

Original Research Article

Body image issues among school going adolescent girls in a rural area of Haryana: a cross sectional study

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ABSTRACT

Background: Adolescent girls in today's world are extremely conscious of perceptions of a perfect body. With the growing sense of thin ideal body image during adolescence, they try to lose body weight to attain the perfect body size. The emphasis on thinness and on an ideal female body shape and size is physically and psychologically detrimental to the health of many young women. This study was carried out with objective to find the prevalence of body image issue among adolescent girls in rural area.

Methods: This cross-sectional study was conducted in block Lakhanmajra, district Rohtak, Haryana. Adolescent girls in age group 13-19 years studying in class 8 to class 12 in 10 government and private senior secondary schools of Lakhanmajra block were included in the study. The total sample of 500 students was included in the study. A pre-designed pre-tested semi-structured interview schedule was used, and the responses were recorded by the investigator herself.

Results: The findings of the present study show that 20.2% adolescent girls did not like their appearance when they look in the mirror and thus had body image dissatisfaction. 88.0% adolescent girls were satisfied with their weight and 12.0% were dissatisfied. 80.0% of the study subjects who were dissatisfied with their body weight had normal age specific BMI values. Only 20% of the adolescent girls who were not satisfied with their weight were underweight or overweight.

Conclusions: More worries and less satisfaction about body image are found in girls. The relatives, the media, the peers and the community all have an impact on body shape satisfaction. But the greatest influence is that of the media and the community through standardising a thin ideal for female beauty.

Keywords: Body image, Weight dissatisfaction, BMI, Dieting

INTRODUCTION

WHO defines adolescent as an individual between 10 to 19 years of age.¹ There are 1.2 billion adolescents across the world; or 1 in 6 of the world's population are adolescents aged 10-19.¹ According to census 2011 report, 20.9% of population in India comprise of adolescents.²

Body image is what a person think and feel when one look in the mirror or when one picture oneself in mind. Body image issues among adolescents are a common problem. These issues affect adolescent girls more than the boys. Several media platforms these days promote thin female body as ideal and young girls end up comparing themselves to these unrealistic standards. As a result, many girls may experience depression, anxiety, anger and even self-loathing. In addition to affecting an

individual's view of self, poor body image may also result in avoidance of social situations and may interfere with developing healthy social and romantic relationships. Body dissatisfaction creates negative attitudes, a damaging mentality and negative habits in adolescent females. Adolescent girls in today's world are extremely conscious about perceptions of a perfect body. With the growing sense of thin ideal body image during adolescence, they try to lose body weight to attain the perfect body size. The emphasis on thinness and on an ideal female body shape and size is physically and psychologically detrimental to the health of many young women.³⁻⁶ Adolescent girls adopt various unhealthy practices to reduce weight to attain the thin body shape which is shown as perfect by various media formats.

There have been very few studies done on body image dissatisfaction among Indian adolescent girls and thus present study was planned with an objective to study the body image dissatisfaction among school going adolescent girls in rural area and to find its association with socio-demographic profile.

METHODS

This was a school based descriptive cross-sectional study conducted in senior secondary schools of block Lakhanmajra, district Rohtak, Haryana. CHC Chiri which provided health services in this area, is the rural field practice area attached to the department of community medicine, Pt. B.D. Sharma PGIMS Rohtak. This study was conducted from April 2019 to January 2020.

Sample size

Taking the prevalence of 26.6% from a previous study and allowable error 15% at 95% significance level, using the formula,

$$N = \frac{4pq}{E^2}$$

the sample size was calculated as 491. So, the total sample of 500 students was included in the study.

There were 12 government and 9 private senior secondary schools in the block Lakhanmajra according to the data collected from the office of block education officer (BEO), Lakhanmajra. Out of these, 1 was exclusively boys school, which was excluded. The adolescent girls age 13-19 years studying in classes 8 to 12 in these 11 government and 9 private senior secondary schools were included in the study population.

Study population

Adolescent girls in age group of 13-19 years, studying in class 8 to class 12 in government and private senior secondary schools of Lakhanmajra block were included in the study.

Inclusion criteria

Students who gave assent to participate in the study.

Exclusion criteria

Students who were not available in the respective school on the days of visits (maximum 3 visits), were not enrolled in the study.

Data collection

From these 20 schools, 5 government and 5 private schools were selected randomly. 50 students from each school and 10 students from each class were selected. Thus, a total of 500 sample size was taken. One day prior to the data collection, permission was obtained from concerned in-charge of the selected school after briefing them about the study and its objectives and consent was taken from students and their parents. Next day, from the selected students, each student was interviewed separately in a different class room. Investigator tried to develop a good rapport with the student and confidentiality was ensured. A pre-designed pre-tested semi-structured interview schedule was used and the responses were recorded by the investigator herself.

Simple random sampling technique was used to select students from each class.

Data analysis

The data thus collected was then entered in Microsoft excel sheet and then analyzed using SPSS v 20.0.

RESULTS

The mean age of the study subjects was 14.73±1.736. 50.6% of the study subjects were in the age group of 15-17 years, followed by 13-14 years (37.2%) and 18-19 years (12.2%). Most of the study subject's fathers and mothers were educated up to secondary level (30.4% and 33%). Nearly half of the study subject's fathers were farmers (47.2%), followed by government employee (16.6%) and majority of the study subject's mothers were housewives (93.6%). 25.4% study subjects belonged to the middle class and 23.6% to the upper middle class. Upper class constituted the least of the cases (7.0%). Half of study subjects (50.6%) belonged to nuclear family, followed by 33.6% who belonged to three-generation family (Table 1).

88.0% adolescent girls were satisfied with their weight and 12.0% were dissatisfied (Table 2).

Among the adolescent girls who were dissatisfied with their body weight, 26.7% girls were dieting to reduce

weight, 18.3% of study subjects were doing exercise and 13.3% were doing both exercise and dieting to decrease weight. 20.2% adolescent girls did not like their appearance when they look in the mirror and had body image dissatisfaction. Majority (93%) of the adolescent girls in the younger age group (13-14 years) were satisfied with their body weight. 85% and 85.2% of the study subjects belonging to age group 15-17 and 18-19 years were satisfied with their weight. There was significant association between age and weight satisfaction of adolescent girls ($p < 0.05$) (Table 3).

80.0% of the study subjects who were dissatisfied with their body weight had normal age specific BMI values (Table 4). Only 20% of the adolescent girls who were not satisfied with their weight were underweight or overweight. Study subjects whose mothers were illiterate (67.3%) or educated up to primary level (66.0%) were less satisfied with their body image as compared to those with higher mother's education. This association between mother's education status and body image satisfaction of adolescent girls was found to be significant ($p < 0.05$). However, the association between father's education and body image satisfaction of study subjects was not found statistically significant (Table 5).

Table 1: Distribution of the study participants as per their socio-demographic profile (n=500).

Socio-demographic profile	Frequency N (%)
Age (in years)	
13-14	186 (37.2)
15-17	253 (50.6)
18-19	61 (12.2)
Type of family	
Nuclear	253 (50.6)
Joint	79 (15.8)
Three generation	168 (33.6)
Category of socio-economic status	
Upper class	35 (7.0)
Upper middle	118 (23.6)
Middle class	127 (25.4)
Lower middle	117 (23.4)
Lower class	103 (20.6)

Table 2: Distribution of study subjects based on weight satisfaction and weight reducing practises (n=500).

	Frequency N (%)
Weight satisfaction	
Yes	440 (88.0)
No	60 (12.0)
Weight reducing practices among those dissatisfied with weight (n=60)	
Dieting	16 (26.7)
Exercise	11 (18.3)
Both	8 (13.3)
Nothing	25 (41.7)

Table 3: Association of weight satisfaction among study subjects with age.

		Satisfied with body weight				χ^2 value	df	P value
		Yes		No				
		N	%	N	%			
Age categories (in years)	13-14	173	93.0	13	7.0	7.045	2	0.03
	15-17	215	85.0	38	15.0			
	18-19	52	85.2	9	14.8			

Table 4: Association of BMI with weight satisfaction among study subjects.

		BMI within normal range				χ^2 value	df	P value
		Yes		No				
		N	%	N	%			
Weight satisfaction	Yes	365	83.0	75	17.0	0.321	1	0.571
	No	48	80.0	12	20.0			

Table 5: Association of body image satisfaction with parent’s education.

Parent’s education status		Body image satisfaction				χ^2 value	df	P value
		Yes		No				
		N	%	N	%			
Father’s education	Illiterate	12	57.1	9	42.9	10.730	5	0.057
	Primary	49	80.3	12	19.7			
	Middle	69	85.2	12	14.8			
	Secondary	116	76.3	36	23.7			
	Higher secondary	110	83.3	22	16.7			
	Graduate and above	44	83.0	9	17.0			
Mother’s education	Illiterate	35	67.3	17	32.7	26.379	5	0.000*
	Primary	64	66.0	33	34.0			
	Middle	118	82.5	25	17.5			
	Secondary	144	87.3	21	12.7			
	Higher secondary	33	91.7	3	8.3			
	Graduate and above	6	85.7	1	14.3			

*significant.

DISCUSSION

More worries and less satisfaction about body image are found in girls. The relatives, the media, the peers and the community all have an impact on body shape satisfaction. But the greatest influence is that of the media and the community through standardizing a thin ideal for female beauty.⁷

The findings of the present study show that 20.2% adolescent girls did not like their appearance when they look in the mirror and thus had body image dissatisfaction, 12.0% were dissatisfied with their body weight and among them, 26.7% were dieting to decrease weight. Higher prevalence was reported by Mishra et al in his study in Sikkim among teenage girls and Mahfouz et al in Egypt.^{3,8} Pelegrini et al also reported a higher prevalence rate of body weight dissatisfaction among Brazilian adolescents girls.⁹ These findings show that weight dissatisfaction has been increasing in prevalence worldwide. The reason for higher prevalence of body weight dissatisfaction in the above studies could be the higher age group of the study subjects, different type of culture, community and exposure to the social media. Rashmi et al in 2016 reported similar findings of body image dissatisfaction among female students of north Karnataka (19%) of the study subjects were dissatisfied with their body image.¹⁰

Majority of the adolescent girls whose father were educated primary and above were satisfied with their body image. Mother’s education followed the same pattern as father’s education pattern as less subjects whose mothers were illiterate (67.3%) or educated up to primary level (66.0%) were satisfied with their body image as compared to those with higher mother’s education. The association between mother’s education status and body image satisfaction of adolescent girls was found to be significant ($p < 0.05$). Rashmi et al in her study

among female students in 2015 also reported significant association between mother’s education level and body image satisfaction among the study subjects.¹⁰ The above findings reflect the fact that mother’s education play an important part in body image satisfaction among adolescent girls as higher maternal education leads to higher body image satisfaction.

Majority (93%) of the adolescent girls in the younger age group (13-14 years) were satisfied with their body weight. However, there was significant association between age and weight satisfaction of adolescent girls ($p < 0.05$). Weight satisfaction among younger adolescent girls is slightly higher than older age groups, this can be attributed to the fact that as age increases girls become more conscious of their weight because sociocultural pressures increases such as exposure to idealized media figures, pressures to be thin and weight teasing among peers. This finding is consistent with the results of several other community-based studies, which suggest that weight and shape concerns develop through adolescence and become more pronounced by late adolescence.^{11,3}

80.0% of the study subjects who were dissatisfied with their body weight had normal age specific BMI values. Only 20% of the adolescent girls who were not satisfied with their weight were underweight or overweight. There was no significant association between BMI and weight satisfaction of adolescent girls ($p > 0.05$). Similar results were reported by Mishra et al in his study where majority of the participants who expressed their dissatisfaction over body weight showed normal BMI.³ Weight dissatisfaction among adolescent girls even though they had normal BMI shows lack of awareness regarding healthy weight. Adolescent girls with weight dissatisfaction are more likely to have self-esteem issues and eating disorders which is a major cause for concern.¹²

Body image satisfaction is an important area worthy of further study, as a longitudinal study conducted by Sztainer et al among adolescents in the field of body image have suggested that adolescent report less self-confidence if they are dissatisfied with their appearance and this affects several aspects of their daily life and functioning. This study also found that in females, lower body image satisfaction predicted higher levels of dieting, unhealthy and very unhealthy weight control behaviours.¹³

CONCLUSION

From the point of view of public health practice, there are several potential areas of intervention. Primary among these is the design of programs to reduce stigma and prejudice associated with weight and its connection with people's judgment of appearance, beauty, attractiveness and social status. This can be done via several media platforms and by education programs developed with a purpose to create more awareness and acceptance of the natural diversity of body that exists.

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