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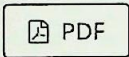
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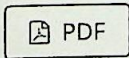
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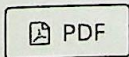
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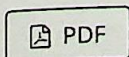
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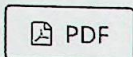
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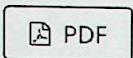
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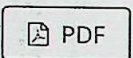
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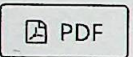
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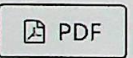
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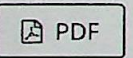
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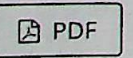
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Original article

Attitudinal and Perceptual Dimensions of Body Image in Adolescents

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Abstract

Background: Body image is viewed as a multidimensional construct, a combination of perception and attitude regarding the body. Prevalence studies in body image concerns indicate the widespread incidence of body discontent in adolescent girls. The purpose of the study was to assess the attitudinal and perceptual dimensions of body image and the current level of body dissatisfaction, in Indian female adolescents.

Methods: Cross sectional observational study with a sample of 303 female adolescents, age 15-17 years. Informed consent was obtained from parents and participants. Materials used were Body Image Instrument, Self-Reporting Questionnaire-20 and Body Mass Index ratings.

Results: In the perceptual dimensions, more than 23.7% of the girls perceived themselves as overweight and obese while in actuality only 13% were overweight, thus indicating a trend towards prevalence of faulty body images. In the attitudinal dimensions, around 60% of the adolescent girls identified a thinner ideal body contour in comparison to their current figure. Significant discontent towards their current weight is experienced by adolescents within the normal BMI category, with more than 58.32 % of them desiring to be thinner.

Conclusion: In the context of weight concerns of Indian adolescents, there is an observable shift in preferences of body shape towards a thinner ideal. Adolescents experience a common dissatisfaction with their current bodies, irrespective of whether they desire to increase their body size or reduce it. These results hold great significance in the current context, wherein



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mental health professionals may witness an increase in body image disturbances and eating disorders, in Indian adolescents.

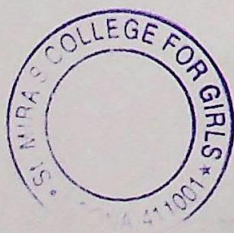
Key words: Body Image, Attitudinal dimensions, Perceptual dimensions

Introduction

Body image is a complex construct, comprising of several different elements. According to Mazzeo [1], the multidimensional construct of body image consists of three important elements: (a) perception, (b) attitudes, and (c) preoccupation.

Body perception is characterized by the accuracy with which people estimate their body size. Although there is a physical reality to how large or small people are, their perceptions of their size may be inaccurate. Researchers studying the perceptual component of Body Image (BI) examine how individuals perceive their bodies and then compare the person's subjective experience of their body to measured objective body [2]. This difference between measures provides researchers with an index of accuracy as well as a quantitative measure of distortion [3].

Research suggests that the greater the discrepancy between perceived and actual body size, the more the body image disturbance. Studies show that girls with eating disorders tend to overestimate their body sizes in comparison to girls without eating disorders [4]. Thus, inaccurate perception of body may be a critical factor in eating disorders. However, body size overestimation is not unique to persons with anorexia or bulimia. In fact, Thompson and Thompson reported that the average global distortion level of body image perception is 25 % above accuracy [5]. Yet, there are very few studies that have examined body size perception in non-clinical samples, leaving a gap in knowledge of whether these same processes exist in the general population.



Attitudinal components of body image focus on the level of satisfaction/ dissatisfaction one has with one's body shape, size and weight [6]. Discrepancies between views of one's own current appearance and desired appearance, and discrepancies between the views held by others, namely peers and opposite sex, may be critical in understanding body image. In the current study, we examine participant's perceptions of their current body size as well as ideal size for themselves, also their perceptions regarding what others perceive as ideal, attractive and healthy.

Prevalence studies in body image concerns indicate the widespread incidence of body discontent in adolescent girls [7]. Studies report that over 80% of girls wanted to lose weight even though only 1.4 % of them were overweight. Also, 50 % of the girls who diet are of normal weight and 62 % of all girls are dissatisfied with their body [8]. Rodin, Silberstein and Streigel- Moore coined the term 'normative discontent' in the context of body image to describe the experience that most girls feel about their bodies in the current society [9].

Today, female bodies, particularly among girls, have become a source of distress and self-criticism, rather than a natural and pleasurable source of vitality, agency, and mastery [10]. Although body image dissatisfaction (BID) may be widespread and 'normative' among a majority of adolescent girls, its role in psychological disorders cannot be undermined. BID has been recognised as one of the strongest predictors of disordered eating [11].

Specifically, while discussing the weight concerns of Indian girls today, there is an observable shift in preferences of body ideals. Earlier, beauty ideals in India presumed a well-rounded figure with curves [12] and such inclinations remained stable till as recently as 1980s and 1990s. However, in the ongoing scenario, norms of beauty are dynamically altered in the subcontinent, becoming more and more similar to the global western standards and consequently perhaps becoming constricted. It now emerges that body dissatisfaction and disordered eating may be nearly as prevalent in Asian societies as they are in North



America and Western Europe [13]. There is a limited amount of literature related to Indian women's body image. Consequently, more research is needed on this group, which this study attempts to accomplish. With increased globalisation and spread of western ideals, mental health professionals may witness an increase in body image disturbances, in the Indian context. The study has been looked at as a first step in gathering much needed information on body image ideals of adolescent girls from the Indian culture. In this context, the purpose of the current study was to focus on the attitudinal and perceptual dimensions of body image and to assess the current level of body dissatisfaction in Indian adolescent girls.

Methods

Operationalization of Concepts used in Research

Attitudinal dimensions of Body Image -Individual's level of satisfaction with her/his body shape. A cognitive body dissatisfaction score will be calculated as the difference between these figure ratings (Current figure - Ideal figure). Thus, a positive score would indicate a desire for a thinner figure, while a negative score would indicate a desire for a larger figure.

Perceptual dimension of Body Image - Body perception is characterized by the accuracy with which people estimate their body size. The perceptual dimension will be assessed by comparing the actual body size as determined from the body mass index (BMI), with the perception of themselves as Thin/Normal/Fat/Too fat (as reported on the personal data sheet).

Sample and sample characteristics

A sample of 303 adolescent girls was selected from the age group of 15-17 years. The inclusion criteria for the study was that participants had completed their 9th grade education or higher and were comfortable in the English language. The exclusion criteria were



participants who scored eight or more affirmative responses on the Self-Reporting Questionnaire (SRQ-20), to screen out for common mental disorders.

Tools

Personal Data Sheet and BMI

Participants were asked to mark their age, current weight, desired weight, how they viewed themselves (very thin, thin, normal, fat, very fat), whether they wanted to be thinner, whether they had ever tried to lose weight and whether they exercise, on the personal data sheet. The current weight and height of each participant was measured by the investigator after they completed the sheet. BMI was calculated from the height and weight of the participant.

Body Image Instrument

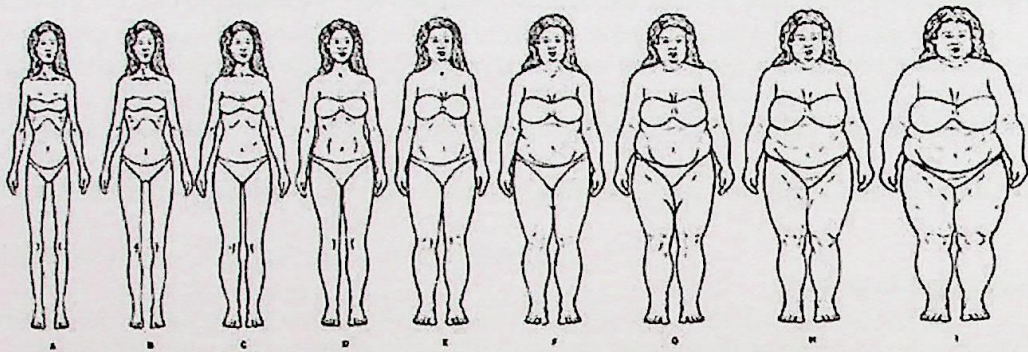
To assess the body image dimensions, the Body Image Instrument [14] was used. Pulvers' culturally relevant Body Image Questionnaire, adapted to reflect differences of body shape and size across ethnic groups, was used to measure current and desired body images. It consists of nine male and nine female front-view drawings of incremental sizes, ranging from very thin to overweight as test stimuli. Since the sample is restricted to girls, only the female drawings were used. Participants were required to choose figures which they consider represents the figure that: (a) they thought they were (b) they would desire to look like (c) they thought other girls would desire to look like (d) they thought men find most attractive (e) they thought men find most unattractive (f) they thought should be society's ideal (g) they thought was the most-healthy and (h) they thought was the most-unhealthy.

The scale shows satisfactory concurrent and content validity, with correlations reaching or closely approximating 0.70 to 0.80 standard for girls [14]. Cronbach's α was calculated as 0.95, indicating excellent internal consistency among raters, as well as participant's own body image ratings. In the current study as well, participant ratings for body image correlated



highly with participant BMI ($r = 0.67$) and with self-reported weight ($r = 0.78$). The scale thus shows satisfactory concurrent validity in the current sample. The questionnaire thus, was validated for use in this population.

Fig-1: Body Image instrument

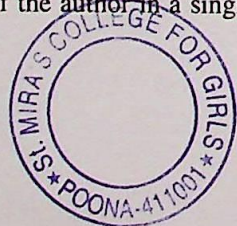


Self-Reporting Questionnaire (SRQ-20)

For the screening of Common Mental Disorders, the Self-Reporting Questionnaire (SRQ-20) was used, an instrument developed for tracking psychiatric disorders validated in India and recommended by the World Health Organization (WHO) [15]. The cut-off point of eight affirmative responses to the SRQ-20 items was adopted to consider the presence of symptoms indicative of CMD; this cut off point has high sensitivity and a low rate of false positives [16].

Data collection procedure

The approval of the ethics review committee of the Department of Psychology, University of Pune was taken for the study. The data for this study was collected from schools in Pune city. Permission from the principal and consent from the parents was taken. Participation in the study was voluntary. The questionnaires were administered during class hours under supervision of the author in a single session. The purpose of the study was explained to the



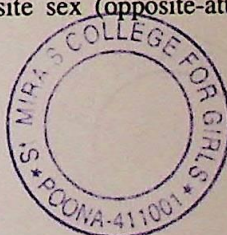
respondents and their informed consent was taken. The Personal data sheet, the Body Image Instrument and SRQ-20 were administered. No information revealing personal identity such as name, contact number was taken. It took approximately 20-25 minutes for participants to complete the questionnaires and to collect them. It was ensured that all the forms are completely filled and that no item was skipped. The data were screened for exclusion criteria. The data was entered in SPSS and was put for further analysis.

The data collection for the final study was preceded by a pilot study with 60 participants, to establish validity of the tools in the current sample, to determine whether design and methodology were feasible and to ensure that participants are able to comprehend the questions and do not experience any difficulty while answering the survey. The tools were validated for use in the current study.

Statistical Analysis

The statistical analysis was done in SPSS (version 16). The data were checked for normality, and the scores were found to be normally distributed. The decision about sample size was based on the standard guidelines for ensuring adequate power [17]. Following these guidelines in order to ensure adequate power for the t test, a sample size of 100 would be required to achieve a power of 92% and a level of significance set at 0.05, for detecting an effect size of 0.5 between the attitudinal dimensions. The sample size in this study is thus more than adequate in regards to this criterion.

Mean and SD of scores of the participant characteristics, with reference to their BMI were derived. Attitudinal dimensions of Body image demonstrating the participant's level of satisfaction with their bodies were derived. This was done by calculating the frequencies related to amount of discrepancy between current perceived figure and ideal body shape contours. The mean and standard deviation of each sample for the ratings of current and ideal figure, figure perceived as attractive for the opposite sex (opposite-attractive) and figure



thought to be attractive for girls in general (girls-attractive), figure perceived as unattractive for the opposite sex (opposite-unattractive), figure perceived as society's ideal, figure perceived as most-healthy, figure perceived as most-unhealthy were also computed. Significance of difference between means of the above attitudinal dimensions was computed using paired sample t test.

Perceptual dimensions were derived by comparing the actual BMI (current weight/ current height) to the perceived BMI i.e. their perception of themselves as Thin/Normal/Fat/Too fat (as reported on the personal data sheet).

Results

The mean scores and the range of scores of the participant characteristics, with reference to their BMI and its distribution are mentioned in Table-1 and 2.

Table-1: Participant characteristics (N= 303)

	Mean	SD	Minimum	Maximum
Age (in years)	16.78	1.02	15	17
Height(cm)	156.32	6.54	121.07	179.49
Current weight(kg)	53.27	8.35	36	89
Desired weight(kg)	50.24	5.38	35	70
BMI	22.06	3.41	13.96	34.74

Table-2: Sample descriptive (Percentage) for Perceptual Dimensions, according to the Body Mass Index of participants

BMI cut off points	Significance	Actual BMI (%) (n-303)	Perceived BMI (%) (n=303)	Participants perceiving themselves as fat (%) (n=69)	Participants wanting to be thinner (%) (n=148)	Participants who exercise (%) (n = 115)	Participants who tried to lose weight (%) (n = 113)
<18.5	Underweight	28.1	18.5	0	0	10.2	0
18.5- 24.9	Normal	58.4	57.8	47.8	58.3	48.2	51.6
>25	Overweight	8.25	20.8	28.9	22.5	27.6	34.9
>30	Obese	5.2	2.9	23.1	19.1	14	13.5



Table 2 also demonstrates the discontent that girls within the normal BMI category feel towards their current weight, with more than half of them desiring to be thinner.

Attitudinal Dimensions of Body Image

As indicated in Table 3, participants in the study desired to have a body shape ranging from # 2 to # 6. None of them chose silhouette #1 or silhouettes upward from # 7. The percentage of total participants who chose silhouette #2 (underweight) depicting the desired body shape was 18.8 %. The table shows a high percentage (80.7%) of girls preferring to choose silhouettes (#3 and #4) that depict a normal body frame. However, the higher percentage within the normal body silhouettes is for # 3 which is thinner than the other two.

Table-3: Frequency distribution of figure choices for desired silhouette¹, according to the Body Mass Index of participants (N = 303)

Categories/ silhouette number	#1	#2	#3	#4	#5	#6	#7	#8	#9	Total
Underweight	0	17 (20.0%)	39 (45.9%)	21 (29.4%)	3 (3.5%)	1 (1.2%)	0	0	0	85
Normal	0	35 (19.7%)	96 (54.2%)	39 (22%)	7 (3.9%)	0	0	0	0	146
Overweight	0	3 (12)	19 (76%)	2 (8%)	1 (4%)	0	0	0	0	31
Obese	0	2 (12.5%)	8 (50%)	5 (31.2%)	1 (6.2%)	0	0	0	0	41
Total	0	57 (18.8 %)	162 (53.4%)	71 (23.4%)	12 (3.99%)	1 (0.3%)	0	0	0	303

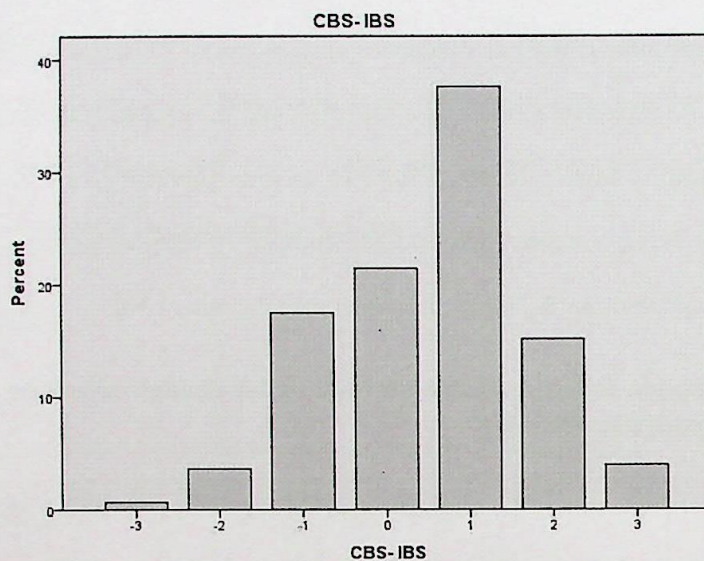
¹# 1 to # 9 indicates the number of the silhouettes from the Body Image Instrument. # 1 indicates the leftmost figure and #9 indicates the rightmost figure.

A body shape contour discrepancy score was calculated by subtracting the ideal figure chosen from the current figure perceived. Fig 2 displays the frequencies related to amount of discrepancy between current perceived figure and ideal body shape contours. Few girls in the sample desired a fuller figure than their current figure (18%). Roughly 22 % of girls selected



the same body contour for current and ideal figure. Around 60% of the girls identified a thinner ideal body contour in comparison to their current figure.

Fig-2: Percentage of discrepancy between Current Body shape and Ideal Body Shape



The mean and standard deviation of each sample for the ratings of current and ideal figure, figure perceived as attractive for the opposite sex (opposite-attractive) and figure thought to be attractive for girls in general (girls -attractive), figure perceived as unattractive for the opposite sex (opposite-unattractive), figure perceived as society's ideal, figure perceived as most-healthy, figure perceived as most-unhealthy are presented in Table 4. There was a significant difference ($t(302) = 7.703, p < 0.001$) between current body shape ($M = 3.68, SD = 1.17$) and ideal body shape ($M = 3.15, SD = 0.77$). The mean of the figure that girls would perceive as most attractive was 2.95 (0.97), while the figure that they perceived that men would consider to be most attractive was an average of 3.11 ($SD = 1.02$). The mean for the most-healthy figure was computed at 4.39 ($SD = 1.62$), which is significantly different from that which is considered attractive by girls ($t(302) = 14.98, p < 0.001$). Even though the participants considered a mean of 3.69 as society's ideal, the figures that they considered as



their personal ideal had a mean much lower than this. Similarly, there was a significant difference between the mean figure that was considered as their desired figure ($M = 3.15$, $SD = 0.77$) and the mean figure considered healthy ($M = 4.39$ ($SD = 1.62$), ($t(302) = 13.57$, $p < 0.001$). There is an absence of figures from the upper third of the scale for all parameters except figure considered to be unhealthy ($M = 6.20$, $SD = 3.78$) and unattractive by men ($M = 7.96$, $SD = 2.31$). This is a striking finding because even though girls in the sample perceived themselves to be represented across the complete scale, only the thinnest 6 contours were considered ideal and attractive. The frequency distribution of these two categories shows that both the first silhouette as well as the last silhouette was chosen by participants as being unhealthy and unattractive for men. However even within that choice there was a stronger leaning towards the larger figures as unhealthy than the thinner figures.

Table-4: Mean and Standard Deviation of figure choices, according to the Body Mass Index of participants (N = 303)

Category	CBS	IBS	Women Attractive	Men attractive	Men Unattractive	Society's ideal	Healthy	Unhealthy
Underweight	2.72 (.82)	3.20 (.84)	3.27 (.82)	3.41 (1.11)	8.15 (2.09)	3.88 (.96)	4.93 (1.84)	5.46 (3.9)
Normal	3.66 (.84)	3.08 (.73)	2.88 (1.02)	3.04 (1.00)	7.77 (2.57)	3.60 (.89)	4.25 (1.53)	6.34 (3.75)
Over weight	4.52 (.85)	3.19 (.65)	2.61 (.88)	2.94 (.89)	7.81 (2.5)	3.55 (.85)	4.03 (1.56)	6.52 (3.64)
Obese	5.12 (1.07)	3.27 (.86)	2.80 (.98)	2.88 (1.46)	8.34 (1.46)	3.71 (.98)	4.05 (1.26)	7.0 (3.45)
Total	3.68 (1.17)	3.15 (.77)	2.95 (.97)	3.11 (1.02)	7.96 (2.31)	3.69 (.92)	4.39 (1.62)	6.20 (3.78)

Discussion

Perceptual dimensions

Analysis of the perceptual dimensions of body image, showed a prevalence of faulty body image among the respondents. More than 23.7% of girls perceived themselves as overweight



and obese while in actuality only 13% were overweight, according to their BMI. Amongst the participants who considered themselves to be fat ($n = 69$), 47.8 % belong to the normal weight category according to their actual BMI. These results agree with the findings of Story et al [18], where they have reported prevalence of faulty body images among adolescent girls. Similarly, almost half of the girls assigned to the underweight category according to their BMI, perceived themselves to be of normal weight. Thus, while 28.8 % of the sample was actually underweight only 18 % of them perceived themselves to be so. Such a belief on the part of the girls may hinder any effort to gain a desirable and healthy weight, essential for their nutritional status and developmental health. These results also reinforce the idea that thinness to the extent of being underweight is being accepted as normal and desirable by adolescent girls. On the other spectrum, an interesting finding was that, several girls who were assigned to the obese category according to their BMI (5.2%) did not perceive themselves as obese (2.9 %). These results may indicate a need to present to the researcher, a desirable picture of self, in the light of the emphasis that is being placed by the society on leaner silhouettes as more desirable and successful. Obesity as a social term has several negative social associations leading to bias, stereotype and discrimination against the obese. The potential reason, for this under reporting then could be the reluctance to admit that they are obese and to put a label on their weight.

These descriptions point out to the fact that girls have insecurities about their bodies and these insecurities may affect their ability to make realistic objective evaluation of their bodies. These observations are consistent with previous research findings, where results showed that even when girls are slim, they still consider themselves heavy or heavier than they appear [19]. In fact, Thompson and Thompson (1986) reported that the average global distortion level is 25% above accuracy [7]. These findings support the contention that a woman's body image satisfaction is dependent on subjective feelings and perceptions about



their bodies rather than on objective weight. There have been very few studies that have examined body size perception in non-clinical samples in India. The results from the current study add to the body of knowledge about these processes in the general population.

Attitudinal dimensions

Desirable body size may be characterised by collective social representation of appropriate and attractive shapes for men and girls [20]. Historically, in non-western societies girls' heaviness was associated with positive attributes of wealth, fertility and femininity. It was expected that societies that were influenced by these cultural norms would be relatively unaffected by the risks of BID. However, it appears that attitudes are rapidly changing and there is an increasing incidence of BID in non-western societies as well.

Current vs. Ideal figure ratings

The participants in the present study revealed a strong preference for the lower weight silhouettes as best depicting their desired weight. Figures-2 and 3 were the two figures around which ideal figure selections were most common. 18.8 % of the girls chose # 2 as their ideal while 53.4% chose #3 as their desired body shape (Table 3). Both these results are of concern, especially the percentage of girls choosing # 2, because it suggests that these girls harbour a strong appreciation for an extremely thin female body. It also indicates that these girls believe that a body size which is actually suggestive of under nutrition depicts attractiveness.

Additionally, more than half of the girls, regardless of the BMI group they belonged to choose # 3 as their desired figure, indicating a growing trend among young girls to consider slim figures as attractive and desirable. This finding is consistent with previous research that the most frequently selected ideal figure was approximately figure # 3 [21]. This figure probably reflects the current ideal of the female body advocated in the Indian society, an



ideal close to the one advocated in the west. This preference for thinness has previously been reported by Shroff and Thompson [22], that pursuit for thinness, so prevalent among teenage girls from the U.S is also widespread among Indian girls.

Grogan [4] also noted that there is an increased desire for muscularity and toned body image since the beginning of the 21st century, indicating a change in girls' perceptions of the ideal female body image over time. Ascertaining the social meanings connected to slimness over the years, Susan Bordo shows, how at the starting of the end of the last century, excess flesh (for men and women) came to be associated with low morals, reflecting personal ineptitude or lack of will [23]. This has sustained into the 2000s, where the exterior appearance of the body is seen as a denotation of personal order or disorder. Slenderness embodies being in control and a firm toned body is seen as depicting achievement. Bordo notes that the stress to have a toned body is still profound in 2000s, even though cultural discourses suggest that diversity in body shapes is a positive thing [23].

A finding of particular concern in the quantitative survey was that amongst the participants who desired to be thinner, almost 58.32 % of the participants belonged to the normal weight category according to their BMI. These findings lead us to believe that ideal of "thin as beautiful" may have been internalised in this group of young girls. Tiggeman and Rothblum [21] have proposed that prominence given to weight and physique has ensued in mass dissatisfaction with body shape in female population. Body dissatisfaction experienced to such an extent could prompt young girls to pursue an unrealistic body size by adopting potentially harmful weight reducing behaviours that could have an effect on their nutritional status and development. Jane Ogden (1992) contends that these are especially critical when used by normal weight individuals who just "feel fat" [24].

However, results in the current study also show that majority of underweight girls (80 %) desired to increase their weight and body size, to achieve what they considered to be ideal



size. This result is inconsistent with the findings of western studies where irrespective of their weight status, girls desired to lose weight [25]. This may suggest that although Indian girls desire to be slim, extreme thinness may not be the desired ideal.

Over 75% of the girls in the present study were dissatisfied with their bodies (Fig 2). Internalisation of cultural definitions of what an ideal (beautiful, desirable) woman should look like, has led many girls to consider their normal adult bodies as unacceptable. The fact that such a vast number of girls, belonging to different body types chose the same range of figures as desirable indicates how we have narrowed the definition of beauty.

Figures attractive to men and women self-ideal and current body shape

Consistent with earlier literature on European American girls [26], Indian women also thought that their own body size was larger than the size they believed men would find most attractive. Women may have these beliefs because they consider that men would not like to date girls who are of larger size. The findings in the current study were supported by a study in which Sue Lamb and colleagues found that girls tend to believe that men preferred much thinner body shapes than the men themselves actually chose [27].

The results in the present study showed that, across the BMI groups, there was no difference, in the selection of figures girls thought men would find most attractive. The second, third and fourth figures were most frequently chosen as attractive to men. This was the same range of figures that were chosen as their own ideal and desirable by the participants. In the comparison of self-ideal and figures attractive to men, previous research has been inconclusive. Some research reported that self-ideal was thinner than what was considered attractive to men [26]; some findings suggest that the ideal was larger than what was considered attractive to men [28]. In other research no difference was found [29]. The means calculated for the sample in the present study also showed a very small difference of 0.4 of a figure size, between the figure selections. This difference is probably more statistical than



practical. Perhaps girls who view their ideal figure and attractive to men figure as the same are viewing their bodies in a manner that seeks approval from the male gaze. They may be having a deep internalisation of the cultural message -that men seek attractive girls and this ideal attractiveness is determined by men.

Girls' self-ideal and figure attractive to other girls

The results of the present study show that peer ideal was estimated as lower than girls' ideals. This result was noted in all BMI groups, other than the underweight group where peer ideal was higher than self-ideal, results consistent with previous research [28]. Studies of European American female peer groups, suggest that girls perceive thinness to be important to their peers [30]. The fact that the Indian girls in the current sample, showed the same pattern may indicate that they share the same values of body image as those in the European American samples.

The results suggest that girls exaggerate the desire for thinness held by their peers. This result is expected as the social pressure that girls face to be thin is tremendous. However, what stands out as interesting is the discrepancy between what girls' desire for themselves as an ideal body and what they think other girls would consider as ideal. Why did the girls in this study not choose the same figure for self-ideal and peer ideal?

One of the explanations for this comes from an evaluation of media images of thin figures that are projected as attractive and desirable. Constant and consistent messages of "thin as beautiful", lead girls to believe that other girls are also striving for a very thin ideal. While assessing their own bodies however, they may accept that to achieve that level of "thinness" they would have to engage in drastic weight loss attempts. Their perception of the ideal figure is influenced not only by what society projects as ideal, but also their own self-assessment of what is probably possible for them. Thus the figure selected as self-ideal is larger than what is perceived as peer ideal. These results also point towards another pressure



that girls face. Since they believe that all other girls, are also striving for a thinner ideal body, not pursuing this ideal and not attempting to lose weight makes them feel abnormal.

What should be the ideal figure size in society?

The vast majority of girls in all groups chose an ideal figure (society) that was larger than the figures chosen as self-ideal, peer ideal or one than men found attractive. This suggests that although girls pick up a thinner ideal for self, they also recognise the negative aspect of such an ideal and would prefer that society's ideal should be one that represents a normal body size. Girls in the normal weight group chose the society's ideal, as a figure that was much closer to their current body size rather than their desired body shape. This suggests that girls experience intense pressure to achieve a smaller body shape, while if given a choice they would prefer to remain their normal size, only if society would accept it. It is quite likely that adolescents realise that they are subjecting themselves to irrational pressure of conforming to societal norms of beauty but yet they feel powerless to stop themselves in the face of so much social pressure. It would be interesting to know whether girls believe they have the capability to change the ideal and what they think would be the way to do it. Future research could ask them these questions to explore whether they think they have any influence over this process.

Girls' self-ideal and figures considered healthy

The results of the current study threw up some interesting findings and also indicated the severity of the problem. Across all weight groups, healthy ideal was estimated as much larger than the self-ideal. Interestingly even though the sample chose the middle silhouette (4.39) as the healthiest figure, the choice of the figure they desired was way below at 3.15. This suggests that despite a conscious acknowledgement of a middle size figure as healthy, the young girls harboured a desire to have a slimmer figure. This desire was most likely a result



of choosing physical attractiveness over health. Such a distorted preoccupation about the body has become a major concern since it has led to several unhealthy dietary practices.

Also, an analysis of figures considered unattractive by men and those considered unhealthy, revealed a choice of larger figures in the range of #5 to #9 rather than the very thin figures of #1 and #2. These findings emphasise a strong societal prejudice towards slimness as beautiful and healthy and overweight as unattractive and unhealthy.

Thus, we notice a clear shift in body image ideals amongst Indian girls. Heaviness in women which was viewed as attractive and desirable in the '60s is today considered to be undesirable, unhealthy and unattractive. Earlier Indian beauty ideals presumed a well fed figure with rounded curves [12] and such preferences remained strong till as recently as the 1980s and 1990s. However in the current scenario, several urban girls are accepting the notion of thinness as the ideal body [31]. Latha et al also reported that 86 % of female adolescent students desired to be slim. Phrases such as 'size zero' and 'skinny' have become a part of everyday discourse [32]. The number of gymnasiums has grown exponentially, there is an easy availability of diet foods in our markets and we are constantly being bombarded with numerous advertisements about weight loss programs, all indicating a growing focus on thinness being considered as the ideal. In this regard, several authors have observed that the idealised images of male and female attractiveness, shown in print and film media have become increasingly similar in the western and non-western societies. These images appear to be promoting change in traditional standards of feminine attractiveness [33]. Body image dissatisfaction is considered to be a normative discontent among adolescent girls in Western society [34]. Unlike previous understanding that body image issues are limited to the western population, the results of the current study show that it is a pervasive concern for the adolescent girls in the Indian context as well.



One of the limitations of the current study is that, all primary data has been collected from the city of Pune, and this information may be applicable only in urban areas, while the concept of body image may be significantly different in rural areas. Studies exploring the concept of body image in girls in rural areas can be undertaken and cross comparisons can be performed with the present study. It may be insightful to study women from various parts of India, to determine if the degree and frequency of body image dissatisfaction and factors influencing this dissatisfaction is similar to that found in this sample. Further, gender wise and age wise studies can be explored in the context of body image.

To conclude, the current data contributes to the knowledge about the attitudinal and perceptual dimensions of body image in Indian adolescent girls, thus furthering the understanding of how they feel about their body and their underlying motivations to engage in restrictive health practices to lose weight. It is important to consider the implications of the current research for informing prevention programs for eating disorders. Counsellors should be aware that Indian women may also be struggling with body image issues. This may be especially important in adolescent girls because they are developmentally at an age where these issues occur. Prevention programs could attempt to build a culture that provides a balance between healthy eating and activity with acceptance of different body shapes and sizes.

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