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Personal Identities and Disordered Eating Behaviors in Mexican American Women

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Abstract

Eating disorder behaviors are prevalent in Latina populations. This study tested Schwartz's (2006) theoretical view that a broad array of personal identities serves as an internal resource during acculturation and prevents internalization of dysfunctional weight related beliefs. Sixty-six Mexican American women completed measures of personal identities, fat self-definition, eating disorder symptoms and acculturation. Results show that few positive and many negative personal identities predict higher eating disorder scores and effects are mediated through the fat self-definition. Characteristics of personal identities may influence internalization of cultural values related to weight. Interventions focused on overall identity may prevent eating disorders in Latinas.

Keywords

eating disorders; Latinas; self-schemas; body-image; binge eating; acculturation

1. Introduction

Level of acculturation and strength of ethnic identity are considered important contributors to eating disorder (ED) symptoms in Latina populations (Alegria, et al., 2007; Ayala, et al., 2007; Cachelin, Phinney, Schug, & Striegel-Moore, 2006; Granillo, et al., 2005; Miller & Pumariega, 2001). According to this perspective, acculturation leads to the internalization of Western values and ideals related to appearance and body weight which in turn contribute to body dissatisfaction, actual-ideal body image discrepancy and other attitudinal and behavioral correlates of the eating disorders (EDs). In contrast, lower levels of acculturation and high ethnic identity are viewed as protective factors, buffering against the reliance on values and ideals related to body weight as a key source of self-definition. However, inconsistent findings, methodological limitations, and the absence of clear mechanisms linking acculturation to behavior (Cummins, Simmons & Zane, 2005) have led to calls for studies to address more complex and proximal sources of EDs in culturally diverse populations.

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In this study we focus on personal identities as an important factor in the etiology of ED attitudes and behaviors and build on a recent theoretical proposition that characteristics of the array of personal identities are central to adaptive functioning during the process of acculturation (Schwartz, Montgomery, & Briones, 2006). Personal identities are a stable set of knowledge structures that reflect the values, interests and goals specific to the individual that distinguishes her from members of her social group (Schwartz, Zamboanga & Weisskirch, 2008). They are shaped by opportunities and constraints afforded by the socio-cultural context. Positive identities are viewed as a protective resource that gives direction, meaning and constancy to everyday life, even during time of ethnic identity confusion and change. In contrast, negative personal identities are viewed as products of social, cultural and economic barriers that may increase stress and vulnerability to maladaptive outcomes.

We use self-schema theory to conceptualize characteristics of the total array of personal identities. Self-schemas are knowledge structures about the self in specific behavioral domains that are stored in long-term memory (Lieberman, 2003; Markus, 1977). Based on studies demonstrating the functional properties of self-schemas (Catrambone & Markus, 1987; Estabrooks & Courneya, 1997; Froming, Nasby, & McManus, 1998; Kendzierski & Sheffield, 2000; Lips, 1995; Markus, Hammill & Sentis, 1987), and their organization in memory (Nowak, Vallacher, Tesser, & Borkowski, 2000) we hypothesize that Mexican American women who have few positive self-schemas, many negative self-schemas, and high interrelatedness among their self-schemas will lack the diverse array of interests, commitments, and strategies necessary to facilitate meaningful behaviors in a diverse array of domains. Simultaneously, they will be more likely to experience negative affects, behavioral avoidance and inhibitions that stem from negative self-schemas (Lips, 1995). Together these properties of the self-concept will increase vulnerability to cultural norms related to body weight and will contribute to the development of a fat self-schema, which in turn, will predict ED attitudes and behaviors.

2. Methods

2.1. Participants

The sample included 66 Mexican American young adult women recruited with community-based flyers and announcements at university based Latina student organizations. Table 1 shows the sample characteristics.

2.2. Measures

The number of valenced self-schemas and interrelatedness were measured using an open-ended questionnaire developed by Zajonc (1960) and employing a methodology developed by Markus (1977) to identify self-schemas (see Corte & Stein, 2007 for description of methodology). Test-retest reliability over 12 months has been shown for the number of positive schemas, $r(94) = .53, p < .001$, number of negative schemas, $r(94) = .58, p < .001$, and interrelatedness, $r(94) = .66, p < .001$ (Stein and Corte, 2008).

The fat self-schema was measured with a single item (thin/fat) embedded in a closed-ended bipolar trait adjective rating scale. We previously showed validity and 12-month test-retest reliability of the measure as a dichotomous indicator of the fat self-schema, $\phi = .64, p < .001$ (Stein & Corte, 2008).

The four ED outcomes included the body dissatisfaction, drive for thinness, and bulimia subscales of the Eating Disorders Inventory (EDI) (Garner, 1991) and the Binge Eating Scale (BES) (Gormally, Black, & Daston, 1982). Alpha coefficients in this sample were high (0.88, 0.85, 0.64, and 0.85 respectively).

Generational Distance (Marin & Marin, 1991) was used as a proxy for level of acculturation. Women who were born in Mexico but living in the US were categorized as first generation; women born in the US with parents born in Mexico were categorized as second generation; and those who were born in US and parents were born in US were categorized as third generation or higher.

The 12-item Multigroup Ethnic Identity Measure (MEIM) (Phinney, 1992) was used to measure ethnic identity. The alpha coefficient in this study was 0.86.

2.3. Procedures

Data were collected in a single 2 hour session. Measures were administered in a fixed order with the open-ended self-schemas administered first, followed by the closed-ended self-schema measure, acculturation and ethnic identity, and finally the EDI and BES questionnaires. Participants were weighed and measured using a balance beam scale after all questionnaires were completed. Compensation was \$25.

2.4. Data Analysis Plan

A series of regression analyses were completed for each of the four outcome variables -- EDI body dissatisfaction, EDI drive for thinness, EDI bulimia, and the binge eating score. The number of positive and negative self-schemas and interrelatedness were used to predict the dichotomous fat self-schema score (presence/absence) using logistic regression modeling. To control for differences in BMI, this variable was also included as a predictor. Linear regression modeling was used to test the significance of the four self-concept variables and BMI as predictors of each of the four dependent variables. To address the competing hypothesis related to the effects of acculturation and ethnic identity, two additional sets of analyses were completed. In the first set, generational status (0=1st or 2nd generation and 1=3rd generation or higher) was added as a predictor of both the fat self-schema and the ED outcome variables. In the second set, the MEIM score was added as a predictor of both the fat self-schema and the ED outcome variables.

3. Results

3.1. Influence of Self-Schema Properties on ED Attitudes and Behaviors

Table 1 shows descriptive statistics and bivariate correlations for all variables.

3.1.1. Fat Self-Schema—The number of positive self-schemas negatively predicted availability of the fat self-schema (Odds Ratio=0.87, CI 0.76–1.00, $p = .05$) while the number of negative self-schemas (Odds Ratio=1.65, CI 1.18–2.30, $p=.003$) and BMI (Odds Ratio = 1.20, CI 1.02–1.41, $p = .03$) positively predicted the fat self-schema. Interrelatedness was not a significant predictor (Odds Ratio=0.001, CI 0.00–2.16, $p=.08$). Neither generational distance (Odds Ratio=0.39, CI 0.98–1.57, $p=.19$) nor the MEIM score (Odds Ratio=1.29, CI 0.35–4.82, $p=.71$) significantly predicted the fat self-schema controlling for BMI and the self-concept variables.

3.1.2. ED Attitudes and Behaviors—Table 2 shows the results of the regression analyses to predict the four outcome variables. Interrelatedness did not predict the fat self-schema, but it directly and positively predicted body dissatisfaction, bulimia and binge eating scores. Together with BMI, the four self-concept variables accounted for between 25% and 40% of the variance in the ED attitudes and behaviors variables.

3.2. Acculturation and Ethnic Identity as Predictors of ED Outcomes

Generational distance was significant only in the model to predict body dissatisfaction ($\beta = .21, p = .04$). It significantly increased the R^2 from .40 to .44, $p = .04$ and the other predictors remained stable. The MEIM score was significant only in the model to predict the binge eating score ($\beta = -.23, p = .04$). It significantly increased the R^2 from .33 to .38, $p = .04$ and again other predictors remained stable.

4. Discussion

The aim of this study was to investigate the effects of personal identities on the internalization of cultural norms related to body weight and ED attitudes and behaviors. Consistent with the hypothesis, our findings showed that the availability of few positive and many negative self-schemas each contributed to susceptibility of cultural norms as reflected in the elaborated conception of the self as fat. Once articulated in memory, the fat self-schema was associated with high levels of body dissatisfaction, drive for thinness, bulimic and binge eating behaviors. Schwartz suggested that adaptation during acculturation depends on the array of personal identities available to anchor and stabilize the sense of self (Schwartz et al., 2006). From this view internalization of cultural standards and dysfunctional behaviors related to body weight are not a simple and universal outcome of acculturation. Rather this outcome appears to reflect specific susceptibility stemming from characteristics of the array of identities claimed as defining the self and available to stabilize the sense of self during the process of acculturation.

Our findings also provide information about mechanisms linking acculturation to ED attitudes and behaviors. Previous research linking acculturation to ED symptoms has been based on the speculation that internalized standards related to body weight are the mechanism linking level of acculturation to ED symptoms (Alegria et al, 2007). If one's conception of acceptable body weight changed to become thinner during acculturation, then the likelihood of defining oneself as fat would increase during this time. However, contrary to this view, generational status was unrelated to defining oneself as fat. The fact that generational status had a small but significant direct effect on body dissatisfaction suggests that longer exposure to American values influences level of comfort or self-acceptance related to body weight. Results of our study suggest that women who are less acculturated are more satisfied with their bodies regardless of whether they view themselves as fat or thin.

Results also suggest that a strong Mexican ethnic identity is a protective factor associated with lower levels of binge eating behavior. This finding is unexpected given that previous ED studies with Mexican American samples have shown that strong Mexican identity did not confer protection (Cachelin et al, 2006). The direct effect of ethnic identity on binge eating behaviors suggests that ethnic identity does not function through the internalization of cultural values, but rather directly and independently offers some protection against binge eating.

Consistent with a well-established view that body image disturbances are an important determinant of the EDs (Stice, Presnell, Gau, & Shaw, 2007; Stice & Shaw, 2002), our findings show that for young adult Mexican American women, the internalization of cultural values reflected in an elaborated schema of the self as fat contribute to ED attitudes and behaviors. Yet when considered along with the findings that the fat self-schema mediates the effects of properties of the overall collection of self-schemas, the question of whether body image is a determinant or indicator of the disorder becomes more salient. Results of this study raise questions about the longstanding emphasis on body image as a cause of the disorder and provide preliminary evidence to suggest that interventions focused on

modifying properties of the total array of self-schemas may be a more fundamental approach to treatment and prevention.

The fact that interrelatedness had a direct and positive effect in predicting the ED attitudes of body dissatisfaction and bulimia and binge eating behaviors is not consistent with theoretical predictions but is similar to findings from our own previous work with women with a diagnosed ED (Stein & Corte, 2007) and in a study of college women with low levels of ED behaviors (Showers & Larson, 1999). A tentative explanation is that the fat self-schema is part of a highly interrelated network of self-schemas, such that when any of the schemas in the network get activated, the fat self-schema also gets activated. From this perspective, the interrelated network (including the fat self-schema) would directly contribute to ED attitudes and behaviors.

Limitations include 1) correlational design which precludes our ability to draw clear conclusions about the directionality of the observed relationships, and 2) recruitment primarily from a university community yielding participants who were highly educated. Additional longitudinal studies are needed to examine the utility of the identity impairment model in more diverse samples of this ethnic group of women.

5. Conclusions

This study lends initial support for the theoretical view that characteristics of the array of personal identities are associated with susceptibility to body weight cultural norms and ED attitudes and behaviors in young adult women of Mexican origin. Most importantly, results suggest that individual differences in the array of positive and negative self-schemas are predictive of the availability of an elaborated definition of the self as fat and lend credibility to the hypothesis that interventions to influence the development of more positive and fewer negative self-schemas may be an important approach to preventing development of a fat self-definition and the associated ED attitudes and behaviors in this population.

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Table 1

Sample Characteristics, Descriptive Statistics, and Bivariate Correlations

	Mean (SD)	Range		
Age in years	24.1 (5.2)	18–40		
BMI	25.7 (4.6)	16.7–40.5		
Some College Experience	97% (n=64)	--		
Total Self-Descriptors	25.3 (11.3)	7–52		
Total Self-Schemas	17.0 (9.3)	4–47		
Positive Self-Schemas	12.2 (6.9)	2–35		
Negative Self-Schemas	1.6 (2.3)	0–9		
Neutral Self-Schemas	3.3 (4.5)	0–28		
Interrelatedness	0.17 (0.09)	0.02–0.40		
Fat Self-Schema	27% (n=18)	--		
EDI Bulimia	1.4 (2.2)	0–9		
EDI Body Dissatisfaction	8.6 (6.8)	0–27		
EDI Drive for Thinness	5.2 (5.2)	0–21		
Binge Eating Scale	10.2 (6.8)	0–24		
MEIM	3.3 (0.5)	2.2–4.0		
Generational Distance				
1 st Generation	17% (n=11)	--		
2 nd Generation	48% (n=32)	--		
≥ 3 rd Generation	35% (n=23)	--		
	EDI Body Dissatisfaction	EDI Drive for Thinness	EDI Bulimia	Binge Eating Score
BMI	.26*	.04	.003	.12
# Positive Self-Schemas	-.25*	-.16	-.10	-.12
# Negative Self-Schemas	.32**	.35**	.34**	.34**
Interrelatedness	.15	.03	.16	.25*
Fat Self-Schema ^a	.55**	.50**	.37**	.42**

Note.

* $p < .05$,

**
 $p < 0.01$;

^aFat self-schema is a dichotomous variable, point-biserial correlations are reported.

Table 2

Linear Regression Analyses to Predict Eating Disorder Outcomes

	B	SE	β
Dependent Variable: Body Dissatisfaction			
Predictors			
BMI	.15	.17	.10
# Positive Self-Schemas	-.10	.11	-.10
# Negative Self-Schemas	.53	.33	.18
Interrelatedness	15.51	8.00	.21+
Fat Self-Schema (0=no, 1=yes)	7.20	1.82	.48***
Dependent Variable: Drive for Thinness			
Predictors			
BMI	-.09	.14	-.08
# Positive Self-Schemas	-.06	.09	-.08
# Negative Self-Schemas	.43	.28	.19
Interrelatedness	7.37	6.61	.13
Fat Self-Schema (0=no, 1=yes)	5.20	1.51	.45***
Dependent Variable: Bulimia			
Predictors			
BMI	-.06	.06	-.12
# Positive Self-Schemas	-.01	.04	-.03
# Negative Self-Schemas	.20	.12	.22
Interrelatedness	6.33	2.83	.27*
Fat Self-Schema (0=no, 1=yes)	1.67	.64	.35*
Dependent Variable: Binge Eating Score			
Predictors			
BMI	-.00	.18	-.00
# Positive Self-Schemas	-.01	.13	-.01
# Negative Self-Schemas	.67	.36	.23
Interrelatedness	24.85	8.55	.35**
Fat Self-Schema (0=no, 1=yes)	5.89	1.95	.39**

Note. R^2 for Body Dissatisfaction = .40; R^2 for Drive for Thinness = .30; R^2 for Bulimia = .25; R^2 for Binge Eating Score = .33. + p=.056;

* p<.05;

** p<.01;

*** p < .001.