

# Trans-cultural Comparison of Disordered Eating in Korean Women

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## ABSTRACT

**Objective:** The presence of eating disorders in non-Western cultures is often attributed to the export of Western ideals. This study examines this hypothesis by comparing disordered eating attitudes and behaviors in Korean women with differing levels of exposure to Western culture.

**Method:** Second-generation Korean-Americans ( $n = 167$ ) and Korean immigrants ( $n = 37$ ) completed the Eating Attitudes Test (EAT-26), and data from native Koreans ( $n = 937$ ) were obtained from a previous epidemiological study, using a Korean-translated version of the EAT-26 (K-EAT-26). Korean-American and immigrant women completed the Suinn-Lew Asian Self-Identity Acculturation Scale (SL-ASIA).

**Results:** Korean-American women scored significantly lower on the EAT-26 than Korean immigrants and native Koreans, who did not differ from each other. Korean-Americans were more Western-oriented than Korean immigrants, and acculturation levels were not correlated with EAT-26 scores in either group.

**Conclusion:** This study supports the importance of native cultural factors in the development of eating disorders in non-Western contexts. © 2006 by Wiley Periodicals, Inc.

**Keywords:** cultural; Korea; Westernization

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## Introduction

Studies in Asia indicate increasing rates of disordered eating in women in Asian cultures.<sup>1–3</sup> An epidemiological study of eating pathology in South Korea identified rates similar to those found in the West.<sup>4</sup> In a cross-cultural study, Lippincott and Hwang<sup>5</sup> found similar EAT-26 scores in female white students in the United States and female Korean students in Korea. These studies attributed disordered eating in Korean women to Westernization.

According to Westernization, individuals in non-Western cultures are adversely affected by an introduction to Western beliefs and ideals, including the thin ideal.<sup>6</sup> Eating disorders among Koreans may be caused by attempts to emulate the West as it is portrayed through media. Ko and Cohen<sup>7</sup> used an intraethnic design to examine how disordered eat-

ing in individuals of the same ethnicity varied with exposure to Western culture. A Korean-translated version of the Eating Attitudes Test<sup>8</sup> was administered to 195 native Korean college women, and the original EAT-26 was administered to 39 Korean-American college women who were studying at a Korean University. Although Korean-American women had been exposed to Western culture to a much larger extent than their native counterparts, they had significantly lower EAT-26 scores compared with native Korean women ( $p < .01$ ). Thus, this study challenges the extent to which disordered eating in non-Western contexts represents the effects of Westernization. However, conclusions were constrained by certain study limitations. First, the authors selected Korean-Americans who chose to study abroad in Korea, a group that might not be representative of the Korean-American population. Second, Ko and Cohen used a Korean version of the EAT-26 that had not been tested for reliability and validity.

An alternative explanation attributes disordered eating in Korean women to acculturation stress—the stress of being confronted by new and different cultural values, independent of the content of those values. Being caught between native values, ideals, and beliefs and Western ones may put individuals at heightened risk of the development of mental

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disorders, including mood, anxiety, and eating disorders.<sup>9</sup> Studies have shown that acculturation stress is associated with increased depression, suicidality, and interpersonal problems in migrant populations (e.g.,<sup>10,11</sup>).

A final explanation is that some non-Western cultures may have native influences that put women at risk of developing eating pathology, independent of Western influences. Confucian beliefs form the basis of the collectivist Korean society and prescribe men's and women's roles. The importance placed on a woman's properness and appearance within these traditional beliefs as well as the cultural emphasis placed on adhering to the norm may put Korean women at risk of eating disorders. In addition, self-restrictive behavior is a valued personal trait in Confucian societies,<sup>12</sup> and may extend to patterns of eating and weight control.

To better understand the effects of Westernization, acculturation stress, and native influences on disordered eating in Korean women, the present study compared eating attitudes and behaviors in three groups: second-generation Korean-American women (KA), Korean immigrant women (KI), and Native Korean women (NK). If Westernization accounts for eating disorders in Korean women, we would expect KA women to report the highest levels of disordered eating compared with KI and NK women because KA women have the greatest exposure to Western ideals. If acculturation stress accounts for eating disorders in Korean women, we would expect KI women to report the highest levels of disordered eating because KI women have the maximum dissonance between the culture in which they were raised and the culture in which they live. Finally, if native Korean influences account for eating disorders in Korean women, then we would expect NK women to report the highest levels of disordered eating because NK women have maximum exposure to traditional Korean values.

## Method

### Sample

Participants in the United States were recruited in the summer of 2002 through Universities, Korean and Asian-American organizations, a magazine advertisement, and flyers in the Boston metropolitan area. Advertisements invited Korean women to participate in a study on health patterns and made no mention of food, eating, weight, or body image. 167 KA women from across the United States participated (mean (*SD*) age = 22.8 (3.7) years). Women

in this category were born in the United States to parents who emigrated from Korea. The KI group comprised 37 women who were born in Korea and immigrated to the United States within the past 7 years (mean (*SD*) age = 23.3 [3.0] years). We obtained data on 937 NK women (mean (*SD*) age = 22.8 [2.6] years) from a previous study that measured eating attitudes and behaviors in the Korean general population.<sup>4</sup> Participants from the study carried out by Lee and colleagues were selected to match the age of participants recruited in the United States; thus, the groups did not differ significantly in age ( $p = .52$ ).

### Procedure

Participants recruited in the United States (KA and KI women) completed a demographic data questionnaire, the Eating Attitudes Test (EAT-26), and a modified Suinn-Lew Asian Self-Identity Acculturation Scale (SL-ASIA).

The EAT-26 is a commonly used and well-validated instrument that assesses a broad range of eating attitudes and behaviors.<sup>8,13</sup> Scores on this scale range from 0 to 78, with scores above 20 indicating a probable eating disorder.

The SL-ASIA is a 26-item questionnaire that measures levels of acculturation in Asian populations in the United States.<sup>14</sup> It probes for ethnic identification, customs, friendships, ethnic attitude, and language use. The modified version specifically asked participants about their Korean-identification. Scores range from 1.00 to 5.00, with low scores reflective of Korean-identification and high scores reflective of Western identification. Thus, for Korean individuals living within the United States, low scores would represent maximum discordance between retention of traditional Korean beliefs and beliefs of Western culture. A reliability estimate using Cronbach's alpha ( $\alpha$ ) of .91 was obtained for the original SL-ASIA scale.<sup>14</sup> Previous studies have shown that the SL-ASIA is associated with level of generation, length of residency in the United States, and level of English language learning, supporting the validity of the scale.<sup>15</sup> Within the current study, KI women scored significantly lower on the SL-ASIA (mean = 2.68, *SD* = .17) than KA women (mean = 3.27, *SD* = .28);  $t = 151.47$ ,  $p < .01$ ).

NK subjects were recruited in an epidemiological study of eating attitudes and behaviors in the Korean population.<sup>4</sup> NK subjects completed the Korean version of the Eating Attitudes Test (K-EAT-26). The K-EAT-26 is adapted and translated from the EAT-26 for Korean-speaking populations. Like the EAT-26, scores range from 0 to 78, with a suggested clinical cutoff of 21 in the Korean population. Rhee et al.<sup>16</sup> report a Cronbach's internal consistency of .81. Previous studies have supported the cross-cultural validity of the scale.<sup>17</sup>

**TABLE 1. Age, BMI, and EAT-26 scores in subjects**

	NK (N = 937)		KI (N = 37)		KA (N = 166)		F (df = 2,1140)	p
	M	SD	M	SD	M	SD		
Age (ys)	22.81	2.56	23.32	2.98	22.77	3.66	0.65	0.52
BMI	19.67 <sup>a</sup>	1.99	20.65 <sup>b</sup>	1.24	21.21 <sup>b</sup>	2.91	39.01	< .01
EAT-26	11.66 <sup>a</sup>	8.46	12.22 <sup>a</sup>	10.14	6.09 <sup>b</sup>	5.66	27.12	< .01
Proportion above EAT-26 cutoff	0.16 <sup>a</sup>		0.16 <sup>a</sup>		0.05 <sup>b</sup>		$\chi^2(2) = 16.67$	< .01

Note: Superscripts that differ indicate significant differences between groups ( $p < .05$ ).

### Statistical Analysis

A one-way analysis of variance (ANOVA) was performed to evaluate main effects of group. Chi-square ( $\chi$ ) analyses were used to compare proportions of individuals scoring above the clinical cutoff on the EAT-26/K-EAT-26. We conducted contrast analyses<sup>18</sup> on EAT-26/K-EAT-26 scores to test the Westernization, acculturation stress, and native influence hypotheses simultaneously. In addition, we conducted Pearson correlations between SL-ASIA and EAT-26 scores in KA and KI women to examine whether acculturation levels were associated with eating disturbance.

### Results

NK women reported significantly lower body mass indexes (BMIs) compared with KI and KA women, who did not differ significantly from each other. EAT-26 scores differed significantly among groups. KA women reported significantly lower EAT-26 scores compared with NK and KI women, who did not differ significantly from each other. In addition, the proportion of women scoring above the clinical cutoff on the EAT-26 differed significantly among groups (see **Table 1**).

Results from contrast analyses directly contradicted the Westernization hypothesis because scores among KA women were lower than those of KI and NK women (contrast =  $-2.26$ ,  $t[1138] = -2.83$ ,  $p < .01$ ). Contrast analyses supported both the Acculturation stress (contrast =  $3.10$ ,  $t[1138] = 2.21$ ,  $p = .02$ ) and Native Influences hypotheses (contrast =  $5.36$ ,  $t[1138] = 5.67$ ,  $p < .001$ ).

Analyses of SL-ASIA scores assessed the relationship between acculturation and disordered eating. Pearson correlations revealed that acculturation levels were not significantly correlated with EAT-26 scores in KA women ( $r < .01$ ,  $p = .89$ ,  $n = 164$ ) or KI women ( $r = .02$ ,  $p = .39$ ,  $n = 37$ ).

### Conclusion

The results indicate that although Korean American women have the greatest exposure to Western norms and ideals regarding body weight and shape, they have the lowest levels of disordered eating compared with women born in Korea. Mean differences in EAT-26 scores were reflected in statistically and clinically significant differences in the proportions of women with a probable eating disorder. Thus, our findings indicate a need to look beyond Westernization to understand eating disorders in Korean women.

Within Korean society, Confucian-based gender roles have limited opportunities available to women.<sup>19</sup> Traditionally, women served their parents by marrying into prominent families.<sup>20</sup> Modern-day matchmakers (*kyol honsangdam-so*) rate female clients most highly on physical appearance, whereas men are rated primarily by occupation, leading parents to emphasize the importance of daughters' physical appearance and manners. Kendall<sup>21</sup> described that the cultural emphasis on appearance over abilities creates an environment in which Korean women who fit the beauty norm are more apt to succeed in marriage and work. Thus, eating disorders in Korean women may emerge from native Korean values.

Beyond native influences to conform to specific ideals regarding appearance, Root<sup>22</sup> hypothesized that individuals in collectivist cultures such as Korea may be more vulnerable to eating disorders. Pressures to adhere to the norm in collectivist cultures may create difficulties in differentiating internal states from external expectations that contribute to developing eating disorders. Studies in other Asian countries support that the pathogenesis of eating disorders may involve such non-appearance factors. Whereas the drive for thinness is a central theme in understanding eating disorder pathology in the West, Lee et al.<sup>2,23</sup> report that many Chinese women with anorexia nervosa do not endorse weight phobia as a symptom of their disorder. Similarly, Pike and Mizushima<sup>24</sup> reported that Japanese

patients reported lower drive for thinness but greater maturity fears compared with a North American sample.

Alternatively, the increased levels of disordered eating in Native Korean and Korean Immigrant women may reflect a conflict between traditional Korean values and increasingly influential Western values. After World War II, Korea underwent rapid changes in its economy, industry, and society. The spread of Western culture and values to other societies has been associated with an increase in rates of eating disorders in those societies.<sup>6</sup> Some researchers posit that these disorders represent culture-transition syndromes (rather than culture-bound syndromes) and occur in societies undergoing such rapid cultural change.<sup>25</sup> The limited size of the Korean immigrant sample constrained our ability to compare support from contrast analyses for the acculturation stress versus native influences hypotheses. However, the lack of association between disordered eating and acculturation scores suggests that elevated EAT-26 scores in Korean immigrant women may be attributable to native influences rather than acculturation stress.

In addition to native influences that may increase risk of eating disorders within Korean culture, there may be factors in the United States that protect Korean American women. For example, although Korean American women had higher BMIs than Native Koreans, Asian American women tend to have lower BMIs than non-Asian women in the United States.<sup>26</sup> Thus, Korean-American women may feel less pressure to be thin compared with their native counterparts in Korea. Indeed, Native Korean women may not be aware of the actual average body size of women in the West and may not realize how unrealistic Western body weight and shape ideals are. Differences observed between Korean-Americans and Native Koreans could also be due to the greater awareness of the dangers of eating disorders in the United States. This has important implications for public policy, suggesting that prevention programs and health education in Korea need to address these dangerous and life-threatening disorders.

Limitations to this study should be noted. Although the Native Korean sample was representative of women in Korea, the samples recruited in the United States may not have been representative of their respective populations. In addition, our sample size of immigrant women was small, limiting our ability to further explore the differences between this group and Native Koreans. Thus, our test of competing theories was constrained by limited statistical power. It is also important to note

that non-Western respondents may be unwilling to report linguistic barriers. Because Korean American women were predominantly English-speaking and Native Korean women were predominantly Korean-speaking, it was not feasible to use a single version of the EAT to evaluate disordered eating levels across groups. Potentially, results were influenced by misinterpretation or differences between versions of the EAT. Finally, we were not able to measure disordered eating in immigrants prior to leaving Korea. Thus, our study design was not able to separate eating disturbances due to cultural adjustment from problems that may have predated emigration. A longitudinal study would better assess the effects of moving to and living in the West on disordered eating in Korean women.

This study is the first to the authors' knowledge to test three theories that address patterns of disordered eating in Korean women. While Western influences may contribute to eating pathology in Korea, it is important to examine traditional values that may put these women at risk. Our results have important implications for conceptualizing eating disorders in non-Western cultures. Keel and Klump<sup>27</sup> concluded that while bulimia nervosa appears to be a Western-bound syndrome, anorexia nervosa does not. The current study provides further insight into the kinds of non-Western cultural factors that may explain the ubiquity of anorexia nervosa. Our findings also have important clinical implications: clinicians treating non-Western patients with eating disorders should be open to exploring and addressing psychosocial stressors of non-Western origin.

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## References

1. Nakane A, Umino M. Psychopathology of anorexia nervosa in young adolescence. *Jpn J Psychiatry Neurol* 1987;41:153.
2. Hsu LKG, Lee SJ. Is weight phobia always necessary for a diagnosis of anorexia nervosa? *Am J Psychiatry* 1993;150:1466–1471.
3. Matsuura K, Fujimura M, Nozawa Y, Iida Y, Hirayama M. The body type preferences of Japanese female students. *Int J Obes* 1992;16:87–93.
4. Lee YH, Rhee MK, Park SH, Sohn CH, Chung YC, Hong SK, et al. Epidemiology of eating disordered symptoms in the Korean general population using a Korean version of the Eating Attitudes Test. *Eat Weight Disord* 1998;3:153–161.
5. Lippincott JA, Hwang HS. On cultural similarities in attitudes toward eating of women students in Pennsylvania and South Korea. *Psychol Rep* 1999;85:701–702.
6. Becker AE, Burwell RA, Gilman SE, Herzog DB, Hamburg P. Eating behaviours and attitudes following prolonged exposure to television among ethnic Fijian adolescent girls. *Br J Psychiatry* 2002;180:509–514.

7. Ko C, Cohen H. Intraethnic comparison of eating attitudes in native Koreans and Korean Americans using a Korean translation of the eating attitudes test. *J Nerv Ment Dis* 1998;186:631–636.
8. Garner DM, Olmsted MP, Bohr Y, Garfinkel PE. The Eating Attitudes Test: psychometric features and clinical correlates. *Psychol Med* 1982;12:871–878.
9. Dolan B. Cross-cultural aspects of anorexia nervosa and bulimia nervosa: a review. *Int J Eat Disord* 1991;10:67–78.
10. Mehta S. Relationships between acculturation and mental health of Asian Indian immigrants in the United States. *Genet Social Gen Psychol Monog* 1998;124:67–78.
11. Padilla AM, Wagatsuma Y, Lindholm KJ. Acculturation and personality as predictors of stress in Japanese and Japanese-Americans. *J Social Psychol* 1985;125:295–305.
12. Tseng WS. The concept of personality in Confucian thought. *Psychiatry* 1973;36:191–202.
13. Garner DM, Garfinkel PE. The Eating Attitudes Test: an index of the symptoms of anorexia nervosa. *Psychol Med* 1979;9:273–279.
14. Suinn RM, Ahuna C, Koo G. The Suinn-Lew Asian Self-Identity Acculturation Scale: concurrent and factorial validation. *Educ Psychol Meas* 1992;52:1041–1046.
15. Suinn RM, Rikard-Figueroa K, Lew S, Virgil P. Suinn-Lew Asian Self-Identity Acculturation Scale: an initial report. *Educ Psychol Meas* 1987;47:401–407.
16. Rhee MK, Lee YH, Park SH, Sohn CH, Chung YC, Hong SK, et al. A standardization study of the Eating Attitudes Test-26: Korean version (K-EAT-26): Reliability and factor analysis. *Korean J Psychosom Med* 1998;6:155–175.
17. Rhee MK, Go YT, Lee HK, Whang EJ, Lee YH. A validation of the Korean version of Eating Attitudes Test-26. *Korean J Psychosom Med* 2001;9:153–163.
18. Furr RM, Rosenthal R. Evaluating theories efficiently: the nuts and bolts of contrast analysis. *Understand Stat Issues Psychol Educ Social Sci* 2003;2:45–67.
19. Park IH, Cho LJ. Confucianism and the Korean family. *J Comp Fam Stud* 1995;26:117–134.
20. DeBary W, Haboush JHK. *The rise of neo-Confucianism in Korea*. New York: Columbia University Press; 1985.
21. Kendall L. *Getting married in Korea: of gender, morality and modernity*. Berkeley, CA: University of California Press; 1996.
22. Root MPP. Disordered eating in women of color. *Sex Roles* 1990;22:525–536.
23. Lee S. Anorexia nervosa in Hong Kong—a Chinese perspective. *Psychol Med* 1991;21:703–711.
24. Pike KM, Mizushima H. The clinical presentation of Japanese women with anorexia nervosa and bulimia nervosa: a study of the Eating Disorders Inventory-2. *Int J Eat Disord* 2005;37:26–31.
25. Becker AE, Keel PK, Anderson-Fye EP, Thomas JJ. Genes and/or jeans? Genetic and socio-cultural contributions to risk for eating disorders. *J Addict Dis* 2004;23:81–103.
26. Barnett HL, Keel PK, Conoscenti LM. Body type preferences in Asian and Caucasian college students. *Sex Roles* 2001;45:867–879.
27. Keel PK, Klump KL. Are eating disorders culture-bound syndromes? Implications for conceptualizing their etiology. *Psychol Bull* 2003;129:747–769.