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The Development of Eating Pathology in Chinese-Australian Women: 
Acculturation versus Culture Clash

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Abstract

Recent research suggests there has been an increase in the incidence of eating pathology among Asian women residing in the West. Two alternate explanations for the development of this eating pathology have been proposed; acculturation versus culture clash. The present study was designed to further examine the influence of acculturation versus culture clash on the development of eating pathology in Chinese-Australian women. Eighty-one Chinese-Australian women completed a questionnaire investigating their level of eating pathology, perceived sociocultural influences to lose weight, parental overprotection and care, self-perceptions of physical appearance, sociability and global self worth, and the strength of their ethnic identity. It was found that overall, low levels of satisfaction with physical appearance, high levels of parental overprotection, and high levels of perceived pressure from best female friends to lose weight predicted greater eating pathology in both acculturated and traditional women. However, acculturated women who perceived higher levels of pressure from their fathers and best male friends to lose weight and traditional women who experienced higher levels of parental care, reported the greatest eating pathology. The findings suggest that there are both similarities and differences between the risk factors that correlate with the eating pathology among acculturated and traditional women.

Introduction

Research undertaken in the 1970's and early 1980's described very few women from non-White immigrant backgrounds with eating pathology (Crisp, 1980; Hall, 1978; Halmi, Goldberg & Eckhert, 1977). The most recent reports, however, suggest that the incidence of eating disorders is becoming increasingly common in women from non-Western ethnic origins including the Asian countries (Abdollahi & Mann, 2001; Lee & Lee, 2000; Mumford, Whitehouse & Choudry, 1992; Nakamura et al., 2000; Wildes, Emery, & Simons 2001).

Two alternate and opposing explanations for the aetiology of eating disorders in Asian women have been proposed. Some cross-cultural researchers have argued that acculturation with Western society and the adoption of the slim ideal female body size, are the primary factors that have contributed to higher levels of eating pathology amongst Asian women (Davis & Katzman, 1999; Kawamura, 2002; Lee & Lee, 2000). Alternatively however, other researchers have employed the experience of marginalisation to propose that eating pathology arises when women are confronted by pressures to conform to conflicting cultural ideals. Cross-cultural theorists have recently employed the term “culture clash” to describe this experience, and have proposed this phenomenon to contribute to the aetiology of eating pathology through the notion that self-starvation achieves a greater sense of self-determination and perception (Katzman & Lee, 1997; Lake, Stagner, & Glowinski, 2000).

Culture clash is believed to have a greater impact if women have a more traditional family background. That is, the less acculturated individuals are to Western society, the more likely they are to experience a culture clash and hence develop eating pathology (Katzman & Lee, 1997; Lake et al., 2000).

The present study was designed to further examine the influence of acculturation versus culture clash on the development of eating pathology among Chinese women residing in Australia. More specifically, the study investigated the role of perceived sociocultural pressures to lose weight, parental overprotection and self-perceptions on eating pathology amongst Chinese-Australian women in relation to their level of Chinese ethnic identity.

Method

Participants

Eighty-one females of Chinese-Australian background participated in the study. The participants all resided in Australia, and had either been born in a country where they were exposed to Chinese culture (China [N = 7], Hong Kong [N = 38], Malaysia [N = 24] or Singapore [N = 8]), or had been born in Australia, but had family who had originated from one or more of these countries and had exposed their children to Chinese cultural ways (N = 13). The participants had a mean age of 28.55 years, a mean Body Mass Index (BMI) of 21.12 and arrived in Australia at an average age of 21.11 years.
Procedure
The participants were volunteers, sampled from Chinese associations, churches and shopping centers throughout the central and eastern suburbs of Melbourne. It was explained that participation in the study was voluntary, and participants were informed that if they agreed to take part in the research they would need to complete a questionnaire developed to foster knowledge about the eating attitudes, behaviours and lifestyles of Chinese-Australian women. Questionnaires were completed at the participants' leisure, and were returned to the researcher via reply-paid post. The response rate was approximately one in three.

Materials

The Ethnic Identity Scale
The EIS (Rosenthal & Feldman, 1992) was employed to assess the cultural orientation of participants. This measure consists of 32 items, with rating scales from four to six points in magnitude ranging from Strongly Agree to Strongly Disagree, and Very Important to Not at all Important. Possible total scores on the EIS range from 8 to 121. The Cronbach alpha reliability for the EIS in the present study was 0.80.

The Eating Attitudes Test – 26
The EAT-26 (Garner & Garfinkel, 1979) assesses a broad range of symptoms of anorexia nervosa and bulimia nervosa. Questions on the EAT range in possible scores from 0 to 78. Higher scores reflect more disordered eating attitudes, with the clinical cut-off point being drawn at 20. A six-point scale from Always to Never was employed to allow respondents to rate the frequency of each item. Participant responses of 1, 2 or 3 on each item were coded as 0, while responses of 4, 5 or 6 were coded as 1, 2 and 3 respectively. In the present study, the Cronbach alpha reliability was 0.76.

The Perceived Sociocultural Influences on Body Image and Body Change Questionnaire
The PSIQ (McCabe & Ricciardelli, 2001) was designed as a self-report measure to investigate the perceived nature of sociocultural feedback to lose weight, gain weight and increase muscle tone. The PSIQ consists of six scales. The first four scales contain items relating to the type of perceived feedback received from father (PSIQ father), mother (PSIQ mother), best male friend (PSIQ male friend) and best female friend (PSIQ female friend) on body image and body change techniques. The final two scales concern the perceived influence of magazines and newspapers or television and movies on body image and body change strategies (PSIQ media). Only those items of the PSIQ that considered weight loss were included in the present research. A five-point scale from Always to Never was employed to allow respondents to rate the frequency of each item. In the present study, the Cronbach alpha reliabilities were 0.75 for PSIQ father, 0.74 for PSIQ mother, 0.75 for PSIQ male friend, 0.76 for PSIQ female friend and 0.79 for PSIQ media.

The Parental Bonding Instrument
The PBI (Parker, Tupling, & Brown, 1979) is a measure of the parental contribution to the parent-child bond (Hauck, Rony, & Henker, 1999; Parker et al., 1979). It measures two principal dimensions of parental behaviours and attitudes as rated by the child: parental care (PBI care), and parental overprotection and psychological control of the child (PBI overprotection). It contains 25 items that are rated by the child on a four-point scale ranging from Very Like to Very Unlike, and was used to describe the parent participants felt closest to during the first 16 years of their life. In the present study, the Cronbach alpha reliabilities were 0.87 for PBI care and 0.88 for PBI overprotection.

The Adult Self-Perception Profile
Self-perceptions were assessed by the ASPP (Messer & Harter, 1986). Three of the scale’s twelve domains were employed in the present study. These domains comprised the ease with which an individual interacts with others (ASPP sociability), feeling happy with the way one looks (ASPP physical appearance), and an individual’s global perceptions of their worth (ASPP global self worth). A four-point scale from Really True for Me to Not at all True for Me was employed to allow respondents to rate the frequency of each item. In the present study, the Cronbach alpha reliabilities were 0.76 for ASPP sociability, 0.77 for ASPP physical appearance and 0.80 for ASPP global self worth.

Results
Hierarchical multiple regression was employed to examine the direct effects of acculturation, parental care and overprotection, self-perceptions, and perceived pressure to lose weight on eating pathology. These direct effects were entered at Step 1. The analysis further examined whether the effects of acculturation moderated any of the direct effects. Two-way interactions between EIS scores and each of the following variables were entered at Step 2: PBI care, PBI overprotection, ASPP sociability, ASPP physical appearance, ASPP global worth, PSIQ father, PSIQ mother, PSIQ male friend, PSIQ female friend, and PSIQ media. To reduce multicollinearity among the interaction terms and their constitute variables, all variables were centred (Aiken & West, 1991). Significant interaction terms were probed using the
procedures described by Aiken and West (1991). Specifically, predicted values were estimated using the mean, one standard deviation above the mean and one standard deviation below the mean of both the variables in the interaction term. This was then followed by examining whether the slopes of the resulting simple regression lines were significantly different from zero. A summary of the findings is given in Table 1.

As shown in Table 1, 35% of the variability in the EAT-26 scores was explained by the direct effects at Step 1, $F(11, 68)=3.37$, $p<.01$. There were three significant unique predictors. The variable that made the greatest direct and significant contribution to the variability in the EAT-26 scores was PSIQ female friend, followed by PBI overprotection and ASPP physical appearance. The findings indicated that higher perceived pressure from female friend to lose weight, higher scores on perceived parental overprotection and less satisfaction with physical appearance predicted higher scores of the EAT-26.

In addition to the direct effects, the moderating effects of EIS contributed an additional 20% of variance to the EAT-26 scores, $F(10, 58)=2.94$, $p<.01$, at Step 2. As shown in Table 1, three of the interaction terms were significant unique predictors: PBI care x EIS, PSIQ father x EIS, and PSIQ male friend x EIS. Post hoc probing revealed that EIS was found to moderate perceived parental care and perceived pressure to lose weight from both father and male friend. Specifically, examination of the simple regression lines showed that there was only an effect of parental care on eating pathology when women had high EIS scores ($\beta=.38$, $t(77)=1.97$, $p<.05$). Therefore, if women identified highly with their Chinese identity, then higher scores on PBI care predicted higher levels of eating pathology. On the other hand, there was only an effect of perceived pressure to lose weight from both father and male friend on eating pathology when women had low EIS scores. In this case, if women identified weakly with their Chinese identity, then higher scores on PSIQ father ($\beta=.44$, $t(77)=3.02$, $p<.01$) and PSIQ male friend ($\beta=.55$, $t(77)=3.77$, $p<.01$) predicted higher levels of eating pathology.

**Discussion**

The findings suggest that there are both similarities and differences between the risk factors that correlate with eating pathology among acculturated and traditional women. For all Chinese-Australian women, the results indicated that less satisfaction with physical appearance, higher levels of parental overprotection, and higher levels of perceived pressure from female friends to lose weight predicted higher levels of eating pathology.

<table>
<thead>
<tr>
<th>Variable</th>
<th>$R^2$</th>
<th>$\Delta R^2$</th>
<th>$\beta$</th>
<th>$sr^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EIS</td>
<td>.35*</td>
<td></td>
<td>.15</td>
<td>.00</td>
</tr>
<tr>
<td>PBI care</td>
<td></td>
<td></td>
<td>.20</td>
<td>.03</td>
</tr>
<tr>
<td>PBI overprotection</td>
<td>.31*</td>
<td></td>
<td>.06</td>
<td></td>
</tr>
<tr>
<td>ASPP sociability</td>
<td></td>
<td></td>
<td>.16</td>
<td>.02</td>
</tr>
<tr>
<td>ASPP physical appearance</td>
<td>-2.23*</td>
<td></td>
<td>.04</td>
<td></td>
</tr>
<tr>
<td>ASPP global self worth</td>
<td>.02</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSIQ father</td>
<td></td>
<td></td>
<td>.17</td>
<td>.01</td>
</tr>
<tr>
<td>PSIQ mother</td>
<td>-0.05</td>
<td></td>
<td></td>
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<tr>
<td>PSIQ male friend</td>
<td>-1.11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSIQ female friend</td>
<td>.34**</td>
<td></td>
<td>.07</td>
<td></td>
</tr>
<tr>
<td>PSIQ media</td>
<td>.06</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td>.55*</td>
<td>.45**</td>
<td>.10</td>
</tr>
<tr>
<td>PBI care x EIS</td>
<td></td>
<td></td>
<td>.01</td>
<td>.00</td>
</tr>
<tr>
<td>PBI overprotection x EIS</td>
<td></td>
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<tr>
<td>ASPP sociability x EIS</td>
<td>-0.01</td>
<td></td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>ASPP physical appearance x EIS</td>
<td>.00</td>
<td></td>
<td>.00</td>
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</tr>
<tr>
<td>ASPP global self worth x EIS</td>
<td>.00</td>
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<td>.00</td>
<td></td>
</tr>
<tr>
<td>PSIQ father x EIS</td>
<td>-.36*</td>
<td></td>
<td>.04</td>
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<tr>
<td>PSIQ mother x EIS</td>
<td>.09</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSIQ male friend x EIS</td>
<td>-.38**</td>
<td></td>
<td>.09</td>
<td></td>
</tr>
<tr>
<td>PSIQ female friend x EIS</td>
<td>.07</td>
<td></td>
<td>.00</td>
<td></td>
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<tr>
<td>PSIQ media x EIS</td>
<td>.22</td>
<td></td>
<td>.02</td>
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</table>

Note. * $p<.05$, ** $p<.01$

Poorer self-perceptions concerning one's physical appearance, or dissatisfaction with one's appearance, have been equated with the experience of body dissatisfaction (Altabe & Thompson, 1992; Coover, Thompson, & Kinder, 1998), and body dissatisfaction has been consistently demonstrated to be a risk factor for the development of eating pathology among Western women (e.g., Altabe & Thompson, 1992; Coover et al., 1998). The present finding that low
levels of satisfaction with physical appearance in Chinese-Australian women predicted higher levels of eating pathology is therefore consistent with findings for women in general, and suggest that Chinese Australian women are also internalising the Western thin ideal.

The finding that high levels of parental overprotection predicted eating pathology amongst Chinese-Australian women, is congruent with research that has found parental criticism, demandingness, and lack of parental nurturance to be related to the development of eating pathology (Humphrey, 1986; 1989; Sights & Richards, 1984). The present finding is also consistent with the research of McCourt and Waller (1995) who found that Asian girls who experienced greater levels of parental overprotection, exhibited higher levels of eating pathology. As was suggested by McCourt and Waller (1995), it is possible that disordered eating behaviour may be employed as a means for girls who experience high levels of parental overprotection, to gain a greater sense of control over their lives.

No previous research has examined the influence of perceived pressure from female friends to lose weight on the development of eating pathology amongst Asian women. However, the finding that higher levels of perceived pressure from female friends to lose weight predicted higher levels of eating pathology amongst Chinese Australian women, is consistent with research conducted with women in general. The main sources of sociocultural pressures that promote the thin ideal among women are female friends and same-gender peers (e.g., Stice, 1994; Thompson & Heinberg, 1999). Chinese culture has also been well documented to place importance on attending to other’s needs and maintaining interpersonal harmony, (Kawamura, 2002; Markus & Kitayama, 1991). As such, social pressure from female friends may place great importance on a Chinese-Australian woman’s eating habits and physical appearance.

In addition, to the above-described direct effects, identification with Chinese ethnic identity was found to moderate perceived pressure from fathers and male friends to lose weight, as well as parental care. For highly acculturated Chinese-Australian women, higher perceived pressure to lose weight from fathers and male friends predicted higher levels of eating pathology. This finding is consistent with the idea that the more acculturated an individual is to Western society, the greater influence sociocultural pressures have on the development of eating pathology and a desire to achieve the thin ideal (Davis & Katzman, 1999; Lee & Lee, 2000). The research to date on the role significant male figures may play in predicting eating pathology has been very limited. This work suggests that the more distant, hostile and critical women perceive their fathers to be, the more likely they are to exhibit eating pathology (Humphrey, 1986; Swarr & Richards, 1996).

It is possible therefore that those Chinese-Australian women who are more acculturated, associate perceived pressure from significant male figures to lose weight, with a sense of criticism, and thereby exhibit higher levels of eating pathology. Further study of the mechanisms by which perceived pressure to lose weight from significant males, influences the development of eating pathology in Chinese-Australian woman is needed.

Finally, the finding that greater eating pathology was associated with women who both identified highly with their Chinese identity as assessed by the EIS and had higher scores on paternal care was unexpected. The culture clash argument would predict high levels of parental overprotection, rather than parental care to predict greater levels of eating pathology. It is possible however, that given the collectivist nature of Chinese culture, parental care may actually be perceived as over-nurturance by Chinese-Australian women. As such, the present finding would be congruent with research undertaken with women in general which has found parental over-nurturance to be associated with the development of eating pathology (Humphrey, 1986; Swarr & Richards, 1996). Further research is clearly needed to more fully understand the nature of Asian parent-child relationships and how these may be associated with eating pathology among Asian women.

In conclusion, the present study found both similarities and differences between factors associated with eating pathology among traditional and acculturated Chinese-Australian women. In both groups, less satisfaction with physical appearance, higher levels of parental overprotection and higher levels of perceived pressure from female friends predicted eating pathology. In addition, for highly acculturated Chinese-Australian women, higher perceived pressure to lose weight from fathers and male friends predicted eating pathology. On the other hand, for Chinese-Australian women who identified highly with their Chinese identity, higher scores on parental care predicted eating pathology.

References


