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Influence of ethnicity, acculturation and personality attributes on eating attitudes and behaviors associated with bulimia

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INFLUENCE OF ETHNICITY, ACCULTURATION AND PERSONALITY ATTRIBUTES ON EATING ATTITUDES AND BEHAVIORS ASSOCIATED WITH BULIMIA

A Thesis

Presented to the

Faculty of

California State University,

San Bernardino

In Partial Fulfillment

of the Requirements for the Degree

Master of Science

in

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ABSTRACT

This study examined eating attitudes and behaviors associated with bulimia in White and Latina female college students. White's eating disorder scores were compared to low-acculturated and high-acculturated Latinas. Well-known predictors of eating disorders such as depression, stress, anxiety and body dissatisfaction were assessed for both populations, as well as perceived family support, which was expected to predict eating disorder scores in Latinas. The Eating Disorder Inventory (EDI), Beck Depression Inventory, Spielberger State Anxiety Index, Perceived Stress Scale, Short Acculturation Scale for Latinas and a Familism Scale were administered to 170 White and 83 Latina college students. Analytic comparisons were conducted to test for ethnic and acculturation differences in eating disorder scores. Stepwise linear regression analyses were used to predict EDI scores for both populations from the factors mentioned above. The only significant differences in EDI scores were between Whites and low-acculturated Latinas, with low-acculturated Latinas having higher scores. Body dissatisfaction, anxiety and depression were positively correlated with higher EDI scores for both populations and stress was negatively related to higher EDI scores for Whites.

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INTRODUCTION

Bulimia Nervosa is an eating disorder in which the essential features are: recurrent episodes of binge eating; a feeling of lack of control over eating behavior during the eating binges; self-induced vomiting, use of laxatives or diuretics, strict dieting or fasting, or vigorous exercise in order to prevent weight gain; and persistent overconcern with body shape and weight (American Psychiatric Association, 1987).

This disorder appears to be somewhat common, especially among college students. Halmi, Falk and Schwartz (1981) reported a 13% prevalence rate for bulimia among college students. Pyle, Mitchell, Eckert, Halvorson, Neuman and Goff (1983) reported a 2.1% incidence of bulimia among college freshmen. In a later study, Pyle, Neuman, Halvorson and Mitchell, (1991) reported a 4.3% incidence of bulimia, also among college freshmen. Although the occurrence of bulimia in college women has been demonstrated, relatively little attention has been given to the ethnicity of those individuals reporting the disorder.

Factors which have been associated with eating disorders in general (and bulimia in particular) include depression, stress, anxiety, body dissatisfaction, and substance abuse.

Depression and Substance Abuse

In a study of 30 bulimic patients, Russell (1979, p. 440) stated that "next to the preoccupations directly concerned with eating and weight, depressive symptoms were the most prominent feature of the patient's mental state." Correlations between depression and general eating disorders have been found in a number of studies.

In a survey of university students, Hawkins, McDermott, Seeley, and Hawkins (1992) found the following maladaptive eating practices to be associated with depression: (1) eating because upset or nervous, (2) feeling uncomfortable eating in front of others, (3) forced vomiting, and (4) not eating for 24 hours.

In a longitudinal study of patients being treated for anorexia, bulimia, and a combination of anorexia and bulimia, Herzog, Keller, Sacks, Yeh and Lavori (1992) report that 37% of the anorexics, 32% of the bulimics and 57% of the patients being treated for both disorders suffered major depression.

In a comparison of 76 eating-disordered patients, 20 psychiatric patients and 24 normal subjects, Steiger, Goldstein, Mongrain, and Van der Feen (1990) found the eating-disordered group to be more depressed than the psychiatric controls, who were in turn more depressed than normal controls.

Using structured clinical interviews for eating and mood disorders, Steiger, Leung, Ross and Gulko (1991) compared groups of high school girls who self-reported (1) maladaptive eating attitudes and depressed mood, (2) maladaptive eating attitudes only, and (3) neither problem. They found that girls reporting the combination of eating and mood disturbances consistently displayed more DSM-III-R signs of anorexia and bulimia than did girls reporting eating disturbances alone.

Strauss and Ryan (1988) assessed cognitive dysfunction and depression in 19 restrictive anorexics, 14 bulimic anorexics, 17 normal-weight bulimics, 15 subjects with subclinical disorders and 17 normal control subjects. Although their results offered limited support for the notion that cognitive dysfunction is a central characteristic of eating pathology, they found that dysphoria and depression were prominent features of all four eating disordered groups.

Other studies comparing bulimics and control groups have reported a positive relationship between bulimia nervosa (specifically) and depression.

In their comparison of 40 bulimic patients and 40 normal controls, Mitchell, Pyle, Eckert, Pomeroy and Hatsukami (1988) found that the bulimic patients were four

times more likely to have been treated for depression than were the controls.

Pope and Hudson (1989) reviewed 12 placebo-controlled double-blind studies of anti-depressant medications in the treatment of bulimia and reported that anti-depressants were superior to placebo in reducing the frequency of eating binges as well as depression, anxiety, obsessions about food and body weight.

Schlesier-Carter, Hamilton, O'Neil, Lydiard, and Malcolm (1989) assessed levels of depression in bulimic and control groups and investigated cognitive styles associated with food, weight and depression. They found that bulimics were significantly more depressed than controls and differed significantly from controls on cognitive distortion associated with depression and bulimia.

The relationship between substance abuse and eating disorders has also been studied. However, the literature on such a link is mixed.

Russell (1979) and the DSM-III-R (American Psychiatric Association, 1987) suggest that bulimics are at risk for substance abuse. Several other investigations also report positive relationships between eating disorders and substance abuse.

Crowther and Chernyk (1986) compared bulimic, binge-eating and normal females and found that bulimics and severe bingers reported using more alcohol.

In a comparison of bulimic patients, bulimic college students and non-bulimic college students, Pyle and collaborators (1983) found that bulimic students were significantly more likely to have been treated for alcohol and drug abuse than were non-bulimic students.

Results of Pyle and collaborators (1991) survey of freshmen college students also indicate that bulimic students were more likely than non-bulimic students to have been treated for alcohol or drug-related problems.

Other studies have found no significant difference in level of substance abuse between eating-disordered and normal subjects.

In a comparison of 41 anorexic, 98 bulimic and 90 mixed (anorexia and bulimia) patients, Herzog, Keller, Sacks, Yeh and Lavori (1992) found low rates of substance abuse overall. Logue, Crowe, and Bean (1989) found no association between substance abuse and eating disorders in their study of the families of eating disordered patients, depressed patients, and control subjects.

Finally, many of the studies which did find a link between eating disorders and substance abuse also reported a positive relationship between eating disorders and

depression (Crowther and Chernyk, 1986; Pyle, et al, 1983; and Pyle, et al, 1991).

In a Rand, Lawlor and Kuldow (1986) study of individuals with both eating disorders and alcohol problems, subjects reported that emotions associated with eating binges were similar to those associated with alcohol abuse (anger, anxiety, boredom and depression).

Jonas and Gold (1988) suggest that involvement of the endorphin system may provide a mechanism whereby binge-eating and addictions are related. The authors state that the addictive power of exogenous opiates is well recognized. To test their theory that the compulsive quality of binging and purging might also be explained by endogenous opiate peptides, the authors treated eight bulimic patients with the opiate antagonist naltrexone. They reported significant reductions in binging and purging. However, the authors also state that there is evidence that dysregulation of opioid peptides occurs in depression and they note the possibility that eating disorders and substance could be linked by affective disorders.

Because the literature on the relationship between eating disorders and substance abuse is mixed and many of the studies which do report a positive relationship suggest the link may be due to a third disorder, depression, the

current study will focus on the relationship between eating disorders and depression.

Stress and Anxiety

Stress and anxiety have also been associated with eating disorders in general and bulimia in particular.

Russell (1979) reported that anxiety (especially in social relationships or with school work) occurred with relative frequency among his bulimic patients.

In their comparison of bulimic, binge-eating, and normal female adolescents, Crowther and Chernyk (1986) found that bulimics and severe bingers had higher stress ratings than did controls.

Rebert, Stanton, and Schwarz (1991) examined the relationships among personality attributes, mood states and eating patterns in bulimics and binge eaters. Greater state depression, anxiety and hostility were associated significantly with binge eating and with purging for bulimic subjects.

In a comparison between anorexic and bulimic patients and non-eating-disordered controls, Soukup, Beiler, and Terrell (1990) found that both bulimics and anorexics had lower levels of self-confidence, were more prone to depression, and were more anxious than non-eating disordered subjects. However, only bulimics reported significantly higher levels of excessive stress (as

measured by the Derogates Stress Profile) than did non-eating disordered subjects.

Body Dissatisfaction

The relationships between body dissatisfaction and cognitive distortions and eating disorders have also been studied. In a longitudinal study of adolescent girls, Attie and Brooks-Gunn (1989) found that those girls who felt most negative about their bodies were also most likely to develop eating problems two years later. Garfinkel, Goldbloom, Davis, Olmsted, Garner and Halmi (1992) reported that bulimic subjects displayed significantly higher levels of body dissatisfaction than did normal controls. Laessle, Kittl and Fichter (1988) found significant correlations between depression and negative body attitudes and "drive for thinness" in eating disordered subjects and between perfectionism and depression in bulimic subjects in particular.

Cross-Cultural Differences

The results of the studies which have looked at ethnicity and eating disorders are mixed. Schmolling (1988) assessed eating attitudes in a sample of community college students (23% Black, 66% White, 8% Hispanic, 3% Oriental or mixed). He found no differences related to socioeconomic variables, but reported more eating disorders

among White women than non-White women (as measured by the Eating Attitude Test).

Using a structured interview with a random sample of 2,115 adults (79% White and 21% Black), Rand and Kuldau (1992) found no racial differences in bulimic behaviors and symptoms.

In a study of 712 high school students using the Eating Attitudes Test and the Binge-Eating Questionnaire, Lachenmeyer and Muni-Brander (1988) reported that eating disorders cross socieoeconomic class and ethnic groups.

In their epidemiological study of problem eating behaviors, Langer, Warheit and Zimmerman (1991) interviewed 2,075 adults (450 Black and 1,647 White) using 280 questions pertaining to physical and mental health, eating behaviors, and social and demographic factors, including race. Blacks had significantly higher rates than Whites for binging and vomiting, eating less in public and more when alone, perceiving themselves as having a weight problem, and having lives dominated by eating. Whites were significantly more likely to have dieted in the past two months. Differences between the two groups in the remaining eating attitude and behavior items were not statistically significant.

Sykes, Leuser, Melia and Gross (1988) reported a significantly lower prevalence of anorexia and bulimia

among Black patients than among other patients. Gray, Ford, and Kelly (1987) also found a significantly lower prevalence of bulimia among Black college students compared to a similar study of White college students. In a comparison of eating disorder scores among Black and White female college students, Rosen and collaborators (1991) found that White women were more dissatisfied with their body shapes but had fewer feelings of distrust for others and less anxiety about maturity than Black college students. Almost twice as many White women than Black women scored in the upper 14% on the bulimia scale.

In their investigation of the incidence of eating disorders among Pueblo Indian and Latina high school students, Snow and Harris (1989) found no significant differences between the two groups. However, 11% of the students in this study fell into the DSM III category of bulimia.

In a survey of pathogenic weight-control behaviors among Native American women and girls, Rosen and her collaborators (1988) reported that over half of the subjects reported using one or more pathogenic weight-control technique (fasting, vomiting, diet pills, diuretics, laxatives or fluid restriction), 74% were dieting to lose weight and 24% of the dieters used one or more purging behaviors.

Smith and Krejci (1991) concluded from their study of eating attitudes of Latina and Native American high school students that Native Americans outscored Whites and Latinas on all measures and that the Native American and Latina incidence of disturbed eating patterns (bingeing/vomiting) is at least comparable to that of White adolescents.

Pumariega (1986) investigated the relationship of culture and social economic status (SES) to eating attitudes in Latina adolescents. Eating Attitude Test (EAT) scores were similar to those of White adolescent girls. Acculturation (as measured by a 15-item questionnaire devised to evaluate the relationship between acculturation to American culture and eating attitudes) was significantly associated with higher EAT scores, but SES level was not.

In a review of cross-cultural aspects of anorexia nervosa and bulimia, Dolan (1991) noted that in the vast amount of research on eating disorders it is "..noticeable that the issues of culture, race and ethnicity are lost often in the small print of results sections or given only passing mention in discussions" (pp. 67). Dolan reports that the majority of evidence from surveys and clinical reports indicates a low prevalence of eating disorders in non-White populations. However, Dolan suggests this may be

due to referral bias and/or the culture and attitudes of the researchers.

In their review of the literature on transcultural aspects of eating disorders, Davis and Yager (1992) found the following: (1) most reports on anorexia nervosa and bulimia nervosa in non-Caucasian populations have been case studies; and (2) most describe symptoms similar to Caucasian eating disordered subjects (i.e., fear of fatness, drive for thinness, distorted body image, amenorrhea, perfectionism and low self-esteem). The authors also suggest that the role of acculturation has been neglected in eating disordered subjects outside North America and Western Europe.

In a review of the literature on eating disorders and culture, Nasser (1988) reported the following culture-specific eating disorder criteria:

1. Prevalent in Western cultures and reported rare in others.

2. More prevalent in certain sub-cultures (e.g. ballet students).

3. Psychopathology is symbolic of notions of thinness, promoted by the culture.

4. Blurs and merges with acceptable forms of slimming behavior.

5. Emerges in other cultures upon identification with Western cultural norms.

In their review of the literature on cross-cultural patterns in eating disorders, Pate, Pumariega, Hester, and Garner (1992) report an increasing prevalence of eating disorders among all social classes and ethnic groups in the U.S. They report a significant correlation between acculturation and higher Eating Attitude Test (EAT) scores in Latinos and suggest that "greater adherence to the Western culture may increase an individual's vulnerability toward the development of eating disorders." The authors recommend future cross-cultural studies of the link between eating disorders and affective disorders to ensure it is not unique to our culture.

Family and Social Support

Another variable which may affect Latino students in particular is perceived level of family/social support. In their investigation of Latino familism and acculturation, Sabogal, Marin and Otero-Sabogal (1987) report a high degree of perceived family support despite changes in acculturation.

Keefe, Padilla and Carlos (1979) report that Mexican Americans' main resource for emotional support is their extended kin network. Keefe and associates mention two consequences of Mexican American's reliance on the extended

family as their only informal emotional resource: (1) Those Mexican Americans who do not have a local kin network are not likely to have substitute sources of help in times of stress; and (2) Those Mexican Americans who lack a well-integrated family may undergo additional stress because theirs does not correspond to the normative or ideal family system.

Although it is not mentioned in the literature on eating disorders, perceived level of family support has been associated with depression. Vega, Kolody and Valle (1986) found that taking into account all the standard demographic factors associated with depression (income, education, number of people in household and marital status), the presence of a confidant relationship had the strongest effect on reducing depression scores. They suggest that social support should be a major consideration of any explanatory model of depressive symptoms.

The Current Study

Most studies on eating disorders have been based on White, middle-class subjects and although depression, anxiety, stress and body dissatisfaction have been examined in relation to eating disorders, they have not been examined simultaneously. The purposes of this study were look at the prevalence of bulimia in Latina college students as compared to White college students and

determine which of the above variables best predict high eating disorder scores for both Whites and Latinas. Additionally, the literature on Latinos suggests that family support and level of acculturation may have a mediating influence on stress, depression and psychological impairment. Therefore, acculturation and perceived family support were also used to predict eating disorder scores.

It was hypothesized that Whites would have higher eating disorder scores than would high-acculturated Latinas and highly-acculturated Latinas would have higher eating disorder scores than would low-acculturated Latinas.

Second, it was hypothesized that eating disorder scores and bulimia scores among White college students would be predicted by the well-known risk factors of depression, anxiety (state and trait), stress and body dissatisfaction. (Although it was not hypothesized to be a factor for Whites, perceived level of family support was also included as a predictor in this study.)

The final hypothesis was that eating disorder scores and bulimia scores among Latinas would be predicted by perceived level of family support in addition to the known risk factors of depression, anxiety (state and trait), stress and body dissatisfaction.

METHODS

Subjects

Two hundred fifty-three female student volunteers (170 White and 83 Latina) were recruited from California State University, San Bernardino Psychology and Spanish Classes. These students were non-traditional in the sense that they are older than the usual college student population, ranging in age from 17 to 61 years (mean = 26.2, sd = 9.2 years). The majority of the subjects (65%) were single; 26% were married; 7% were separated or divorced, and 2% were widowed. Subjects' yearly incomes ranged from $4,800 to $249,000(mean = $51,739, s.d. = $38,136).

Procedure

Questionnaires were distributed to potential subjects in various classes. Participation was voluntary, although some professors offered extra credit for completing the questionnaires. The informed consent statement (Appendix A) informed subjects that their responses would remain anonymous and that they could discontinue participation at any time.

Measures

Subjects were given a battery of psychological tests to complete in addition to demographic information (Appendix I). This battery included:

The Eating Disorder Inventory (EDI) (Garner, Olmstead and Polivy, 1983) was used to measure the subjects' eating attitudes and behaviors (Appendix B). It is a 64-item, multi-scale measure which assesses psychological and behavioral traits common in anorexia and bulimia. The EDI consists of eight subscales: Drive for Thinness, Body Dissatisfaction, Bulimia, Ineffectiveness, Perfectionism, Interpersonal Distrust, Interoceptive Awareness, and Maturity Fears. Subjects respond to forced-choice items by rating whether each item applies "always", "usually", "often", "sometimes", "rarely", or "never". Item-total reliability coefficients for the eight scales range from 0.65 to 0.90. Criterion validity correlations of subscale scores with clinician ratings ranged from 0.43 to 0.68. The possible score range for each item is 0 to 3. (Although there are six choices for each question, only the top three are scored 1, 2, or 3). The possible score range for the entire inventory is 0 to 192. The bulimia subscale of this instrument was used to assess bulimia.

The Spielberger State/Trait Anxiety Index (Speilberger, Gorsch and Lushene, 1970) was used to measure subjects' anxiety levels (Appendices C and D). It is a 40-item, self-report measure with questions pertaining to state (20 questions) and trait (20 questions) anxiety. Subjects respond to four-point forced-choice items by

indicating whether each item applies "Not at All", "Somewhat", "Moderately So", or "Very Much So." Internal consistency reliability coefficients range from 0.89 to 0.91 for the trait questions and from 0.86 to 0.95 for the state items. Construct validity correlations are as follows: Taylor Manifest Anxiety Scale 0.80, IPAT Anxiety Scale 0.75, Multiple Affect Adjective Checklist 0.52. (Keyser, D. J. & Sweetland, R. C., 1984) The possible score range for each item is 1 to 4. The possible score range for the entire scale (State and Trait) is 40 to 160.

The Perceived Stress Scale (PSS10) (Cohen and Williamson, 1988) was used to measure subjects' stress levels (Appendix E). It is a ten-item self-report questionnaire. Subjects respond to a five-point, forced-choice scale by indicating how often they have felt a particular way: "Never", "Almost Never", "Sometimes", "Fairly Often", or "Very Often." Internal reliability (alpha coefficient) is 0.78. Construct validity is as follows: correlation between the PSS10 and the Life Event Scales = 0.32; and correlation between the PSS10 and the Life Satisfaction Inventory (dissatisfaction) = 0.47. The possible score range for each item is 0 to 4. The possible score range for the entire Scale is 0 to 40.

The Beck Depression Inventory (Beck, Ward, Mendelson, Mock and Erbaugh, 1969) was used to measure subjects' levels of depression (Appendix F). It is a 21-item self-report inventory. Each item describes a specific manifestation of depression and consists of a graded series of 4-5 self-evaluative statements. Numerical values from 0-3 are assigned each statement to indicate the degree of severity. Split-half reliability coefficient = 0.86, and rose to 0.93 with a Spearman-Brown correction. Validity correlations between BDI scores and clinician's ratings of depth of depression ranged from 0.65 to 0.67. The possible score range for each item is 0 to 3. The possible score range for the entire inventory is 0 to 63.

The Short Acculturation Scale for Hispanics (SASH) Marin, Sabogal, Marin, Otero-Sabogal & Perez-Stable, 1987) was used to measure subjects' levels of acculturation (Appendix G). It is a 12-item self-report questionnaire which asks respondents about language preference (speaking, reading, T.V., radio), friends, and so forth. Subjects respond to items on a five-point, Likert-type scale ranging from "Only Spanish" to "Only English" and "All Latinos" to "All Americans". The Alpha coefficient for the 12 common items was .92. Alpha validity coefficients for each factor measuring acculturation were as follow: Generation - 0.65, Length of Residence - 0.70; Self-evaluation - 0.76,

Acculturative Index - 0.83. Possible score range for each item is 1 to 5. Possible score range for the entire scale is 0 to 60. For the purposes of this study, acculturation groups were defined by a median split of SASH scores, with scores equal to or less than 47 representing low-acculturated Latinas and scores equal to or greater than 48 representing high-acculturated Latinas.

A Familism Scale adapted from scales developed by Bardis (1959) and Triandis, et al (1982) and used by Sabogal, et al (1987) in their investigation of Latino familism and acculturation was used to measure subjects' perceived levels of family support (Appendix H). This instrument consists of three subscales which measure Familial Obligations, Support from the Family, and Family as Referents. Subjects respond to a five-point, Likert-type scale by indicating how much they agree with each statement: "Very Much Disagree", "Somewhat Disagree", "Neutral", "Somewhat Agree", or "Very Much Agree." The possible score range for each item is 1 to 5. The possible score range for the entire scale is 14 to 70. Cronbach's alphas for the common items were .60 for "Familial Obligation" items (Hispanics .59, White non-Hispanics .61), .72 for "Perceived Support from Family" items (Hispanics .70, White non-Hispanics .72), and .66 for the Family as Referents items (Hispanics .60, White non-Hispanics .56).

The "Support from the Family" subscale was used to measure perceived family support.

RESULTS

The hypothesis that the ethnicity/acculturation groups would be represented differently along the eight scales of the EDI was tested by a multivariate analysis of variance. The MANOVA was significant (Hotellings $T^2 = 0.14489$, $F(16,484) = 2.192$, $p < .005$), indicating that the three groups (White, low-acculturated Latinas, and high-acculturated Latinas) differed on the weighted linear combination of the eight subscales of the EDI. The follow-up ANOVAs are presented in Table I. There were significant differences among the three groups on three subscales of the EDI (Interoceptive Awareness, Interpersonal Distrust, and Maturity Fears).

Post Hoc Tukey Highly Significant Difference Tests at the .05 level revealed a similar pattern of differences for each of the three scales. On each scale, low-acculturated Latinas did not differ from high-acculturated Latinas, and high-acculturated Latinas did not differ from Whites. However, there was a significant difference between low-acculturated Latinas and Whites, with Latinas scoring significantly higher than Whites on each of the three subscales.

TABLE 1: EDI SCORES BY ETHNICITY AND ACCULTURATION

EDI SubScale	Low-Accult. Latinas	High-Accult. Latinas	White	F	p
DRIVE FOR THINNESS	6.683	6.619	5.629	0.820	NS
BULIMIA	4.341	3.500	2.764	2.159	NS
BODY DISSATISFACTION	12.634	12.452	11.888	0.196	NS
INTEROCEPTIVE AWARENESS	4.341	2.810	2.624	2.992	.052
PERFECTIONISM	5.780	4.738	6.100	1.588	NS
INTERPERSONAL DISTRUST	3.512	2.714	1.818	5.486	.005
MATURITY FEARS	4.049	2.976	2.171	6.596	.002

df = 2, 250 for each F above

Four separate stepwise multiple regression analyses were conducted to see which factors best predicted eating disorder scores and bulimia scores for each of the following groups: Whites, Latinas overall, low-acculturated Latinas, and high-acculturated Latinas. Modified EDI scores (total EDI minus the Body Dissatisfaction Scale) were predicted using the following set of predictors: state anxiety (STATE), trait anxiety (TRAIT), life stress (PSS), depression (BECK), perceived level of family support (FAMSUPP) and body dissatisfaction (EDI subscale = BODYDIS). These regressions are shown in Table 2, where the predictors are listed in order of their stepwise selection for each group, and their contribution to R^2 (percent of variance they account for alone) is indicated.

TABLE 2: STEPWISE MULTIPLE REGRESSION PREDICTING MODIFIED EDI*

SCORES FROM SIX PSYCHOSOCIAL VARIABLES (WHITES)

Variable Selected	Mult. R	Mult. R^2	Contrib. to R^2	F	df	p	Beta	t
TRAIT	.776	.602	60.2%	254.585	1, 168	.000	.603	8.010
BODYDIS	.853	.728	12.5%	223.495	2, 167	.000	.382	3.503
BECK	.859	.739	1.1%	156.694	3, 166	.000	.452	2.964
PSS	.865	.749	1.0%	123.404	4, 165	.000	-.295	-1.991

* Total EDI scores minus Body Dissatisfaction Subscale

TABLE 3: STEPWISE MULTIPLE REGRESSION PREDICTING MODIFIED EDI*

SCORES FROM SIX PSYCHOSOCIAL VARIABLES (LATINAS OVERALL)

Variable Selected	Mult. R	Mult R^2	Contrib. to R^2	F	df	p	Beta	t
BECK	.753	.567	56.7%	106.193	1, 81	.000	.465	5.113
BODYDIS	.792	.627	6.0%	67.291	2, 80	.000	.231	2.986
TRAIT	.814	.663	3.6%	51.758	3, 79	.000	.259	2.888

* Total EDI scores minus Body Dissatisfaction Subscale

TABLE 4: STEPWISE MULTIPLE REGRESSION PREDICTING MODIFIED EDI* SCORES FROM SIX PSYCHOSOCIAL VARIABLES (LOW-ACCULTURATED LATINAS)

Variable Selected	Mult. R	Mult. R^2	Contrib. to R^2	F	df	p	Beta	t
BECK	.784	.615	61.5%	62.313	1, 39	.000	.691	6.190
BODYDIS	.813	.661	4.6%	36.990	2, 38	.000	.258	2.365
FAMSUPP	.836	.699	3.9%	28.693	3, 37	.000	.204	2.183

* Total EDI scores minus Body Dissatisfaction Subscale

TABLE 5: STEPWISE MULTIPLE REGRESSION PREDICTING MODIFIED EDI* SCORES FROM SIX PSYCHOSOCIAL VARIABLES (HIGH-ACCULTURATED LATINAS)

Variable Selected	Mult. R	Mult. R^2	Contrib. to R^2	F	df	p	Beta	t
BECK	.741	.550	55.0%	48.851	1, 40	.000	.413	3.806
STATE	.824	.680	13.0%	41.369	2, 39	.000	.390	3.668
BODYDIS	.851	.724	4.5%	33.252	3, 38	.000	.239	2.476

* Total EDI Scores minus Body Dissatisfaction Subscale

As indicated in Table 2, the single best predictor of Eating Disorder Inventory scores for Whites was trait anxiety, which accounted for 60.2% of the variance. Other predictors were body dissatisfaction (12.5%), depression (1.1%), and stress (1%), which contributed negatively.

The single best predictor of eating disorders for Latinas overall (see Table 3) was depression, which accounted for 56.7% of the variance. Other predictors were body dissatisfaction (6%) and trait anxiety (3.6%).

For low-acculturated Latinas (Table 4), the single best predictor of eating disorders was depression (61.5%), followed by body dissatisfaction (4.6%) and family support (3.9%).

The single best predictor of eating disorders for high-acculturated Latinas (Table 5) was depression (55%), followed by state anxiety (13%) and body dissatisfaction (4.5%).

Four separate stepwise multiple regression analyses (for Whites, Latinas overall, low-acculturated Latinas and high-acculturated Latinas) were also conducted to predict bulimia scores (Bulimia subscale of the EDI) using the same set of predictors listed above.

TABLE 6: STEPWISE MULTIPLE REGRESSION PREDICTING BULIMIA SCORES* FROM SIX PSYCHOSOCIAL VARIABLES (WHITES)

Variable Selected	Mult. R	Mult. R^2	Contrib. to R^2	F	df	p	Beta	t
BODYDIS	.652	.425	42.5%	124.156	1, 168	.000	.543	9.573
TRAIT	.724	.524	9.9%	91.871	2, 167	.000	.534	6.157
PSS	.740	.548	2.4%	66.984	3, 166	.000	-.255	-2.953

* EDI Bulimia Subscale

TABLE 7: STEPWISE MULTIPLE REGRESSION PREDICTING BULIMIA SCORES* FROM SIX PSYCHOSOCIAL VARIABLES (LATINAS OVERALL)

Variable Selected	Mult. R	Mult. R^2	Contrib. to R^2	F	df	p	Beta	t
BODYDIS	.474	.225	22.5%	23.500	1, 81	.000	.382	3.503
BECK	.517	.268	4.3%	14.617	2, 80	.000	.452	2.964
PSS	.550	.303	3.5%	11.427	3, 79	.000	-.295	-1.991

* EDI Bullimia Subscale

TABLE 8: STEPWISE MULTIPLE REGRESSION PREDICTING BULIMIA SCORES* FROM SIX PSYCHOSOCIAL VARIABLES (LOW-ACCULTURATED LATINAS)

Variable Selected	Mult. R	Mult. R^2	Contrib. to R^2	F	df	p	Beta	t
BODYDIS	.457	.209	20.9%	10.276	1, 39	.003	.457	3.206

* EDI Bulimia Subscale

TABLE 9: STEPWISE MULTIPLE REGRESSION PREDICTING BULIMIA SCORES* FROM SIX PSYCHOSOCIAL VARIABLES (HIGH-ACCULTURATED LATINAS)

Variable Selected	R	R^2	Contrib. to R^2	F	df	p	Beta	t
BODYDIS	.588	.345	34.5%	21.110	1, 40	.000	.446	3.321
BECK	.656	.431	8.5%	14.751	2, 39	.000	.325	2.416

* EDI Bulimia Subscale

As shown in Table 6, the single best predictor of bulimia for Whites was body dissatisfaction, which accounted for 42.5% of the variance. Other predictors were trait anxiety and stress, which accounted for 9.9% and 2.4% of the variance respectively. Again, stress was negatively related to the obtained scores.

The single best predictor of bulimia for Latinas overall (Table 7) was also body dissatisfaction, which accounted for 22.5% of the variance, followed by depression 4.3% and stress, 3.5%, which contributed negatively.

For low-acculturated Latinas (Table 8), the only significant predictor of bulimia was body dissatisfaction, accounting for 20.9% of the variance.

The single best predictor of bulimia for high-acculturated Latinas (Table 9) was also body dissatisfaction (34.5%), followed by depression (8.5%).

DISCUSSION

The first hypothesis, that Whites would have higher eating disorder scores than would high-acculturated Latinas and high-acculturated Latinas would have higher eating disorders scores than would low-acculturated Latinas, was not supported. Although the overall MANOVA was significant, there were significant ethnic/acculturation differences in only three of the eight EDI subscales (Introceptive Awareness, Interpersonal Distrust, and Maturity Fears). Moreover, these differences were opposite the direction predicted; with low-acculturated Latinas scoring higher than Whites on all three subscales. Inspection of the means in Table 1 shows a similar pattern (i.e. low-acculturated Latinas greater than high-acculturated Latinas, high-acculturated Latinas greater than Whites) for all subscales except Perfectionism, even where these differences do not reach significance. Thus, it would appear that, in general, low-acculturated Latinas scored higher than Whites on the EDI.

These results, to a certain degree, support the Smith and Krejci (1991) finding that the incidence of eating disorders in Latinas is at least comparable to that of Whites. The current study does not, however, support Pumariega's (1986) finding that higher Latina eating disorder scores are positively correlated with

acculturation. Although significant, the magnitude of the correlation in Pumariega's study was small (.182), accounting for only 3.3% of the variance.

A major limitation in our study was the limited range of acculturation in our subjects. For the purposes of this study, high and low acculturation groups were defined by a median split of the Short Acculturation Scale for Hispanics. Scores equal to or less than 47 represented low-acculturated Latinas and scores equal to or greater than 48 represented high-acculturated Latinas. The possible score range for the scale is 0 to 60. Our subjects were all students at an American university and, as such, were most likely somewhat acculturated to American values. Scores on the SASH ranged from 28 to 60 (mean = 46.3, mode = 48, s.d = 7.397). Somewhat different results may have emerged had we used a different population with a wider range of acculturation levels.

Although Multiple R's were consistent, ranging from .814 for Latinas overall to .865 for Whites (66% to 75% of the variance), the predictors were different for each group.

For Whites, the best predictor of eating disorder scores was trait anxiety, followed by body dissatisfaction, depression and stress. Surprisingly, stress was negatively correlated with high Modified EDI scores for Whites. (One

reason stress may have been higher for many subjects, whether or not they had high EDI scores, was that many questionnaires were completed during finals week.)

Depression was the best predictor of high EDI scores for all three groups of Latinas (high-acculturated, low-acculturated, and overall) followed by body dissatisfaction for Latinas overall and low-acculturated Latinas. State anxiety was the second-best predictor of eating disorder scores for high-acculturated Latinas and body dissatisfaction was third.

For all groups, negative affectual states were associated with higher scores on the EDI. However, for Whites, this negative affect was trait anxiety, while for all Latina groups (high, low, overall) it was depression. This suggests that eating disorders may be serving different functions for different ethnic groups. The majority of the data we have on eating disorders comes from Whites being treated for an eating disorder, primarily because this is the group most likely to seek conventional psychotherapy for this problem. Other cultural groups may not seek treatment or may not view the behaviors in the Eating Disorder Inventory as pathological. These results suggest the need for more cross-cultural research in the area of eating disorders to determine cultural differences in the factors that may be related to its occurrence.

Perceived family support was the third best predictor of Modified EDI scores for low-acculturated Latinas. However, it was positively correlated with EDI scores, which is contrary to our third hypothesis. It was expected that perceived family support would be a moderating influence, reducing EDI scores. Perhaps perceived family support is related to higher expectations from the family, increasing body dissatisfaction, anxiety and disturbed attitudes towards eating. It may also be that Latino families show their support with food, which could lead to weight gain, body dissatisfaction and anxiety about eating.

The extent to which bulimia scores for the four ethnic and acculturation groups could be predicted from the well-known risk factors was also consistent, with Multiple R's ranging from .457 for low-acculturated Latinas to .740 for Whites (20.9% to 54.8% of the variance). However, the specific factors predicting bulimia for each group differed.

The major predictor for all four groups was body dissatisfaction. Depression was a predictor for high-acculturated Latinas and Latinas overall, but not for low-acculturated Latinas or Whites. Trait anxiety was a predictor for Whites, but not for Latinas. Stress was negatively related to bulimia scores for Whites and Latinas overall.

Although depression was a predictor of EDI scores for Whites, it accounted for only 1.1% of the variance. Additionally, depression was not a predictor of bulimia scores for Whites. Many studies in the literature on depression and eating disorders compared mean differences between identified eating disordered subjects and controls (i.e., Mitchell, et al, 1988, Schlesier-Carter, et al, 1989, Steiger, et al, 1990, Steiger, et al, 1992, Strauss & Ryan, 1988,). The current study examined depression and eating disorders in a non-clinical student population, which may partially explain the lower correlation found between depression and eating disorder scores and the non-significant correlation between depression and bulimia scores. In addition, many of the studies that found a strong relationship between depression and eating disorders investigated depression alone and did not evaluate the strength of that variable in the context of other well-known predictors.

Although negative affectual states were associated with EDI scores, this relationship does not show cause and effect. Perhaps people are anxious or depressed because they are dissatisfied with their bodies. (More than half of the subjects in the current study were trying to lose weight.) It is possible that eating disorders, body dissatisfaction, anxiety and depression are all related to

the thinness beauty ideal promoted by Western culture; which is impossible for many to achieve. Further research using subjects with a wider range of acculturation levels may find a relationship between acculturation and eating disorders. American university students may be more influenced by Western values and ideals than would non-student Latinas or Latina subjects from outside the United States. Finally, the current study measured acculturation with questions about language preferences, whereas questions about beauty standards and their importance might be a better measure of the influence of the Western obsession with thinness.

APPENDIX A

Informed Consent

EATING ATTITUDES AND BEHAVIORS
AND RELATED EMOTIONS

Department of Psychology

California State University, San Bernardino

PARTICIPATION CONSENT

The purpose of this study is to investigate eating attitudes, behaviors and related emotions. Participation will involve approximately 20 minutes. We would appreciate your answering all the questions, however, you are free to choose not to answer any question that you find upsetting and you can stop at any time. The questionnaire will ask sensitive, personal questions. Your responses will remain anonymous. The information provided in response to the questionnaire will be reported in group format only. No individual data will be released to any person. This study has been approved by the Psychology Department's Human Subjects Review Board at California State University, San Bernardino.

This study is being conducted by Janet Profit under the supervision of Dr. Elizabeth Klonoff. Results of this study may be obtained in May, 1994, from Dr. Klonoff, PS-114 in the Psychology Department at California State University, San Bernardino or call (909) 880-5567.

Your participation is greatly appreciated.

1. The study has been explained to me and I understand the explanation that has been given and what my participation will involve.
2. I understand that I am free to discontinue my participation in this study at any time and without penalty.
3. I understand that my responses will remain anonymous, but that group results of this study will be made available to me at my request.
4. I understand that, at my request, I can receive additional explanations of this study after my participation is completed.

Signed: _____

Date: _____

APPENDIX B

Eating Disorder Inventory

Please circle the number that BEST describes you for each question.

	Always	Usually	Often	Some-times	Rarely	Never
1. I eat sweets and carbohydrates without feeling nervous.	1	2	3	4	5	6
2. I think that my stomach is too big.	1	2	3	4	5	6
3. I wish that I could return to the security of childhood.	1	2	3	4	5	6
4. I eat when I am upset.	1	2	3	4	5	6
5. I stuff myself with food.	1	2	3	4	5	6
6. I wish that I could be younger.	1	2	3	4	5	6
7. I think about dieting.	1	2	3	4	5	6
8. I get frightened when my feelings are too strong.	1	2	3	4	5	6
9. I think that my thighs are too large.	1	2	3	4	5	6
10. I feel ineffective as a person.	1	2	3	4	5	6
11. I feel extremely guilty after overeating.	1	2	3	4	5	6
12. I think that my stomach is just the right size.	1	2	3	4	5	6
13. Only outstanding performance is good enough in my family.	1	2	3	4	5	6
14. The happiest time in life is when you are a child.	1	2	3	4	5	6
15. I am open about my feelings.	1	2	3	4	5	6
16. I am terrified of gaining weight.	1	2	3	4	5	6
17. I trust others.	1	2	3	4	5	6
18. I feel alone in the world.	1	2	3	4	5	6
19. I feel satisfied with the shape of my body.	1	2	3	4	5	6
20. I feel generally in control of things in my life.	1	2	3	4	5	6
21. I get confused about what emotion I am feeling.	1	2	3	4	5	6

	Always	Usually	Often	Some-times	Rarely	Never
22. I would rather be an adult than a child.	1	2	3	4	5	6
23. I can communicate with others easily.	1	2	3	4	5	6
24. I wish I were someone else.	1	2	3	4	5	6
25. I exaggerate or magnify the importance of weight.	1	2	3	4	5	6
26. I can clearly identify what emotion I am feeling	1	2	3	4	5	6
27. I feel inadequate.	1	2	3	4	5	6
28. I have gone on eating binges where I have felt that I could not stop.	1	2	3	4	5	6
29. As a child, I tried very hard to avoid disappointing my parents and teachers.	1	2	3	4	5	6
30. I have close relationships.	1	2	3	4	5	6
31. I like the shape of my buttocks.	1	2	3	4	5	6
32. I am preoccupied with the desire to be thinner.	1	2	3	4	5	6
33. I don't know what's going on inside me.	1	2	3	4	5	6
34. I have trouble expressing my emotions to others.	1	2	3	4	5	6
35. The demands of adulthood are too great.	1	2	3	4	5	6
36. I hate being less than best at things.	1	2	3	4	5	6
37. I feel secure about myself.	1	2	3	4	5	6
38. I think about bingeing (overeating).	1	2	3	4	5	6
39. I feel happy that I am not a child anymore.	1	2	3	4	5	6
40. I get confused as to whether or not I am hungry.	1	2	3	4	5	6
41. I have a low opinion of myself.	1	2	3	4	5	6
42. I feel that I can achieve my standards.	1	2	3	4	5	6
43. My parents have expected excellence of me.	1	2	3	4	5	6

	Always	Usually	Often	Some-times	Rarely	Never
44. I worry that my feelings will get out of control.	1	2	3	4	5	6
45. I think my hips are too big.	1	2	3	4	5	6
46. I eat moderately in front of others and stuff myself when they're gone.	1	2	3	4	5	6
47. I feel bloated after eating a small meal.	1	2	3	4	5	6
48. I feel that people are happiest when they are children.	1	2	3	4	5	6
49. If I gain a pound, I worry that I will keep gaining.	1	2	3	4	5	6
50. I feel that I am a worthwhile person.	1	2	3	4	5	6
51. When I am upset, I don't know if I am sad, frightened or angry.	1	2	3	4	5	6
52. I feel that I must do things perfectly or not do them at all.	1	2	3	4	5	6
53. I have the thought of trying to vomit in order to lose weight.	1	2	3	4	5	6
54. I need to keep people at a certain distance (feel uncomfortable if someone tries to get too close).	1	2	3	4	5	6
55. I think that my thighs are just the right size.	1	2	3	4	5	6
56. I feel empty inside (emotionally).	1	2	3	4	5	6
57. I can talk about personal thoughts or feelings.	1	2	3	4	5	6
58. The best years of your life are when you become an adult.	1	2	3	4	5	6
59. I think my buttocks are too large.	1	2	3	4	5	6
60. I have feelings I can't quite identify.	1	2	3	4	5	6
61. I eat or drink in secrecy.	1	2	3	4	5	6
62. I think that my hips are just the right size.	1	2	3	4	5	6
63. I have extremely high goals.	1	2	3	4	5	6
64. When I am upset, I worry that I will start eating.	1	2	3	4	5	6

APPENDIX C

Spielberger State Anxiety Index

A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate number to the right of the statement to indicate how you feel right now, that is, AT THIS MOMENT. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

	Not At All	Some-what	Moder-ately So	Very Much So
1. I feel calm.	1	2	3	4
2. I feel secure.	1	2	3	4
3. I am tense.	1	2	3	4
4. I am regretful.	1	2	3	4
5. I feel at ease.	1	2	3	4
6. I feel upset.	1	2	3	4
7. I am presently worrying over possible misfortunes.	1	2	3	4
8. I feel rested.	1	2	3	4
9. I feel anxious.	1	2	3	4
10. I feel comfortable.	1	2	3	4
11. I feel self-confident.	1	2	3	4
12. I feel nervous.	1	2	3	4
13. I am jittery.	1	2	3	4
14. I feel "high strung".	1	2	3	4
15. I am relaxed.	1	2	3	4
16. I feel confident.	1	2	3	4
17. I am worried.	1	2	3	4
18. I feel over-excited and "rattled".	1	2	3	4
19. I feel joyful.	1	2	3	4
20. I feel pleasant.	1	2	3	4

APPENDIX D

Spielberger Trait Anxiety Index

A number of statements which people have used to describe themselves are given below. Read each statement then circle the appropriate number to the right of the statement to indicate how you GENERALLY feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you GENERALLY FEEL.

	Almost Never	Some-times	Often	Almost Always
21. I feel pleasant.	1	2	3	4
22. I tire quickly.	1	2	3	4
23. I feel like crying.	1	2	3	4
24. I wish I could be as happy as others seem to be.	1	2	3	4
25. I am losing out on things because I can't make up my mind soon enough.	1	2	3	4
26. I feel rested.	1	2	3	4
27. I am "calm, cool, and collected."	1	2	3	4
28. I feel that difficulties are piling up so that I cannot overcome them.	1	2	3	4
29. I worry too much over something that really doesn't matter.	1	2	3	4
30. I am happy.	1	2	3	4
31. I am inclined to take things hard.	1	2	3	4
32. I lack self-confidence.	1	2	3	4
33. I feel secure.	1	2	3	4
34. I try to avoid facing a crisis or difficulty.	1	2	3	4
35. I feel blue.	1	2	3	4
36. I am content.	1	2	3	4
37. Some unimportant thought runs through my mind and bothers me.	1	2	3	4
38. I take disappointments so keenly that I can't put them out of my mind.	1	2	3	4
39. I am a steady person.	1	2	3	4
40. I get in a state of tension or turmoil as I think over my recent concerns and interests.	1	2	3	4

APPENDIX E

Perceived Stress Scale (10)

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate how often you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer fairly quickly. That is, don't try to count up the number of times you felt a particular way; rather indicate the alternative that seems like a reasonable estimate.

For each question circle the appropriate number.

	Never	Almost Never	Some-times	Fairly Often	Very Often
1. In the last month, how often have you been upset because of something that happened unexpectedly?	0	1	2	3	4
2. In the last month, how often have you felt that you were unable to control the important things in your life?	0	1	2	3	4
3. In the last month, how often have you felt nervous and stressed?	0	1	2	3	4
4. In the last month, how often have you felt confident about your ability to handle your personal problems?	0	1	2	3	4
5. In the last month, how often have you felt that things were going your way?	0	1	2	3	4
6. In the last month, how often have you found that you could not cope with all the things that you had to do?	0	1	2	3	4
7. In the last month, how often have you been able to control irritations in your life?	0	1	2	3	4
8. In the last month, how often have you felt that you were on top of things?	0	1	2	3	4
9. In the last month, how often have you been angered because of things that happened that were outside of your control?	0	1	2	3	4
10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	0	1	2	3	4

APPENDIX F

Beck Depression Inventory

Please read each group of statements carefully. Then pick out the one statement in each group which best describes the way you have been feeling the PAST WEEK, INCLUDING TODAY. Circle the number beside the statement you picked. If several statements in the group seem to apply equally well, circle each one. Be sure to read all the statements in each group before making your choice.

1.	0	I do not feel sad.
	1	I feel sad.
	2	I am sad all the time and I can't snap out of it.
	3	I am so sad or unhappy that I can't stand it.
2.	0	I am not particularly discouraged about the future.
	1	I feel discouraged about the future.
	2	I feel I have nothing to look forward to.
	3	I feel that the future is hopeless and that things cannot improve.
3.	0	I do not feel like a failure.
	1	I feel I have failed more than the average person.
	2	As I look back on my life, all I can see is a lot of failures.
	3	I feel I am a complete failure as a person.
4.	0	I get as much satisfaction out of things as I used to.
	1	I don't enjoy things the way I used to.
	2	I don't get real satisfaction out of anything anymore.
	3	I am dissatisfied or bored with everything.
5.	0	I don't feel particularly guilty.
	1	I feel guilty a good part of the time.
	2	I feel quite guilty most of the time.
	3	I feel guilty all of the time.
6.	0	I don't feel I am being punished.
	1	I feel I may be punished.
	2	I expect to be punished.
	3	I feel I am being punished.
7.	0	I don't feel disappointed in myself.
	1	I am disappointed in myself.
	2	I am disgusted with myself.
	3	I hate myself.
8.	0	I don't feel I am any worse than anybody else.
	1	I am critical of myself for my weaknesses or mistakes.
	2	I blame myself all the time for my faults.
	3	I blame myself for everything bad that happens.
9.	0	I don't have any thoughts of killing myself.
	1	I have thoughts of killing myself, but I would not carry them out.
	2	I would like to kill myself.
	3	I would kill myself if I had the chance.
10.	0	I don't cry anymore than usual.
	1	I cry more now than I used to.
	2	I cry all the time now.
	3	I used to be able to cry, but now I can't cry even though I want to.

11. 0 I am no more irritated now than I ever am.
1 I get annoyed or irritated more easily than I used to.
2 I feel irritated all the time now.
3 I don't get irritated at all by the things that used to irritate me.

12. 0 I have not lost interest in other people.
1 I am less interested in other people than I used to be.
2 I have lost most of my interest in other people.
3 I have lost all of my interest in other people

13. 0 I make decisions about as well as I ever could.
1 I put off making decisions more than I used to.
2 I have greater difficulty in making decisions than before.
3 I can't make decisions at all anymore.

14. 0 I don't feel I look any worse than I used to.
1 I am worried that I am looking old or unattractive.
2 I feel that there are permanent changes in my appearance that make me look unattractive.
3 I believe that I look ugly.

15. 0 I can work about as well as before.
1 It takes an extra effort to get started at doing something.
2 I have to push myself very hard to do anything.
3 I can't do any work at all.

16. 0 I can sleep as well as usual.
1 I don't sleep as well as I used to.
2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
3 I wake up several hours earlier than I used to and cannot get back to sleep.

17. 0 I don't get more tired than usual.
1 I get tired more easily than I used to.
2 I get tired from doing almost anything.
3 I am too tired to do anything.

18. 0 My appetite is no worse than usual.
1 My appetite is not as good as it used to be.
2 My appetite is much worse now.
3 I have no appetite at all anymore.

19. 0 I haven't lost much weight, if any lately. I am purposely trying to lose
1 I have lost more than 5 pounds. weight by eating less.
2 I have lost more than 10 pounds. Yes_____ No_____
3 I have lost more than 15 pounds.

20. 0 I am no more worried about my health than usual.
1 I am worried about physical problems such as aches and pains; or upset stomach; or constipation.
2 I am very worried about physical problems and it's hard to think of much else.
3 I am so worried about my physical problems, that I cannot think about anything else.

21. 0 I have not noticed any recent change in my interest in sex.
1 I am less interested in sex than I used to be.
2 I am much less interested in sex now.
3 I have lost interest in sex completely.

APPENDIX G

Short Acculturation Scale for Hispanics

Please circle the number that BEST describes you for each question.

1. In general, what language(s) do you read and speak?

   1 Only Spanish
   2 Spanish better than English
   3 Both equally
   4 English better than Spanish
   5 Only English

2. What was the language(s) you used as a child?

   1 Only Spanish
   2 More Spanish than English
   3 Both equally
   4 More English than Spanish
   5 Only English

3. What language(s) do you usually speak at home?

   1 Only Spanish
   2 More Spanish than English
   3 Both equally
   4 More English than Spanish
   5 Only English

4. In which language(s) do you usually think?

   1 Only Spanish
   2 More Spanish than English
   3 Both equally
   4 More English than Spanish
   5 Only English

5. What language(s) do you usually speak with your friends?

   1 Only Spanish
   2 More Spanish than English
   3 Both equally
   4 More English than Spanish
   5 Only English

6. In what language(s) are the TV programs you usually watch?

   1 Only Spanish
   2 More Spanish than English
   3 Both equally
   4 More English than Spanish
   5 Only English

7. In what language(s) are the radio programs you usually listen to?

1 Only Spanish
2 More Spanish than English
3 Both equally
4 More English than Spanish
5 Only English

8. In general, in what language(s) are the movies, TV and radio programs you *prefer* to watch and listen to?

1 Only Spanish
2 More Spanish than English
3 Both equally
4 More English than Spanish
5 Only English

9. Your close friends are:

1 All Latinos/Hispanics
2 More Latinos than Americans
3 About half and half
4 More Americans than Latinos
5 All Americans

10. You prefer going to social gatherings/parties at which the people are:

1 All Latinos/Hispanics
2 More Latinos than Americans
3 About half and half
4 More Americans than Latinos
5 All Americans

11. The persons you visit or who visit you are:

1 All Latinos/Hispanics
2 More Latinos than Americans
3 About half and half
4 More Americans than Latinos
5 All Americans

12. If you could choose your children's friends, you would want them to be:

1 All Latinos/Hispanics
2 More Latinos than Americans
3 About half and half
4 More Americans than Latinos
5 All Americans

APPENDIX H

Familism Scale

The questions listed below ask your feelings about family. For each question circle the appropriate number.

	Very Much Dis-Agree	Some-what Dis-Agree	Neu-tral	Some-what Agree	Very Much Agree
1. One should make great sacrifices to guarantee a good education for his/her children.	1	2	3	4	5
2. One should help economically with the support of younger brothers and sisters.	1	2	3	4	5
3. I would help within my means if a relative told me that she/he is in financial difficulty.	1	2	3	4	5
4. One should have the hope of living long enough to see his/her grandchildren grow up.	1	2	3	4	5
5. Aging parents should live with their relatives.	1	2	3	4	5
6. A person should share his/her home with uncles, aunts or first cousins if they are in need.	1	2	3	4	5
7. When someone has problems she/he can count on help from his/her relatives.	1	2	3	4	5
8. One can count on help from his/her relatives to solve most problems.	1	2	3	4	5
9. Much of what a son or daughter does should be done to please the parents.	1	2	3	4	5
10. The family should consult close relatives (uncles, aunts) concerning its important decisions.	1	2	3	4	5
11. One should be embarrassed about the bad things done by his/her brothers or sisters.	1	2	3	4	5
12. Children should live in their parents' house until they get married.	1	2	3	4	5
13. One of the most important goals in life is to have children.	1	2	3	4	5
14. When one has problems, one can count on the help of relatives.	1	2	3	4	5

APPENDIX I

Demographic Questionnaire

Age: _____

Marital Status:

Single _____ Married _____ Separated _____

Divorced _____ Widowed _____

Number of brothers _____ Number of sisters _____

Income:

1. When I was growing up, my family was:

   Poor _____

   Middle Class _____

   Upper Class _____

2. My current family income is: _____.

Ethnicity:

Asian _____ Black _____ Caucasian _____

Native American _____ Other: _____

Latino: Mexican _____ Cuban _____ Puerto Rican _____

Other _____

Religion:

Protestant _____ Catholic_____ Jewish_____

Other_____

APPENDIX J

Subject Debriefing Form

DEBRIEFING

This was a study of eating disorders in White and Latino college students. Previous studies have found relationships between depression, anxiety, stress, body dissatisfaction and eating disorders. However, most of those studies were based on White middle-class populations. In the present study, we will attempt to predict eating disorder scores by the above factors as well as levels of family support and acculturation (Latinos).

Results of the study may be obtained in May, 1994, from Dr. Klonoff in the Psychology Department, PS-114, 880-5584.

Some of the questionnaires asked sensitive, personal questions. If you have any questions or concerns as a result of your participation in this study, you may contact the Psychological Counseling Center, HC-112, 880-5040.

Your participation is greatly appreciated.

REFERENCES

American Psychiatric Association. (1987). Diagnostic and Statistic Manual of Mental Disorders (3rd ed., revised). Washington D.C.: Author

Attie, I. & Brooks-Gunn, J. (1989). Development of eating problems in adolescent girls: a longitudinal study. Developmental Psychology, 25(1), 70-79.

Bardis, P. D. (1959). A familism scale. Marriage and Family Living, 24, 340-341.

Beck, A. T., Ward, C. H., Mendelson, M., Mock, J. & Erbaugh, J. (1961). An inventory for measuring depression. Archives of General Psychiatry, 4, 53-63.

Cohen, S., & Williamson, G. M. (1988). Perceived Stress in a Probability Sample of the United States. In S. Spacapan & S. Oskamp (Eds.), The Social Psychology of Health (pp. 31-65). Newbury Park, Beverly Hills, London, New Delhi: Sage Publications.

Crowther, J. H. & Chernyk, B. (1986). Bulimia and binge eating in adolescent females: A comparison. Addictive Behaviors, 11, 415-424.

Davis, C. & Yager, J. (1992). Transcultural aspects of eating disorders: a critical literature review. Culture, Medicine and Psychiatry, 16, 377-394.

Dolan, B. (1991). Cross-cultural aspects of anorexia nervosa and bulimia: A review. International Journal of Eating Disorders, 10(11), 67-78.

Garfinkel, P. E., Goldbloom, D., Davis, R., Olmsted, M. P., Garner, D. M., Halmi, K. A. (1992). Body dissatisfaction in bulimia nervosa: relationship to weight and shape concerns and psychological functioning. International Journal of Eating Disorders, 11(2), 151-161.

Gray, J., Ford, K., & Kelly, L. M. (1987). The prevalence of bulimia in a black college population. International Journal of Eating Disorders, 6(6), 733-740.

Halmi, K. A., Falk, J. R. & Schwartz, E. (1981). Binge-eating and vomiting: a survey of a college population. Psychological Medicine, 11, 697-706.

Hawkins, W. E., McDermott, R. J., Seeley, J., Hawkins, M. J. (1992). Depression and maladaptive eating practices in college students. Women & Health, 18(2), 55-67.

Herzog, D. B., Keller, M. B., Sacks, N. R., Yeh, C. J., & Lavori, P. W. (1992). Psychiatric comorbidity in treatment-seeking anorexics and bulimics. Journal of the American Academy of Child and Adolescent Psychiatry, 31(5), 810-818.

Jonas, J. M. & Gold, M. S. (1988). Naltrexone treatment of bulimia; clinical and theoretical findings linking eating disorders and substance abuse. Advances in Alcohol and Substance Abuse, 7(1), 29-37.

Keefe, S. E., Padilla, A. M. & Carlos, M. L. (1979). The Mexican-American extended family as an emotional support system. Human Organization, 38(2), 144-152.

Keyser, D. J. & Sweetland, R. C. (Eds.). (1984). Test Critiques (Vol. I). (pp. 626-632). Kansas City: Test Corporation of America.

Lachenmeyer, J. R. & Muni-Brander, P. (1988). Eating disorders in a nonclinical adolescent population; implications for treatment. Adolescence, 23(90), 303-312.

Laessle, R. G., Kittl, S., Fichter, M. M. & Pirke, K. M. (1988). Cognitive correlates of depression in patients with eating disorders. International Journal of Eating Disorders, 7(5), 681-686.

Langer, L. M., Warheit, G. J. & Zimmerman, R. S. (1991). Epidemiological study of problem eating behaviors and related attitudes in the general population. Addictive Behaviors, 16, 167-173.

Logue, C. M., Crowe, R. R. & Bean, J. A. (1989). A family study of anorexia nervosa and bulimia. Comprehensive Psychiatry, 30(2), 179-188.

Marin, G., Sabogal, F., Marin, B. V., Otero-Sabogal, R. & Perez-Stable, E. J. (1987). Development of a short acculturation scale for Latinas. Latina Journal of Behavioral Sciences, 9(2), 183-205.

Mitchell, J., Katsukami, D., Eckert, E. & Pyle, R. (1985). Characteristics of 275 patients with bulimia. American Journal of Psychiatry, 142(4), 482-485.

Mitchell, J. E., Pyle, R., Eckert, E., Pomeroy, C., Hatsukami, D. (1988). Patients versus symptomatic volunteers in bulimia nervosa research. International Journal of Eating Disorders, 7(6), 837-843.

Nasser, M. (1988). Culture and weight consciousness. Journal of Psychosomatic Research, 32(6), 573-577.

Pate, J. E., Pumariega, A. J., Hester, C., & Garner, D. M. (1992). Cross-cultural patterns in eating disorders: a review. Journal of the American Academy of Child and Adolescent Psychiatry, 31(5), 802-809.

Pope, H. G. & Hudson, J. I. (1989). Pharmacologic treatment of bulimia nervosa: research findings and practical suggestions. Psychiatric Annals, 19(9), 483-487.

Pumariega, A. J. (1986). Acculturation and eating attitudes in adolescent girls; a comparative and correlational study. Journal of the American Academy of Child Psychiatry, 25(2), 276-279.

Pyle, R. L., Mitchell, J. E., Eckert, E. D., Halvorson, P. A., Neuman, P. A. & Goff, G. M. (1983). The incidence of bulimia in freshman college students. International Journal of Eating Disorders, 2(3), 75-85.

Pyle, R. L., Neuman, P. A., Halvorson, P. A. & Mitchell, J. E. (1991). An ongoing cross-sectional study of the prevalence of eating disorders in freshman college students. International Journal of Eating Disorders, 10(6), 667-677.

Rand, C. S. W., Lawlor, B. & Kuldau, J. M. (1986). Patterns of food and alcohol consumption in a group of bulimic women. Bulletin of the Society of Psychologists in Addictive Behaviors, 5(2-3), 95-104.

Rand, C. W. W & Kuldau, J. M. (1992). Epidemiology of bulimia and symptoms in a general population: sex, age, race, and socioeconomic status. International Journal of Eating Disorders, 11(1), 37-44

Rebert, W. M., Stanton, A. L. & Schwarz, R. M. (1991). Influence of personality attributes and daily moods on bulimic eating patterns. Addictive Behaviors, 16, 497-505.

Rosen, E. F., Anthony, D. L., Booker, K. M., Brown, T. L., Christian, E., Crews, R. C., Hollins, V. J., Privette, J. T., Reed, R. R. & Petty, L. C. (1991). A comparison of eating disorder scores among African-American and white college females. Bulletin of the Psychonomic Society, 29(1), 65-66.

Rosen, L. W., Shafer, C. L., Dummer, G. M., Cross, L. K., Deuman, G. W. & Malmberg, S. R. (1988). Prevalence of pathogenic weight-control behaviors among Native American women and girls. International Journal of Eating Disorders, 7(6), 807-811.

Russell, G. (1979). Bulimia nervosa: an ominous variant of anorexia nervosa. Psychological Medicine, 9, 429-448.

Sabogal, F., Marin, G., Otero-Sabogal, R., Marin, B. V. & Perez-Stable, E. J. (1987). Hispanic familism and acculturation: What changes and what doesn't? Hispanic Journal of Behavioral Sciences, 9(4), 397-412.

Schlesier-Carter, B., Hamilton, S. A., O'Neil, P. M., Lydiard, R. B. & Malcolm, R. (1989). Depression and bulimia: the link between depression and bulimic cognitions. Journal of Abnormal Psychology, 98(3), 322-325.

Schmolling, P. (1988). Eating attitude test scores in relation to weight, socioeconomic status, and family stability. Psychological Reports, 63, 295-298.

Smith, J. E. & Krejci, J. (1991). Minorities join the majority; eating disturbances among Hispanic and Native American youth. International Journal of Eating Disorders, 10(2), 179-186.

Snow, J. T. & Harris, M. B. (1989). Disordered eating in Southwestern Pueblo Indians and Hispanics. Journal of Adolescence, 12, 329-336.

Soukup, V. M., Beiler, M. E. & Terrell, F. (1990). Stress, coping style, and problem solving ability among eating-disordered inpatients. Journal of Clinical Psychology, 46(5), 592-599.

Spielberger, C., Gorsuch, R. & Lushene, R. (1970). State-Trait Anxiety Inventory Manual. Palo Alto: Consulting Psychologist Press.

Steiger, H., Goldstein, C., Mongrain, M. & Van der Feen, J. (1990). Description of eating-disordered, psychiatric, and normal women along cognitive and psychodynamic dimensions. International Journal of Eating Disorders, 9(2), 129-140.

Steiger, H., Leung, F. Y. K., Ross, D. J. & Gulko, J. (1992). Signs of anorexia and bulimia nervosa in high school girls reporting combinations of eating and mood symptoms: relevance of self-report to interview-based findings. International Journal of Eating Disorders, 12(2), 143-149.

Strauss, J. & Ryan, R. M. (1988). Cognitive dysfunction in eating disorders. International Journal of Eating Disorders, 7(1), 19-27.

Sykes, D. K., Leuser, B., Melia, M. & Gross, M. (1988). A demographic analysis of 252 patients with anorexia nervosa and bulimia. International Journal of Psychosomatics, 35(1-4), 5-9.

Triandis, H. C., Kashima, Y., Hui, H., Lisansky, J., & Marin, G. (1982). Acculturation and biculturalism indices among relatively acculturated Hispanic young adults. Interamerican Journal of Psychology, 16, 140-149.

Vega, W. A., Kolody, B., & Valle, J. R. (1986). The relationship of marital status, confidant support, and depression among Mexican immigrant women. Journal of Marriage and the Family, 48, 597-605.