Anorexia Nervosa in Asian-American Adolescents: Do They Differ from Their Non-Asian Peers

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ABSTRACT
Objective: This study reports on the clinical characteristics and phenomenology of anorexia nervosa (AN) in Asian-American adolescents, and compares them with a non-Asian sample.

Method: Data were obtained from a family therapy trial for adolescents with AN. Demographic details were collected and participants assessed on a series of structured interviews. Data from Asian participants were compared with that from non-Asians.

Results: Asians scored lower on all the Eating Disorder Examination (EDE) subscales, significantly on the restraint subscale (1.48 vs. 2.80, \( p = 0.016 \)) and weight concerns subscale (1.35 vs. 2.30, \( p = 0.026 \)). They also scored higher on the Family Environment Scale achievement orientation subscale (6.50 vs. 4.81, \( p = 0.011 \)).

Conclusion: Asians are demographically similar to their non-Asian peers but tend to come from higher-income families who were more achievement oriented. EDE scores suggest Asians tend to report fewer symptoms. The apparent lack of fat-phobia among Asians could be related to this overall under-reporting of symptoms.

Keywords: anorexia nervosa; Asian American

Introduction
In the last decade, the notion of Anorexia nervosa (AN) as a Western, culture-bound syndrome, afflicting predominantly upper-middle class white females,1 is gradually being dispelled with increasing literature from Asian countries such as Japan,2 Hong Kong,3 China,4 Taiwan,5 Singapore,6 and India.7 There is also increasing literature on AN among Asians residing in Western countries. In 1996, a review found that eating disturbances were less frequent among Asian-Americans.8 More recently, however, a meta-analytic study reviewing the role of ethnicity and culture in the development of eating problems showed Asian women exhibited more eating pathology than white women.9 Similarly in Britain, Eating Attitude Test scores were found to be significantly higher for Asians than for white participants.10

Postulated theories on this increased risk faced by Asians in Western countries include acculturation and culture clash. Adopting Western society’s unrealistic and extreme slim body ideals as part of an acculturating process may have contributed to higher levels of eating disorders among Asians. A study reporting that immigrants in Britain rated thinner figures more favorably than control subjects living in their country of origin supports this theory.11 An alternate theory is that of culture clash—the individual experiences internal conflict attempting to assimilate into the dominant culture, while still trying to adhere to traditional family values. Supporting this are reports from Britain and Australia that less acculturated Asian girls have unhealthier attitudes and psychopathology towards eating.12,13

Published literature on eating disorders in Asian-Americans has mostly focused on adults, issues of body dissatisfaction and acculturation. Assessment of eating pathology among adolescents has been limited to data from community samples. There is a lack of data on clinically identified cases with AN, and to date, no studies comparing Asians and non-Asians in the US have been conducted.

Our objectives were to report on the clinical characteristics and phenomenology of AN in Asian-
American adolescents using clinical data and results of structured interviews, and compare them with a non-Asian sample. In addition, as low rates of fat phobia have been reported among Asians,2,3,7,14,15 we were particularly interested in looking at this phenomenon in our clinical cases.

**Method**

**Participants**

Demographic details and information were obtained from the baseline dataset of a family therapy trial for 86 adolescents aged 12–18 with AN.16 Participants were classified as Asian-American if they had selected Asian as their ethnicity on the intake form or if they had one parent who was Asian. We included data from six Asian participants in a current ongoing study comparing family versus individual therapy. AN was diagnosed using the slightly modified DSM IV criteria (allowing only one missed menstrual cycle rather than three) as many adolescents present with unclear menstrual developments and patterns.

**Measures**

The Eating Disorder Examination (EDE), considered the gold standard for the assessment of eating disorder psychopathology,17 was administered by trained assessors. It targets the behavioral symptoms and associated disturbances in cognitions and attitudes of patients with eating disorders. The 22 items that assess these associated disturbances compose the four subscales of the EDE: restraint, shape concern, weight concern, and eating concern. The schedule for affective disorders and Schizophrenia for school-aged children (KSADs) was administered by trained assessors to assess child and adolescent psychopathology. Yale Brown Cornell Eating Disorder Scale (YBC-ED) was used to assess the severity of obsessionality and compulsiveness about eating behaviors. The child behavior checklist (CBCL) and youth self-report (YSR) were adopted to assess global problems of interpersonal functioning. The Family Environment Scale (FES) was used to assess family functioning. All were baseline measures prior to treatment.

**Data Analysis**

Analysis was carried out using Statistical Package for Social Sciences (SPSS) for Windows version 11.0 (Chicago, IL). Descriptive statistics (with 95% CI calculated where appropriate) are presented. Differences in quantitative variables between groups were determined by 2-sample t-test if normality and homogeneity assumptions were satisfied otherwise Mann–Whitney U test was applied. Pearson $\chi^2$ tests were used for categorical data except when the count was less than five for at least 20% of cells, in which case Fisher’s exact test was applied. Statistical significance was set at $p < 0.05$.

**Results**

There were 76 non-Asians and 16 Asian-Americans (7 Chinese, 4 Indians, 1 Japanese, 1 Filipino, and 3 of mixed ethnicity with at least one Asian parent). Their demographics and clinical features are presented in Tables 1 and 2, respectively. Among the Asian-Americans, mean age at presentation was 14.8 years; mean presenting weight and BMI were 39.1 kg and 15.5, respectively. Mean duration of illness was 10.3 months. Ninety-four percent were of the restrictive subtype. Nineteen percent had comorbid psychiatric diagnoses. Asian-Americans had a lower mean presenting weight ($p = 0.029$) but their mean presenting BMI was not significantly different from the non-Asians. Seventy-five percent came from high-income families (annual income >$100K) vs. 53% among non-Asians ($p = 0.021$). There were no other significant differences between groups.

Table 3 shows the EDE, FES, YSR, YBC, and CBCL results. Asian-Americans scored lower on all the EDE subscales. This achieved statistical significance on the restraint subscale (1.48 vs. 2.80, $p = 0.016$) and weight concerns subscale (1.35 vs. 2.30, $p = 0.026$). They also scored higher on the FES achievement orientation subscale (6.50 vs. 4.81,
Analysis of variance (ANOVA) was used to compare the FES achievement orientation scores across the different income groups. We found no significant differences between groups, an indication that achievement orientation was linked more to ethnicity than family income per se. There were no significant differences in the YSR, YBC-ED, or CBCL scores.

Discussion

The Asian-Americans in our study resemble the non-Asians in demographics and clinical presentation, similar to a British study reviewing 21 British Asians with eating disorders.18 They tended to come from higher income, more achievement orientated families, concurring with previous studies where Asian-Americans reported higher levels of parental expectation and criticism, and lower levels of parental satisfaction concerning academic achievement than their non-Asian peers.19 Obligation to one’s family is deeply ingrained in the Asian philosophy of life and is highly valued by all in the society. It is, therefore, not surprising that Asian-Americans reported extreme concerns about meeting high parental expectations, a characteristic of perfectionism.20 Perfectionism may prospectively predict the onset of AN symptoms and is an important correlate of AN.21 High levels of parental expectations and achievement orientation and the consequent striving for perfection could possibly predispose these youngsters to the development of AN.

The presentation of AN in Asians has also been a topic of contention. Intense fear of fatness—deemed a central criterion in the diagnosis of AN—is frequently reported absent in Asian patients. This...
has been extensively discussed by Lee and colleagues. They reported that more than half of their Chinese patients refuse food and become emaciated without self-reporting fat phobia. Instead, epigastric bloating and loss of appetite were used to rationalize their reduced food intake. Non-fat-phobia AN was also reported in other Asian cultures including the Japanese, Indians and South Asians. Several reasons were proposed by Lee for this apparent lack of fat phobia. Firstly, these patients were premorbidly slimmer and the urge to lose fat was thus not an issue. Second, they came from subcultures that delegitimize phobic patients. Thirdly, they were possibly denying or concealing their fat concerns.

Conversely, other researchers have found that Asians presented similarly to their Western counterparts in terms of drive for thinness and fear of fat. One study showed not only the presence of fear of obesity among Asian-American women, but that they were more dissatisfied with their body shape and showed a greater desire for thinness than Caucasians. The EDE weight and shape concern subscales would likely capture the cognitions of fat phobia and we expected the Asian-Americans to score lower in these subscales, indicative of the lack of fat phobia. They did score significantly lower in the weight concern subscales ($p = 0.026$). They also scored lower in the shape and eating concern subscale, but these did not reach statistical significance. In addition, their restraint subscale score was also significantly lower ($p = 0.016$). The restraint subscale is the most clinically relevant scale for AN because of its ability to capture restrictive behaviors and symptoms, and has been used in previous studies to examine denial and minimization in patients with AN. The lower restrain subscale scores in the Asian participants may indicate overall denial and minimization and the apparent lack of fat phobia may be part of this overall denial of all AN symptoms.

The Asian-Americans are no less clinically ill compared to their non-Asian counterparts—there were no significance differences in their duration of illness or presenting BMIs. Yet they appear less ill on the EDE measures. Denial of symptoms is common in AN, especially among adolescents, in part due to the ego-syntonic nature of the disorder. However, denial or minimization of symptoms may be even greater in Asians with AN because many Asians are culturally encouraged to use denial and minimization to cope with conditions deemed taboo, particularly mental and terminal illnesses. In addition, overcompliance may be a form of denial among young Asians. Asian upbringings inculcate in youngsters a sense of respect, awe, and sometimes fear of elders and authority figures. They may desire to give the “correct” answer to please the interviewer, thereby denying and minimizing symptoms. Thus, Asian cultural values may lead to a different conceptualization of how to (or not to) discuss problems rather than be true psychological denial. It may be useful in future studies to examine these differences.

There are several limitations to this study. A larger sample size would provide additional confidence in our findings. In addition, combining various Asian ethnic groups under a single “Asian” category obscures important group differences. For example, Yates reported that Chinese females tended to be small and highly satisfied with body/self whereas Japanese females were also small but highly dissatisfied with body/self, indicative of important inter-ethnic differences. Thirdly, there was no data as to whether the Asians were immigrants or American-born. This might be important in assessing acculturation and its effects on clinical presentation and eating psychopathology.

**Conclusion**

We conclude that Asians are clinically and demographically similar to their non-Asian peers. This implies that they could possibly benefit from family therapy currently proven useful in treating adolescents with anorexia. They tend to come from higher-income, more achievement oriented families. These differences may increase their risk for developing AN. In addition, the EDE scores suggest the apparent lack of fat-phobia among Asians could be related to their overall under-reporting of all symptoms. The increasing number of Asians in the US and recent reports that Asian-American girls are at higher risk for developing AN, requires larger studies allowing for differentiating risks of various Asian ethnic subgroups as well as the degree of acculturation to be expediently undertaken.

**References**
