

Eating disorders symptoms among a university students: an exploratory study

Fath Al Alim M Abdelrahim, MRCPsych , FRCPsych* , Noon H Abdelmutti , MBBS** ,
Abdelghani Alshaikh , MRCPsych*** ,

University of Medical Sciences and Technology ,Khartoum,Sudan* , STI GP Trainee , Elizabeth
Hospital , Norfolk , UK** , National Ribat University, Khartoum, Sudan***

اعراض اضطرابات الاكل لدى عينة من طلاب الجامعة: دراسة استكشافية

د. فتح العليم عبد الرحيم- جامعة العلوم الطبية و التكنولوجيا – الخرطوم
د. نون عبد المعطى- مستشفى اليزابيث – نورفولك – المملكة المتحدة
د. عبد الغنى الشيخ – جامعة الرباط الوطنى – الخرطوم

ملخص البحث

الاهداف: الدراسة تهدف الى معرفة مدى انتشار اعراض اضطرابات الاكل و العوامل المصاحبة لها لدى عينة من طلاب جامعة خاصة .

الطريقة:

أخذت عينة عشوائية تتكون من 340 طالبا وطالبة من جامعة العلوم الطبية و التكنولوجيا و طلب من كل منهم ملئ استمارة المعلومات الشخصية و استبيان شكل الجسم و مؤشر حجم الجسم .

النتائج:

كل افراد العينة ملئوا و اعدوا الاستبيانات . عدد الاناث كان 182 (53.5%) و الذكور 158 (46.5%).
21.2% منهم لديهم اعراض اضطرابات الاكل . و 44% كانوا غير راضين من شكل اجسامهم . و 67% غير راضين عن وزن اجسامهم . و 93% من لديهم اعراض اضطرابات الاكل كانوا غير راضين عن شكل اجسامهم . 44.6% من غير الراضين عن شكل اجسامهم كانت لديهم اضطرابات الاكل. 29.8% من غير الراضين عن اوزانهم كانت لديهم اعراض اضطرابات الاكل و هذه كانت اوضح احصائيات لدى الاناث مع ان زيادة الوزن كان اكثر لدى الذكور.

الخلاصة:

كل من اعراض اضطرابات الاكل و عدم الرضى عن شكل ووزن الجسم منتشرة لدى طلاب وطالبات هذه الجامعة وذلك بصفة اكثر لدى الاناث. كان هناك رابط ايجابي بين هذه المقاييس .

Abstract

Objective

The study aimed at examining the prevalence and correlates of eating disorder symptoms among students in a private university.

Methods

A sample of 340 students from the University of Medical Sciences and Technology (UMST) was randomly selected and asked to fill out questionnaires covering demographic data, the Eating Attitude Test (EAT) and the Body Shape Questionnaire (BSQ). The body mass index (BMI) of each student was calculated from his/her reported weight and

height. The data was analyzed using the Statistical package of Social Sciences (SPSS).

Results

All of the 340 students filled and returned the questionnaires. One hundred eighty-two (53.5%) were females and 158 (46.5%) were males. 21.2% scored positive on the EAT. 44% of the sample were dissatisfied with their body shape whereas 67% of them were dissatisfied with their body weight. 93% of those who scored positive on the EAT expressed body shape dissatisfaction (BSD). 44.6% of those with BSD scored positive on the EAT whereas 29.8% of those with BWD scored positive on the this test. Significantly more females displayed disordered eating behavior and higher magnitude of BSD than their male counterparts even though there was a higher prevalence of overweight males.

Corresponding author

Fath Al Alim M Abdelrahim

Tel: 00249912312567

Email: fathalalim@hotmail.com

Conclusions

The prevalence of eating disorder symptoms, BSD and BWD were high among these university students and all of these variables were expressed more by female students than male ones. There was a positive correlation between BSD, BWD and eating disorder symptoms.

The results have important implication for increasing awareness about an emerging clinical problem.

Keywords: Eating disorders, EAT, BSQ, Sudan

Introduction

Over a period of three months the first author encountered two patients with classical symptoms of anorexia nervosa and one patient with bulimia nervosa. All of them were female university students. This prompted us to explore for eating disorders symptoms among the students in the University of Medical Sciences and Technology (UMST). A graduate student (Noon H Abdelmutti), under our supervision, was given the task of surveying this problem, putting in mind that these disorders are claimed by some authors to be culture-bound, mainly occurring in Western cultures.

Historically, larger body sizes were considered the ideal, representing health, prosperity and wealth. Despite the well-known risks associated with excess body weight, overweight and obesity are prevalent across cultures⁽¹⁾. During the last half of the last century the ideal body weight underwent substantial changes as advertising and mass media propagated the representation of attractiveness as a thin, fit body for females and a lean muscular physique for males⁽²⁾. The pursuit for thinness in Western cultures culminated into what might be considered an epidemic of eating disorders⁽²⁻⁵⁾.

Female gender, particularly college-aged women, is considered to be the most influential risk factor associated with the

prevalence of eating disorders⁽⁶⁾. College campuses have been referred to as “breeding ground” for the development of eating disorders and disordered eating⁽⁷⁾. A university campus is considered “a society” or “community” in which values regarding body shape and eating behaviour are shared, transmitted and reinforced⁽⁸⁾. Another well-known risk factor leading to the development of an eating disorder is body weight and body shape dissatisfactions⁽⁹⁾.

Eating disorders are characterized by extreme emotions, attitudes and behaviours surrounding weights and foods. The Diagnostic and Statistical Manual (DSM-IV) classifies eating disorders into four categories, including anorexia nervosa, bulimia nervosa, binge eating disorder and eating disorder not otherwise specified⁽¹⁰⁾. These disorders are prevalent, predominantly in females, in Western and Westernized cultures^(2-4,11) with very few reports from underdeveloped and developing countries⁽¹²⁻¹⁴⁾. There is incomplete understanding of the multifactorial etiology of these disorders, but epidemiological data suggests the influence of sociocultural context including social transition such as transitional migration, urbanization, level of acculturation, modernization, Western media exposure and peer group environment as in university campuses^(1,7,15,16). Family and twin studies have supported a genetic diathesis⁽¹⁶⁾.

Anorexia nervosa is characterized as a disorder in which patients refuse to maintain a minimally normal weight, have an intense fear of gaining weight and significant misinterpretation of their body and its shape⁽¹⁰⁾. Bulimia nervosa is characterized by repeated episodes of binge eating followed by inappropriate behaviour to counteract the calories gained in binges via self-induced vomiting, misuse of laxatives, fasting or excessive exercise⁽¹⁰⁾. Binge eating disorder is characterized by periods of impulsive or

continuous eating beyond the point of feeling comfortably full⁽¹⁰⁾.

The body shape is formed of cognitive, perceptual, affective, behavioral and social components while body image is the three dimensional mental representation that each person has of oneself⁽¹⁷⁾. Body weight dissatisfaction (BWD) and body shape dissatisfaction (BSD) refer to discomfort with one's own body weight and shape and both have been shown to play major roles in the genesis of eating disorders^(9,18).

Literature search did not reveal any report about eating disorders in Sudan except for a case of anorexia nervosa in a 15 year old Sudanese boy living in UAE⁽¹⁹⁾. Recent studies in Arab countries have found abnormal eating attitudes and excessive concerns about weight and shape. Exploratory studies in Egypt, Jordan, Oman and UAE using EAT questionnaire reported eating disorder symptoms in 11.4%, 12.4%, 33% and 23.4% respectively among young female students⁽²⁰⁻²³⁾.

This study aimed at examining the prevalence of eating disorder symptoms and its correlation to BSD and BWD in a sample of UMST Sudanese students.

Materials and Methods

This is a cross-sectional institution-based study carried out in the University of Medical Sciences and Technology (UMST) in Khartoum. UMST is privately owned and the majority of students had lived and finished pre-entry examination either in Western countries or the Gulf States. At the time of the study there were 1701 students enrolled in the eleven colleges of the university. Approval was obtained from UMST authority and the respondents were assured about the confidentiality and anonymity of their responses. Data was collected using a questionnaire covering age, gender, height, weight and faculty year. The body mass index (BMI) was calculated from each student reported height and weight. A meta-analysis

study found that self-reported height and weight are reasonably accurate measures of actual height and weight⁽²⁴⁾. Cochran formula was used to determine an appropriate sample size⁽²⁵⁾. The calculated figure (18.3%) was raised to 20% of the population to reduce sampling error. The selection of the study subjects was done using systematic random sampling technique from the list of names from each academic year. To select a random sample of 340 students from the 1701 university student population using systematic sampling, the formula $K = N/n$ was used where N =population, n =sample size and K =sampling interval. So every 5th student was selected from the list of names as $1701/340=5$. The starting point was random between 1 and 5. The demographic questionnaire, EAT and BSQ were distributed and filled out at the end of lectures to the 340 randomly selected students, a researcher (Noon H Abdelmutti) remaining in the class room to deal with problems arising and making sure the questionnaires were correctly filled and handed over.

The Eating Attitude Test (Appendix 1) is a self-report questionnaire with high degree of predictive validity and reliability. Its 26 items, with Likert scale scoring, evaluate attitudes, feelings and preoccupations in relation to food and weight⁽²⁶⁾. The cut-off point for caseness is 20. The EAT has been widely used to screen for eating disorders symptoms in various cultures including translation and validation in Arab population^(13,14). The BSQ (Appendix 2) is a self-report, 34 items questionnaire that evaluates feelings of low self-esteem, the desire to lose weight and body dissatisfaction⁽²⁷⁾. Following Cooper and Taylor^(27,28), the scores were classified into four categories; <81 indicates slight BSD, 81-110 indicates moderate BSD and 111-140 indicate extreme BSD. The discrepancy between a student current and desired body weight indicated BWD. Likewise, the discrepancy between respondents current BMI

and their desired BMI expressed BWD adjusted to height.

The collected data was analyzed using the statistical package of social science (SPSS). The results were expressed in percentages with P-value less than 0.05 indicating significance.

Results

All of the 340 students completed and returned the questionnaires. 182(53.5%) were females and 158(46.5%) were males.

As shown in Table 1, 72 students (21.2%) scored positive on EAT, while 150 (44%) and 228 (67%) expressed BSD and BWD respectively. The BMI according to the WHO standard categorized 215 (63.2% students as having normal weight, 34 (10%) were underweight and 91 (26.8%) were overweight.

Table 1: The prevalence of BSD, BWD, weight categories and positive EAT among 340 students

	n (%)
BSD	150 (44)
BWD	228 (67)
Normal Weight	215 (63.2)
Underweight	34 (10)
Overweight	91 (26.8)
Positive EAT	72 (21.2)

Table 2 shows the magnitudes of BSD in students with positive EAT. Sixty-seven students (93%) with a positive EAT expressed BSD, this association being more marked among the severely dissatisfied group ($p < 0.05$).

From the 228 students with BWD, 133 (58.5%) also have BSD and from those with a positive EAT, 68 (94.4%) expressed BWD and 67 (93%) expressed BSD. Sixty-eight students (29.8%) out of the 228 students who expressed BWD scored positive on the EAT, while 67 (44.6%) from the 150 students with BSD scored positive on the EAT.

Table 2: The Magnitude of BSD and Positive EAT

Level of Dissatisfaction	BSD n=150(%)	Positive EAT n=72(%)	P
Slightly Dissatisfied	78 (52)	21 (26.9)	
Moderately dissatisfied	37 (24.2)	19 (51.3)	
Severely dissatisfied	35 (23.2)	27 (77.1)	< 0.05
Total	150 (100)	67 (93)	

Table 3 shows the correlation between weight categories, BSD, BWD and positive EAT.

Table 3: Correlation between weight, BSD, BWD and positive EAT.

	BSD n=150(%)	BWD n=228(%)	Positive EAT n=72(%)	P
Underweight n=34	12 (35.2)	20 (58.8)	8 (23.5)	
Normal weight n=215	75 (34.3)	130 (60.4)	24 (11.1)	
Overweight n=91	63 (62.3)	78 (85.7)	40 (43.9)	< 0.05
Total	150	228	72	

Students within the overweight category expressed significantly more prevalence of BSD, BWD and positive EAT compared to underweight and normal weight students ($P < 0.05$). The 340 students were divided into two age groups. The students within the age group 17-20 years expressed BSD and positive EAT more than the older 21-23 year age group.

Table 4 shows that significantly more females have BSD than males, while the opposite is true with regard to BWD. Forty-seven females (25.8%) compared to 25 (15.8%) males have positive EAT and this difference is statistically significant ($P < 0.05$). Underweight was prevalent among females more than males (14.8% vs. 4.4%), whereas overweight was more prevalent among males (33.5% vs. 20.8%).

Table 4: The relationship between gender, BSD, BWD, positive EAT and weight categories among 340 students.

	Females n=182 (%)	Males n=158 (%)	P
BSD	92 (50.5)	58 (36.7)	< 0.05
BWD	120 (65.9)	108 (68.3)	
+ EAT	47 (25.8)	25 (15.8)	< 0.05
Underweight	27 (14.8)	7 (4.4)	
Normal weight	117 (64.2)	98 (62)	
Overweight	38 (20.8)	53 (33.5)	

Discussion

Body weight dissatisfaction and BSD refer to the discomfort with one's own body weight and shape; both have been shown to play a major role in the genesis of eating disorders⁽¹⁵⁻¹⁸⁾. The prevalence of eating disorders and disordered eating is reported to be increasing in Western and Westernized countries⁽⁴⁾.

As shown in Table 1, more students were concerned about their weight than their shape. This is in agreement with the study done by Furnham et al on a similar population in London⁽²⁸⁾. The high prevalence of both BWD and BSD is probably due to the rapid societal transition and sociocultural pressure to achieve an elusive "ideal body"⁽²⁹⁾. The prevalence of underweight, overweight and normal body weight among our sample is similar to other studies done in similar settings^(15,29,30). The relatively high prevalence of overweight students in our study can be explained by the fact that most of these students come from affluent high socioeconomic families. The prevalence of eating disorder symptoms among our group of 340 students was found to be 21.2% and this is higher than expected compared to Western literature⁽¹⁴⁾, but similar prevalences were reported from Arab countries⁽²⁰⁻²³⁾. This can be explained by the high prevalence of both BSD and BWD in our sample. Most of these students prior to joining the university were living in Gulf or Western countries and may have experienced adjustment difficulties due

to separation from their families in addition to rapid social transition and academic pressure; all of these factors might have had a confounding effect. The high prevalence of BSD and BWD in our study is consistent with Cash and Henry's finding that 48% of young women evaluated their shape negatively and 63% were dissatisfied with their weights⁽³⁰⁾. The differences in the prevalence of eating disorder symptom, BSD and BWD in literature reports and in our study can be attributed to cultural differences, the different age variables of the samples and the cut-off point for caseness vary from study to study.

In this study, there was a significant relationship between the magnitude of BSD and eating disorder symptoms. As shown in Table 2, 67 students (93%) who expressed positive EAT also expressed BSD, this association being more marked among the severely dissatisfied with their body shape. This result is expected as it is most likely that if someone is dissatisfied with one's body shape he/she will try to correct it by engaging in unhealthy eating habits, thus leading to eating disorder symptoms.

Our results showed that from those with positive EAT; equal percentages expressed BSD and BWD (94.4% vs. 93%). BSD seems to be more conducive of eating disorder symptoms than BWD as 44.6% of those with BSD expressed eating disorder symptoms compared to 29.8% of those with BWD.

The relationship between the students weight categories on the one hand and BSD, BWD

and positive EAT on the other is shown in Table 3 where it is evident that students within the overweight category expressed significantly more prevalence of BSD, BWD and disordered eating than the other two weight categories. It can be extrapolated that overweight students should be targeted with treatment and preventive programs.

Table 4 shows that significantly more females than males had BSD and disordered eating. This is consistent with literature reports that eating disorders are predominantly female attributes^(3,4,14). In a similar study among Spanish students, the prevalence of eating disorder symptoms was 7.1% in females and 2.4% in males and concerns over body shape appeared in 32% of females and 8.9% of males (15). The corresponding prevalences in our study were 25.8%, 15.8%, 50.5% and 36.7% respectively. The reliability and validity of the scales used in this and other studies show that they are suitable instruments for carrying out cross-cultural studies, though disparity in the cut-off points makes it difficult to make comparisons between cross-cultural studies^(14,20-23). Students in the age group 17-20 years expressed more BSD and disordered eating behavior than the older 21-23 years age group. This coincides with epidemiological data that

the most common ages of onset of eating disorder symptoms are in the mid and late teens with a minority of the cases occurring in the early 20s^(3,4,14).

A number of avoidable and unavoidable limitations were acknowledged which collectively might have an impact on the findings of this study. Even though self-reported height and weight were shown to be reasonably accurate measures of actual height and weight, directly measuring these variables is more reliable and this should be considered in future similar research. This study heavily depended on two self-report questionnaires and this might have caused distortion due to response style bias and inaccurate reporting by the students. These questionnaires may be culture-sensitive as they were developed in Western but were validated and used in other Arabic countries. Trans-cultural differences exist even between Arab countries. Prior local validation of EAT and BSQ in future studies in eating disorders will circumvent this limitation. Our study sample was from one private university, thus limiting the generalizability beyond UMST. A study covering other private and governmental universities and taking into consideration the aforementioned limitations is recommended.

References

1. Oqden CL, Carroll MD, Curtin LR, et al. The prevalence of overweight and obesity in the United States. *J Am Med Assoc* 2006;295(13):1549-55.
2. Jacobi L, Cash TF. In pursuit of the perfect appearance: discrepancies among self and ideal percepts of multiple physical attributes. *J Appl Soc Psychol* 1994;4:379-96.
3. Raich RM, Rosen JC, Deus J, et al. Eating disorder symptoms among adolescents in the United States and Spain: a comparative study. *Int J Eat Disorder* 1992;11(1):63-72.
4. Hudson JI, Hiribi E, Pope HG, Kessler RC. Prevalence and correlates of eating disorders in the National Comorbidity Survey Replication. *Biol Psychiatry* 2007;1:61(3): 348-58.
5. Lazer Y, Schatz S. Comprehensive community prevention of disturbed attitudes to weight control: a three-level intervention program. *Eating Disorders. J Treat Prev* 1999;1:3-31.
6. Cox LM, Lantz CD, Mayhew JL. The role of social physique anxiety and other variables in predicting eating behaviours in college students. *Int J Sport Nutr* 1997;7: 310-7.
7. Harris SM. Body image attitudes and the psychosocial development of college women. *J Psychol* 1995;129:315-29.

8. Sobal J. Social influences on body weight. In: KD Brownell & CG Faiburn (Eds), *Eating disorders and obesity: a comprehensive handbook*. New York: The Guilford Press;1995.p.73-82.
9. Wong Y, Huang Y. Obesity concerns, weight satisfaction and characteristics of female dieters: a study on female Taiwanese college students. *J Am Coll Nutr* 1999;18(2):194-200.
10. American Psychiatric Association. *Diagnostic and statistical manual of mental disorders (4th edn)*. Washington, DC: American Psychiatric Association; 1994.p 539-50.
11. Raphael FJ, Lacey JH. Sociocultural aspects of eating disorders. *Ann Med* 1992;24(4):293-6.
12. World Health Organization. *African women: prevalence of eating disorders, global*. Geneva, Switzerland: WHO; 1998.
13. Alsubaie S, Bamgboye K, Alshammari S, et al. Validity of the Arabic version of the eating attitude test (EAT). *Int J Eat Disord* 1996;20(3):321-4.
14. Weiss MG. Eating disorders and disordered eating in different cultures. *Psychiatr Clin North Am* 1995,18(3):537-53.
15. Espina A, Ortego MA, Ochoade AL, Aleman A, Juaniz M. Body shape and eating disorder in a sample of students in the Basque country: a pilot study. *Psychol in Spain* 2002;6(1):3-11.
16. Becker AE, Keel P, Anderson-Fye EP, Thomas D. Genes or Jeans? Genetic and sociocultural contribution to risk for eating disorder. *J Addict Dis* 2004;23(3):81-103.
17. Gardner RM. Methodological issues in assessment of the perceptual component of body image disturbance. *Br J Psychology* 1996;187:327-37.
18. Chang VW, Chris Takis NA. Self-perception of weight appropriateness in the United States. *Am J Prev Med* 2003; 24(4):332-9.
19. Abu-Saleh MT, Younis Y, Karim L. Anorexia nervosa in an Arab culture. *Int J Eat Disord* 1998; 23:207-12.
20. Nasser M. Screening for abnormal eating attitudes in a population of Egyptian secondary school girls. *Soc Psychiatry Psychiatr Epidemiol* 1994;29(1):25-30.
21. Shuriquie N, Elias T, Abdulhamid M. A study of abnormal eating attitude among Jordanian female college students. *Bahrain Medical Bulletin* 1999;21(3):88-90.
22. Al-Adawi S, Dorvlo AS, Burke DT. Presence and severity of anorexia and bulimia among male and female Omani and non-Omani adolescents. *Am J Acad Child Adolesc Psychiatry* 2002;41(9):1124-30.
23. Eapen V, Mabrouk AA, Bin-Osman S. Disordered eating attitudes and symptomatology among adolescent girls in the United Arab Emirates. *Eat Behav* 2006; 7(1):53-60.
24. Bowman RL, DeLucia JL. Accuracy of self-reported weight: A meta-analysis. *Behav Ther* 1992;23:637-55.
25. Cochran WG. *Sampling Techniques*. New York: John Wiley & Sons;1977.p.74-6.
26. Garner DM, Garfinkel PE. The eating attitude test: an index of the symptoms of anorexia nervosa. *Psychol Med* 1979;9: 273-9.
27. Cooper PS, Taylor MJ, Cooper Z, Fairburn CG. The development and validation of the body shape questionnaire. *Int J Eat Disorder* 1987;6,:485-94.
28. Furnham A, Badmin N, Sneade I. Body image dissatisfaction: gender differences in eating attitudes, self-esteem, and reasons for exercise. *J Psychol* 2002;136 (6):581-96.
29. Chisuwy N, O'Dea JA. Body image and eating disorders among Japanese adolescents: a review of the literature. *Appetite* 2010;54(1):5-15.
30. Cash TF, Henry PE. Women's body image. The results of a national survey in the USA. *Sex Roles* 1995;33:19-28.

Appendix 1

Eating Attitudes Test (EAT-26)

Age: _____ Current Weight: _____

Desired Weight: _____

Sex: _____ Height: _____

Please write the appropriate response that suits you for each of the following statements:

Always = 3 Usually = 2 Often = 1
Sometimes = 0 Rarely = 0 Never = 0

1. Am terrified about being overweight.
2. Avoid eating when I am hungry.
3. Find myself preoccupied with food.
4. Have gone on eating binges where I feel that I may not be able to stop.
5. Cut my food into small pieces.
6. Aware of the calorie content of foods that I eat.
7. Particularly avoid food with a high carbohydrate content (i.e. bread, rice, potatoes, etc.).
8. Feel that others would prefer if I ate more.
9. Vomit after I have eaten.
10. Feel extremely guilty after eating.
11. Am preoccupied with a desire to be thinner.
12. Think about burning up calories when I exercise.
13. Other people think that I am too thin.
14. Am preoccupied with the thought of having fat on my body.
15. Take longer than others to eat my meals.
16. Avoid foods with sugar in them.
17. Eat diet foods.
18. Feel that food controls my life.
19. Display self-control around food.
20. Feel that others pressure me to eat.
21. Give too much time and thought to food.
22. Feel uncomfortable after eating sweets.
23. Engage in dieting behavior.
24. Like my stomach to be empty.
25. Have the impulse to vomit after meals.
26. Enjoy trying new rich foods.

Total Score =

Appendix 2

Body Shape Questionnaire (BSQ-34)

We would like to know how you have been feeling about your appearance over the PAST FOUR WEEKS. Please read each question and write the appropriate number that describes how you feel from the list below. Please answer all the questions.

OVER THE PAST FOUR WEEKS:

Never = 1 Rarely = 2 Sometimes = 3
Often = 4 Very often = 5 Always = 6

1. Has feeling bored made you brood about your shape?
2. Have you been so worried about your shape that you have been feeling you ought to diet?
3. Have you thought that your thighs, hips or bottom are too large for the rest of you?

4. Have you been afraid that you might become fat (or fatter)?
5. Have you worried about your flesh being not firm enough
6. Has feeling full (e.g. after eating a large meal) made you feel fat?
7. Have you felt so bad about your shape that you have cried?
8. Have you avoided running because your flesh might wobble?
9. Has being with thin women made you feel self-conscious about your shape?
10. Have you worried about your thighs spreading out when sitting down?
11. Has eating even a small amount of food made you feel fat?
12. Have you noticed the shape of other women and felt that your own shape compared unfavourably?
13. Has thinking about your shape interfered with your ability to concentrate (e.g. while watching television, reading, listening to conversations)?
14. Has being naked, such as when taking a bath, made you feel fat?
15. Have you avoided wearing clothes which make you particularly aware of the shape of your body?
16. Have you imagined cutting off fleshy areas of your body?
17. Has eating sweets, cakes, or other high calorie food made you feel fat?
18. Have you not gone out to social occasions (e.g. parties) because you have felt bad about your shape?
19. Have you felt excessively large and rounded?
20. Have you felt ashamed of your body?
21. Has worry about your shape made you diet?
22. Have you felt happiest about your shape when your stomach has been empty (e.g. in the morning)?
23. Have you thought that you are in the shape you are because you lack self control?
24. Have you worried about other people seeing rolls of fat around your waist or stomach?
25. Have you felt that it is not fair that other women are thinner than you?
26. Have you vomited in order to feel thinner?
27. When in company have you worried about taking up too much room (e.g. sitting on a sofa, or a bus seat)?
28. Have you worried about your flesh being dimply?
29. Has seeing your reflection (e.g. in a mirror or shop window) made you feel bad about your shape?
30. Have you pinched areas of your body to see how much fat there is?
31. Have you avoided situations where people could see your body (e.g. communal changing rooms or swimming baths)?
32. Have you taken laxatives in order to feel thinner?
33. Have you been particularly self-conscious about your shape when in the company of other people?
34. Has worry about your shape made you feel you ought to exercise?