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Does body dissatisfaction predict mental health outcomes in a sample of predominantly Hispanic college students?

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ABSTRACT

While body dissatisfaction research has focused primarily with non-Hispanic White populations, it may also adversely affect minority mental health. The purpose of this study is to assess the association between body dissatisfaction and measures of mental health in a predominantly Hispanic college sample. One hundred seventy-four college students at a Hispanic-serving university in the Southwest United States completed self-report measures of life satisfaction, self-esteem, depression, psychological well-being, neuroticism and body image. Males comprised 38.3% of the sample. While the single greatest predictor of mental health was neuroticism (explaining between 22% and 44% of the incremental variance in the outcome measures), the body dissatisfaction by sex interaction explained additional variability in three of the four mental health outcome measures, such that increased body dissatisfaction adversely impacted mental health among women. Increased body dissatisfaction was predictive of poor general psychological well-being for both sexes. Men and individuals with lower body mass indices had better mental health outcomes. While neuroticism was clearly the strongest predictor of mental health, body dissatisfaction was related to poor mental health among women in a predominantly Hispanic sample of college students.

1. Introduction

Body image is defined as a multifaceted psychological construct that pertains to subjective attitudes and perceptual experiences of one's body, particularly its appearance (Cash & Pruzinsky, 2002). Body dissatisfaction is defined as a person's mental image of one's physical self and the evaluation of one's behavior as it relates to their body image (ter Borgt et al., 2006). Past research demonstrated a strong association between body dissatisfaction and symptoms of disordered eating (Stice & Whitenton, 2002; ter Borgt et al., 2006; Warren, Gleaves, Cepeda-Benito, Fernandez, & Rodriguez-Ruiz, 2005) and adverse mental health outcomes including decreased life satisfaction, psychological distress (Bromley, 1999), lower subjective well-being (DeNeve & Cooper, 1998), lower quality of life (Cash & Fleming, 2002b), low self-esteem (Powell & Hendricks, 1999), depression (Noles, Cash, & Winstead, 1985) and anxiety (Cash & Fleming, 2002a).

Several factors influence the prevalence and consequences of body dissatisfaction. First, women are more dissatisfied with their bodies than men: women have a preference toward being thin and a man's ideal image may be related to muscular tone (DiGioacchino, Sargent, & Topping, 2001; ter Borgt et al., 2006). Second, age has been recognized as an influential factor in body image research, especially among ethnic minorities. Wildes, Emery, and Simons (2001) indicate that the largest differences between ethnic populations in body dissatisfaction are found among college populations. Third, body mass index (BMI), a ratio of height and weight that correlates with estimates of body fat was associated with increased body dissatisfaction (Stice & Whitenton, 2002), and increased strive for thinness and dietary restraint (Ackard & Peterson, 2001). Fourth, personality characteristics, such as neuroticism have been associated with body dissatisfaction and disordered eating (Podar, Hannus, & Allik, 1999) and increased neuroticism has been shown to strengthen the relation between body dissatisfaction and eating disorders (Tylka, 2004).

Hispanics are the fastest growing minority group in the US and previous research (Warren et al., 2005) points to the importance of specific cultural and historical factors among Hispanics and Mexican Americans in relation to body image. In contrast to the US, Mexican culture emphasizes a larger, curvier physique (Chamorro & Flores-Ortiz, 2000), close family relationships and collectivism (Warren et al., 2005). Mexican descent may act as a protective factor for the development of body dissatisfaction and eating disorders. However, Crago, Shisslak, and Estes (1996) indicate that while Hispanics are heavier, exercise less and are less concerned about their weight, the prevalence of eating

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disorders is similar. Further, Hispanic females also utilize eating disorder related health care to a limited extent (Cachelin & Striegel-Moore, 2006).

Given the rapid population growth, limited health care utilization and cultural influences, understanding the effects of body dissatisfaction on mental health outcomes in this population will become increasingly important (Warren et al., 2005). Nonetheless, research investigating this association among Hispanic populations is limited. For example, a meta-analysis by Wildes et al. (2001) included 17,781 total participants, of which 138 were Hispanic. The purpose of the present study is to evaluate the association between body dissatisfaction and mental health outcomes in a predominantly Hispanic population, while accounting for the factors outlined above.

1.1. Research among minorities

A number of comprehensive reviews address body image and disordered eating among women from different ethnic/cultural groups (Crago et al., 1996; Roberts, Cash, Feingold, & Johnson, 2006; Wildes et al., 2001), but findings are not conclusive. Despite Wildes et al. (2001) small Hispanic sample size, the review indicates that non-Hispanic Whites experience greater eating disturbance and body dissatisfaction than their non-White counterparts. However, Crago et al. (1996) indicate that eating disturbances are equally common among Hispanic and White females and less frequent among Black and Asian American females.

Recently, Shaw, Ramirez, Trost, Randall, and Stice (2004), provided evidence that ethnic differences among women's body image and eating disturbance in the US have reached parity with non-Hispanic Whites. Further, no differences were reported in body image and eating disorders between Hispanic and Black women (Hrabosky & Grilo, 2007) and between Hispanic and non-Hispanic adolescent girls (Erickson & Gerstle, 2007).

Research evaluating body dissatisfaction among Hispanic males is limited. Frederick, Forbes, Grigorian, and Jarcho (2007) note that when controlling for BMI, no differences were found in body dissatisfaction between Hispanic and non-Hispanic White males. Ricciardelli, McCabe, Williams, and Thompson (2007) indicated that 12 of 16 reviewed studies on body image among males (sample sizes ranging from 20 Hispanic males to 7916 Hispanics) found no differences between Hispanic and non-Hispanic Whites. However, Ricciardelli et al. (2007) indicated that Hispanic males were more likely to engage in more extreme body change strategies such as vomiting, use of diet pills and binge eating.

1.2. Mental health outcomes

Previous studies indicate that some individuals who experience body dissatisfaction are more likely to report adverse mental health outcomes (Bromley, 1999; Cash & Fleming, 2002a; Cash & Fleming, 2002b; Powell & Hendricks, 1999). Limited research has evaluated the association between body dissatisfaction and adverse mental health outcomes among ethnic minority populations, but recent research indicates that body dissatisfaction adversely affects minority mental health among Hispanics (Unikel, Aguilar, & Gomez-Peresmitré, 2005).

We hypothesized that body dissatisfaction would predict mental health outcomes and explain incremental variability not explained by neuroticism, age, gender and BMI. As women tend to be more dissatisfied with their bodies than men (DiGioacchino et al., 2001; ter Borgt et al., 2006), the body dissatisfaction by sex interaction was included in the analyses to allow for the assessment of different relationships between body dissatisfaction and mental health across the sexes. Inclusion of the interaction is consistent with Thompson (2004), who warns of aggregating across groups of participants who may differ from one another.

2. Method

2.1. Participants

Participants were 174 undergraduate Introduction to Psychology students from the University of Texas at El Paso (UTEP). Institutional Review Board approval was obtained before recruitment was initiated. Participating students were awarded one hour of experimental credit. In the sample, 83.1% ($n = 121$) were Hispanic, 11.7% ($n = 16$) Caucasian, 1.9% ($n = 3$), African American, 1.3% ($n = 2$), Asian American and 1.9% ($n = 3$) not reported. Males comprised 38.3% of the sample. Ages ranged from 17 to 39 with a mean age of 19.90 ($SD = 2.76$). Females had a mean BMI of 23.85 kg/m^2 ($SD = 4.86$) and males 25.76 kg/m^2 ($SD = 4.40$), which is comparable to other research involving college students (e.g. DiGioacchino et al., 2001). BMI standards, 3.8% were considered underweight (BMI under 18.5 kg/m^2), 56.2% normal weight (BMI between 18.5 and 24.9 kg/m^2), 26.9% were overweight (BMI between 25 and 29.9 kg/m^2), and 13.1% were obese (BMI 30 kg/m^2 and over).

2.2. Measures

The center for epidemiology studies short depression scale questionnaire (CESD-10; Radloff, 1977) consists of 10 questions about how the person has felt in the past week to measure general depression. Item responses range from "I rarely felt that way" to "I felt that way most or all the time" on a four-point Likert scale. Prior research among older Hispanics demonstrates the CESD-10 has adequate internal consistency (Yang, Cazorla-Lancaster, & Jones, 2008).

The Rosenberg self-esteem scale (Rosenberg, 1965) consists of 10 statements related to self acceptance and self worth, measured on a four-point Likert scale, ranging from 'strongly agree' to 'strongly disagree.' Scores range from 10 to 40 with higher scores indicating higher self-esteem. Among Hispanic adolescents, both an English and Spanish version demonstrated adequate internal consistency (Umaña-Taylor & Fine, 2001).

Dupuy's psychological general well-being (PGWB) Index (1984) consists of 22-items assessing anxiety, depressed mood, positive well-being, self-control, general health, and vitality. Items are scored from 0 (most negative) to 5 (most positive) and total scale scores range from 0 to 110. Individuals with scores over 98 are likely to experience positive well-being; scores from 73 to 98 indicate the absence of distress, scores 61–72 indicate moderate distress, and scores below 61 indicate severe distress (Dupuy, 1984). Prior research indicates adequate internal consistency and validity among female Hispanic college students (Skewes, 2006).

The satisfaction with life scale (Diener, Emmons, Larsen, & Griffin, 1985) is a 5-item measure of life satisfaction. Higher scores denote greater life satisfaction on a 7-point Likert scale, ranging from 'strongly disagree' to 'strongly agree.' Scores under 20 represent dissatisfaction, 20 is a neutral point and scores over 20 represent satisfaction (Diener et al., 1985). Singelis et al. (2006) showed that this measure has high test–retest reliability and internal consistency reliability in Hispanic populations.

The Eysenck neuroticism scale (ENS) (Eysenck, Eysenck, & Barrett, 1985) is a subscale of the Eysenck personality questionnaire. This 12 item measure records a person's level of neurotic attitudes and is scored in a yes/no format and has been found to be one of the strongest psychological predictors of body dissatisfaction (Davis, 1997). Among Hispanic college students, Morera, Culhane, Watson, and Skewes (2005) have demonstrated the reliability and validity of the ENS.