaction: Do men and women differ? *Sex Roles, 19*, 219-231. Retrieved from EBSCOhost
- Singh, D. (1993). Adaptive significance of female physical attractiveness: Role of waist-to-hip ratio. *Journal of Personality and Social Psychology, 65*, 293-307. Retrieved from EBSCOhost
- Singh, D. (1994). Is thin really beautiful and good? Relationship between (WHR) and female attractiveness. *Personality and Individual Difference, 16*, 123-132. Retrieved from EBSCOhost
- Singh, D., & Luis, S. (1995). Ethnic and gender consensus for role of waist-to-hip ratio on judgment of women's attractiveness. *Human Nature, 6*(1), 51-65. Retrieved from EBSCOhost
- Singh, D., & Young, R. K. (1995). Body weight, waist-to-hip ratio, breasts, and hips: Role in judgments of female attractiveness and desirability for relationships. *Ethology & Sociobiology, 16*(6), 483-507. doi:10.1016/0162-3095(95)00074-7
- Skrzypek, S., Wehmeier, P.M., & Remschmidt, H. (2001). Body image assessment using body size estimation in recent studies on anorexia nervosa. A brief review. *European Child & Adolescent Psychiatry, 10*, 215-221. Retrieved from EBSCOhost
- Slade, P.D. (1994). What is body image? *Behavior Research and Therapy, 32*, 497-502. Retrieved from EBSCOhost
- Slade, P.D., & Owens, R.G. (1998). A dual process model of perfectionism based on reinforcement theory. *Behavior Modification, 22*, 372-390. Retrieved from EBSCOhost
- Slaney, R.B., Rice, K.G., & Ashby, J.S. (2002). A programmatic approach to measuring perfectionism: The Almost Perfect Scales. In G.L. Flett & P.L. Hewitt (Eds.), *Perfectionism: Theory, Research, and Treatment* (pp. 63-88). Washington, DC: American Psychological Association
- Smith, D.E., Thompson, J.K., Raczynski, J.M., & Hilner, J.E. (1999). Body image among men and women in a biracial cohort: The CARDIA study. *International Journal of Eating Disorders, 25*, 71-82. Retrieved from EBSCOhost
- Sobal, J., & Stunkard, A.J. (1989). Socioeconomic status and obesity: A review of the literature. *Psychological Bulletin, 105*, 260-275. Retrieved from EBSCOhost

- Solomon, L.J., & Rothblum, E.D. (1984). Academic procrastination: Frequency and cognitive behavioral correlates. *Journal of Counseling Psychology, 31*, 503–509. Retrieved from EBSCOhost
- Song, S.L. (2010). The relationship among culture-specific factors, pubertal timing, and body image and eating disordered symptoms among adopted Korean adolescent girls. *Dissertation Abstracts International, 70*(9-B), 5848. Retrieved from EBSCOhost
- Sorotzkin, B. (1985). The quest for perfection: Avoiding guilt or avoiding shame? *Psychotherapy, 22*, 564–571. Retrieved from EBSCOhost
- Sorotzkin, B. (1998). Understanding and treating perfectionism in religious adolescents. *Psychotherapy: Theory, Research, Practice, Training, 35*(1), 87-95. doi:10.1037/h0087792
- Sosnowski, R. (2001). The relationship between age of menarche and attitude toward menstruation and body image distortion in European American women. *Dissertation Abstracts International, 61*(12-B), 6722. Retrieved from EBSCOhost
- Spitzer, B.L., Henderson, K.A., & Zivian, M.T. (1999). Gender differences in population versus media body sizes: A comparison over four decades. *Sex Roles, 40*, 545-565. Retrieved from EBSCOhost
- Stallman, H. (2011). The factor structure of the Frost Multidimensional Perfectionism Scale in university students. *Australian Psychologist, 46*(4), 229-236. Retrieved from EBSCOhost
- Steele, C.M. (1988). The psychology of self-affirmation: Sustaining the integrity of the self. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 21, pp. 261–302). New York: Academic Press
- Stevens, C., & Tiggemann, M. (1998). Women's body figure preferences across the life span. *The Journal of Genetic Psychology, 159*(1), 94-102. Retrieved from EBSCOhost
- Stice, E. (1994). Review of the evidence for a sociocultural model of bulimia nervosa and an exploration of the mechanisms for action. *Clinical Psychology Review, 14*(7), 633–661. Retrieved from EBSCOhost
- Stice E. (2001). A prospective test of the dual pathway model of bulimic pathology: Mediating effects of dieting and negative affect. *Journal of Abnormal Psychology, 110*, 124–135. Retrieved from EBSCOhost
- Stice, E., Mazotti, L., Weibel, D., & Agras, W.S. (2000). Dissonance prevention program

- decreases thin-ideal internalization, body dissatisfaction, dieting, negative affect, and bulimic symptoms: A preliminary experiment. *International Journal of Eating Disorders*, 27, 206-217. Retrieved from EBSCOhost
- Stice, E., Presnell, K., & Spangler, D. (2002). Risk factors for binge eating onset in adolescent girls: A 2-year prospective investigation. *Health Psychology*, 21, 131-138. Retrieved from EBSCOhost
- Stice, E., & Shaw, H.E. (2002). Role of body dissatisfaction in the onset and maintenance of eating pathology: A synthesis of research findings. *Journal of Psychosomatic Research*, 53(5), 985-993. Retrieved from EBSCOhost
- Stokes, R., & Frederick-Recascino, C. (2003). Women's perceived body image: Relations with personal happiness. *Journal of Women & Aging*, 15, 17-29. Retrieved from EBSCOhost
- Story, M., French, S.A., & Resnick, M.D. (1995). Ethnic/racial and socioeconomic differences in dieting behaviors and body image perceptions in adolescents. *International Journal of Eating Disorders*, 18, 173-179. Retrieved from EBSCOhost
- Strauman, T.J., & Glenberg, A.M. (1994). Self-concept and body-image disturbance: Which self-beliefs predict body size overestimation? *Cognitive Therapy and Research*, 18, 105-125. Retrieved from EBSCOhost
- Striegel-Moore, R. (1990). Body image dissatisfaction and disordered eating in Lesbian college students. *International Journal of Eating Disorders*, 9(5), 493-500. Retrieved from EBSCOhost
- Striegel-Moore, R.H., & Franko, D.L. (2002). Body image issues among girls and women. In T.F. Cash, & T. Pruzinsky (Eds.), *Body image: A handbook of theory, research, and clinical practice*. London: Guilford Press
- Striegel-Moore, R., McAvay, G. & Rodin, J. (1986). Psychological and behavioral correlates of feeling fat in women. *International Journal of Eating Disorders*, 5, 935-947. Retrieved from EBSCOhost
- Striegel-Moore, R.H., Schreiber, G.B., Lo, A., Crawford, P., Obarzanek, E., & Rodin, J. (2000). Eating disorder symptoms in a cohort of 11 to 16-year-old Black and white girls: The NHLBI Growth and Health Study. *International Journal of Eating Disorders*, 27, 49- 66. Retrieved from EBSCOhost
- Striegel-Moore, R.H., Schreiber, G.B., Pike, K.M., Wilfley, D.E., & Rodin, J. (1995). Drive for thinness in Black and White preadolescent girls. *International Journal of Eating Disorders*, 18, 59-69. Retrieved from EBSCOhost
- Striegel-Moore, R.H., Silberstein, L.R., & Rodin, J. (1986). Toward an understanding of risk

- factors for bulimia. *American Psychologist*, *41*, 246–263. Retrieved from EBSCOhost
- Striegel-Moore, R., & Smolak, L. (1996). The role of race in the development of eating disorders. In L. Smolak, M.P. Levine, & R. Striegel-Moore (Eds.), *The developmental psychopathology of eating disorders: Implications for research, prevention, and treatment* (pp. 259–284). Hillsdale, NJ: Erlbaum
- Sue, S., & Okazaki, S. (1990). Asian-American educational achievements: A phenomenon in search of an explanation. *American Psychologist*, *45*, 913–920. Retrieved from EBSCOhost
- Suldo, S.M., & Sandberg, D.A. (2000). Relationship between attachment styles and eating disorder symptomatology among college women. *Journal of College Student Psychotherapy*, *15*, 59–73. Retrieved from EBSCOhost
- Sullivan, H.S. (1938/2000). Psychiatry: Introduction to the study of interpersonal relations. Reprint. *Psychiatry: Interpersonal and Biological Processes*, *63*, 113–126. Retrieved from EBSCOhost
- Swami, V., Knight, D., Toveé, M.J., Davies, P., & Furnham, A. (2007). Preference for female body size in Britain and the South Pacific. *Body Image*, *4*, 219–223. doi:10.1016/j.bodyim.2007.01.002
- Swami, V., Salem, N., Furnham, A., & Toveé, M.J. (2008). Initial examination of the validity and reliability of the female photographic figure rating scale for body image assessment. *Personality and Individual Differences*, *44*, 1752–1761. doi:10.1016/j.paid.2008.02.002
- Swami, V., & Toveé, M.J. (2005). Female physical attractiveness in Britain and Malaysia: A cross-cultural study. *Body Image*, *2*, 115–128. doi: 10.1016/j.bodyim.2005.02.002
- Swami, V., & Toveé, M.J. (2006). Does hunger influence judgments of female physical attractiveness? *British Journal of Psychology*, *97*, 353–363. doi: 10.1348/000712605X80713
- Swift, L., Stephenson, R., & Royce, J. (2006). The 20-item Toronto Alexithymia Scale: Validation of factor solutions using confirmatory factor analysis on physiotherapy out-patients. *Psychology and Psychotherapy: Theory, Research and Practice*, *79*(1), 83–88. doi:10.1348/147608305X42875
- Tafarodi, R.W., & Swann, W.B., Jr. (1995). Self-liking and self-competence as dimensions of global self-esteem: Initial validation of a measure. *Journal of Personality Assessment*, *65*, 322–342. Retrieved from EBSCOhost



- Talwar, R., Carter, J.D., & Gleaves, D.H. (2012). New Zealand female body image: What roles do ethnicity and body mass play? *New Zealand Journal of Psychology, 41*(1), 69-75. Retrieved from EBSCOhost
- Tantleff-Dunn, S., & Lindner, D.M. (2011). Body image and social functioning. In T.F. Cash, & L. Smolak (Eds.), *Body image: A handbook of science, practice, and prevention (2nd ed.)* (pp. 263-270). New York, NY: Guilford
- Taylor, A., Wilson, C., Slater, A., & Mohr, P. (2012). Self-esteem and body dissatisfaction in young children: Associations with weight and perceived parenting style. *Clinical Psychologist, 16*(1), 25-35. doi:10.1111/j.1742-9552.2011.00038.x
- Taylor, G.J., Bagby, R.M., & Parker, J.D.A. (1991). The alexithymia construct: A potential paradigm for psychosomatic medicine. *Psychosomatics, 32*, 153-164. Retrieved from EBSCOhost
- Taylor, G.J., Parker, J.D.A., Bagby, R.M., & Bourke, M. (1996). Relationships between alexithymia and psychological characteristics associated with eating disorders. *Journal of Psychosomatic Research, 41*, 561-568. Retrieved from EBSCOhost
- Taylor, G.J., Ryan, D., & Bagby, R.M. (1985). Toward the development of a new self-report alexithymia scale. *Psychotherapy and Psychosomatics, 44*, 191-199
- Thompson, J. (1987). Body size distortion in anorexia nervosa: Reanalysis and reconceptualization. *International Journal of Eating Disorders, 6*(3), 379-384. Retrieved from EBSCOhost
- Thompson, J.K., & Altabe, M.N. (1991). Psychometric qualities of the Figure Rating Scale. *International Journal of Eating Disorders, 10*, 615-691. Retrieved from EBSCOhost
- Thompson, J.K., Heinberg, L.J., Altabe, M., & Tantleff-Dunn, S. (1999). *Exacting beauty: Theory, assessment, and treatment of body image disturbance*. Washington, DC: American Psychological Association
- Thompson, J.K., & Thompson, G.M. (1986). Body size distortion and self-esteem in asymptomatic, normal weight males and females. *International Journal of Eating Disorders, 5*, 1001-1068. Retrieved from EBSCOhost
- Thompson, M.A., & Gray, J.J. (1995). Development and validation of a new body-image assessment tool. *Journal of Personality Assessment, 64*, 258-269. Retrieved from EBSCOhost
- Thompson, J.K. & Spana, R.E. (1988). The adjustable light beam method for the assessment of size estimation accuracy: Description, psychometric and normative data. *International Journal of Eating Disorders, 7*, 521-526. Retrieved from EBSCOhost

- Thornhill, R. (1993). The allure of symmetry. *Natural History*, 102, 30-37. Retrieved from EBSCOhost
- Tiggemann, M. (1992). Body-size dissatisfaction: Individual differences in age and gender, and relationship with self-esteem. *Personality and Individual Difference*, 13, 39-43. Retrieved from EBSCOhost
- Tiggemann, M. (1996). 'Thinking' versus 'feeling' fat: Correlates of two indices of body image dissatisfaction. *Australian Journal of Psychology*, 48(1), 21-25. doi:10.1080/00049539608259501
- Tiggemann, M. (2004). Body image across the adult life span: Stability and change. *School of Psychology*, 1(1), 29-41. doi: 10.1016/S1740-1445(03)00002-0
- Tiggemann, M. (2005). Body dissatisfaction and adolescent self-esteem: Prospective findings. *Body Image: An International Journal of Research*, 2, 129–135. Retrieved from EBSCOhost
- Tiggemann, M., & Lynch, J.E. (2001). Body image across the life span in adult women: The role of self-objectification. *Developmental Psychology*, 37(2), 243-253. Retrieved from EBSCOhost
- Tiggemann, M., & Rothblum, E.D. (1988). Gender differences in social consequences of perceived overweight in the United States and Australia. *Sex Roles*, 18, 75–86. Retrieved from EBSCOhost
- Tiggemann, M., & Rützel, E. (2001). A cross-cultural comparison of body dissatisfaction in Estonian and Australian young adults and its relationship with media exposure. *Journal of Cross-Cultural Psychology*, 32, 736–742. Retrieved from EBSCOhost
- Tiggemann, M., Verri, A., & Scaravaggi, S. (2005). Body dissatisfaction, disordered eating, fashion magazines, and clothes: A cross-cultural comparison between Australian and Italian young women. *International Journal of Psychology*, 40, 293–302. Retrieved from EBSCOhost
- Tissot, A.M., & Crowther, J.H. (2008). Self-oriented and socially prescribed perfectionism: Risk factors within an integrative model for bulimic symptomatology. *Journal of Social and Clinical Psychology*, 27, 734-755. Retrieved from EBSCOhost
- Tom, G., Chen, A., Liao, H., & Chao, J. (2005). Body image, relationships and time. *The Journal of Psychology*, 139(5), 458-468. Retrieved from EBSCOhost
- Toro, J., Gomez-Peresmitre, G., Sentis, J., Valle's, A., Casula, V., & Castro, J. (2006). Eating disorders and body image in Spanish and Mexican female adolescents. *Social Psychiatry and Psychiatric Epidemiology*, 41, 556–565. Retrieved from EBSCOhost
- Toveé, M.J., Maisey, D.S., Emery, J.L., & Cornelissen, P.L. (1999). Visual cues to female

- physical attractiveness. *Proceedings of the Royal Society of London B*, 266, 211–218. Retrieved from EBSCOhost
- Traub, A.C. & Orbach, J. (1964). Psychophysical studies of body image. The adjustable body-distorting mirror. *Archives of General Psychiatry*, 11, 53-66. Retrieved from EBSCOhost
- Triandis, H.C., Bontempo, R., Villareal, M.J., Asai, M., & Lucca, N. (1988). Individualism and collectivism: Cross-cultural perspectives on self-in group relationships. *Journal of Personality and Social Psychology*, 54, 323–338. doi:10.1037/0022-3514.54.2.323
- Troop, N.L. (1995). Feelings and fantasy in eating disorders: A factor analysis of the Toronto Alexithymia Scale. *International Journal of Eating Disorders*, 18(2), 151-157. Retrieved from EBSCOhost
- Turnage, B.F. (2004). Influences on adolescent African American females' global self-esteem: Body image and ethnic identity. *Journal of Ethnic & Cultural Diversity in Social Work: Innovation in Theory, Research & Practice*, 13(4), 27-45. doi:10.1300/J051v13n04\_02
- Turner, A.M., & Paivio, S.C. (2002). *Relations among childhood trauma, alexithymia, social anxiety, and social support*. Chicago, IL: Poster presented at the American Psychological Association
- Twamley, E.W., & Davis, M.C. (1999). The sociocultural model of eating disturbance in young women: The effects of personal attributes and family environment. *Journal of Social and Clinical Psychology*, 18, 467–489. Retrieved from EBSCOhost
- Tylka, T.L. (2004). The relation between body dissatisfaction and eating disorder symptomatology: An analysis of moderating variables. *Journal of Counseling Psychology*, 51, 178–191. Retrieved from EBSCOhost
- Ullman, S.E., & Filipas, H.H. (2005). Ethnicity and child sexual abuse experiences of female college students. *Journal of Child Sexual Abuse*, 14, 67–89. Retrieved from EBSCOhost
- U.S. Census Bureau (2012). *Educational attainment in the United States*. Retrieved from <http://www.census.gov/hhes/socdemo/education/data/cps/2012/tables.html>
- Usmiani, S., & Daniluk, J. (1997). Mothers and their adolescent daughters: Relationship between self-esteem, gender role identity, and body image. *Journal of Youth and Adolescence*, 26, 45-62. Retrieved from EBSCOhost
- van den Berg, P.A., Mond, J., Eisenberg, M., Ackard, D., & Neumark-Sztainer, D. (2010). The link between body dissatisfaction and self-esteem in adolescents: Similarities

- across gender, age, weight status, race/ethnicity, and socioeconomic status. *Journal of Adolescent Health, 47*(3), 290-296. doi:10.1016/j.jadohealth.2010.02.004
- van den Berg, P., Thompson, J.K., Brandon, K.O., & Coovert, M. (2002). The Tripartite Influence Model of body image and eating disturbance: A covariance structural modeling investigation testing the mediational role of comparison. *Journal of Psychosomatic Research, 53*, 1007–1020. Retrieved from EBSCOhost
- van Hanswijck de Jonge, L., & Waller, G. (2003). Perfectionism levels in African-American and Caucasian adolescents. *Personality and Individual Differences, 34*(8), 1447-1451. doi:10.1016/S0191-8869(02)00126-5
- Vander Wal, J.S., & Thomas, N. (2004). Predictors of body image dissatisfaction and disturbed eating attitudes and behaviors in African American and Hispanic girls. *Eating Behaviors, 5*(4), 291-301. doi:10.1016/j.eatbeh.2004.04.001
- Veale, D., Kinderman, P., Riley, S., & Lambrou, C. (2003). Self-discrepancy in body dysmorphic disorder. *British Journal of Clinical Psychology, 42*, 157–169. doi:10.1348/014466503321903571
- Veale, D.M., & Lambrou, C. (2002). The importance of aesthetics in body dysmorphic disorder. *CNS Spectrums, 7*, 429–431. Retrieved from EBSCOhost
- Verplanken, B., Friberg, O., Wang, C.E., Trafimow, D., & Woolf, K. (2007). Mental habits: Metacognitive reflection on negative self-thinking. *Journal of Personality and Social Psychology, 92*, 526–541. Retrieved from EBSCOhost
- Vocks, S., Legenbauer, T., Rüdell, H., & Troje, N. (2007). Static and dynamic body image in bulimia nervosa: Mental representation of body dimensions and motion patterns. *The International Journal of Eating Disorders, 40*, 59–66. Retrieved from EBSCOhost
- Vohs, K.D., Voelz, Z.R., Pettit, J.W., Bardone, A.M., Katz, J., Abramson, L.Y., . . . Joiner, T.R. (2001). Perfectionism, body dissatisfaction, and self-esteem: An interactive model of bulimic symptom development. *Journal of Social and Clinical Psychology, 20*(4), 476-497. doi:10.1521/jscp.20.4.476.22397
- Wade, T. (2000). Evolutionary theory and self-perception: Sex differences in body esteem predictors of self-perceived physical and sexual attractiveness and self-esteem. *International Journal of Psychology, 35*, 36-45. Retrieved from EBSCOhost
- Wagner, R. (2009). Thinness or proportion? Cultural differences in body image dissatisfaction. *Dissertation Abstracts International, 69*(7-B), 4449. Retrieved from EBSCOhost
- Wang, Z., Byrne, N.M., Kenardy, J.A., & Hills, A.P. (2005). Influences of ethnicity and

- socioeconomic status on the body dissatisfaction and eating behaviour of Australian children and adolescents. *Eating Behaviors*, 6(1), 23-33. doi:10.1016/j.eatbeh.2004.05.001
- Wardle, J., & Foley, E. (1989). Body image: Stability and sensitivity of body satisfaction and body size estimation. *International Journal of Eating Disorders*, 8, 55-62. Retrieved from EBSCOhost
- Warren, C., Gleaves, D.H., Cepeda-Benito, A., Fernandez, M., & Rodriguez-Ruiz, S. (2005). Ethnicity as a protective factor against internalization of a thin ideal and body dissatisfaction. *International Journal of Eating Disorders*, 37(3), 241-249. Retrieved from EBSCOhost
- Wassenaar, D., le Grange, D., Winship, J., & Lachenicht, L. (2000). The prevalence of eating disorder pathology in a cross-ethnic population of female students in South Africa. *European Eating Disorders Review*, 8(3), 225-236. doi:10.1002/(SICI)1099-0968(200005)8:3<225::AID-ERV324>3.0.CO;2-P
- Watsky-Scileppi, C.B. (2012). Adult attachment and body dissatisfaction: The role of ethnicity. *Dissertation Abstracts International*, 72(11-B), 6660. Retrieved from EBSCOhost
- Webster, J., & Tiggemann, M. (2003). The relationship between women's body satisfaction and self-image across the life span: The role of cognitive control. *The Journal of Genetic Psychology*, 164(2), 241-252. Retrieved from EBSCOhost
- Weinberger-Litman, S.L. (2008). The influence of religious orientation, spiritual well-being, educational setting, and social comparison on body image and eating disturbance in Jewish women. *Dissertation Abstracts International*, 68(10-B), 7008. Retrieved from EBSCOhost
- Weinberg, J.R. (1960). A further investigation of body cathexis and the self. *Journal of Consulting Psychology*, 24, 277. Retrieved from EBSCOhost
- Weisinger, H., & Lobsenz, N. (1981). *Nobody's perfect*. New York: Warner Books
- Welch, E., Miller, J.L., Ghaderi, A., & Vaillancourt, T. (2009). Does perfectionism mediate or moderate the relation between body dissatisfaction and disordered eating attitudes and behaviors? *Eating Behaviors*, 10(3), 168-175. doi:10.1016/j.eatbeh.2009.05.002
- Wertheim, E.H., Koerner, J., & Paxton, S.J. (2001). Longitudinal predictors restrictive eating and bulimic behavior in adolescent girls. *Journal of Youth and Adolescence*, 30, 69-81. Retrieved from EBSCOhost

- Wheeler, K., Greiner, P., & Boulton, M. (2005). Exploring alexithymia, depression, and binge eating in self-reported eating disorders in women. *Perspectives in Psychiatric Care, 41*(3), 114-123. Retrieved from EBSCOhost
- White, M.A., & Grilo, C.M. (2005). Ethnic differences in the prediction of eating and body image disturbances among female adolescent psychiatric inpatients. *International Journal of Eating Disorders, 38*(1), 78-84. doi:10.1002/eat.20142
- Wichstrom, L. (1999). The emergence of gender difference in depressed mood during adolescence: The role of intensified gender socialization. *Developmental Psychology, 35*, 232-245. Retrieved from EBSCOhost
- Wight, R.G., Aneshensel, C.S., Botticello, A.L., & Sepulveda, J.E. (2005). A multilevel analysis of ethnic variation in depressive symptoms among adolescents in the United States. *Social Science & Medicine, 60*, 2073-2084. Retrieved from EBSCOhost
- Wilcox, J. (2007). Toward an understanding of resilience to disordered eating and body image dissatisfaction among African American women: An analysis of the roles of ethnic and feminist identities. *Dissertation Abstracts International, 68*(6-B), 4147. Retrieved from EBSCOhost
- Wildes, J.E., Emery, R.E., & Simons, A.D. (2001). The roles of ethnicity and culture in the development of eating disturbance and body dissatisfaction: A meta-analytic review. *Clinical Psychology Review, 21*, 521-551. Retrieved from EBSCOhost
- Wilfley, D.E., Schreiber, G.B., Pike, K.M., Striegel-Moore, R.H., Wright, D.J., & Rodin, J. (1996). Eating disturbance and body image: A comparison of a community sample of adult Black and White women. *International Journal of Eating Disorders, 20*, 377-387. Retrieved from EBSCOhost
- Wilkosz, M., Chen, J., Kenndey, C., & Rankin, S. (2011). Body dissatisfaction in California adolescents. *Journal of The American Academy of Nurse Practitioners, 23*(2), 101-109. doi:10.1111/j.1745-7599.2010.00586.x
- Williams, K. (2007). Body image perceptions and eating attitudes among Black women: A study of Jamaican immigrants and United States-born African American women. *Dissertation Abstracts International, 68*(5-A), 1833. Retrieved from EBSCOhost
- Williams, L.K., Ricciardelli, L.A., McCabe, M.P., Waqa, G.G., & Bavadra, K. (2006). Body image attitudes and concerns among indigenous Fijian and European Australian adolescent girls. *Body Image, 3*, 275-287. Retrieved from EBSCOhost
- Williamson, D.A. (1990). *Assessment of Eating Disorders*. Elmsford, NY: Pergamon Press

- Williamson, D.A., Cubic, B.A., & Gleaves, D.H. (1993). Equivalence of body image disturbance in anorexia and bulimia nervosa. *Journal of Abnormal Psychology, 102*, 177-180. Retrieved from EBSCOhost
- Williamson, D.E., Kahn, H.S., & Byers, T. (1991). The 10 year incidence of obesity and major weight gain in black and white US women aged 30-55 y. *American Journal of Clinical Nutrition, 53*, 1515-1518. Retrieved from EBSCOhost
- Wiseman, C.H. Gray, J.J., Mosimann, J.E., & Ahrens, A.H. (1992). Cultural expectations of thinness in women: An update. *International Journal of Eating Disorders, 11*(1), 85-89. Retrieved from EBSCOhost
- Woelders, L.C.S., Larsen, J.K., Scholte, R., Cillessen, T., & Engels, R.C.M.E. (2010). Friendship group influences on body dissatisfaction and dieting among adolescent girls: A prospective study. *Journal of Adolescent Health, 47*, 456-462. doi:10.1016/j.jadohealth.2010.03.006
- Wojtowicz, A.E., & von Ranson, K.M. (2012). Weighing in on risk factors for body dissatisfaction: A one-year prospective study of middle-adolescent girls. *Body Image, 9*(1), 20-30. doi:10.1016/j.bodyim.2011.07.004
- Wooley, S., & Wooley, O. (1984). Feeling fat in a thin society. In J.C. Daniluk (Ed.), *Women's sexuality across the life span: Challenging myths, creating meanings* (pp. 198-201, 251-255). New York: Guilford
- World Health Organization. (2010). BMI Classification. Retrieved from [http://apps.who.int/bmi/index.jsp?introPage=intro\\_3.html](http://apps.who.int/bmi/index.jsp?introPage=intro_3.html)
- Xanthopoulos, M.S., Borradaile, K.E., Hayes, S., Sherman, S., Veur, S., Grundy, K.M., . . . Foster, G.D. (2011). The impact of weight, sex, and race/ethnicity on body dissatisfaction among urban children. *Body Image, 8*(4), 385-389. doi:10.1016/j.bodyim.2011.04.011
- Yang, C.F., Gray, P., & Pope, Jr., H.G. (2005). Male body image in Taiwan versus the West: Yanggang Zhiqi meets the Adonis complex. *American Journal of Psychiatry, 162*, 263-269. Retrieved from EBSCOhost
- Yates, A., Edman, J., & Aruguete, M. (2004). Ethnic difference in BMI and body/self-dissatisfaction among Whites, Asian subgroups, Pacific Islanders, and African-Americans. *Journal of Adolescent Health, 34*, 300-307. Retrieved from EBSCOhost
- Yao, M.P. (2010). An exploration of multidimensional perfectionism, academic self-efficacy, procrastination frequency, and Asian American cultural values in Asian American university students. *Dissertation Abstracts International, 70* (10-B), 6597. Retrieved from EBSCOhost

- Yokoyama, K. (2003). Asian-American women and body image: An exploration of racial and feminist identity. *Dissertation Abstracts International*, 64(6-B), 2948. Retrieved from EBSCOhost
- Zhang, Y., Dixon, T.L., & Conrad, K. (2009). Rap music videos and African American women's body image: The moderating role of ethnic identity. *Journal of Communication*, 59(2), 262-278. doi:10.1111/j.1460-2466.2009.01415.x
- Zlotnick, C., Mattia, J.I., & Zimmerman, M. (2001). The relationship between posttraumatic stress disorder, childhood trauma, and alexithymia in an outpatient sample. *Journal of Traumatic Stress*, 14, 177–188. Retrieved from EBSCOhost



## ABSTRACT

## THE RELATIONSHIPS BETWEEN ALEXITHYMIA, PERFECTIONISM, SELF-ESTEEM, ETHNICITY AND BODY IMAGE DISTURBANCE

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Body image disturbance is a pervasive problem in this country that is associated with eating disorder pathology, depression, anxiety, and other psychological problems. Very few studies have attempted to examine body distortion (the more severe form of body dissatisfaction) as it relates to alexithymia, perfectionism, perfectionistic self-presentation, self-esteem, ethnicity, and ethnic identity. This study explored the relationships between body satisfaction/dissatisfaction and body distortion with alexithymia, self-esteem, and perfectionism and ethnicity variables through the use of the following measures: Toronto Alexithymia Scale (TAS), Frost Multidimensional Perfectionism Scale (FMPS), Perfectionistic Self-Presentation Scale (PSPS), Rosenberg Self-Esteem Scale (RSES), Multigroup Ethnic Identity Measure (MEIM), Appearance Evaluation and Body Areas Satisfaction subscales of the Multidimensional Body Self-Relations Questionnaire (MBSRQ), Photographic Figure Rating Scale (PFRS), and Eating Attitudes Test (EAT). Participants included 151 females of all ethnicities between the ages of 18 and 65 ( $M_{age} =$

29.98 years). Results indicated that self-esteem was the most significant predictor of body satisfaction. Additionally, greater body satisfaction was associated with lower levels of alexithymia, perfectionism, and perfectionistic self-presentation and higher levels of ethnic identity. Body satisfaction also was found to mediate the relationship between ethnic identity and body distortion. Further, body satisfaction was found to vary based on age, parent education, and parent SES. These findings present important information on psychosocial factors which influence body dissatisfaction.

*Keywords:* body satisfaction, alexithymia, ethnic identity, perfectionism, body distortion

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