

BODY IMAGE EVALUATION, INVESTMENT, AND AFFECT: THE ROLE OF
ETHNICITY AND ACCULTURATION IN COLLEGE FEMALES

BY

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ABSTRACT

Historically, the Hispanic population has been underrepresented in body image research. The small number of body image research studies including Hispanic women indicated White women have a higher level of body dissatisfaction. However, current body image research indicates White and Hispanic women indicate the same level of body dissatisfaction (Grabe & Hyde, 2006). This study examined body image in White and Hispanic women and examined the role of acculturation and within-group differences for body image in Hispanic women. To address limitations of and replicate previous studies, BMI, age, and education level were included as covariates. Furthermore, body image was viewed as a multi-dimensional concept. Following the proposal of Cash (1994a), body image was measured as three dimensions: evaluation, investment, and affect. Lastly, acculturation was measured as a bidimensional concept. A total of 465 participants, 360 White women and 105 Hispanic women, completed the Appearance Evaluation and Appearance Orientation subscales of The Multidimensional Body-Self Relations Questionnaire (MBSRQ) (Brown, et al.,1990), the Situational Inventory of Body-Image Dysphoria (SIBID) (Cash, 1994b), the Bidimensional Acculturation Scale (BAS) (Marin & Gamba, 1996), and a demographic questionnaire. Results indicated White and Hispanic women experience the same level of body dissatisfaction and time invested in their appearance. However, White and Hispanic women do differ in their experience of negative emotions related to their appearance. The results did not differ when controlling for covariates. In addition, no differences were discovered when examining acculturation

and within-group differences in Hispanic women which can be attributed to the lack of diversity within the sample of Hispanic participants. These results support current research findings indicating Hispanic women experience the same level of body image concerns as White women. Furthermore, this warrants increased awareness of the need for body image prevention and treatment in Hispanic women.

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Chapter I

Introduction

In the early twenty-first century, women from all backgrounds and walks of life have a greater chance than ever before of being exposed to standards of beauty that are most likely impossible to achieve by healthy means. Magazines, television, and movies expose women to a model-thin ideal. Over the years, the ideal body size has decreased with actresses, fashion models, and beauty pageant contestants becoming increasingly slender (Silverstein, Perdue, Peterson, & Kelly, 1986; Wiseman, Gray, Mosimann, & Ahrens, 1992), and women now compare themselves and strive to attain an even thinner ideal body size than in past generations. Up to 83% of women and girls read fashion magazines and these women and girls watch up to 4 hours of television each day (Tiggemann, 2002). Continuous media exposure to a model-thin ideal may contribute to women's dissatisfaction with their bodies and, consequently, a poor body image.

Historically, body image has been defined by diverse groups of psychologists, physicians, and philosophers. Although body image research has grown over the past 50 years, integration of the diverse definitions and theories of body image has not occurred (Pruzinsky & Cash, 2002). In describing the complexity of body image, Pruzinsky and Cash observed that “despite its long history, the concept of body image has remained rather elusive, in part because it has meant different things to different scientists and practitioners” (p. 7). In 1935, body image was described as “the tridimensional image everyone has about himself” (Schilder, 1935, p. 11). Schilder

proposed that one could visualize the body from the front, sides, and back, but not all three at the same time. From the psychodynamic perspective, body image has been defined as “the cumulative set of images, fantasies, and meanings about the body and its parts and functions; it is an integral component of self-image and the basis of self-representation” (Krueger, 2002, p. 31). In contrast to unidimensional theories of body image that focus solely on the dimension of body satisfaction-dissatisfaction (Frederick, Forbes, Grigorian, & Jarcho, 2007; Robinson et al., 1996), Cash (1994) proposed a cognitive-behavioral, multidimensional view of body image that includes three dimensions: evaluation, investment, and affect. *Evaluation* refers to the satisfaction-dissatisfaction component, *investment* refers to the behaviors one devotes to appearance, and *affect* refers to the emotions one feels in relation to appearance. Cash’s multidimensional approach to body image will be discussed in detail throughout this study.

Body dissatisfaction, one factor of body image, is an important concept to understand and examine because it has been found to predict negative psychological consequences including disordered eating, depression, and suicide (Johnson & Wardle, 2005; Rodriguez-Cano, Beato-Fernandez, & Llario, 2006; Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999). Of all the factors that have been identified as predictors of disordered eating, body dissatisfaction is the factor often recognized as the strongest predictor of disordered eating (Phelps, Johnston, & Augustyniak, 1999; Polivy & Herman, 2002).

Role of Culture in Body Dissatisfaction

Previous literature indicated ethnic minority women had fewer dieting concerns and better body image than White American women (Grabe & Hyde, 2006). As a result, a stereotype developed in the United States that White women have greater body dissatisfaction than non-White women (Gray, Ford, & Kelly, 1987; Nevo, 1985; Rucker & Cash, 1992). This stereotype has led to common terms such as “golden girl’s disease” and “white female phenomenon” that some experts believe have excluded non-White women from disordered eating treatment and research (Mastria, 2002).

The limited research on ethnic minorities in the body image literature may lead practitioners to underdiagnose eating disorders in minority women due to the myth that minority women do not develop eating disorders (Hotelling, 2001). However, Shaw, Ramirez, Trost, Randall, and Stice (2004) found no difference in terms of eating disturbances across the ethnic groups that they studied: Asian, Black, Hispanic, and White. Furthermore, out of five generations of Mexican-American women, second generation Mexican-American women had the highest disordered eating patterns and may be at the greatest risk for developing eating disorders (Chamorro & Flores-Ortiz, 2000).

Even though the focus of research on ethnic minority women has increased in the past few years, research on body image in Hispanic women is still limited. Given that the Hispanic community makes up 12.5 % of the U.S. population, and is one of

the fastest growing minority groups (U.S. Census Bureau, 2004), more research exploring body image in Hispanic participants is needed.

Grabe and Hyde (2006) conducted a meta-analysis that examined the differences in body dissatisfaction among ethnic subgroups based on 98 articles from 41 different journals. Despite the fact the Hispanic population is rapidly growing in the United States, only 35 percent of the research studies included in the meta-analysis included Hispanic participants. In contrast, 97 percent of the research studies included Black participants. The authors called for a broader scope of research to further the understanding of ethnic differences in body image dissatisfaction. Furthermore, the researchers specifically called for more research on body image attitudes in Asian American and Hispanic women and for more research on body dissatisfaction among subgroups of women.

In the research that included Hispanic participants, there seem to be discrepancies regarding whether or not there are differences in the level of body dissatisfaction between White and Hispanic women. Earlier research found differences in the level of body dissatisfaction between White and non-White women (Franko & Herrera, 1997). However, as previously discussed, more recent research suggests little-to-no difference in body dissatisfaction between White and Hispanic women. There is even evidence that Hispanic females have a higher level of body dissatisfaction than White females (McComb & Clopton, 2002).

Acculturation and Body Image

The classic definition of acculturation states that “acculturation comprehends those phenomena which result when groups of individuals having different cultures come into continuous first-hand contact, with subsequent changes in the original culture patterns of either or both groups” (Redfield, Linton, & Herskovits, 1936, p. 149). Acculturation has often been viewed as a unidimensional process, wherein individuals move from one end of a spectrum to another (Franko & Herrera, 1997; Lopez, Blix, & Blix, 1995; Pumariega, 1986). In contrast, Marin and Gamba (1996) propose that acculturation for Hispanics is a bidimensional process, in which Hispanic people move along two domains: Hispanic and non-Hispanic. In contrast to the unidimensional acculturation theory that proposes a spectrum where gains towards the non-Hispanic end of the spectrum can mean losses in the Hispanic end, Marin and Gamba propose that gains can be made on both domains during the acculturation process. Given that gains can be made on both domains, Hispanic individuals could maintain behaviors on the Hispanic domain and gain behaviors on the non-Hispanic domain. The dynamic process, the bidimensional process approach to acculturation, will be used for this study as it recognizes Hispanic individuals can make gains on both the Hispanic and non-Hispanic domain.

Degree of acculturation seems to be related to body image attitudes (Abrams, Allen, & Gray, 1993; Franko & Herrera, 1997; Pumariega, 1986). Two studies in particular illustrate this point. In a review of research on etiology of eating disorders, Striegel-Moore and Cachelin (2001) described acculturation and discrimination as

potential risk factors for the development of eating disorders. Acculturation and discrimination are unique to minority cultures and need to be considered when assessing risk for eating disorders in minority cultures. Next, Franko and Herrera (1997) compared body image in Guatemalan-American and White women. Twenty-eight Guatemalan-American women and 29 White women who were recruited from a university in the Northeastern United States participated in this study. They were given the Eating Disorders Inventory-2 (Garner, 1991), the Multidimensional Body-Self Relations Questionnaire (Brown, et al., 1990), and the Culture Questionnaire (Pumariega, 1996). In addition, they were given a demographic measure that included questions about the participants' height and weight. Their results indicated the more acculturated the Guatemalan-American women were to the American culture, the greater body dissatisfaction they showed. Taken together, these findings may explain the change in research results over the years of studies comparing Hispanic females to White females where Hispanic and White females have shown similar levels of body dissatisfaction. That is, Hispanic females who become acculturated to the dominant American culture may have attitudes and beliefs more similar to White females than to Hispanic females who have attitudes and beliefs that are aligned with traditional Hispanic culture.

After finding no difference in level of body satisfaction across ethnicities, Shaw et al. (2004) called for future research to include potentially important variables that could affect the relationship between ethnicity and eating disorders and risk

factors. The authors proposed that acculturation to the dominant American culture may be a more important predictor of eating disturbances than specific ethnicity.

Cachelin, Rebeck, Chung, and Pelayo (2002) proposed age, Body Mass Index (BMI) and education level should be controlled for when examining body image among ethnic groups. The researchers examined body image and body size preference in White, Asian, Black, and Hispanic men and women. Age, BMI, and education level were controlled for in the statistical analysis when examining differences in body image among the ethnic groups. Before controlling for age, BMI, and education level, significant race differences were found for level of body dissatisfaction. After controlling for age, BMI, and education level, the authors found most ethnic difference in body image disappeared; the only difference was that Asian women reported less body dissatisfaction than White, Black, and Hispanic women. Contrary to previously discussed studies (Franko & Herrera, 1997; McComb & Clopton, 2002), no differences in level of body satisfaction were found in Black, White, and Hispanic women. The authors suggest ethnic differences do exist but age, BMI and education level are more powerful contributors to body image perceptions. Future research recommendations include longitudinal studies of children from different ethnic groups and controlling for age, BMI, and education level.

Body Image Evaluation, Investment, and Affect

Cash (1994a) proposed there are three facets of body image attitudes that are distinct and should be examined separately: evaluation, investment, and affect. Recall that body image evaluation refers to the satisfaction-dissatisfaction with physical

appearance and evaluations, thoughts, and beliefs about appearance. These evaluations may stem from self-perceived discrepancies from an ideal body size. The body image investment dimension of the model is the extent of focus on appearance and the behaviors involving managing one's appearance such as dieting. Finally, body image affect refers to emotions one experiences related to the evaluations made of the physical appearance.

To address the limitations in body image research in Hispanic women, additional studies are needed. Specifically, a study that focuses on differences in evaluation, investment, and affect between Hispanic and White women would help to address the gap in the research.

Purpose of the Study

The purpose of this study was to: (a) investigate the differences in body image evaluation, investment, and affect between White and Hispanic women; (b) investigate the within group differences in body image evaluation, investment, and affect in Hispanic women; and (c) determine potential factors, including acculturation, age, education level, and BMI, which may contribute to differences in body image evaluation, investment, and affect in White and Hispanic women. It is hoped that the results of this study will clarify the differences, or lack thereof, in the sources and factors that contribute to body image concerns in White and Hispanic females related to body-image investment, affect, and evaluation.

Body image predicts psychological consequences including disordered eating, depression, and suicide (Johnson & Wardle, 2005; Rodriguez-Cano, Beato-

Fernandez, & Llarío, 2006; Thompson et al., 1999). More information is needed to understand body image in Hispanic females including what factors contribute to body image concerns. In turn, this knowledge will help psychologists to better work with Hispanic women and to prevent the development of and treat eating disorders in this population. This research hopes to aid in the overall improvement of mental health care for Hispanic women, especially in relation to body image and the prevention of development of eating disorders. Using the information gathered in this study, psychologists will be better informed to treat Hispanic clients with body image issues.

Research Questions and Hypotheses

Research Question 1 sought to examine whether there were differences in level of body image evaluation, investment, and affect between White and Hispanic women. It was hypothesized, based on Grabe and Hyde (2006), that White and Hispanic women will indicate the same level of body image evaluation. Furthermore, it was hypothesized, based on Muth and Cash (1997), that Hispanic women would indicate a significantly lower level of body image investment and affect than White women.

Research Question 2 sought to examine whether there were differences in level of body image evaluation, investment, and affect, when controlling for BMI, age, and education level in White and Hispanic women. It was hypothesized, based on Cachelin, et al. (2002), that when BMI, education level, and age are controlled for, White and Hispanic women would indicate the same level of body image evaluation, investment, and affect.

Research Question 3 sought to examine whether level of acculturation in Hispanic women was related to the level of body image evaluation, investment, and affect. It was hypothesized, based on Pumariega (1986) and Franko and Herrera (1997), that in Hispanic women, women with a high level of Hispanic acculturation and low level of non-Hispanic acculturation and women with a high level of Hispanic acculturation and high level of non-Hispanic acculturation would indicate a higher level of body image evaluation, investment, and affect than women with a low level of Hispanic acculturation and high level of non-Hispanic acculturation.

Research Question 4 sought to examine whether there were differences in body-image evaluation, investment, and affect in Hispanics of different national origins. It was hypothesized, based on Lopez, et al. (1995), that Hispanic women of different national origins would significantly differ in level of body image evaluation, investment, and affect.

Chapter II

Literature Review

Body Image

Numerous descriptions of body image have been proposed over the years. For example, Schilder (1935) described body image as a tridimensional image where one could visualize the body from the front, sides, and back, but not all three at the same time. The psychodynamic perspective describes body image as “the cumulative set of images, fantasies, and meanings about the body and its parts and functions; it is an integral component of self-image and the basis of self-representation” (Krueger, 2002, p. 31). The cognitive-behavioral perspective proposes that body image develops from historical factors, such as past events, attributes, and experiences, which predisposes how people think, feel, and act in relations to their body (Cash, 2002).

Body image is an important component of self-image. Beginning in early childhood, body image affects emotions, thoughts, and behaviors in everyday life, and can, in particular, affect the most intimate of relationships (Cash & Pruzinsky, 2002). Disturbances in body image have been linked to low self-esteem. Furthermore, body dissatisfaction, a component of body image, is one of the most influential risk factors for eating disturbances.

Psychological Perspectives

Sociocultural perspective. The sociocultural perspective is “an approach to understanding human behavior that focuses on how cultural values influence

individual values and behavior” (Jackson, 2002, p. 13). Self-perceptions of body attractiveness depend on how the culture has defined attractiveness. Although research has shown similarities in facial attractiveness ideals across cultures, the “below the neck” ideals, or body ideals, vary across cultures and within cultures. Attractiveness has been defined differently throughout history in the Western culture. In the 1950’s a full-figured woman, such as Marilyn Monroe, was considered ideal. Later in the 1960’s, the ideal body reflected waif-thin model Twiggy’s shape. The fitness ideal is the latest body shape to be valued. The fitness ideal values an athletic, muscular build: entertainers such as Madonna and Jessica Alba are examples of this ideal.

Despite having higher average body weights, ethnic minority women have shown higher levels of body satisfaction than White women. Sociocultural theories suggest that the prevalence of disturbed eating in ethnic or cultural minorities should be related to the degree to which majority (White) cultural ideas of thinness are adopted and internalized by young women (Nagel & Jones, 1992). In other words, the more discrepant a person’s self-evaluation is from the cultural ideal, the greater their dissatisfaction is with their appearance. In addition, the investigators concluded that as one moves up in socioeconomic status, the pressure to conform to the thin ideal increases. In fact, the incidence of body image disturbance is similar in countries of similar socioeconomic status (Rolland, Farnill, & Griffiths, 1997).

A limitation in the sociocultural perspective is the lack of focus on whether having a culturally ideal body causes others to behave differently towards a person, or causes a person to behave differently and to develop different characteristics. Furthermore, since body characteristics are less distinctive and less stable than facial characteristics, they may have less impact on perception and social interaction than facial characteristics.

Self-objectification theory. Self-objectification theory posits that “in American culture, girls and women tend to see themselves through a veil of sexism, measuring their self-worth by evaluating their physical appearance against our culture’s sexually objectifying and unrealistic standards of beauty” (Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998, p. 269). According to self-objectification theory, learned cultural practices of sexual objectification lead women to self-objectify at a trait level. In explanation, individuals may see themselves from a critical, external perspective and, in turn, compare their own bodies to an unrealistic ideal that includes social norms and stigmas. Hispanic women may face similar challenges to those of Caucasian women with regard to their attitudes towards their bodies. In addition, Hispanic women tend to have higher levels of trait self-objectification than individuals from other minority backgrounds (Hebl, King, & Lin, 2004).

McKinley (2002) developed a concept based from feminist theory called objectified body consciousness (OBC) which includes body surveillance, internalization of cultural body standards, and appearance control beliefs. First, body surveillance is described as watching oneself as an outside observer. Next,

internalization of cultural body standards addresses how women internalize standards as their own desires, which, in turn, make the standards difficult to challenge. Finally, appearance control beliefs address the assurance that cultural body standards can be achieved as long as enough effort is put forth. Research on gender differences has shown men that have lower levels of body surveillance and body shame but similar levels of control beliefs (Fredrickson, et al., 1998; McKinley, 1998). However, research on body surveillance, body shame, and control beliefs is limited in cross-cultural populations.

Body Image Development

Although there is limited empirical support for causal relationships to various outcomes of a negative body image in children, it is still important to follow body image development from childhood to adolescence to adulthood (Smolak, 2002). Smolak found that around 40% of elementary school girls are dissatisfied with their size and want to be thinner; children as young as six express this dissatisfaction and weight concern. Cultural differences were evident even at an early age: Black girls displayed more dissatisfaction than White girls because Black girls' bodies were too small. However, no difference in body dissatisfaction was identified between Hispanic and White girls. Smolak proposed that influences such as parents, peers, and the media may affect body image even in childhood. Specifically, parental modeling of weight concerns, teasing by peers, and beauty and weight information obtained from magazines all may influence body image in children.

As children move into adolescence, body image becomes an important aspect of psychological and interpersonal development. According to Levine and Smolak (2002), approximately 40-70% of adolescent girls are dissatisfied with their body. When girls move into adolescence there is an average weight gain of 50 pounds, which includes 20 to 30 pounds of fat. The typical areas where fat is deposited are the hips, thighs, buttocks, and waist. This change in shape moves most girls away from the dominant White ideal body shape. The transition into adolescence is typically more stressful for girls than boys because girls meet many normative development challenges at once, including weight gain, dating, and emerging sexuality. Body satisfaction declines for girls from age 12 to 15, then levels off and sometimes increases slightly in middle and late adolescence. Research results are as varied regarding cultural differences in adolescents as they are in adults. However, Black females, in contrast to White, Asian-American, and Hispanic females, are found to have a higher body mass and are more likely to want to gain weight.

Body image in adolescence is one of the most important components of global self-esteem (Levine & Smolak, 2002). Negative body image is correlated with low self-esteem, depression, and anxiety. Body dissatisfaction is also correlated with the need to be thinner and dieting. Media, family, and peers continue to influence body image in the adolescent stage. Athletics and dance become additional influences on body image in adolescence for females who compete at a high level.

Although researchers have not placed much focus on body image in the older adult population, the body continues to change throughout the lifespan. Whitbourne and Skultety, (2002) propose three components of body image that require evaluation in adulthood: appearance, competence, and physical health. They suggest that appearance provides information about age and attractiveness. Competence is based on feelings of agility, endurance, and power. Physical health has implications for quality of life and influences one's thoughts and feelings about the end of life. Body-related changes in adulthood include wrinkling of the skin and loss of height. In addition, fat is redistributed from the extremities to the torso. Society's definition of the ideal body continues to influence aging women, many of whom diet despite being at a normal weight. Media are an influence in adulthood with the portrayal of older adults as suffering from Alzheimer's disease which reinforces the fear of losing dignity and independence. Although most adults are happy with their health and well being, "baby boomers" reached adulthood with different ideal standards of beauty than in previous history.

Body-Image Evaluation, Investment, and Affect

Previously viewed as unidimensional, body image is now considered to be a multidimensional construct (Cash, 1994a; Brown, Cash, & Mikulka, 1990). Cash (1994a) proposed three facets of body image: evaluation, investment, and affect. Banfield and McCabe (2002) conducted two studies to evaluate the efficacy of a multidimensional model of body image and to define body image more clearly. The authors proposed four dimensions: perception, affect, cognition, and behavior. In the

first study, 14 females and 6 males were given a questionnaire of 134 questions where the participants categorized each item into a single dimension (perception, affect, cognition, or behavior). The participants categorized the items based on their belief of what the item evaluated. Each dimension was defined for the participants at the beginning of the questionnaire. The items were chosen from a variety of body image instruments and perceptual questions including the Eating Disorder Inventory (Garner, Olmstead, & Polivy, 1983) and the Multidimensional Body-Self Relations Questionnaire (Brown, et al., 1990). After reviewing the percentage agreement across respondents for each item, 28 items were selected for the Body Image Questionnaire to be used in the second study.

The second study (Banfield & McCabe, 2002) used 175 female participants who completed the Body Image Questionnaire. Demographic information was collected including height and weight (used to calculate BMI). Body measurements of participants' waist, hips, and shoulders and two standard frontal photographs were taken. Exploratory factor analysis of the items resulted in three factors: Cognitions and Affect Regarding Body, Body Importance and Dieting Behavior, and Perceptual Body Image. These results are supported by the three dimensions conceptualized by Cash (1994a): evaluation, investment, and affect. The Body Importance and Dieting Behavior is similar to the investment dimension, the Perceptual Body Image is similar to the evaluation dimension, and Cognitions and Affect Regarding Body is similar to the affect dimension.

Gender differences in the three facets of body image, evaluation, affect, and investment, were evaluated in a study by Muth and Cash (1997). The purpose of this study was to address limitations in the previous research on body image including the lack of large sample sizes and lack of focus on the body image affect dimension. Four hypotheses were examined in this study: (a) relative to men, women have a more negative overall body image-evaluation, are more strongly invested in their looks, and report more frequent negative body image emotions; (b) the magnitude of the gender difference in body-image affect exceeds that for investment and for evaluation; (c) gender differences in the relationship between body weight and (positive) body image reflect a negative linear association for women and an inverted-U relationship for men; (d) body-image affective experiences are predicted to occur as a combined linear function of evaluation and investment.

A sample of 136 male and 141 female college students volunteered for this study in exchange for extra class credit. The participants had one week to complete the following instruments given to them to take home: Multidimensional Body-Self Relations Questionnaire (Brown, et al., 1990), Body-Image Ideals Questionnaire (Cash & Szymanski, 1995), Situational Inventory of Body-Image Dysphoria (Cash, 1994b), and Body-Image Affect Inventory (Szymanski & Cash, 1995).

The results of the study found that women had more negative body image evaluations, stronger investments in their looks, and more frequent body image dysphoria than men. Gender differences in body image affect were greater than the differences in body image investment and evaluation. The authors also recommend

future research focus on the role of ethnic and cultural factors in addition to more research on gender differences.

Due to conflicting results on ethnic differences and the small number of studies examining gender and ethnic differences on body image, Miller et al., (2000) composed a study to examine gender and ethnic differences in affective and cognitive components of body image. Participants were recruited from a northeastern and a southeastern university. There were 20 male and 20 female college students in each of three ethnic groups: African-American, European American, and Latino/a American (all born in the United States), with a total of 120 participants. Measures included the Multidimensional Body-Self Relations Questionnaire (MBSRQ; Brown, et al.,1990), the Body Esteem Scale (BES; Franzoi & Shields, 1984), the Balanced Inventory of Desirable Responding, Version 6 (BIDR; Paulhus, 1994), a Background Information Sheet, and additional items assessing feelings about eye color, skin color, hair texture, etc. were added to the BES list.

No gender x ethnicity interactions were found on any of the subscales of the MBSRQ. Furthermore, no significant differences among ethnicities were found on the Appearance Orientation scale (which measures body image investment). When examining main effects for ethnicity, African Americans scored highest on the Appearance Evaluation scale (which measures body image evaluation). After controlling for BMI, SES, and age, African Americans still scored higher than European Americans and Latino/a Americans on the Appearance Evaluation scale. Higher scores on this scale indicate feeling more positive and satisfied with ones

appearance. Therefore, African Americans indicated greater body satisfaction than European Americans and Latino/a Americans.

Cross-Cultural Differences in Body Image

When comparing body image among ethnic groups, research studies have shown varied results. For example, Lopez, Blix, and Blix (1995) examined the differences in perception of body image between Latina and White women. Participants were divided into four categories: non-Latina, White, born in the United States; Latina, born in the United States; Latina, arrived in the United States before age 17; Latina, arrived in the United States at age 17 or older. Using the female-silhouette chart, participants were asked to identify the figure that (a) looks most like you, (b) you would like to look like, (c) shows how your friends would like you to look, (d) looks like your mother, and (e) looks as you would like your mother to look. Results of the Lopez et al. study revealed a difference in ideal body image between all subgroups of Latina women and White women: Latina women identified a heavier ideal body size than White women. However, Latinas born in the United States were shown to prefer a smaller body size than Latina women born outside of the United States. With regard to perceived body size, Latinas who immigrated to the United States after the age of 16 were the only group who did not underestimate their perceived body size. The findings of this study demonstrate between group differences and within group differences in the Hispanic population.

In a comparison of eating and body image concerns in African American and Hispanic girls, Vander Wal (2004) found that girls of average weight felt pressured to gain weight. These findings are consistent with the prevalence of overweight and obesity in the African American and Hispanic population. Note that the obesity rates of African American and Hispanic children increase from approximately 19% at age 5 to 33% by age 17, which are much higher than those of Asian and Caucasian children (Douchis, Hayden, & Wilfley, 2001). Vander Wal (2004) recruited 139 girls (65 Hispanic girls and 74 African American girls) in Grades 4 and 5 from two Midwest inner-city public elementary schools. Participants completed four instruments to measure body esteem, peer influence, eating attitudes and behaviors, and social anxiety. Results revealed African American girls had significantly higher body esteem than girls at the Hispanic school. This finding is consistent with previous research which shows African American females have a higher level of body satisfaction than Hispanic females (Grabe & Hyde, 2006).

Consistent with the findings of Vander Wal (2004), Sanchez-Johnson et al. (2004) found that Latin-American women reported greater body dissatisfaction than Black women. Women whose children were involved in an obesity prevention program were asked to complete a series of instruments assessing acculturation, body image, weight loss attempts, importance of weight and shape, dietary intake, and physical activity. Although there were no ethnic differences in age and income level, there were differences in BMI and level of education. Latin-American women had a lower BMI and fewer years of education than Black women. In addition, Latin-

American women were found to be relatively unacculturated to the mainstream American society. Latin-American women did not differ in the number of times they exercise each week. However, Latin-American women reported watching fewer hours of television per day. Black women reported preferring a larger body image than Latin-American women and Latin-American women reported a greater body image discrepancy between their ideal and current body size than Black women.

The authors caution the results may be limited in generalizability to all Latin-American women due to the low level of acculturation to the mainstream American culture reported in this study. Latin-American women who have not been acculturated to the mainstream American culture tend to eat a more traditional diet including more fiber, which is associated with decreased food intake and increased satiety. Another limitation which lessens the ability to generalize the results of this study is the fact the majority of the participants were women who were born in Mexico and immigrated to the United States. Acculturation will be discussed further in the next section of this paper.

Robinson, et al. (1996) concluded Hispanic girls showed significantly greater body dissatisfaction than White girls. Participants in this study, 6th and 7th grade girls in four California middle schools, were asked to complete paper-and-pencil instruments to assess level of parent fatness, desired body shape, sexual maturity, and body dissatisfaction. In addition, trained staff measured height, weight, triceps skinfold thickness, and waist-to-hip ratio. BMI was calculated using height and weight measurements. Although a significant difference was found in body

satisfaction between the leanest (25th percentile or less) Hispanic and White girls, White, Hispanic, and Asian girls who were normal weight (25th-75th percentile) and overweight (75th percentile or greater) did not differ significantly in their ratings of body dissatisfaction. With regard to desired body shape, the results of this study found no significant differences in choice of desired body shape. These results are inconsistent with the findings of Lopez et al. (1995), even though both studies used the same silhouette instrument to measure desired body shape. One factor that may have influenced this inconsistency is age of participants, which suggests differences in stages of body image development. Specifically, the ages of participants in Lopez and colleagues' study was 15 to 45 years, and ages in Robinson and colleagues' study ranged from 10 to 14 years. In addition, Robinson and colleagues found that stage of puberty was moderately associated with body dissatisfaction; pubertally advanced girls across all ethnic groups were more dissatisfied with their bodies. These findings indicate a need to control for age when assessing body image.

Recall that Shaw et al. (2004) found no differences among ethnic groups in relation to eating disturbances. The authors assessed ethnic differences in eating disorder symptoms and risk factors for eating pathology among Asian, Black, Hispanic, and White females. Participants who indicated "Other" or Native American" were excluded from analyses due to insufficient numbers. Adolescents were recruited for the study from public and private middle schools and college students were recruited from a large public university with ages ranging from 11 to 26 years. The sample included 64 Asians, 49 Blacks, 108 Hispanics, and 564 Whites.

Participants were assessed for eating disorder symptoms, perceived pressure to be thin, modeling of eating disturbances, thin-ideal internalization, body dissatisfaction, dieting, negative affect, and self-esteem. Only one significant main effect was found in the statistical analyses: Black and Hispanic females evidenced less internalization of the thin ideal than Asian or White females. No other significant differences were found on any dimension assessed. The authors report these findings imply that ethnic groups have reached parity in terms of eating disturbances, indicating sociocultural pressures for thinness are so widespread that they are reaching and affecting all ethnic groups. Acculturation was not addressed in this study which the authors note as a limitation.

Another study with results showing no differences in body dissatisfaction among White, Hispanic, and Asian women was conducted by Arriaza and Mann (2001). Because research shows conflicting results when examining ethnic differences in eating disorders, the authors performed a study to explore the ethnic differences in eating disorder symptoms and body image concerns in college students when controlling for a possible confounding factor, Body Mass Index.

The authors propose several possible reasons for the conflicting results in previous research. First, differences across studies could be a result of the differences in the various assessments used rather than differences among groups. Second, participants' level of acculturation to American norms may vary across studies which could lead to conflicting results. Finally, participants' varying BMI could lead to conflicting results as many studies do not control for this variable.

To address these concerns, the authors conducted a study with two different samples of female college students (Sample 1 and Sample 2) while using the same assessments. In addition, differences in disordered eating and body image concerns were examined with and without controlling for BMI. Lastly, participants were selected from universities where all interactions were conducted in English to assure the participants would be highly acculturated to American norms. Sample 1 was selected from students at a private university and Sample 2 was selected from a public university.

Participants in both samples answered demographic questions about their age, ethnicity, country of origin, weight, and height. The Eating Disorder Examination Questionnaire (EDE-Q; Fairburn & Beglin, 1994) was used to assess eating disorder symptoms and body image concerns. Four subscales make up the EDE-Q: restraint, eating concern, shape concern, and weight concern.

In Sample 1, Asians had a significantly lower BMI than Whites and Whites had a significantly lower BMI than Hispanics. However, in Sample 2, Hispanics had significantly higher BMI than Asians, but Whites did not differ significantly from Whites or Asians. When comparing the ethnic groups within Sample 1 on shape and weight concern, without controlling for BMI, Hispanics showed significantly more shape and weight concern than Whites or Asians. However, after controlling for BMI, those differences disappeared. In Sample 2, there were no significant differences among ethnic groups in weight and shape concern before and after controlling for BMI.

Although no differences in weight and shape concern were found in Sample 2 before controlling for BMI, the authors suggest concerns about body shape and weight vary according to an individual's weight; specifically, the more one weighs, the more body image concerns one will have. Consequently, weight may be the contributing factor to ethnic group differences in body image concerns. For this reason the authors recommend future research needs to control for BMI before looking for body image differences among ethnic groups.

In a study comparing African American, Hispanic, and Caucasian college students, Demarest and Allen (2000) also found no differences in body shape satisfaction among ethnicities. The authors examined gender, ethnic, and age differences in body shape dissatisfaction in 120 male and female college students by having participants choose figure drawings based on a procedure created by Fallon and Rozin (1985). Participants chose a figure corresponding to a number from 10-90 with 10 being the thinnest. First, the participants were asked to choose a figure that was the same as his or her current figure. Second, the participants chose a figure that was the same as his or her ideal figure. Third, the participants chose the figure that he or she thought would be the most attractive to the other sex. Last, the participants chose the figure he or she found the most attractive in the opposite sex.

Results revealed the only significant difference in dissatisfaction was a gender difference. Overall, women are suggested to be more dissatisfied than men with their current body shapes. Although the mean difference in ideal and current body shape scores in Caucasian ($M=13.5$), African American ($M=9.4$) and Hispanic ($M=7.6$)

women follow previous result patterns in which Caucasian women express higher levels of body dissatisfaction than women of other ethnicities (Franko & Herrera, 1997; Barry & Grilo, 2002), the results of this study did not find significant differences among those scores.

In a study by Barry and Grilo (2002), Caucasian women reported body image concerns in a significantly higher proportion than did African American and Latino American females. The authors examined gender and ethnicity patterns in eating and body image disturbances in male and female adolescents in a psychiatric facility. The purpose of the study was to add to the literature on eating and body image concerns using a clinical population and Latino participants; both populations are underrepresented in the literature. In addition, there are mixed results in the literature using Latinos. Participants included 715 adolescent inpatients in a psychiatric hospital who were hospitalized for a variety of psychiatric problems. Patients who were actively psychotic and cognitively impaired were not included in the study. In terms of gender and ethnicity, 85 participants were African American (36 males, 49 females), 553 were Caucasian (250 males and 303 females), and 77 were Latino American (31 males, 46 females). After the participants completed the Millon Adolescent Clinical Inventory (Millon, Millon, & Davis, 1993), two subscales were assessed: Eating Dysfunction and Body Disapproval.

Across males and females, all three ethnic groups differed significantly in body image disturbance but not in eating dysfunction. Caucasian participants reported a higher proportion of body image concerns than did African Americans or Latino

Americans. There were no significant differences between African American and Latino American participants. When testing for an interaction between ethnicity and gender, Caucasian females had significantly higher scores on both subscales as compared with African American and Latino American females. African American females and Latino American females did not differ significantly from one another. Depending on the previous literature these results are compared to, the authors note the variance in consistency. One reason for possible variations in results for this study is that BMI and acculturation were not included as variables. The use of a clinical population also reduces the ability to generalize the results to the overall population.

Because of the discrepancies in body image research, as previously reviewed, Grabe and Hyde (2006) conducted a meta-analysis to examine the differences in body dissatisfaction among ethnic subgroups. The researchers argued this meta-analysis was necessary because body of research to date provided little support for the stereotype that ethnic-minority women have fewer eating disturbances than White women. For the purpose of the meta-analysis, four components of attitudinal body image were identified: global subjective dissatisfaction, affective distress regarding appearance, cognitive aspects of body image, and behavioral avoidance reflective of dissatisfaction with appearance.

Only measures that assessed the evaluative component (satisfaction-dissatisfaction) of body image were included in the meta-analysis. Measures that assessed the cognitive, affective, or behavioral components of body image were excluded. These measures were excluded because the authors wanted to focus

specifically on the evaluative component of body image, which has the clearest relationship to psychological consequences in women (Johnson & Wardle, 2005). Studies that included at least two groups of women, such as a comparison of White females to Hispanic females, were sought out for the meta-analysis. Ninety-eight studies from 41 different journals were included. The total number of participants in all studies was 42,667 and 222 effect sizes were calculated. The results of the meta-analysis found little-to-no difference in level of body dissatisfaction between White and Hispanic women. An effect size of -0.18 was found for the Black-Hispanic comparison, indicating that Hispanic women had a higher level of body dissatisfaction than Black women. There was a small difference found between Black and White women, with White women having a slightly higher level of body dissatisfaction.

Although no differences in level of body dissatisfaction were found between White and Hispanic women, this study called for more sophisticated research on body dissatisfaction among subgroups of women, particularly Asian and Hispanic women (Grabe and Hyde, 2006). The authors recommended that future research be directed to focus on understanding the sources of body dissatisfaction in minority groups because the analysis focused on mean-level differences: understanding the sources of body dissatisfaction is important to develop appropriate prevention and treatment interventions.

In contrast to the results found in the meta-analysis (Grabe & Hyde, 2006), Frederick, et al. (2007) found that White women reported greater body satisfaction than Asian and Hispanic women. The authors examined whether objectification theory is useful for understanding gender, body mass, and ethnic differences in body satisfaction. A sample of 2,206 undergraduates completed a body image survey. This sample included 359 White females, 468 Asian females, and 164 Hispanic females. Participants of other ethnic groups were excluded from ethnic comparisons because of the small sample size. The Appearance Evaluation Scale from the Multidimensional Body-Self Relations Questionnaire (Brown, et al., 1990) was used to evaluate body satisfaction. The surveillance scale of the Objectified Body Consciousness Scale (McKinley & Hyde, 1996) was used to measure the degree to which individuals survey their appearance. Body Mass Index, BMI, was calculated by dividing a person's height by their weight.

Results indicated that White women reported significantly higher body satisfaction than Asian women and marginally higher body satisfaction than Hispanic women. However, when BMI was controlled for, the difference between White and Hispanic women disappeared. These results are similar to the findings of Cachelin et al. (2002) in regards to eliminating differences in body satisfaction when controlling for BMI. Nonetheless, the results from Frederick et al. (2007) must be viewed with caution due to the fact that only one measure of body satisfaction was used. Additionally, within group differences among the ethnic groups were not examined

and acculturation was not assessed. The authors stressed the importance of examining ethnic differences and similarities in predictors of body satisfaction.

Acculturation

Just as research has shown contrasting results in body image attitudes across ethnicities, research examining the role of acculturation in disordered eating patterns and body image in Hispanic people has not offered conclusive results. For example, Pumariega (1986) studied the influence of acculturation to the dominant American culture in Hispanic females who were first or second generation Americans. A significant correlation between acculturation and higher scores on the Eating Attitudes Test (Garner & Garfinkel, 1979) was found. It seems that participants who were more acculturated to the dominant American culture exhibited more disordered eating attitudes and behaviors than did those less acculturated participants. A sample of 138 Hispanic females who ranged in age from 16 to 18 years completed the Eating Attitudes Test, the Acculturation Questionnaire (Pumariega, 1996), and the Hollingshead-Redlich Two Factor Index of Social Position (Hollingshead, 1965). Results did not indicate a correlation between Socioeconomic Status (SES) and disordered eating attitudes, although the author suggested that the correlation between acculturation and disordered eating may have been attenuated by the limited range of acculturation. Although this study is commended for using a large sample of Hispanic

females, the lack of comparison groups limits the conclusions that can be drawn from the results. Another limitation of this study is the use of a unidimensional measure of acculturation.

In a study by Franko and Herrera (1997), body image was examined in White and Guatemalan-American college women because there were no previous studies examining body image attitudes in this particular segment of the Hispanic population. There were two main purposes of the study: to compare body image attitudes and body dissatisfaction in White and Guatemalan-American women; and to determine whether the degree of acculturation to the dominant American culture was related to body satisfaction. Three hypotheses were examined in this study: (a) Guatemalan-American women's body image attitudes were hypothesized to be less disparaging than those of White females; (b) Guatemalan-American women were hypothesized to be less driven towards thinness and less fearful of becoming fat; and (c) the degree of assimilation to the majority White culture was hypothesized to correlate with body dissatisfaction in Guatemalan-American women.

Twenty-eight Guatemalan-American women and 29 White women who were recruited from a university in the Northeastern United States participated in this study. They were given the Eating Disorders Inventory-2 (Garner, 1991), the Multidimensional Body-Self Relations Questionnaire (Brown, et al., 1990), and the Culture Questionnaire (Pumariega, 1996). In addition, they were given a demographic measure that included questions about the participants' height and weight. The results indicated that Guatemalan-American women reported less body dissatisfaction than

White females; but that Guatemalan-American women who were more acculturated showed greater body image disparagement and fat phobia. To explain the differences found between White and Guatemalan-American women, Franko and Herrera offered the following three interpretations. First, the greater acceptance of heavier body weights within the Guatemalan-American culture may protect women from this culture striving for an extremely thin body ideal. Second, eating and enjoying food may be viewed more positively in the Guatemalan-American culture, so that young women are not as likely to receive negative messages about food, a phenomenon that is often the case in the dominant American culture. The third hypothesis is related to media exposure: Guatemalan-American women may view models depicted in the media as different from themselves and do not identify with or strive to emulate their body size.

Limitations of this study include the small sample size and use of self-report measures. In addition, the use of only Guatemalan-American females limits the ability to generalize the results to other groups of Hispanic women.

The first study to examine the effects of age, weight, acculturation, and socioeconomic status on body image and size perceptions in Mexican-American women was conducted by Cachelin, Monreal, and Juarez (2006). Because Mexican-Americans are one of the fastest growing populations in the United States, the authors wanted to complete a study using a large sample of Mexican-American women. In addition, the authors wanted to address the inconsistencies in previous body image

research when comparing ethnicities. The authors propose those inconsistencies may be due to within group differences among Hispanics, differences in measurements, and differences in level of acculturation.

Participants for this study were recruited by posting English and Spanish ads in local papers and flyers in Los Angeles. A total of 276 Mexican-American women were included in the sample. Of those 276 participants, 58 women completed the instruments in Spanish. Measurements in this study included a demographic questionnaire (assessing ethnicity, country of origin, age, level of education, occupation, height, and weight), the Acculturation Rating Scale for Mexican-Americans-II (ARMSA-II; Cuellar, Harris & Jasso, 1995), and the Figure Rating Scale (Stunkard, Sorenson, & Schlusinger, 1983). Body dissatisfaction was calculated by subtracting ideal size from current size.

Significant differences were found between degree of acculturation and body size perceptions. Specifically, greater Anglo orientation was associated with more preference for thinner figures and less tolerance for overweight figures. On the other hand, higher Mexican orientation was related to more tolerance for overweight figures. These results are consistent with the findings of Franko and Herrera (1997). In addition, a significant interaction between the age and weight category was found. The authors suggest that future studies control for BMI, which is consistent with the recommendations of Arriaza and Mann (2001).

Future research is encouraged to focus on within-group variations in body size perceptions to account for diversity in ethnic groups. Additionally, the authors recommend clinicians take into account each client's weight and level of acculturation when treating body image concerns to avoid making generalizations about clients of diverse ethnic backgrounds.

Integrated Summary

It is clear that the Hispanic population has been underrepresented in the body image literature (Grabe & Hyde, 2006). Furthermore, the limited body image research that has been conducted using Hispanic participants reports conflicting results. Although Barry and Grilo (2002) found Hispanic women experience less body dissatisfaction than White women, Robinson, et al. (1996) found Hispanic women report a higher level of body dissatisfaction than White women. One potential limitation of these studies is that body image is viewed as unidimensional. Cash (1994a) proposed body image is a multidimensional concept with three facets: evaluation, investment, and affect.

To address the inconsistency in body image literature, Cachelin et al. (2002) examined body image and body size preference in White, Asian, Black, and Hispanic men and women while controlling for age, BMI, and education level. The authors suggest ethnic differences do exist but age, BMI and education level are more powerful contributors to body image perceptions. Based on the results that indicated

any ethnic group differences disappeared after controlling for age, BMI, and education level, the authors recommended future research studies control for age, BMI, and education level.

Franko and Herrera (1997) addressed the influence of acculturation on body image in a sample of White and Guatemalan-American women. The results indicated that Guatemalan-American women who were more acculturated showed greater body image dissatisfaction. Cachelin, et al., (2006) called for future research to focus on within-group differences among Hispanic women in addition to examining the influence of acculturation. The next chapter will discuss how these discrepancies and limitations are addressed in the current study.

Chapter III

Method

Participants

The potential sample for this study included female undergraduate and graduate students enrolled in counseling and clinical psychology programs. A convenience sample was obtained by emailing the department chairs with the request to distribute the email to the students in the program. In addition, the email solicitation was sent to the presidents of student run Hispanic organizations and Hispanic sororities. The sample of participants was collected during the winter of 2008. The initial sample was made up of 603 students. However, only students who self-identified as Caucasian and Hispanic/Latino females were retained for the study. Respondents who self-identified as male or as an ethnicity outside of Caucasian and Hispanic were removed. Respondents providing incomplete data sets also were removed from the study.

The final sample was composed of 465 participants with 77% (n=360) White females and 23% (n=105) Hispanic females. Participants' ages ranged from 18 to 62, with a mean of 21.64 years and a standard deviation of 4.87. Participants' BMI ranged from 14.29 to 51.69, with a mean of 23.57 and a standard deviation of 4.99. The majority of participants, 63%, indicated that they had attended some college, while 7.7% completed a high school degree, 5.6% had earned a degree from a 2 year college, 7.7% had earned a degree from a 4 year college, 10.8% attended graduate school, 4.9% had completed graduate school. Note that although 7.7% of the

participants reported only completing a high school degree, all participants in this study were enrolled in college courses. These participants most likely were enrolled in their first semester of college.

With regard to their family's nationality of origin, of the 105 Hispanic participants, less than 1% each reported Chile, Colombia, El Salvador, Guatemala, and Portugal, 2% reported Brazil, 5% reported Puerto Rico, 6% reported Cuba, 13% reported Spain, and 65% reported Mexico. See Table 1 for Demographics information.

Table 1

<i>Demographics</i>				
Variable	M	SD	Min	Max
Entire Sample (n=465)				
Age	21.64	4.87	18	62
Education Level	4.66	1.34	3	8
Height (Inches)	65.10	2.71	56	77
Weight (Pounds)	142.25	32.20	82	340
BMI	23.57	4.99	14.29	51.69
White (n=360)				
Age	21.38	4.56	18	51
Education Level	4.59	1.30	3	8
Height (Inches)	65.36	2.61	57	72
Weight (Pounds)	142.68	33.29	82	340
BMI	23.44	5.08	14.52	51.69
Hispanic (n=105)				
Age	22.55	5.75	18	62
Education Level	4.88	1.42	3	8
Height (Inches)	64.21	2.86	56	77
Weight (Pounds)	140.78	28.26	93	222
BMI	23.94	4.6	14.29	37.2
Non-Hispanic Domain	3.91	0.19	3	4
Hispanic Domain	2.79	0.86	1	4

Instruments

The Multidimensional Body-Self Relations Questionnaire (MBSRQ; Brown, et al., 1990). The initial version of this questionnaire, the Body-Self Relations Questionnaire (BSRQ; Cash, Winstead, & Janda, 1985, 1986; Winstead & Cash, 1984), was developed by Cash and colleagues as a multidimensional measure of the attitudinal body-image construct that takes into account cognitive, behavioral, and affective components. This measure originally developed items sampling the three attitudinal dimensions (cognition, affect, and behavior) related to three somatic domains: appearance (physical aesthetics), fitness (physical effectiveness), and health/illness (physical integrity).

The Multidimensional Body-Self Relations Questionnaire is a global measure of body satisfaction (MBSRQ; Brown, et al., 1990). It provides a multidimensional, attitudinal assessment of body image and weight-related variables. There are 69 items in this measure which are broken down into 10 subscales: the first three special multi-item subscales are the revised BSRQ subscales (54 items), the Body Areas Satisfaction Scale (9 items) and the weight attitude scales (6 items). Brown performed factor analyses on males and females for the BSRQ items and there were seven resulting Factor Subscales: Appearance Evaluation, Appearance Orientation, Fitness Evaluation, Fitness Orientation, Health Evaluation, Health Orientation, and Illness Orientation.

Each item on the MBSRQ is a statement that is rated from 1 to 5, with 1=definitely disagree and 5=definitely agree (Brown, et al. 1990). Subscale scores are

obtained by calculating the mean score for the items in each subscale. Reverse scores are calculated for contraindicative items before calculating the mean score for each subscale. Cash et al. (1985, 1986) derived norms for each subscale based on 996 males and 1070 females. Brown reported norms for females for each subscale as follows: Appearance Evaluation=3.36, Appearance Orientation=3.91, Fitness Evaluation=3.48, Fitness Orientation=3.20, Health Evaluation=3.86, Health Orientation=3.75, Illness Orientation=3.21, Body Areas Satisfaction=3.23, Overweight Preoccupation=3.03, Self-Classified Weight=3.57.

The two subscales to be used in this study were Appearance Evaluation and Appearance Orientation. The authors indicate the Appearance Evaluation subscale measures body-image evaluation and Appearance Orientation subscale measures body-image investment.

Interpretations for each subscale are based on high and low scores (Brown et al., 1990). High scores on Appearance Evaluation indicate feeling positive and satisfied with appearance and low scores indicate a general unhappiness with physical appearance. High scores on Appearance Orientation indicate placing importance on how one looks, paying attention to appearance, and engaging in extensive grooming behaviors. Low scores indicate apathy regarding appearance; looks are not important and little effort is spent on looking good.

The MBSRQ is meant to be used with adults and adolescents 15 years or above (Brown et al., 1990). This instrument has been used in body-image research including national survey research, studies of college students, and research focusing

on obesity, eating disturbance, and outcome studies of body-image therapy. The internal consistency for females on the Appearance Evaluation subscale is .88 and for the Appearance Orientation is .85 (Cash et al., 1985, 1986). Rucker and Cash (1992) used the MBSRQ to evaluate body image in African-American and White women. The Appearance Evaluation scale was used to assess satisfaction and the Appearance Orientation scale was used to assess cognitive and behavioral investment. The results indicated African-American women were significantly more satisfied with their bodies than White women.

Situational Inventory of Body-Image Dysphoria (SIBID; Cash, 1994b). The SIBID was created to assess body image emotions which are proposed to depend on situational events. This instrument was used in the present study to assess body image affect. The SIBID has 48 items that measure how often one experiences negative emotions about body image across 48 situational contexts. Previous instruments assessing body image focused on trait assessment of body satisfaction and did not tap into the emotional experiences.

Each situation is rated from 0 to 4 for the frequency of “any negative feelings about your physical appearance” (0=never, 1=sometimes, 2=moderately often, 3=often, 4=always or almost always). There are two nonscored items (#49 and #50) for use in clinical contexts. These two items allow for “other situations” that may produce body image dysphoria to be written in by the respondent. The normative data

showed a mean score of 1.20 (SD=.64) for men (n=386) and a mean score of 1.72 (SD=.79) for women (n=1207) (Cash, 1994b). Higher scores indicate higher levels of body image dysphoria.

The internal consistency is reported as .96 and one month test-retest reliability is .86 (Cash, 1994b). The SIBID shows moderately high correlations (in the .50s and .60s) with other standardized measures of body image including the Body-Image Ideals Questionnaire which measures body satisfaction (Cash & Szymanski, 1995). There are additional results from an unpublished database from Cash in 1993 of 274 college women that showed the SIBID was positively and significantly correlated with the Beck Depression Inventory ($r=.53$). Results from the same unpublished database showed the SIBID was significantly associated with the Bulimia Test-Revised ($r=.59$). Another testament to the SIBID's validity is the responsiveness of the instrument to treatment. Four research studies on the efficacy of cognitive-behavioral body-image therapy found significant reductions in SIBID scores (Cash & Grant, 1996; Cash and Lavalley, 1997; Lavalley and Cash, 1997; Strachan & Cash, 1999).

Bidimensional Acculturation Scale (BAS; Marin & Gamba, 1996). The Bidimensional Acculturation Scale was developed as an instrument to measure a bidimensional process of acculturation among Hispanics. The authors argue one limitation of previous measures of acculturation is they only measured one dimension or viewed acculturation as a unidimensional process. The unidimensional process considers acculturation as moving from one side of the spectrum to another; moving

from a Hispanic pole to a non-Hispanic pole. The authors propose acculturation is a fluid process in which individuals move along at least two dimensions. In this bidimensional process of acculturation individuals learn and/or modify certain aspects of the new culture and of their culture of origin. Another limitation of previous measures of acculturation is the measures were developed for specific subgroups limiting the generalizability to other subgroups of Hispanics. The BAS was developed to address both of these limitations.

The BAS provides an acculturation score for two cultural domains: Hispanic and non-Hispanic (Marin & Gamba, 1996). The instrument includes 12 items per domain that measure three language-related areas. The original development of this instrument began with identifying 30 acculturative changes which were then broken into two domains, non-Hispanic and Hispanic, giving the instrument 60 items. Using random sampling, 254 Hispanic adults were interviewed over the phone and answered the questionnaire in the language of their choice (English or Spanish). Factor analysis produced four subscales. The first three language-related subscales are Language Use, Linguistic Proficiency, and Electronic Media. The fourth subscale, Celebrations, a social event related subscale, was removed from the final version of the questionnaire due to showing poor validity. The Language Use scale has 3 items and measures frequency of use of English or Spanish when speaking and thinking. The Linguistic Proficiency scale has 6 items and measures how well the respondent reads,

understands, and writes in English and Spanish. The Electronic Media scale has 3 items and measures the frequency of usage of English and Spanish language electronic media (radio, television, and music).

Participants rate each item on the Language use and Electronic media scales using a 4-point scale (1=almost never and 4=almost always) (Marin & Gamba, 1996). The Linguistic Proficiency subscale also uses a 4-point scale, although with different response anchors (1=very poorly and 4=very well). Scores for each cultural domain (Hispanic and non-Hispanic) are averaged to create two scores, one for each domain, that determines the level of acculturation. The authors suggest a score of 2.5 to be used as a cutoff score to indicate level of acculturation. A score of more than 2.5 indicates a high level of adherence to the cultural domain, and a score less than 2.5 indicates a low level of adherence to the cultural domain. Scores on both domains above 2.5 indicates biculturalism.

The authors have reported high internal consistency for all of the subscales ($\alpha=.97$ for Linguistic Proficiency for non-Hispanic Domain and $\alpha=.60$ for the Celebrations for Hispanic Domain) (Marin & Gamba, 1996). The internal consistency was also high for combined score of the four subscales for the Hispanic domain ($\alpha=.87$) and the non-Hispanic domain ($\alpha=.94$). When only combining the three language-related subscales the internal consistency was even higher ($\alpha=.90$ for the Hispanic Domain and $\alpha=.96$ for the non-Hispanic Domain).

Marin and Gamba (1996) measured concurrent validity by having participants complete the Short Acculturation Scale for Hispanics (SASH; Marin, Sabogal, Marin,

Otero-Sabogal, & Perez-Stable, 1987). This unidimensional measure of acculturation has shown strong validity and has been mentioned in over 100 publications (Marin & Gamba, 1996). The validity coefficient on the combined Language-Related subscales when correlated to the SASH was $-.84$ on the Hispanic domain, which indicates as scores increase on the Hispanic domain, scores decrease on the SASH. The validity coefficient on the combined Language-Related subscales when correlated to the SASH was $.88$ on the non-Hispanic domain, which indicates as the score on the Non-Hispanic domain increases, the score on the SASH increases. The validation correlations were lower when including combining all four subscales than when only the three language-related subscales were combined. For this reason, as mentioned previously, the Celebrations subscale was not included in the final questionnaire.

Concurrent validity for this instrument was also shown with high correlations to seven criteria used by researchers developing other acculturation scales: generation status, length of residence in the United States, amount of formal education, age at arrival in the United States, proportion of respondent's life lived in the United States, ethnic self-identification, and correlation with the acculturation score obtained through the SASH (Marin & Gamba, 1996). Validity coefficients on the combined Language-Related subscales when correlated to the seven criteria ranged from $-.31$ to $.88$. The smallest coefficient, $-.31$, is the relationship between the Hispanic domain on the BAS and proportion of respondent's life lived in the United States. This coefficient indicates a negative relationship between these two areas. Therefore, as the score on the Hispanic domain increases, the proportion of respondent's life lived

in the United States decreases. The largest coefficient, .88, is the relationship between the Non-Hispanic domain on the BAS and the SASH, which was described in the previous paragraph.

Demographic Questionnaire. A Demographic Questionnaire was created for the present study in order to gather information on the participants' height, weight, age, race, Hispanic/Latino origin, education level, and what is the participants' generational status as an American. This information was used for descriptive statistics and to calculate BMI.

Procedure

A convenience sample was obtained by emailing department chairs of counseling and clinical psychology graduate and undergraduate programs with the request to distribute the email to the students in the program. In addition, the email solicitation was sent to the presidents of student run Hispanic organizations and Hispanic sororities. The email solicitation included basic information about the study and a URL address for the electronic questionnaire packet for the study hosted by SurveyMonkey.

After following the URL address connecting participants to the online survey, participants were initially directed to an online consent form (see Appendix B). Once the participant agreed to the online consent form, they were directed to complete the remaining instruments which included the demographic questionnaire, MBSRQ, SIBID, and BAS. Participants were able to access the online survey over the course of a two and a half month period. A total of 603 participants started the survey and

92.2% (556) completed the survey. Incomplete responses, responses from males, and responses from ethnicities other than White and Hispanic were removed. Participants with one or two responses missing for each instrument were included in the study.

Data Analysis

Descriptive statistics were calculated to organize and present information on the participants' characteristics. BMI was calculated using the following formula: $BMI = \text{Weight (lb)} / (\text{Height (in)} \times \text{Height (in)}) \times 703$. Mean scores were computed for participants with missing responses by adjusting the number of scores the sum was divided by accordingly.

Research Questions and Hypotheses

Research Question 1 asked whether there were differences in level of body image evaluation, investment, and affect between White and Hispanic women. It was hypothesized, based on Grabe and Hyde (2006), that White and Hispanic women will indicate the same level of body image evaluation. Furthermore, it was hypothesized, based on Muth and Cash (1997), that Hispanic women would indicate a significantly lower level of body image investment and affect than White women. In order to test these hypotheses, a one-way MANOVA using ethnic group as the independent variable (White v. Hispanic) and body image evaluation, investment, and affect as the dependent variables was conducted.

Research Question 2 asked whether there were differences in level of body image evaluation, investment, and affect, when controlling for BMI, age, and education level in White and Hispanic women. It was hypothesized, based on

Cachelin, et al. (2002), that when BMI, education level, and age are controlled for, White and Hispanic women would indicate the same level of body image evaluation, investment, and affect. In order to test this hypothesis, a one-way MANCOVA using ethnic group as the independent variable (White v. Hispanic); BMI, education level, and age as covariates; and body image evaluation, investment, and affect as dependent variables was conducted.

Research Question 3 asked whether level of acculturation in Hispanic women was related to the level of body image evaluation, investment, and affect. It was hypothesized, based on Pumariega (1986) and Franko and Herrera (1997), that in Hispanic women, women with a high level of Hispanic acculturation and low level of non-Hispanic acculturation and women with a high level of Hispanic acculturation and high level of non-Hispanic acculturation would indicate a higher level of body image evaluation, investment, and affect than women with a low level of Hispanic acculturation and high level of non-Hispanic acculturation. However, the sample collected did not allow for Hispanic women to be divided into groups on the non-Hispanic dimension. Therefore, in order to test this hypothesis, a one-way MANOVA using acculturation on the Hispanic domain as the independent variable and body image evaluation, investment, and affect as the dependent variables was conducted.

Research Question 4 asked whether there were differences in body-image evaluation, investment, and affect in Hispanics of different national origins. It was hypothesized, based on Lopez, et al. (1995), that Hispanic women of different national origins would significantly differ in level of body image evaluation,

investment, and affect. In order to test this hypothesis, a one-way MANOVA using Hispanic national origin as the independent variable and body image evaluation, investment, and affect as the dependent variables was conducted.

Chapter IV

Results

This research study had four primary goals. The first was to explore differences in level of body image evaluation, investment, and affect between White and Hispanic women. The second goal was to explore differences in level of body image evaluation, investment, and affect, when controlling for BMI, age, and education level in White and Hispanic women. The third goal was to determine if level of acculturation in Hispanic women is related to the level of body image evaluation, investment, and affect. The fourth goal was to explore differences in body-image evaluation, investment, and affect in Hispanics of different national origins.

Ethnic Differences

In order to address Research Question 1, a one-way Multivariate Analysis of Variance (MANOVA) was conducted to determine the relationship between ethnicity and the three dependent variables: (a) body image evaluation, (b) investment, and (c) affect. Prior to examining the MANOVA results, the homogeneity of covariance matrices assumption was tested using Box's test. Box's test was non-significant, indicating that the homogeneity of covariance matrices assumption was satisfied, $F(6,221227.1) = 1.64, p = .13$. The MANOVA results revealed significant differences between the two ethnicities on the dependent measures, Wilks $\Lambda = .98$, $F(3, 461) = 3.89, p < .05$. The multivariate effect size measure was $\eta^2 = .025$, which means that ethnicity accounted for approximately 2.5% of the variability in the

outcome variables. The eta-square effect size measures quantify the proportion of variability that ethnicity explains in each outcome and is analogous to an R-square in multiple regression. Cohen (1988) characterized eta-squared values of .01 to .029 as a small effect size, and so by this standard the obtained eta-squared of $\eta^2 = .025$ can be interpreted as a small effect size.

To further explore the group differences, analyses of variance on each dependent variable were conducted as follow-up tests to the MANOVA. Using the Bonferroni method, each ANOVA was tested at the .017 level. As predicted, the ANOVA on the body image affect scores was significant, $F(1, 463) = 6.31, p = .012, \eta^2 = .013$, and the ANOVA on the body image evaluation scores was not significant, $F(1, 463) = 2.57, p = .109, \eta^2 = .006$. However, the ANOVA on the body image investment scores was not significant, $F(1, 463) = .89, p = .347, \eta^2 = .002$. Table 2 contains the means and standard deviations on the dependent variables for the two groups.

Table 2

Means and Standard Deviations on the Dependent Variables for Ethnicity

	Ethnicity			
	White (n=360)		Hispanic (n=105)	
	M	SD	M	SD
Body Image Evaluation	3.29	.77	3.42	.77
Body Image Investment	3.49	.61	3.55	.57
Body Image Affect	1.71	.76	1.49	.88

The mean scores for body image evaluation and investment in this study for White females were below the norms for females (Cash et al., 1985, 1986). In explanation, White females in this study were less satisfied with their bodies and spent less time in grooming behaviors than the norm group. The mean score for body image affect was essentially the same as the norm ($M=1.72$) which indicates White females in this study reported experiencing the same level of dysphoria similar to that of the norm group.

The mean scores for body image evaluation in this study for Hispanic females was above the norm for females. In explanation, Hispanic females reported a higher level of body satisfaction than the norm group. The mean scores for body image investment and affect were below the norms for females, which means the Hispanic females in this study reported spending less time in grooming behaviors and experiencing fewer negative emotions regarding their experience than the norm group.

Prior to performing the Multivariate Analysis of Covariance (MANCOVA) to examine the relationship between ethnicity and the three dependent variables when controlling for age, BMI, and education level, group differences were examined on the three covariates. ANOVA analyses indicated that the groups did not differ with respect to BMI, $F(1,463) = 1.10, p = .295$, but they did differ in their age and education levels: $F(1,462) = 4.40, p = .036$, and $F(1,462) = 3.99, p = .046$. However, the eta-squared effect size measures were all below Cohen's (1988) threshold for a

small effect size (eta-squared = .01), so these group differences can be considered trivial. In addition, the associations between the covariates and the dependent variables were examined using Pearson correlations, see Table 3 for these results. As seen in the table, BMI was significantly associated with body image evaluation and affect ($r = -.403$ and $.282$, respectively), but this was the only significant relationship between the covariates and the dependent variables.

Table 3

Intercorrelations Between Covariates and Dependent Variables

	Body Image Investment	Body Image Evaluation	Body Image Affect
BMI	-.001	-.403*	.282*
Age	.037	.057	-.039
Education Level	.002	.057	-.082

* $p < .05$

Addressing Research Question 2, a one-way Multivariate Analysis of Covariance (MANCOVA) was conducted to examine the relationship between ethnicity and the three dependent variables: (a) investment, (b) evaluation, and (c) affect, when controlling for age, BMI, and education level. Table 4 shows the means and standard deviations for the two groups on the three dependent variables. As with the previous MANOVA analysis, Box's test indicated that the homogeneity of covariance matrices assumption was satisfied, $F(6,216464.3) = 1.16, p = .138$. Contrary to the hypothesis, the MANCOVA analysis indicated the presence of group differences despite controlling for the three covariates, Wilks $\Lambda = .97, F(3,456) =$

4.38, $p = .005$, $\eta^2 = .028$. However, the eta-squared effect size suggests that the differences between the groups were small in magnitude; 2.8% of the variance in the outcomes was explained by ethnicity.

Table 4

Means and Standard Deviations for Covariates

	Ethnicity			
	White (n=360)		Hispanic (n=105)	
	M	SD	M	SD
Age	21.38	4.56	22.55	5.75
Body Mass Index	23.45	5.08	23.94	4.60
Education Level	4.59	1.30	4.88	1.42

To follow up the significant MANCOVA, a univariate ANCOVA was performed on each dependent variable while controlling for the three covariates. As with the previous ANOVA analyses, the Bonferroni method was used and each ANCOVA was tested at the .017 level. The ANCOVA analyses indicated that the groups differed with respect to body image affect, $F(1,458) = 4.23$, $p = .007$, $\eta^2 = .016$. The adjusted affect means, the means that result after equating the ethnicity groups on the covariates, were 1.71 and 1.48 for Whites and Hispanics, respectively. These means are virtually identical to the unadjusted group means ($M = 1.71$ and 1.49), which suggests that the ANCOVA produced a minimal adjustment to the groups. This conclusion is further bolstered by the fact that only BMI was significantly associated with body image affect. Finally, the remaining ANCOVA

analyses indicated that there were no significant differences on body image evaluation, $F(1,458) = 1.81, p = .056, \eta^2 = .008$, or body image investment, $F(1,458) = .31, p = .361, \eta^2 = .002$.

Acculturation

Addressing Research Question 3, a one-way Multivariate Analysis of Variance (MANOVA) was conducted to determine the relationship between level of acculturation on the Hispanic domain and the three dependent variables: (a) body image evaluation, (b) investment, and (c) affect. Participants were divided into two groups: low acculturation and high acculturation. Scores above 2.5 were included in the high acculturation group and scores below 2.5 were included in the low acculturation group. Prior to examining the MANOVA results, the homogeneity of covariance matrices assumption was tested using Box's test. Box's test was significant, indicating that the homogeneity of covariance matrices assumption was violated, $F(6,19579.58) = 2.47, p = .022$. As seen in Table 5, the standard deviation of the high acculturation group was noticeably smaller than that of the low acculturation group, and this difference is accounting for the significant Box's test (the Levene's test of homogeneity of variance was also significant for this outcome variable). However, given the fact that the multivariate and univariate tests were all non-significant with large probability values and very small effect sizes, the assumption violation likely had little to no impact on the substantive conclusions from the analyses. Consequently, the MANOVA results will be interpreted as though the assumption had been met.

Turning to the MANOVA results, as stated previously, no significant differences were found between the acculturation levels on the dependent measures, Wilks $\Lambda = .99$, $F(3, 101) = .31$, $p = .821$. This is contrary to the hypothesis that level of acculturation is related to body image evaluation, investment, and affect. The multivariate effect size measure was $\eta^2 = .009$, which suggests that level of acculturation only accounted for approximately .9% of the variability in the outcome variables. Table 5 contains the means and standard deviations on the dependent variables for the two groups.

Table 5

Means and Standard Deviations on the Dependent Variables for Acculturation

	Acculturation			
	Low Acculturation (n=75)		High Acculturation (n=30)	
	M	SD	M	SD
Body Image Evaluation	3.34	.77	3.46	.77
Body Image Investment	3.52	.74	3.57	.50
Body Image Affect	1.55	.98	1.46	.84

Hispanic Within-Group Differences

Addressing Research Question 4, a one-way Multivariate Analysis of Variance (MANOVA) was conducted to determine the relationship between Hispanic nationality of origin and the three dependent variables: (a) body image evaluation, (b) investment, and (c) affect. Prior to examining the MANOVA results, the homogeneity of covariance matrices assumption was tested using Box's test. Box's test was non-

significant, which indicated that the homogeneity of covariance matrices assumption was satisfied, $F(6,3096.54) = .45, p = .848$. Turning to the MANOVA results, contrary to the hypothesis, no significant differences were found between the two Hispanic nationalities on the dependent measures, Wilks $\Lambda = .98, F(3, 78) = .47, p < .702$. The multivariate effect size measure was $\eta^2 = .018$, which means that nationality accounted for approximately 1.8% of the variability in the outcome variables. By conventional standards, this can be interpreted as a small effect size (Cohen, 1988). Table 6 contains the means and standard deviations on the dependent variables for the two groups.

Table 6

Means and Standard Deviations on the Dependent Variables for Nationality of Origin

	Spain (n=14)		Mexico (n=68)	
	M	SD	M	SD
Body Image Evaluation	3.43	.82	3.46	.79
Body Image Investment	3.67	.66	3.50	.49
Body Image Affect	1.61	1.01	1.43	.83

Chapter V

Discussion

Based on the information presented in the first two chapters, it is clear that the Hispanic population is underrepresented in the body image literature. Furthermore, the difference in level of body satisfaction between White and Hispanic women is uncertain (Grabe and Hyde, 2006). Although previous studies have found White females report a higher level of dissatisfaction than other ethnicities, more recent studies show White females have the same or even lower levels of dissatisfaction than other ethnicities, in particular Hispanic females. Historically, body image has been viewed as a unidimensional concept. Much of the research discussed in this study measured body image as the level of dissatisfaction participants reported about their body (Lopez et al. 1995; Robinson et al., 1996; Demarest & Allen, 2000). This study set forth to examine body image as three dimensions: evaluation, investment, and affect. Examining body image as three dimensions will provide a more complete picture of females' body image, and more intricate differences between ethnicities will be revealed.

Summary of the Study

The purpose of this study was to examine the differences in body image evaluation, investment, and affect in White and Hispanic women. In addition, this study set forth to examine the effect of acculturation and age, body mass index (BMI), and education level on the three dependent variables.

Based on the results of Grabe and Hyde (2006), it was hypothesized that White and Hispanic women would indicate the same level of body image evaluation. In addition, based on the results of Muth and Cash (1997), it was hypothesized that Hispanic women would indicate a significantly lower level of body image investment and affect than White women. Based on Cachelin, et al. (2002), it was hypothesized that when BMI, education level, and age are controlled for, White and Hispanic women would indicate the same level of body image evaluation, investment, and affect.

With regard to acculturation, it was hypothesized that in Hispanic women, women with a high level of Hispanic acculturation and low level of non-Hispanic acculturation and women with a high level of Hispanic acculturation and high level of non-Hispanic acculturation would indicate a higher level of body image evaluation, investment, and affect than women with a low level of Hispanic acculturation and high level of non-Hispanic acculturation. This hypothesis was based on the results of Pumariega (1986). Finally, based on Lopez, et al. (1995), it was hypothesized that Hispanic women of different national origins would significantly differ in level of body image evaluation, investment, and affect.

Participants' level of body image evaluation, investment and affect were evaluated by the Appearance Evaluation and Appearance Orientations subscales of the Multidimensional Body-Self Relations Questionnaire (MBSRQ; Brown, et al., 1990) and the Situational Inventory of Body-Image Dysphoria (SIBID; Cash, 1994b). An assessment of acculturation was measured by the Bidimensional

Acculturation Scale (BAS; Marin & Gamba, 1996). Covariates including age, BMI, and education level were assessed in the demographic questionnaire.

Review and Discussion of the Main Findings

Regarding the hypotheses about the differences between groups on body image evaluation, investment, and affect, two of the hypotheses were supported by the results. Concerning the hypothesis that White and Hispanic women would report the same level of body image evaluation, the results indicated the ethnic groups did not differ in their body image evaluation. As body image evaluation is comparable to the overall level of body satisfaction, these results are consistent with the recent findings of Grabe and Hyde (2006) and supported the hypothesis for body image evaluation.

Contrary to the hypothesis that White and Hispanic women would differ in body image investment, there was no difference between ethnic groups for body image investment. Therefore, White and Hispanic women reported spending the same amount of time in behaviors to enhance how they look and reported placing the same amount of importance on how they look. Finally, White and Hispanic women differed in body image affect, which supports the hypothesis for body image affect and was consistent with the findings of Muth and Cash (1997). In explanation, Hispanic women scored lower on the body image affect measure which indicated the Hispanic women experienced negative emotions regarding their appearance less often than their White counterparts.

Based on these results, it appears that White and Hispanic women experience similar levels of dissatisfaction and time spent on their appearance. However, Hispanic women experience fewer negative emotions regarding their dissatisfaction and the amount of time they spend on their appearance. These findings support the theory that practitioners may underdiagnose eating disorders in minority women due to the myth that minority women do not develop eating disorders (Hotelling, 2001). If practitioners do not address body image concerns with Hispanic women, but Hispanic women have the same level of body dissatisfaction as White women, these concerns may not be attended to with Hispanic women. Practitioners need to explore potential body image concerns in Hispanic women just as they would with White women, while recognizing there may be a difference in level of negative emotions related to body image concerns in Hispanic women.

One possible explanation for these findings is that although the American dominant culture has influenced body image perceptions in Hispanic women so that they now experience the same level of dissatisfaction as White women (Nagel & Jones, 1992), their Hispanic cultural background may protect them from experiencing the increased level of negative emotions related to their appearance. In explanation, the Hispanic culture shows a greater acceptance of heavier body weights and enjoying food is viewed more positively (Thompson, 1992). For example, a Hispanic woman may be influenced by the American dominant culture's thin body image ideal which leads her to express a level of dissatisfaction with her body and spend a significant

amount of time attempting to change her body. However, the positive messages she receives from the Hispanic culture regarding her body size may prevent her from experiencing increased negative emotions related to her body image.

It had been hypothesized that any group differences reported would disappear when controlling for age, BMI, and education level was not supported. In explanation, the groups still differed, at least with respect to body image affect, even when controlling for the covariates. These results are not consistent with previous research that indicates any differences between groups will be eliminated when controlling for age, BMI, and education level (Cachelin, et al., 2002).

One explanation for this discrepancy in results is that body image was examined as three dimensions in this study, whereas Cachelin, et al. (2002) examined body image as a unidimensional level of dissatisfaction. Most previous studies have measured body image as unidimensional concept (Grabe & Hyde, 2006); however, global measures of concepts are more apt to have decreased sensitivity to detect differences. The sensitivity to detect differences between groups was greater in this study due to body image being assessed with three different measures.

Another possible explanation for this discrepancy is that the values for BMI were not varied among this sample of White and Hispanic females; the means between the two groups only differed by .5. In addition, the two ethnic groups sampled were very similar in age and education level. Because the groups did not differ on these three covariates there was minimal difference to control for in the analyses. The sample of participants in Cachelin, et al. (2002) were more varied in

age, BMI, and education level, which may account for the fact that controlling for the covariates eliminated any differences previously detected among ethnicities in that study.

Concerning the hypothesis that differences in level of acculturation would indicate differences in body image evaluation, investment, and affect, the results must be interpreted with caution. This study set forth to examine acculturation as a bidimensional process. However, the data did not allow for the non-Hispanic domain of the acculturation measure to be included in the statistical analysis because the Hispanic females in this study were all highly acculturated to the non-Hispanic domain. Therefore, the Hispanic domain, which was separated into low and high acculturation, was the only domain included in the analysis for this hypothesis. Essentially, acculturation was viewed as a unidimensional construct for statistical purposes. No differences were found in body image evaluation, investment, or affect between the high and low acculturation groups of Hispanic women. These results are contrary to the results of Pumariega (1986) and Franko & Herrera (1997) who found the more acculturated Hispanic women were to the American culture, the greater body dissatisfaction they showed.

These contradictory findings may be indicative of lack of diversity among the Hispanic participants. All participants were sampled from colleges and universities where English is the primary language and all participants were highly acculturated to the dominant American culture. A more varied sample of participants including those who are not highly acculturated to the dominant American culture, such as the sample

of participants more similar to those of Pumariega (1986) and Franko and Herrera (1997), may provide different results. For example, all Hispanic participants were first-generation children of parents who immigrated to the United States from Guatemala in Franko and Herrera (1997).

The final hypothesis examined within-group differences among Hispanics on body image evaluation, investment, and affect. The Hispanic within-group differences were evaluated for two nationalities, Spanish and Mexican, as these were the overwhelmingly predominant nationalities of participants included in the sample. Contrary to the results of Lopez, et al. (1995), who identified within-group differences in body satisfaction for Hispanic women, the groups did not differ in level of body image evaluation, investment, or affect. However, the results of this study must be interpreted with caution as a small number of Hispanic participants of Spanish origin (N=16) were included in the analysis.

Remember from the explanation of results in the previous chapter that the eta-squared indicated 1.8% of the variance in the body image investment scores was explained by the within-group differences. This is considered a small effect size by Cohen (1988) which indicates there may be a difference between nationalities for body image investment that was not discovered in this study. These results suggest there are differences between the groups but the sample size in this study was too small to reliably detect those differences. A larger sample size, such as the sample size in Lopez et al. (1995), may have uncovered significant differences among nationalities.

Limitations of the Study

Although this study sampled participants from colleges and universities across the country, the convenience sample of participants represent a small portion of females in the United States. This limits generalizability of results to the entire population of White and Hispanic females because only college students served as participants in this study.

Some limitations stem from the small sample size for different Hispanic nationalities of origin and the limited range of acculturation. Because the sample included a limited range of acculturation and small variety of nationalities of origin, the ability to explore and determine significant differences in body image evaluation, investment, and affect based on acculturation and Hispanic nationality of origin was restricted. In addition, since the sample was not varied regarding Hispanic nationality of origin, this limits generalizability to the entire Hispanic population.

Lack of diversity for the covariates was another limitation of this study. Participants were very similar in their age, BMI, and education level, which restricted the ability to determine the influence of those covariates on body image evaluation, investment, and affect.

Another potential limitation of this study was the use of self-report measures for the collection of data. Although anonymity was assured to the participants in the Informed Consent Statement and in the various instruments, participants may not have been completely honest in their responses, especially for weight.

Finally, because this study only identified whether differences between groups existed, no explanation for the reason between those differences can be determined with certainty. This study could only determine the presence, or lack thereof, between groups for body image evaluation, investment, and affect.

Directions for Future Research

Because of the underrepresentation of Hispanic women in the body image literature, future research needs to continue to focus on exploring body image in Hispanic women. Furthermore, future studies should focus on examining body image as a multi-dimensional concept to broaden understanding of body image in all women. It will be important to examine why and how differences in body image exist, such as why Hispanic women now exhibit the same level of body image evaluation and investment as White women, but show a lower level of body image affect, and how those similarities, or differences, developed. Simply because White and Hispanic women show the same level of dissatisfaction does not mean that their dissatisfaction reflects the same concerns or even predicts the same psychological consequences (Thompson et al., 1999; Johnson & Wardle, 2005; Rodriguez-Cano, et al., 2006).

A larger and more diverse sample size of Hispanic participants is needed to further explore the influence of acculturation and within-group differences in body image. For example, obtaining a sample of Hispanic women outside of four year universities would be beneficial. Increasing the diversity and sample size for Hispanic participants will provide future studies increased sensitivity to detect significant

results. In turn, those significant results will more likely be generalizable to the entire Hispanic population.

Additional studies will benefit from obtaining a more diverse sample with regard to age, BMI, and education level to further explore the influence these variables have on body image. With a more diverse sample, future studies will have the ability to confidently explain the confounding effects, or lack thereof, of these three variables on body image.

To address the limitation of using self-report measures, future studies might include a semi-structured interview or life history interview. The use of interviews can maximize the internal validity by increasing control over the collection of data (Salkind, 2000). Interviews allow the researcher to accurately gather more sensitive information, such as weight. A longitudinal study using both self-report and interview measures is most likely the research design needed to fully understand the differences in and causes of body image concerns in Hispanic women.

Conclusion

The current study set forth to replicate and address limitations in previous research studies examining body image. Furthermore, this study sought to represent the increasing population of Hispanic women in the United States in body image research. This study is among the limited number of research studies examining body image in Hispanic women. Although no differences in body image evaluation,

investment, or affect were found in Hispanic women based on acculturation and Hispanic nationality of origin, future research still needs to examine these factors to fully understand their implications for body image in Hispanic women.

It appears that when body image is viewed as a multidimensional concept, there are differences between ethnicities in emotions related to body image, but there are no differences in level of dissatisfaction or time spent on appearance. This supports and expands on more current body image research findings that Hispanic women indicate the same level of body image dissatisfaction. Additionally, the results call for the mental health field to recognize Hispanic women are in need of treatment for body image concerns. Practitioners need to explore potential body image concerns in Hispanic women just as they do with White women. The increasing level of understanding of body image in Hispanic women will hopefully continue to improve mental health care for this important population of women.

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Appendix A

Email Solicitation for Email Research Participants

Dear Department Chair/President,

My name is Angie Lipschuetz and I am a doctoral candidate in Counseling Psychology at the University of Kansas. I am writing you in hopes that you will forward this email to students in your department/student group who may be willing to participate in my dissertation research. Also, please consider posting the following information on Facebook.com if your student group/sorority has a Facebook page. The following paragraphs explain my study as well as give directions on how to access the online study. Thank you in advance for your assistance!
Sincerely,

Angie Lipschuetz
Doctoral Candidate
Psychology and Research in Education, Counseling Psychology
University of Kansas

Dear Colleague,

I am writing to ask for your assistance in my dissertation research. Please allow me to take this opportunity to explain my study briefly and ask for your participation. Also, if you have fellow students who might be willing to participate, please do not hesitate to forward this email to them. I realize that you have many obligations, and I am grateful for your time!

I am seeking female college students from diverse backgrounds to participate in my study. My study examines how people's thoughts, feelings, and behaviors relate to their body. If you choose to participate, you will be asked to complete four questionnaires asking questions about your thoughts, feelings and behaviors towards your body.

I am collecting my data via the worldwide web. A website has been developed specifically for this project. To ensure your anonymity, only basic demographic information will be collected. It is estimated that it will take between 15-20 minutes at most for you to complete the questionnaires. You may decline to participate or withdraw from the study at any give time without penalty.

If you have any questions concerning your rights as a research participant that have not been answered by the investigator or if you wish to report any concerns about the study, you may call (785) 864-7429, or write the Human Subjects Committee, Lawrence Campus (HSCL), University of Kansas, 2385 Irving Hill Road, Lawrence,

Kansas, 664045-7563, email: dhann@ku.edu.

Your help with this project is most appreciated! If you have any questions or require additional information, please do not hesitate to contact me. If you are interested in participating, please see the URL at the end of this email. Again, I understand that your time is valuable, and I appreciate your attention to this matter.

Appendix B

Internet Information Statement

The Department of Psychology & Research in Education (PRE) at the University of Kansas supports the practice of protection for individuals participating in research. The following information is provided for you to decide whether you wish to participate in the present study. You should be aware that even if you agree to participate, you are free to withdraw at any time without penalty.

We are conducting this study to better understand how women think, feel, and behave in relation to their body. This will entail your completion of a questionnaire. The questionnaire packet is expected to take approximately 15-20 minutes to complete.

The content of the questionnaires should cause no more discomfort than you would experience in your everyday life. Although participation may not benefit you directly, we believe that the information obtained from this study will help us gain a better understanding of ways in which to help women improve how they view their body.

Your participation is solicited, although strictly voluntary. Your name will not be associated in any way with the research findings. It is possible, however, with internet communications, that through intent or accident someone other than the intended recipient may see your response.

If you would like additional information concerning this study before or after it is completed, please feel free to contact us by phone or mail.

Completion of the survey indicates your willingness to participate in this project and that you are at least age eighteen. If you have any additional questions about your rights as a research participant, you may call (785) 864-7429 or write the Human Subjects Committee Lawrence Campus (HSCL), University of Kansas, 2385 Irving Hill Road, Lawrence, Kansas 66045-7563, email dhann@ku.edu.

Sincerely,

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Appendix C

Demographic Data Form

1. What is your age?
2. What is your gender?
 - Female
 - Male
 - Transgender
3. What is your race/ethnicity?
 - Black/African American
 - White/Caucasian/non-Hispanic
 - Hispanic/Latino
 - Native American/American Indian
 - Biracial/Multiracial
 - Other
4. If you marked Hispanic/Latino, what is your family's country of origin (e.g. where were your ancestors born)?
 - Argentina
 - Bolivia
 - Brazil
 - Belize
 - Chile
 - Colombia
 - Costa Rica
 - Cuba
 - Dominican Republic
 - Ecuador
 - El Salvador
 - Guatemala
 - Honduras
 - Mexico
 - Nicaragua
 - Panama
 - Paraguay
 - Peru
 - Portugal
 - Puerto Rico
 - Spain
 - Uruguay
 - Venezuela

Other

5. In what country were you born?
6. What generation of American are you?
 - 0 (your parents were born outside of the United States and you were born outside of the United States)
 - 1st (parents were born outside of the United States and you were born in the United States)
 - 2nd (parents were born in the United States and you were born in the United States)
 - 3rd or more (grandparents were born in the United States, parents were born in the United States, and you were born in the United States)
7. What is your height?
8. What is your weight?
9. What is your highest level of education?
 - Grade 6 or less
 - Grade 7 to 12 without graduating
 - High school graduate or high school equivalent
 - Some college
 - Graduate of a 2 year college
 - Graduate of a 4 year college
 - Some graduate or professional school
 - Completed graduate or professional school

Appendix D

Bidimensional Acculturation Scale

1. How often do you speak English?
4=almost always; 3=often; 2=sometimes; 1=almost never
2. How often do you speak in English with your friends?
4=almost always; 3=often; 2=sometimes; 1=almost never
3. How often do you think in English?
4=almost always; 3=often; 2=sometimes; 1=almost never
4. How often do you speak Spanish?
4=almost always; 3=often; 2=sometimes; 1=almost never
5. How often do you speak in Spanish with your friends?
4=almost always; 3=often; 2=sometimes; 1=almost never
6. How often do you think in Spanish?
4=almost always; 3=often; 2=sometimes; 1=almost never
7. How well do you speak English?
4=very well; 3=well; 2=poorly; 1=very poorly
8. How well do you read in English?
4=very well; 3=well; 2=poorly; 1=very poorly
9. How well do you understand television programs in English?
4=very well; 3=well; 2=poorly; 1=very poorly
10. How well do you understand radio programs in English?
4=very well; 3=well; 2=poorly; 1=very poorly
11. How well do you write in English?
4=very well; 3=well; 2=poorly; 1=very poorly
12. How well do you understand music in English?
4=very well; 3=well; 2=poorly; 1=very poorly
13. How well do you speak Spanish?
4=very well; 3=well; 2=poorly; 1=very poorly
14. How well do you read in Spanish?
4=very well; 3=well; 2=poorly; 1=very poorly
15. How well do you understand television programs in Spanish?
4=very well; 3=well; 2=poorly; 1=very poorly
16. How well do you understand radio programs in Spanish?
4=very well; 3=well; 2=poorly; 1=very poorly
17. How well do you write in Spanish?
4=very well; 3=well; 2=poorly; 1=very poorly
18. How well do you understand music in Spanish?
4=very well; 3=well; 2=poorly; 1=very poorly
19. How often do you watch television programs in English?
4=almost always; 3=often; 2=sometimes; 1=almost never

20. How often do you listen to radio programs in English?
4=almost always; 3=often; 2=sometimes; 1=almost never
21. How often do you listen to music in English?
4=almost always; 3=often; 2=sometimes; 1=almost never
22. How often do you watch television programs in Spanish?
4=almost always; 3=often; 2=sometimes; 1=almost never
23. How often do you listen to radio programs in Spanish?
4=almost always; 3=often; 2=sometimes; 1=almost never
24. How often do you listen to music in Spanish?
4=almost always; 3=often; 2=sometimes; 1=almost never

Appendix E

THE MBSRQ

(Survey instrument removed at the request of the copyright holder)

Appendix E

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Appendix F

The SIBID Questionnaire

(Survey instrument removed at the request of the copyright holder)

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