

Paper

Body Dissatisfaction and Eating Attitudes in Slimming and Fitness Gyms in London and Lahore: A Cross-Cultural Study

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A questionnaire survey of women attending slimming and fitness gyms in London and Lahore was conducted using the Body Shape Questionnaire and the Eating Attitudes Test. Twenty-nine South Asian and 40 White women in London and 35 English-speaking women in Lahore were recruited into the study. Similar associations between body mass, body dissatisfaction and eating attitudes were found in all three ethnic groups. Asian women, in London and Lahore, showed a decrease in body dissatisfaction (BSQ scores) with age, suggesting that younger Asian women may have been more affected by increasing 'westernization' of attitudes to body shape. This cross-cultural study provides further evidence of the causal links between body mass, body dissatisfaction and eating attitudes across different ethnic groups. Copyright © 2000 John Wiley & Sons, Ltd and Eating Disorders Association.

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INTRODUCTION

Cultural attitudes about the ideal body shape and weight are widely assumed to be responsible for the differences in the prevalence of anorexia and bulimia nervosa in different ethnic groups. Women in cultures which extol slimness as the ideal frequently become dissatisfied with their current weight and figure, and make strenuous efforts to try to conform to the ideal. Many go on special diets, some exercise vigorously, and a few develop an eating disorder.

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Firm evidence of the causal link between body dissatisfaction and eating attitudes and behaviour is accumulating from studies in Western cultures. Comparative studies from non-Western societies can provide further confirmation of this link (Nasser, 1997). Epidemiological surveys in Hong Kong (Lee *et al.*, 1989; Lee, 1991) and in Pakistan (Mumford *et al.*, 1992; Choudry and Mumford, 1992) suggest that eating disorders are less frequent in Asian countries than in Western societies: and these are cultures in which the ideal of female body shape and weight is less fixated on slimness.

The association between body dissatisfaction and disordered eating attitudes seems to hold good within Western societies and perhaps broadly between cultures. Does the same association hold within non-Western populations? A previous study of eating disorders among schoolgirls in English-medium schools in Lahore (Mumford *et al.*, 1992) found that cases of bulimia nervosa did exist in an upper social class population in Pakistan. Moreover, abnormal eating attitudes were correlated both with body dissatisfaction and greater degree of Western orientation in matters of food and language spoken in the home.

The present study set out to compare women from three ethnic groups attending slimming and fitness gyms—South Asian and White women in London and English-speaking women in Lahore. Would similar associations between body dissatisfaction and eating attitudes and behaviour be found in all three ethnic groups?

METHOD

Subjects

London

Women were recruited from three slimming and fitness gyms located in Hayes (Middlesex), an ethnically mixed area of outer London. Among South Asian women in Britain, slimming activity and the pursuit of fitness is a new social phenomenon. All three establishments were equipped with toning tables, body wraps and various other forms of beauty treatment. There are various types of toning tables including stomach, hip trimmers, hip–waist trimmer, upper body toner, and leg toners. Toning tables were used for moderate and vigorous exercise. The nature of exercise depended on the physical state, age and weight of the client. Advice was also given on diet and nutrition.

Lahore

Slimming and fitness gyms have opened up all over the affluent suburbs of Lahore during the last 10 years. For the present study, women were recruited from three slimming and fitness gyms. All the gyms were well equipped with the latest training machines. The persons running these establishments were

qualified in fitness training, food and nutrition, and dieting. Advice was given to their clients on the choice of exercise, depending on the physical state, age and weight of the client. Some of the gyms also included facilities for aerobics. Sessions in these gyms were strictly single-sex, with separate timings for men and women. Only the upper socio-economic group can afford slimming and fitness gyms as membership is quite expensive.

Materials

The women were invited to complete a questionnaire in English which contained the Body Shape Questionnaire (BSQ; Cooper *et al.*, 1987) and the Eating Attitudes Test (EAT; Garner and Garfinkel, 1979). Their weight and height were recorded.

The cross-cultural psychiatric literature is full of warnings about the danger of using Western designed and validated questionnaires in non-Western cultural groups. Both the EAT and the BSQ have been previously validated among South Asians in Britain (Mumford *et al.*, 1991) and among schoolgirls attending English-medium schools in Lahore, Pakistan (Mumford *et al.*, 1992).

Subjects were selected for second-stage interviews on the basis of their EAT-26 scores: all subjects scoring over the 20/21 threshold and a random sample of low scorers were invited to participate in an interview. The purpose of the interview was to explore their reasons for attending and to determine whether the subjects had an eating disorder, according to the criteria of the *Diagnostic and Statistical Manual of Mental Disorders* of the American Psychiatric Association (DSM III-R, 1987).

RESULTS

In London, 40 of the women of English/Scottish/Welsh or Irish ethnic origin and 29 women of South Asian ethnicity agreed to take part in the study. The South Asian women gave their ethnic group as Punjabi (22), Gujarati (four), Pathan (one) and other (two). Twelve had been born in the U.K., 11 in India or Pakistan, and six in East Africa. Among the White women, six were of pure Irish origin and three others had one parent who was Irish. In Lahore, 35 women who were fluent in English were recruited into the study. Twenty other women who only spoke Urdu were excluded from the data analysis.

The mean age, height and weight of the three groups are given in Table 1. In London, the mean age of the South Asian women was significantly less than that of the White women, and the women in Lahore were significantly younger again. Both weight and height were obtained for 92 out of the 104 women (88 per cent) allowing their body mass index (BMI) to be calculated from the weight/height squared: the BMI was identical in the three groups.

Table 1. Findings for White and South Asian groups

	London White N = 40	London S. Asian N = 29	Lahore N = 35	Significance of difference on ANOVA	
Mean age	36.1 ± 11.8	29.6 ± 11.4	23.6 ± 6.7	F = 13.56	p < 0.0001
Mean height (cm)	162.0 ± 6.5	159.4 ± 5.0	159.6 ± 5.8	F = 2.16	n.s.
Mean weight (kg)	61.0 ± 8.0	59.0 ± 11.6	60.2 ± 9.8	F = 0.32	n.s.
Body Mass Index	23.2 ± 3.1	23.3 ± 4.8	23.5 ± 3.5	F = 0.07	n.s.
Mean BSQ score	80.6 ± 35.4	97.3 ± 39.2	109.1 ± 34.9	F = 5.68	p = 0.005
Mean EAT score	8.8 ± 8.6	11.5 ± 8.8	19.0 ± 11.4	F = 10.90	p = 0.0001

Table 2. Correlations between age, BMI, BSQ and EAT

	London White N = 40	London S. Asian N = 29	Lahore N = 35
Age versus BMI	0.26	0.25	0.15
Age versus BSQ	0.01	-0.13	-0.25
Age versus EAT-26	0.11	0.18	-0.27
BMI versus BSQ	0.29	0.69*	0.33
BMI versus EAT-26	0.16	-0.06	0.25
BSQ versus EAT-26	0.57†	0.59*	0.57†

Spearman rank-order correlation coefficients: *p < 0.01; †p < 0.001.

There were significant differences between the three groups on both BSQ and EAT-26, with the women in Lahore having the highest mean scores on both questionnaires.

Correlations between age, BMI, BSQ and EAT-26

Correlations between age, BMI, BSQ and EAT-26 were calculated separately for each ethnic group (Table 2). In all three groups, the body mass index increased with age to a similar degree; the relationship between BSQ and EAT questionnaire scores and age was inconsistent between the groups.

The BSQ was positively correlated with the body mass index among all three groups, most strongly among the London South Asians. The EAT was less clearly related to the body mass index. The strong correlations between the BSQ and EAT-26 were almost identical in all groups, and were all highly significant statistically. A model summarizing these correlations, applicable in all three groups, is shown in Figure 1: the arrows show the probable direction of causation.

In order to investigate the *independent* effect of age on BSQ and EAT-26 scores, partial correlation coefficients were calculated, separately for each ethnic group, (1) between age and BSQ, controlling for body mass index, and

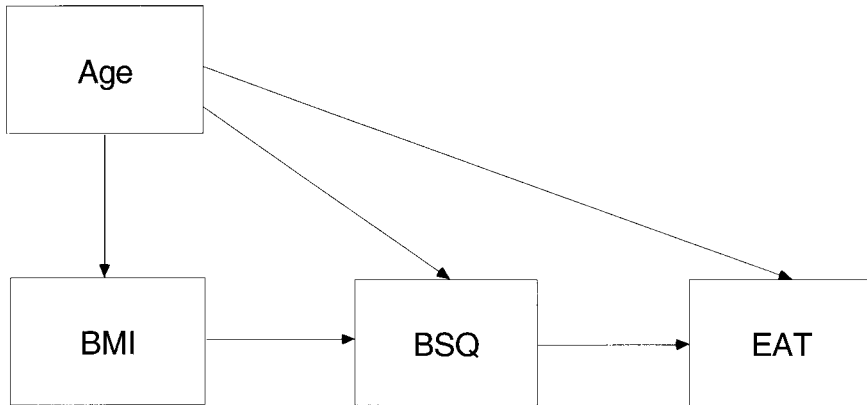


Figure 1. Model of relationships between variables

(2) between age and EAT-26, controlling for BSQ scores. BSQ scores did not vary independently with age among the White women in London, after controlling for the body mass index, but did decline with increasing age among the South Asian women in London (-0.28) and even more so among the women in Lahore ($r = -0.45$, $p = 0.015$). After controlling for the BSQ, EAT-26 scores tended to increase with age among the White and South Asian women in London, but declined with age among the women in Lahore.

Interviews

In London, three South Asian women and four White women scored 21 or more on the EAT. Unfortunately, of these it was only possible to interview one Asian woman, who had a partial syndrome of bulimia nervosa (bingeing less frequently than two binges per week for 3 months), and one White woman. Another White woman (not interviewed) was probably recovering from anorexia nervosa. In addition, interviews were also conducted with 11 South Asian women and 13 White women who had low EAT scores. None of these women met criteria for an eating disorder.

In Lahore, 17 women scored 21 or more on the EAT; interviews were conducted with 14 of them. Three women met the full DSM-III-R criteria for bulimia nervosa; no cases of anorexia nervosa were found. None of the three women interviewed with EAT scores below the 20/21 threshold met criteria for an eating disorder.

The prevalence of eating disorders meeting DSM-III-R criteria among these women attending slimming and fitness gyms in Lahore was 9 per cent. Interview rates were too low to calculate the prevalence in the London cohorts.

DISCUSSION

The purpose of this study was to investigate the relationship between body dissatisfaction and eating attitudes among women of three ethnic groups attending slimming and fitness gyms in London and Lahore. With any study of this kind, the representativeness of the samples is an important issue. The three groups differed significantly in age and social background, reflecting the spectrum of women who make use of slimming and fitness gyms in different cultures.

There was a wide age range among the White women in London, and they came from a less affluent social background than the Asian groups. Many were middle-aged and living alone following divorce or separation from their husbands. Some women said that they wanted to look physically attractive, in order to find a new partner. Many were lonely and enjoyed the companionship of other attenders at the gyms. Frequently their principal motive was physical fitness and losing inches to improve their body shape, rather than losing weight.

By contrast, the Lahore cohort was predominantly younger married women drawn from an affluent socio-economic group. Many of the women said they were bored sitting around at home with little to do. They had servants to look after their children and do the cooking and housework; they had little opportunity for taking exercise. They attended many social events where food was plentiful and they were under pressure to eat. Many said that they were attempting to diet and lose weight, but without much success.

The South Asian women in London shared many of the same attitudes towards physical fitness and body shape as the White women. Some of the younger women were soon to be married and wished to acquire a slimmer body shape. The other women were mostly middle-class housewives who were bored at home looking after their children, and had little other opportunity to get out the house. Most were dressed in trousers or jeans, rather than shalwa-kameez or saris. Many of these South Asian women, like those in Lahore, stated that they were able to relax at the slimming and fitness gyms, and escape from monotonous routine at home.

Dissatisfaction with body shape was widespread among all ethnic groups; the women in Lahore obtained the highest mean BSQ score, followed by the South Asian women in London. This was reflected in a similar gradient on EAT-26 scores between the three ethnic groups.

Some correlations were consistent in each of the three groups: between age and body mass index, between body mass index and BSQ scores, and between BSQ and EAT-26 scores. Body mass tends to increase with age; increased body mass is associated with greater dissatisfaction with one's body; higher scores on the BSQ are associated with a greater likelihood of disturbed eating attitudes. The correlations between the EAT and BSQ obtained in this study are very

similar to that in the study of Furnham and Boughton (1995) among British women ($r = 0.63$).

However there were interesting differences between the three ethnic groups in other respects. The Asian women, in London and Lahore, showed a decrease in body dissatisfaction (BSQ scores) with age, perhaps reflecting an age cohort effect: younger Asian women may have been more affected by increasing 'westernization' of attitudes to body shape in recent years, perhaps especially during their adolescence. Among the Asian women in Lahore, though not in London, the EAT-26 scores also declined with age, after controlling for body dissatisfaction. The Asian women in London showed a particularly strong association between body mass and body dissatisfaction.

The study had also aimed to estimate the prevalence of eating disorders on the basis of diagnoses made at interview with high scorers on the EAT. Unfortunately interview rates were too low in the London cohorts to calculate the prevalence rates. In Lahore, the EAT enabled the identification of three cases of DSM-III-R bulimia nervosa, equivalent to a prevalence rate of 9 per cent. This compares with a prevalence of eating disorders of 1.6 per cent (including partial syndromes) in English-medium schools in Lahore, found in our previous study (Mumford *et al.*, 1992).

The present study set out to compare women from three ethnic groups attending slimming and fitness gyms—South Asian and White women in London and English-speaking women in Lahore. In spite of the wide differences in social context and in reasons for attendance, the principal finding was similar associations between body mass, body dissatisfaction and eating attitudes in all three ethnic groups. This cross-cultural study provides further evidence of the causal link between body dissatisfaction and eating behaviour across different ethnic groups.

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