



## Body Dissatisfaction, Body Esteem and Eating Attitudes among adolescents: - A Comparative study

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### ABSTRACT

Health related problems such as eating disorders, obesity is found to be related with eating attitudes. In the present study, a non clinical sample of 150 adolescents (75 male and 75 females) 16 to 18 years of age were incorporated. All the participants were tested on Body Esteem Scale, Body Shape Questionnaire and along with these their BMI. Attempts have been made to resolve the gender differences on eating attitudes of adolescent males and females by comparing them on eating attitudes, body esteem and body shape questionnaire along with their BMI. The results clearly line up the difference that Males scored higher on all the three sub scales of eating attitudes i.e. (bulimia, dieting subscales and oral control) of eating attitudes in comparison to females. Whereas, the physical condition of males is better as compared to females i.e. the Males show better physical coordination and are more in weight as compared to females. The body mass index of males is also better in comparison to females. These patterns of results clears that certain socio cultural, biological and interpersonal factors increase the risk for body dissatisfaction and body esteem among adolescents, but it differs for boys and girls.

*Keywords:* EATING ATTITUDES; BODY SHAPE; BODY ESTEEM; Body Mass Index; Body Dissatisfaction.

### 1. INTRODUCTION

India a fast developing country, has been exposed for more than a decade to the western culture in the form of western media. With an increase in globalization of the Indian economy and greater emphasis on meeting international standards in every sphere, males and females in India are increasingly exposed to western media images (Shroff & Jhompson 2004). India is thus a striking example of the link between the global marketing of a western body ideal and capitalist interests which support and drive this mass mediated messages. In this way, we can also see how increased economic opportunity may be linked to particular standards of male and female attitudes towards attractiveness despite the enormous physical and mental health consequences as evidenced by the alarming rates of eating disorders and disorderly eating in United States. Eating attitudes described as one's thought, ideas, belief and a feeling one holds or a personal preference of a particular person towards several foods or variety of foods. On the basis of these attitudes or preferences people either have healthy or unhealthy eating patterns. These patterns may give rise to other health related problems like eating disorders and obesity and many other eating disorders.

Eating Attitudes is related to various biological, psychological and sociological factors, (Garner et al., 1982). The biological variables studied in relation are height, weight, age and body mass index which is computed with the help of the universal formula used in medicine & produces a unit of measure. The term "disordered eating" is more inclusive

and includes behaviours such as meal skipping, bingeing, use of laxatives, purging, food avoidance and food restriction. “Disordered eating” covers a broad spectrum of eating behavior including eating disorders, while the term ‘eating disorders’ is defined quite specifically by diagnostic criteria (Asqarian, 2003).  $BMI = \text{weight (kg)} / \text{height}^2 \text{ (m}^2\text{)}$  the body mass index (invented between 1830 & 1850 by the Belgian polymath Adolphe Quetelet) is defined as the individual’s body weight divided by the square of their height. Thus body mass index is a statistical measurement which compares a person’s weight and height (World Health Organization). In one of the study by Afifi et al., (2002) which investigated the prevalence of Preoccupation with weight indicators and disordered eating behaviors among entering university students. The researchers identified BMI as a critical variable used in the development of intervention programs. In study conducted by Heaven et. al, (2001) to determine the extent to which different forms of eating behaviours as assessed by the Dutch Eating Behavior Questionnaire are related to facts of the Big five personality domains and the results indicated that BMI and gender had significant main effects on Eating behaviors and attitudes.

The psychological variables studied in relation to eating attitudes were body satisfaction and body esteem.

The body satisfaction or body image disturbance is a core diagnostic feature of anorexia and bulimia nervosa. For e.g. these individuals are excessively concerned with body weight and shape and their self-evaluation is unduly influenced by body weight and shape (Evans & Dolan, 1993). The body esteem constitutes how a specified person feels about the particular part or function of his/her own body and this describes the self-evaluation which the person makes regarding his own physical features or body (Franzoi & Shields, 1984). Body image disturbance is a multifaceted construct, encompassing perceptual, affective, cognitive and behavioral aspect of body experience as, well as a broad range of phenomena such as body dissatisfaction, body image investment, and over concern with body weight and shape (e.g. Cash & Puzrozinsky, 1990). Many studies investigating body image disturbance in eating disordered patients have been done on perceptual aspects of body image disturbance operationalized as the accuracy of body the estimation (e.g. Lindholm & Wilsom, 1988; Probst et al., 1997; Kulbartz-Klatt et al, 1999).

In additions to the research done on body size estimation, a considerable number of studies have been conducted on cognitive-affective aspects of body image disturbance using a broad range of assessment methods (e.g. self report questionnaires, interview, in-vivo cognitive assessment, or thought sampling procedures) and considering a spectrum of cognitive – affective-phenomena in body image disturbances (e.g. Freeman et al., 1991; Lovell et al., 1997; Hilbert & Tuschen-Caffier, 2005). It has been suggested that individuals with a high level of body image stress could have a higher tendency for engaging in appearance fixing as a body image coping strategy (Cash, Santos, & Williams, 2005). Studies have examined the variables of body image and eating disturbance among Indian female populations and then compared them with western samples showed finding similar levels of body dissatisfaction and fear of fatness (Shroff & Thompson, 2004).

Davison et al., (2006) highlighted the significance of a poor body image in the development of dysfunctional eating and few other outcomes. The results indicated a negative body image unrelated to symptoms of negative and to be strongly associated with poor opposite Sex peer relationship especially boys. A negative body image also affected same-sex relations among girls.

Holder et al., (2006) conducted a study and found that women, particularly those with eating concern, inaccurately estimate their body size. Participation with eating concerns over estimated their body size and were more dissatisfied with their body size than

participants without eating concerns. Jaffe et al., (2006) conducted a study to examine mothers' attitudes towards fat, weight, and dieting in themselves and their children. The results collected remarked that material attitudes towards their own weight affect their beliefs about their children's weight.

Sim et al, (2006) in order to understand whether difficulties in emotional functioning distinguish between body dissatisfaction and disordered eating for the purpose of study a rest of emotion regulation i.e (negative emotion, emotional awareness, coping), demographic (i.e. age) and physical i.e, BMI (Body Mass Index) factors were assessed in the adolescent girls and the results supported the contention that body dissatisfaction, combined with difficulties in emotional awareness are related to disordered eating. Vander et al, (2004) investigated the predictors of body image disturbances/and dissatisfaction and disturbed eating attitudes and behaviours in African American and Hispanic girls. The results showed that African American girls had significantly lower body image dissatisfaction than Hispanic girls. Significant predictors of body image dissatisfaction included fear of -ve evaluation & nut classification. Fear of negative evaluation was also a significant predictor of disturbed eating attitudes and behaviors. Overall 10% of the African American girls & 12.7% of Hispanic girls qualified for a diagnosis of a probable eating disorders. In female, Ferrand et al., (2004) has shown that body mass index and body esteem for appearance accounted for a significant amount of variance in dieting scores in elite synchronized swimming athletes. The study by Shisslak et al., (2006) examined the links among body mass index (BMI), weight control practices, binge eating and disordered eating among middle school girls. The results showed that both the prevalence and frequency of weight control behaviours increased as BMI increases, but binge eating was reported approximately equally by girls across the BMI spectrum. There are many factors that affect the healthy development of individuals during adolescence. One of the factors is the quality of life of the adolescent (Işıklar, 2012). Kumcağız1(2017) examined the relationship between quality of life and eating attitudes of adolescents and findings revealed that there was a negative and statistically weak relationship between life quality and eating attitudes. Development of positive body image is less studied in adolescent. It is surprisingly viewed that adolescence is a critical period in the development of positive and negative body image. Few studies on adolescents have replicated findings in adults, considering that adolescent body appreciation is inversely associated with body dissatisfaction, drive for thinness, sociocultural beauty ideals internalisation and social physique anxiety, and is positively associated with life satisfaction, self-esteem, physical well-being and intuitive eating. (Góngora, Cruz Licea, Mebarak Chams, Mebarak Chams , 2020; Alcaraz-Ibanez, Cren Chiminazao, Sicilia, Texeira Fernandes, 2017; Lemoine , Konradsen, Lunde Jensen, Roland-Lévy, Ny , Khalaf , Torres , 2018; Andrew , Tiggemann , Clark , 2016)

Objectives of the study:-

1. To study and compare the eating attitudes of male and female adolescents.
2. To study gender differences in regard to eating attitudes.
3. To study the influence of some socio-cultural variables like the social pressure resulting from the standards of perfection and attractiveness imposed by modern industrialized society or western cultures.

Though there are many variables which are related to eating attitudes but as it is not possible to study all of them so we have chosen those variables which are closely related to the phenomena.

## Method

In the present study, a non-clinical sample of 150 adolescents (75 males and 75 females). The purpose of the study was to obtain first hand information about how they think, act or view their day to day eating patterns or attitudes and only the generalized findings would be reported to educators and researchers concerned with the provision of optimal environmental conditions that induced those eating patterns or attitudes. The age of the sample ranged between 16 to 18 years with the mean and standard deviation of 16.39 and 0.91 respectively. The age range of the sample is given in table no.1.

Table no. 1

Age range of the Subjects (M=75; F=75)

Age (in years)	Female	Male	Total
17-18	2	1	3
16-17	21	33	54
15-16	52	41	93
N	75	75	150
Mean	16.33	16.46	16.39
S.D	1.30	0.52	0.91

## Measures

All the participants completed the following set of questionnaires :-

**a) Eating Attitude Test –Eat-26 (Garner, et al.,(1982)):**The EAT-26 is a 26-item questionnaire validated by **Leichner et.al (1994)** designed to identify eating habits and concerns about weight derived from 40-item original inventory (**Garner & Garfinkel, 1979**). To complete the Eat-26 participants rate their agreement with statements about weight and food. The eating attitude scale has 3 subscales.

**Dieting Subscale:** It describes avoiding high caloric food and preoccupation with being thinner. Examples include “I enjoy trying new rich foods”, and “I am terrified about being overweight”.

**Bulimia and Food Preoccupation:** This includes items that reflect thoughts about food like “I find myself preoccupied by food”, “I feel that food controls my life”. The bulimia aspect of the factor includes items such as “I have the impulse to vomit after meals” and “I have gone on eating binges”.

**Oral Control:** This includes items related to the control of eating and the perceived pressure form others to gain weight. For example, “I avoid eating when I am hungry” and “I cut my food into small pieces”. Participants rate the intensity of attitudes from six possible options Never (0), Rarely (0), Sometimes (0), Often (1), Very often (2), and Always (3). The responses for item (#19) are weighted from zero to three with a score of (3) assigned to Never, Rarely (2), Sometimes (1), and Often, Very often and Always are given a score of (0). A score greater than 20 is considered to be an indicator of a possible eating disorder problem, and individuals who score 20 or more should seek clinical support.

**b) Body-Esteem-Scale (Franzoi & Shields,1984):**The body-esteem scale is used to assess the subject’s feelings about his body parts and functions. This is a likert type scale.

Responses range from strong negative feelings with score of (1), having moderate negative feelings (2), having no feeling one way or other (3), having moderate positive feelings (4) and having strong positive feelings with a score of (5). The scale consists of total 35 items. Factor analysis indicated 3 factors for males and females. **The factor physical attractiveness (PA), upper body strength (UBS) and physical condition (PC)** for males. The items (3, 21, 22) i.e. nose, appearance of eyes, cheeks/cheek bones constitute the PA factor. Factor UBS constitutes items like: width of shoulders, figure or physique, sex drive. And Factor PC is included in items (15, 35) (physical coordination & weight).

The factors for females are **sexual attractiveness (SA)** holding items (1, 2, 26) body scent, nose and sex drive. The second factor is **weight concern (WC)** and items like: appearance of stomach hips, figure or physique etc constitute this factor and the factor **physical condition (PC)** is same for both males and females. Means for these factors can be computed for males and females but these means cannot be compared because they are not based on same items. Even two items in the questionnaire are loaded on two factors for males. To determine subject's scores for a particular subscale, simply add up the individual scores for items on that scale. For example:- for females sexual attractiveness you add up the subject's ratings of the items comprising the sexual attractiveness subscale (13 items).

**c) Body Mass Index:** Body mass index is a ratio of the individual's body weight divided by the square of their height. The formula used for the Indian population which produces a unit of measure of kg/m<sup>2</sup>.

$$\text{BMI} = \frac{\text{Weight (kg)}}{\text{Height}^2 (\text{m}^2)}$$

The body mass index is therefore a statistical measurement which compares a person's weight and height.

**d) Body Shape Questionnaire (Bsq 16-A Evans and Dolan, 1993):** The body shape questionnaire (BSQ) is a widely used scale to assess body dissatisfaction. Several short forms of the scale have been introduced. In the present study, BSQ 16-A has been used and administered. The present scale consists of 16 items based on 6-point scale ranging from (never to always). The items present in the scale assess how the subject or the individual actually feels about his/her appearance over the past four weeks. There is no right or wrong response or answer and the subjects take only 5-10 minutes to complete the questionnaire. The derivation of shortened "alternative forms" showed that in white British women attending a family planning clinic two 16 item shortened forms of the BSQ had Cronbach's coefficient alpha values in the range .93 to .93 with non significant differences in scores (paired t-test). Four eight item scale had alpha values ranging from .87 to .92 and very nearly equivalent scores. All scales showed similar correlations with other correlated and discriminate variables. Only the items 26 and 32 about laxative and vomiting have been dropped from all the shortened versions.

## RESULTS

### Comparison of Means:

Table 2 shows Means and Standard Deviations of the measured variables for both Males and Females. The “t” test was used which clearly indicated significant differences on measured variables.

On comparison of means of Females and Males the number of difference came to the lime light. Males (M= 5.56, 11.64, 6.93) scored higher on all the three sub scales i.e. (bulimia, dieting subscales and oral control) of eating attitudes than females (3.08, 8.95, 4.43). But the physical condition of males (42.45) is better as compared to females i.e. the Males show better physical coordination and are more in weight as compared to females. The body mass index of males (M=19.91) is also better in comparison to females (19.10) respectively.

**TABLE -2: MEANS AND STANDARD DEVIATIONS FOR FEMALES (N:75) AND MALES (N:75) ALONG WITH t-RATIOS AND LEVEL OF SIGNIFICANCE**

S.No.	VARIABLE of	FEMALE		MALE		t-ratio	level sig
		MEAN	SD	MEAN	SD		
1.	Bulimia (B)	3.08	2.63	5.56	3.58	4.83	0.01s
2.	Dieting Subscale (DS)	8.95	6.55	11.64	8.54	2.16	0.05s
3.	Oral Control (OC)	4.43	3.69	6.93	4.29	3.84	0.01s
4.	Body Mass Index	19.10	3.47	19.91	3.34	0.81	0.15s
5.	Body Satisfaction	36.71	14.43	37.43	11.68	0.33	n.s
6.	Sexual Attractiveness (SA) / Physical Attractiveness (PA)	45.96	7.02	33.40	6.84	11.09	**
7.	Weight Concern (WC) / Upper Body Strength (UBS)	32.67	6.66	32.44	7.43	0.19	**
8.	Physical Condition (PC)	31.65	6.33	42.45	8.93	8.54	0.01s

**\*NOTE:** - \*\*MEANS FOR THESE FACTORS CAN BE COMPUTED FOR MALES AND FEMALES BUT THESE MEANS CANNOT BE COMPARED BECAUSE THEY ARE NOT BASED ON THE SAME ITEMS.

## Discussion

Attempts have also been made to resolve the sex / gender differences that were identified at the beginning of research. A prospective study by Presnell et al., (2004) on adolescent boys and girls in relation to Eating attitudes asserts that certain socio cultural, biological and Interpersonal factors increase the risk for body dissatisfaction, but it differs for boys and girls. (MORDIN et al., 2005) studied the Gender related differences in variable of importance of food intake. The results showed that food reflection and aversions were more common in women 69 and 38% respectively than in men. According to Garner & Garfinkel, (1980) the cultural pressure on women to diet play an important role in the

development of disordered eating attitudes. The social-climation on the development of disorder eating attitudes continue to influence the weight control behaviour; weight preoccupation and psychological disturbance in young male and female adolescents. Vander et al, (2004) who investigated the predictors of body image disturbances/and dissatisfaction and disturbed eating attitudes and behaviours in African American and Hispanic girls found similar results that African American girls had significantly lower body image dissatisfaction than Hispanic girls. Significant predictors of body image dissatisfaction included fear of evaluation & nut classification. Fear of negative evaluation was also a significant predictor of disturbed eating attitudes and behaviors. Pauls et al., (2006); poised through his study on body dissatisfaction that socio cultural pressure for thinners, negative life experiences, familial dysfunction and elevated body mass were significant predictors of weight and shape preoccupation results in drive for thinness and bilumic behaviours in adolescent girls. This pattern of results clarifies that certain socio cultural, biological and interpersonal factors increase the risk for body dissatisfaction and body esteem among adolescents, but it differs for boys and girls.

## CONCLUSION

As the objective of the study was to compare the eating attitudes of male and female adolescents and to assess gender differences. The influence of some socio-cultural variables like the social pressure resulting from the standards of perfection and attractiveness imposed by modern industrialized society or western cultures were also analysed. All the participants were assessed on eating attitude scale, on body esteem and body shape questionnaire along with these their BMI. Attempts have been made to resolve the gender differences on eating attitudes of adolescent males and females by comparing them on eating attitudes, body esteem and body shape questionnaire along with their BMI. The results clearly line up the difference that Males scored higher on all the three sub scales of eating attitudes i.e. (bulimia, dieting subscales and oral control) of eating attitudes in comparison to females. Whereas, the physical condition of males is better as compared to females i.e. the Males show better physical coordination and are more in weight as compared to females. The body mass index of males is also better in comparison to females. These pattern of results clears that certain socio cultural, biological and interpersonal factors increase the risk for body dissatisfaction and body esteem among adolescents, but it differs for boys and girls.

## Limitations

1. The number of other variables like parental control, impulsiveness and perfectionism need to be studied in relation to eating attitudes.
2. Many of the socio cultural factors have remained untouched in study which need to be studied in future studies.

## Future Directions

1. Provision of early screening of the eating disorder in adolescents is highly needed for particular treatment procedures.
2. Future research is needed to develop intervention programs to control eating disorders among adolescents.
3. Awareness regarding appropriate nutrition in relation to body weight is needed among female students.

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