

Research Article

Physical Activity and Body Image Perception in Adolescent School Going Students in Navi Mumbai.

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Summary

The objective of this cross-sectional study was to explore the physical activity level and Body image perception of school going adolescent students

Methodology: *After taking ethical committee clearance, screening of 270 students were done according to inclusion and exclusion criteria. They were then screened and their demographics were noted. Physical Activity Questionnaire and Figure Rating Scale was administered to them and students returned the filled questionnaire in sealed envelopes.*

Statistical Analysis: *The data was collected and descriptive statistics of responses of 250 students was done to find the of Physical activity level and percentage of Body dissatisfaction among the participants*

Result: *The study participants comprised 250 students, boys and girls with the mean age in boys 13.16 years and 12.9 years respectively. The score of Physical activity was 3 which denoted moderate physical activity levels on Physical Activity Questionnaire. Out of total 250 students analysed, 126 students comprising 72 boys and 54 girls were dissatisfied with their body image.*

Conclusion: *The study participants showed moderate level of physical activity and 57 % boys and 43% girls were dissatisfied with their body image.*

Keywords: Physical Activity, Body Image, Adolescent and Child Hood Health.

1.Introduction

Adolescence is a period of increased awareness of bodily cues and self-reflection, including evaluation of body and appearance. Regular physical activity can help children and adolescents to improve cardiovascular respiratory fitness, build strong bones and muscles, control weight, reduce the symptoms of anxiety and depression. Youth who are regularly physically active have a better chance of healthy adulthood. Health consequences of obesity in childhood and adolescents include high blood pressure and high cholesterol which are risk factors for cardiovascular diseases, insulin resistance and type 2 diabetes and psychological problems like depression and poor self-esteem. Adolescence age represents a critical period for healthy body image development due to the type and magnitude of age-related transitions occurring during this time.

During adolescence, young people, often think about how their bodies look. Body image is a multidimensional construct accompanying how we perceive, think, feel and act towards our body and it lies in the perception from having a healthy to an unhealthy body. Previous studies suggest that physical appearance and body image may influence perceived health. A positive adolescent body image is an important part of healthy self-esteem of the body. Body Image is how and what a person thinks and feel about their body. This includes the picture of their body that they have in their mind which might or might not match their body's actual shape and size. Body dissatisfaction may be defined as the discrepancy between an individual's perceived current body size and perceived ideal body size (Wertheim E, Paxton S, Blanay S, 2004, pp.463-94). In the present study, body image is defined as the individual, subjective sense of satisfaction or dissatisfaction with one's body or physical appearance.

Unhealthy body image is related to low self-esteem which can lead to negative moods and mood swings, physical inactivity, poor alertness and self-consciousness. Poor body image are risk factors for risky weight loss strategies, eating disorders, mental health diseases like depression. Adolescents who are overweight are more likely to express weight specific concerns and engage in dieting and binge eating compared with non-overweight adolescents [1-3].

The concept of fat talks and weight related bullying during adolescents greatly contribute to an overemphasis on body weight of negative body perception and dissatisfaction surrounding specific body parts. Research suggest that socio cultural factors in particular are shared risk factors for boys and girls in development of body dissatisfaction. Internalized societal messages about body ideals may arise from negative feedback from peers and family members (appearance related teasing) as well as increased discussion with friends about body weight issues during adolescence. A major emphasis in health care today is health promotion and diseases prevention. Health promotion strategies may not be regularly addressed in primary care services due to time constraints and competing chronic and acute medical needs. It is especially important to promote healthy body image and physical activity in adolescents so as to help them understand the need for having healthy perception of their health. Physical inactivity and sedentary behaviour are on the rise worldwide, and this has impact on longevity, quality of life and economic prosperity of the nation. As a part of health promotive strategy, building of self-esteem and self-confidence is recognised as important task. Recent research shows that it is possible to unite preventive efforts against obesity with efforts against body dissatisfaction, eating disorder and physical inactivity. Thus efforts were made in the study to know the level of physical activity and body image dissatisfaction among school going adolescent children to establish health promotion strategies and levels of prevention for the same [4-6].

1.1 Aim:

Assessment of the general physical activity level of adolescent boys and girls

Assessment of the body image perception among adolescent boys and girls.

1.2 Objectives:

To assess the level of physical activity in adolescent age group using Physical Activity Questionnaire. To assess the body image perception in adolescent boys and girls using Figure Rating Scale.

2. Methodology:

Study design: Cross sectional study

Sample size: 250

Type of sampling –purposive sampling

Data collection – three months,

Total duration of study – one year

2.1 Inclusion Criteria: Normal Adolescent, school going individuals age group 10-14 years.

who understand English Language Both boys and girls.

2.2 Exclusion Criteria: Individuals who refused to participate in the study

2.3 Outcome Measures:

Physical activity questionnaire for adolescents

Figure Rating Scale for body image dissatisfaction

2.4 Material Used in Study:

Weighing machine

Measuring tape

Questionnaires to assess physical activity level and body image.

2.5 Physical Activity Questionnaire:

The daily life Physical activity of the study subjects was determined by Physical activity questionnaire containing eight questions, regarding Physical activity performed in a span of last 7 days. Students were explained that this is not a test and they have to write the actual activities they did in last 7 days. It may be mentioned that the validity of the instrument is good. Some uncommon physical activities, which were generally not performed by the Indian adolescents, were excluded along with adolescents who were unwell. Final Physical activity score was computed according to a score of 1-2 indicates low physical activity, 3-4 indicating moderate physical activity whereas a score of 5 indicates high physical activity [7,8].

2.6 Physical Activity Questionnaire for Adolescents:

The physical activity questionnaire for adolescents has various levels of physical activity measures in school going children. Activities they did in spare time, in lunch time, right after school, in evenings after school< weekends and and statement which describes them the best were asked in the questions. Scoring for physical activity questionnaire for Adolescents – The answers for each item start from the lowest activity response and progress to the highest activity response. Simply use the reported value that is checked off for each item (the lowest activity response being a 1 and the highest activity response being a 5) calculation of the final Scoring for physical activity questionnaire for Adolescents summary score. Once the value was found out from 1 to 5 for each of the 8 used in the physical activity composite score, take the mean of these 8 items, which results in the final physical activity summary score. Again, a score of 1 indicates low physical activity, whereas a score of 5 indicates high physical activity. Scoring for physical activity questionnaire for Adolescents [5-10].

2.7 The Figure Rating Scale:

adapted by the Childress and co-workers consists of 8 figures representing the several children and adolescents body outline ranging from very slim (contour1) to obese (contour8)(Adami Felton D,2014) From the 8 outline figures available the School children had to choose the one that matches their current body size (the figure showing the contour they believe they have) and the one that is matching their ideal size (the figure they showing the contour the child

would like to have) this was done in their school hours and the children were given prior explanation about the same. Degree of dissatisfaction with their body size was obtained by subtracting the ideal body shape. The magnitude maybe positive or negative [6-9].

2.8 Procedure:

Permission to carry out the study was taken from ethical committee and authorities of the school in Navi Mumbai. After taking written informed consent, the subjects were explained about the study project. The study population comprised of adolescent students in the mean age group of 10 to 14 years. The students were screened for their demographic details and their Body mass index and waist hip ratio was calculated. The primary sampling unit was the school class. After following inclusion criteria and explaining the questionnaires, the surveys were administered by the teachers and the students returned the questionnaire. Total subjects screened were 270. Those pupils who were older or younger than inclusive age group sample or where in more than 25% of responses were missing from a questionnaire were excluded from the study. The data was collected and statistically analysed for 250 students.

3. Statistical Analysis and Result

The data was collected and statistically analysed using descriptive statistics.

o Table 1 shows the demographics of the population. Total 250 subjects participated in the study comprising 111 girls and 139 boys of mean age, boys -13.16 years and for girls 12.9 years respectively.

o Table 2 depicts the percentage of boys and girls satisfied and dissatisfied with their body image. 72 boys and 54 girls were dissatisfied with their body image.

o Table 3 and 4 gives the distribution of the number and percentage of individual boys and girls dissatisfied with their body image in the range of -3 to +7. Total individual satisfied with their body image are 124/250, dissatisfied individuals of their body image were 126/250 including boys and girls with various levels of dissatisfaction ranging from -3 to +7

o Table 5 shows the mean score of physical activity of the participants on the Physical Activity Questionnaire. The score of physical activity of 3 had highest number of adolescents which denotes moderate physical activity.

o Graph number one denotes the degree of dissatisfaction of -3. 56 percentage of girls denoted dissatisfaction.

o Graph number two and three denotes that 81% boys and 61% boys showed -2 and -1 degree of dissatisfaction.

o 52% of girls showed degree of satisfaction.

o Graph number five, six, seven depicts 68% girls, 63% girls, 59% girls, and 72% boys dissatisfied with 1, +2, +3, degrees of dissatisfaction.

Table 1: Depicts the Number and the Mean Age of the Study Participants.

	Girls	Boys
Number of subjects	111	139
Mean age	12.9	13.16

Table 2: Depicts the Number and Percentage of Boys and Girls Satisfied and Dissatisfied with Their Body Images

BODY IMAGE	GIRLS	%	BOYS	%	TOTAL
SATISFACTION	57	45.96	67	54.03	124
DISSATISFACTION	54	42.85	72	57.14	124

Table 3: Depicts the Number of Boys and Girls Dissatisfied and Satisfied in The Range Of -3 To +7

Degrees of dissatisfaction	Count of individuals dissatisfied
-3	2
-2	13
-1	36
0	124
1	38
2	19
3	13
4	3
5	1
6	1
7	1
Grand Total	250

Table 4: Illustrates the Percentage of Dissatisfied Boys and Girls in The Range Of -3 To +7 On the Figure Rating Scale

DEGREE OF DISSATISFACTION	PERCENTAGE OF DISSATISFIED GIRLS	PERCENTAGE OF DISSATISFIED BOYS
-3	0.90	0.71
-2	1.80	7.91
-1	10.81	17.26
0	51.35	48.20
1	21.62	10.07
2	5.40	9.35
3	6.30	4.31
4	1.80	0.71
5	0	0.71
7	0	0.71

Table 5: Depicts the Bmj And Waist Hip Ratio and The Mean of The Physical Activity Levels of The Participants

Sr.No	BMI	W:H	1	Qst 2	Qst 3	Qst 4	Qst 5	Qst 6	Qst 7	Qst 8	mean
1	14.9	0.7	2	5	3	3	5	4	4	3	3.37
2	18.2	0.73	1	3	5	3	5	4	2	3	3.25
3	28.8	0.74	2	5	1	3	3	5	4	4	3.37
4	18.6	0.76	2	5	3	1	3	2	2	4	2.12
5	11.1	0.72	2	5	1	3	3	2	1	1	2.5
6	20.3	0.77	2	2	1	4	4	3	1	3	2.6
7	34.3	0.732	2	5	1	5	1	3	2	1	2.5
8	31.1	0.77	1	4	2	3	4	4	5	2	3.6
9	23	0.78	3	3	1	4	4	3	3	4	3
10	37	0.86	2	5	2	3	3	3	3	3	2.83
11	19.1	0.76	2	5	2	3	4	4	4	3	3.3
12	32.6	0.79	2	5	1	3	3	4	4	3	3.71
13	26.9	0.74	3	3	1	4	5	5	2	3	3
14	22.4	0.76	2	3	1	3	4	3	3	2	2.8
15	26.9	0.8	3	3	1	5	4	3	4	2	3.33
16	22.2	0.9	2	2	2	4	4	3	2	3	2.5
17	25.8	0.77	2	3	2	3	4	4	5	2	3.3
18	33.6	0.7	2	3	1	1	4	3	2	3	1.25
19	18.5	0.8	1	5	2	3	4	3	3	2	2.88
20	21.3	0.87	2	5	1	5	4	3	4	2	3.25
21	16.2	0.73	1	5	1	2	2	3	2	1	2.5
22	19.8	0.78	1	4	3	5	3	4	3	2	3.25
23	19.7	0.79	2	4	3	3	3	2	3	3	2.75
24	21.8	0.75	2	5	2	2	4	5	1	3	3
25	28	0.81	3	2	1	3	3	4	3	3	2.75
26	21.9	0.72	2	2	1	4	5	4	4	3	3.5
27	20.8	0.76	2	2	2	3	3	4	3	3	2.62
28	23.5	0.78	1	1	4	2	2	3	2	3	1.75
29	28.7	0.8	1	5	2	2	3	3	3	2	2.87
30	23.5	0.83	2	5	1	4	4	4	5	2	3.75
31	22.6	0.84	3	5	3	2	4	5	1	3	2.75
32	24	0.89	2	3	2	5	5	5	5	2	4.5

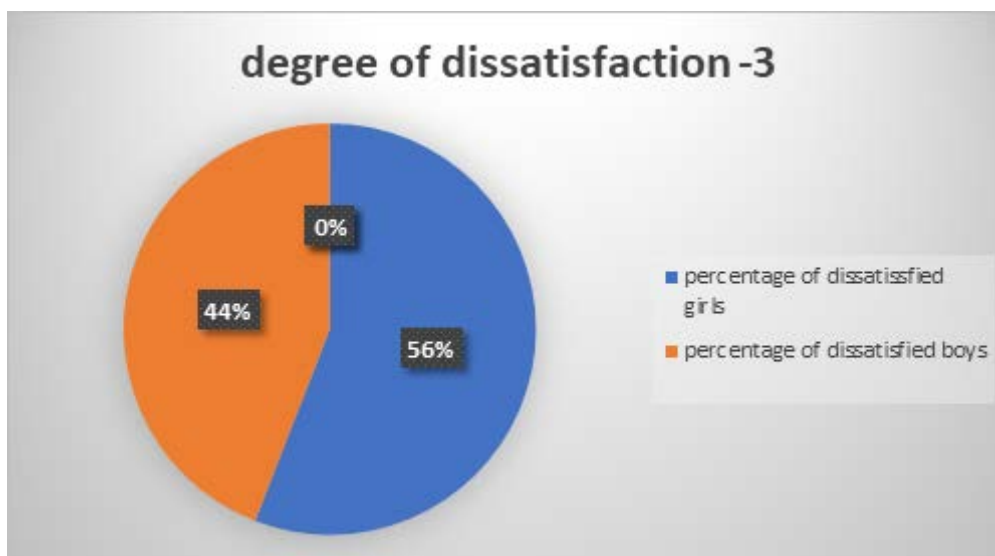
33	21	0.8	2	5	1	5	5	5	1	2	3.37
34	19.4	0.77	2	4	4	1	2	1	2	3	2
35	27.8	0.72	2	4	1	3	3	5	3	2	3.12
36	17.7	0.82	2	4	2	2	2	1	1	3	2.12
37	18	0.77	1	4	2	2	3	2	1	1	2.12
38	19.6	0.77	2	5	2	3	3	3	1	2	2.62
39	23.5	0.74	2	5	2	2	2	1	1	2	1.88
40	22.6	0.82	1	5	2	4	5	4	4	1	4
41	22	0.81	2	5	2	3	3	4	1	3	3
42	22.7	0.8	2	3	5	3	5	4	4	4	2.87
43	21.4	0.74	2	3	2	3	2	2	2	2	2.25
44	20.2	0.79	2	2	3	5	2	5	3	2	2.82
45	36.5	1.18	2	3	2	2	3	1	2	2	2.13
46	20.8	0.78	1	3	2	3	4	5	2	2	3
47	23.3	0.84	2	4	3	5	5	5	4	3	3.75
48	41.6	0.8	2	3	2	5	2	1	3	3	2.5
49	15.1	0.74	2	5	2	5	4	5	4	2	3.62
50	24	0.87	2	3	2	2	3	1	4	3	2.37
51	23.8	0.83	2	5	1	5	4	5	5	2	4
52	25.1	0.85	3	4	2	3	5	5	5	4	3.75
53	23.2	0.87	2	5	2	5	3	5	5	3	3.75
54	20.3	0.77	2	3	2	3	3	3	2	3	2.5
55	20.3	0.81	2	4	2	4	5	4	4	2	3.62
56	43.1	0.81	2	3	2	5	5	5	5	5	4.37
57	20.8	0.63	2	3	1	5	5	3	3	5	3.25
58	20.7	0.81	1	3	5	2	2	2	3	3	2.25
59	22.2	0.81	1	3	2	3	2	2	2	2	2.25
60	24.4	0.76	2	4	2	2	5	2	3	2	2.75
61	20.8	0.73	1	3	2	5	5	5	5	3	3.75
62	21.1	0.72	2	4	2	4	4	4	4	3	3.25
63	23.8	0.73	2	4	2	3	4	5	4	3	3.37
64	22.5	0.82	2	3	1	3	3	3	2	3	2.5
65	24.7	0.89	2	3	2	1	2	2	2	2	1.87
66	22	0.78	2	3	2	3	4	3	2	2	2.75
67	20.7	0.83	2	3	1	4	4	5	1	4	2.87
68	21.4	0.74	2	3	1	3	3	4	3	2	2.75
69	22.3	0.79	2	5	2	3	4	5	3	2	3.12
70	20.9	0.84	1	3	2	2	3	3	3	2	2.87
71	21.7	0.82	1	3	2	1	3	3	2	3	2.13
72	20.5	0.75	1	3	5	4	4	3	4	3	3.12
73	22	0.77	1	5	1	3	4	3	4	4	3.12
74	22	0.79	2	3	1	3	5	5	4	2	3.5
75	25.4	0.78	2	3	2	3	2	1	1	5	1.87
76	25.9	0.83	1	3	1	3	2	5	3	3	3
77	25.8	0.85	1	3	1	5	5	5	5	5	3.75
78	15.3	0.75	1	5	2	5	4	4	5	5	4.25
79	24	0.8	2	3	1	5	5	5	4	4	3.62

80	22.4	0.76	2	5	5	4	5	5	5	3	4.12
81	23.6	0.84	2	3	2	2	5	5	5	4	3.87
82	25.8	0.82	1	3	3	3	2	3	3	5	2.5
83	25.4	0.8	1	5	5	3	3	3	3	3	2.87
84	19.5	0.74	2	3	2	5	4	5	2	3	3.25
85	19.9	0.74	2	3	1	2	2	2	3	3	2.12
86	24.5	0.91	1	5	2	3	4	5	4	3	3.37
87	24.6	0.84	2	5	1	5	5	5	5	3	4.37
88	28.1	0.84	4	5	1	2	4	4	3	4	3
89	21.4	0.69	1	5	2	2	3	5	2	3	2.87
90	17.3	0.77	1	5	2	5	4	5	4	3	3.62
91	22.4	0.83	2	5	2	3	4	5	4	3	3.5
92	17.3	0.77	2	5	1	2	2	5	5	2	3.12
93	22.9	0.77	2	4	3	5	5	5	4	3	4.25
94	21.6	0.77	2	5	1	2	4	4	3	4	2.62
95	29	0.78	2	5	5	2	4	3	4	2	3.12
96	25.2	0.79	2	5	1	5	5	4	4	3	3.87
97	21.6	0.78	3	5	4	3	3	5	4	4	3.5
98	20.5	0.79	2	5	1	2	2	5	5	3	3.12
99	20.8	0.79	2	3	3	4	4	5	2	3	3.37
100	21.4	0.78	2	5	1	3	5	4	4	4	3.37
101	20.5	0.76	1	3	1	3	3	4	3	3	2.62
102	20.1	0.75	2	3	3	3	3	5	4	3	3.25
103	24.1	0.83	3	5	5	5	5	5	5	5	4.75
104	23.1	0.78	3	5	1	2	5	5	4	3	3.5
105	20.4	0.78	1	3	1	2	3	5	3	3	2.62
106	17.4	0.79	4	5	1	5	5	5	4	3	3.87
107	23	0.76	2	3	5	5	5	3	5	4	4
108	16.5	0.72	3	5	5	5	5	5	5	4	4.62
109	18.7	0.82	2	4	2	4	4	5	3	3	3.37
110	22.6	0.76	2	5	1	3	5	5	4	3	3.5
111	23	0.66	2	5	1	1	5	5	4	3	3.25
112	23	0.82	1	3	2	5	3	1	3	3	2.62
113	18.1	0.87	1	5	1	3	4	3	1	1	2.37
114	20.3	0.87	2	5	1	3	5	4	5	1	3.25
115	28.4	0.76	4	3	4	5	5	5	3	3	4
116	20.9	0.72	2	5	4	3	3	4	5	3	3.62
117	23.4	0.78	4	5	1	5	5	4	5	2	3.87
118	21.1	0.73	4	3	1	3	3	3	3	3	2.85
119	20	0.84	3	3	5	3	3	5	5	3	3.62
120	20.4	0.9	2	5	1	1	1	3	3	3	2.33
121	27.3	0.9	3	5	2	5	5	5	3	3	3.88
122	32.5	0.8	2	5	1	4	4	2	2	4	3
123	16.4	0.77	3	5	1	4	5	3	4	4	3.62
124	18.5	0.77	2	5	4	5	5	5	5	5	4.5
125	21.1	0.74	2	5	2	5	5	5	5	4	4.13
126	15	0.76	2	5	5	5	5	5	5	4	4.56
127	27.2	0.86	2	5	3	3	3	3	3	2	3

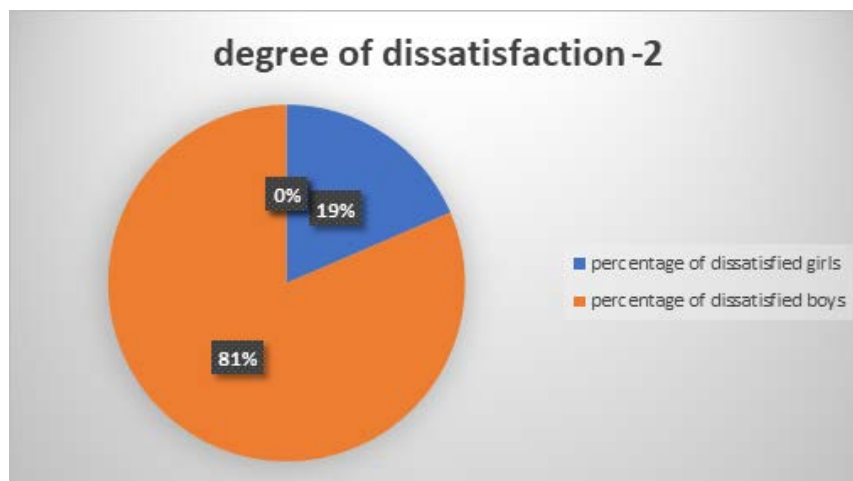
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129	18.3	0.77	3	5	5	3	4	5	3	2	3.75
130	16.3	0.8	3	5	2	4	4	4	5	3	3.75
131	26.2	0.8	2	5	3	5	5	5	5	4	4.5
132	14.3	0.77	3	5	5	5	5	5	5	2	4.37
133	18.2	0.85	4	5	5	1	2	5	3	4	3.62
134	26.4	0.91	2	5	1	3	3	3	5	3	3.12
135	25.4	0.82	1	5	1	2	2	4	3	2	2.54
136	25	0.81	3	5	1	5	5	5	5	4	4.12
137	22.7	0.85	2	5	2	3	3	3	3	3	3
138	20.9	0.78	3	3	1	3	5	4	4	3	3.25
139	24.6	0.82	1	5	1	2	2	3	2	2	2.25
140	18.9	0.76	2	4	3	3	5	5	4	3	3.62
141	23.9	0.78	3	5	5	3	5	5	4	4	4.25
142	20.7	0.81	2	4	3	3	3	3	3	2	2.87
143	12.6	0.77	2	4	3	3	4	4	4	4	3.5
144	28.1	0.87	2	5	2	1	5	4	4	2	3.1
145	22.8	0.8	1	5	1	3	4	4	3	4	3.1
146	29.2	0.85	1	4	1	2	2	4	2	3	2.37
147	23.3	0.86	1	4	3	2	4	3	2	3	2.75
148	20.3	0.85	1	5	1	3	4	4	2	2	2.87
149	20.9	0.79	2	5	2	3	2	3	1	3	2.62
150	21.3	0.85	2	3	2	2	3	3	4	3	2.75
151	27.5	0.93	2	3	2	2	1	2	1	3	2
152	24.3	0.79	2	4	1	3	1	4	4	4	3.12
153	22.1	0.79	4	4	2	4	3	3	3	5	3.5
154	21.5	0.79	2	5	2	3	5	5	1	3	3.25
155	19.5	0.74	2	5	2	3	5	5	5	2	3.62
156	24.2	0.83	3	2	2	3	4	5	2	3	3
157	23.7	0.84	3	5	4	5	4	5	2	3	3.87
158	22.7	0.86	2	5	4	5	3	3	5	3	4
159	24	0.95	2	5	5	3	5	3	2	3	3.5
160	16.6	0.91	2	4	4	2	5	5	4	2	3.25
161	20.9	0.81	2	3	4	4	5	4	4	3	3.62
162	16.4	0.8	2	4	2	5	5	5	4	3	3.75
163	21.6	0.66	2	5	3	5	4	5	1	2	3.37
164	23.4	0.78	1	5	1	1	1	1	1	2	1.62
165	23.3	0.77	3	3	3	5	5	3	4	3	3.62
166	24.3	0.77	2	4	2	5	5	5	4	4	4.12
167	18.4	0.82	3	5	1	5	5	5	4	3	3.87
168	23.4	0.8	2	5	2	5	4	5	4	4	3.87
169	22.1	0.9	2	4	2	5	5	5	4	4	3.87
170	29.8	0.82	2	5	5	5	5	5	4	3	4.25
171	20.2	0.75	2	5	1	5	3	5	3	3	3.37
172	34.9	0.85	2	3	1	2	4	5	4	3	3
173	23.3	0.8	3	3	2	5	3	4	4	4	3.5
174	23.9	0.81	2	5	2	5	3	5	4	4	3.75

175	33.1	0.82	1	4	2	4	4	5	4	4	3.62
176	19.2	0.81	2	4	4	4	5	5	4	4	4
177	19.6	0.77	3	5	5	3	5	5	3	4	4.25
178	12.8	0.75	3	5	3	2	5	3	3	4	3.5
179	15.6	0.7	2	4	1	5	3	5	4	3	3.37
180	24.3	0.93	2	3	4	4	5	4	4	3	3.62
181	21.5	0.81	2	4	2	4	4	3	4	3	3.25
182	18.5	0.77	2	3	2	5	3	4	4	3	3.25
183	17.4	0.8	2	4	1	5	3	4	4	2	3.12
184	20.8	0.81	3	5	3	5	4	5	5	4	4.25
185	21.9	0.76	3	4	4	5	5	5	5	4	4.37
186	22	0.73	2	4	4	5	1	1	2	3	2.75
187	20.9	0.78	2	3	3	5	3	5	3	3	3.37
188	26.9	0.83	2	5	2	4	5	5	4	4	3.87
189	23.8	0.76	2	3	4	3	4	5	4	3	3.5
190	15.3	0.77	2	5	3	2	2	5	4	4	3.37
191	23.7	0.77	2	5	3	4	4	5	4	3	3.75
192	22.5	0.79	1	4	2	5	5	5	4	4	3.75
193	19.6	0.75	2	5	3	5	5	5	5	4	4.25
194	22.8	0.83	1	3	1	2	2	3	4	4	2.5
195	24.7	0.84	3	5	3	5	4	3	4	5	4.25
196	23.3	0.83	2	3	5	5	4	4	3	2	3.5
197	24	0.82	2	5	4	5	4	5	4	3	4
198	21.5	0.85	1	3	4	1	1	1	3	1	1.87
199	21.9	0.79	2	3	3	5	5	5	5	5	4.12
200	23.8	0.79	2	4	3	3	2	3	2	2	2.37
201	24.1	0.82	1	3	2	5	5	5	5	5	3.87
202	25	0.85	2	5	4	5	5	5	5	5	4.5
203	34.6	0.83	3	5	3	5	5	5	4	5	4.37
204	24.8	0.82	4	5	1	5	5	5	3	5	4.12
205	21.5	0.81	1	5	3	3	4	4	4	3	3.37
206	25.4	0.8	2	3	5	2	3	5	5	5	3.75
207	30.6	0.89	1	3	1	1	3	2	2	2	1.87
208	20.1	0.84	3	5	2	3	5	5	4	4	3.87
209	22.8	0.85	2	2	2	5	5	5	4	4	3.62
210	21.5	0.87	4	5	1	5	5	4	4	5	4.12
211	25	0.88	2	3	5	4	2	3	2	5	3.25
212	20.4	0.84	2	5	3	5	5	5	5	5	4.37
213	16.9	0.86	2	3	5	2	3	3	3	3	4.25
214	21.6	0.78	2	3	5	5	3	3	2	3	3.25
215	22.4	0.82	2	4	4	5	3	4	4	3	3.62
216	15.3	0.82	1	4	3	3	4	2	3	2	2.75
217	23.5	0.77	2	4	1	2	5	1	5	2	2.75
218	22	0.81	2	5	5	5	5	5	5	5	4.62
219	22.6	0.79	2	3	3	3	4	5	5	5	3.75
220	17.6	0.82	2	5	1	2	2	3	3	5	4
221	20.8	0.83	2	3	5	5	4	5	4	4	4.12

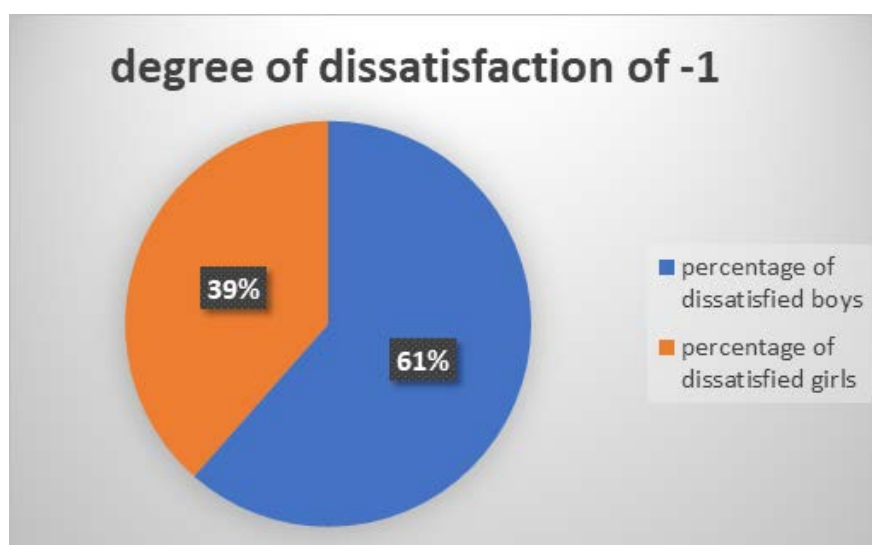
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225	25.4	0.75	3	5	4	5	5	5	5	4	4.5
226	19.5	0.77	1	3	2	3	4	4	4	4	3.12
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231	29.2	0.85	2	3	4	3	4	5	4	3	3.5
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238	24.5	0.77	2	3	3	3	4	4	4	3	3.25
239	20.8	0.79	1	5	5	3	5	4	4	2	3.65
240	18.7	0.73	1	5	3	1	5	5	3	2	3.12
241	24.2	0.81	2	5	1	3	5	4	4	3	3.37
242	20.5	0.79	3	5	5	3	5	3	4	3	3.81
243	25	0.88	2	5	2	5	4	5	3	3	3.65
244	24.9	0.87	2	4	4	5	4	4	5	4	4
245	21	0.71	2	5	5	3	5	4	4	4	4
246	22.5	0.83	3	5	5	3	4	4	5	4	4.12
247	23	0.77	2	5	5	5	4	4	4	2	3.87
248	22	0.8	3	5	4	5	3	4	4	3	3.87
249	28	0.78	1	1	2	2	3	3	3	1	2
250	22	0.74	1	2	2	2	2	2	2	2	1.87



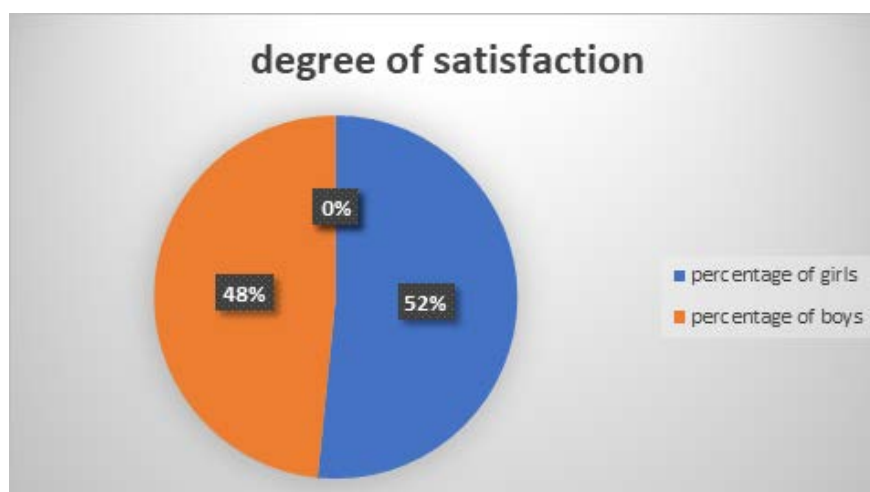
Graph 1: Shows the Percentage of Degree of Dissatisfaction -3 For Body Image Among the Participants



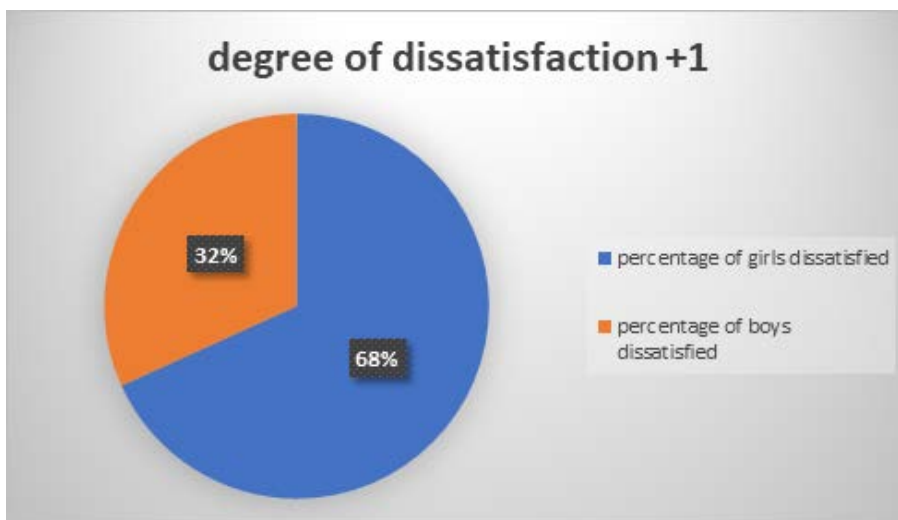
Graph 2: shows the percentage of degree of dissatisfaction -2 for body image among the participants



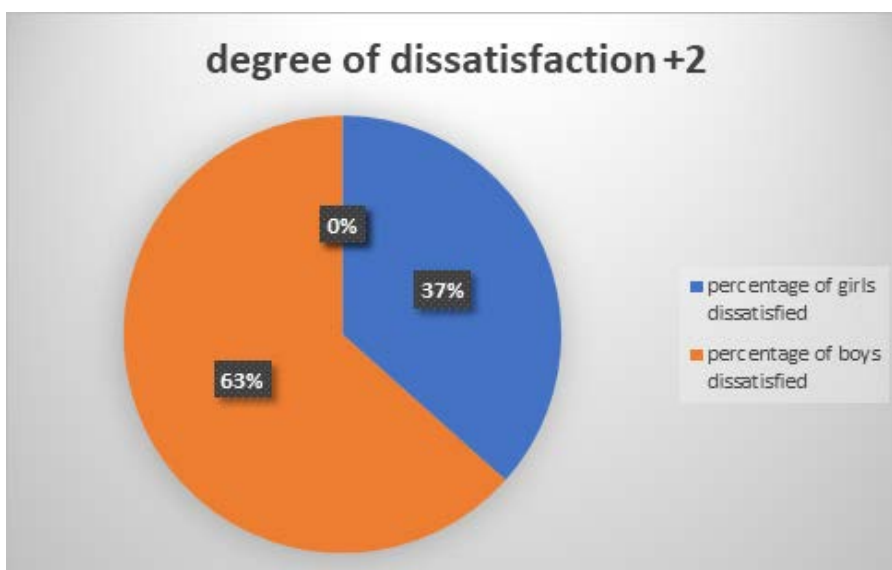
Graph 3: Shows the Percentage of Degree of Dissatisfaction -1 For Body Image Among the Participants



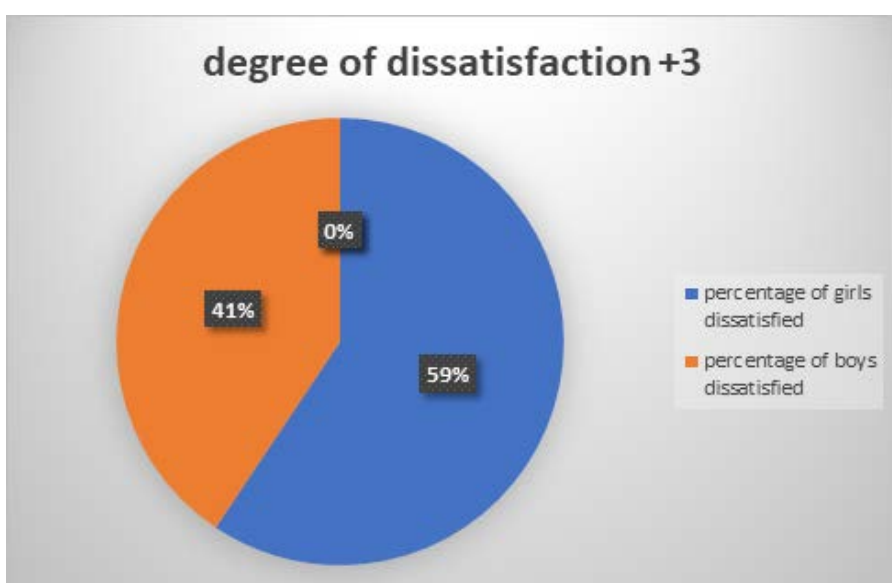
Graph 4: Shows the Percentage of Degree of Satisfaction for Body Image Among the Participants



Graph: 5 Shows the Percentage of Degree of Dissatisfaction in The Range Of +1 Among the Participants



Graph 6: Shows the Percentage of Degree of Dissatisfaction in The Range Of +2 Among the Participants



Graph 7: Shows the Percentage of Degree of Dissatisfaction in The Range Of +3 Among the Participants

4. Discussion

The present study explores the physical activity levels and body image perception among school going adolescent students. Out of total 250 students, 139 boys and 111 girls of mean age males, 13.16 years and girls 12.9 years participated. Though in our study students were selected from the same school having students from almost similar background and social class, body image satisfaction showed large variation in the range of -3 to +7 on Figure rating scale. Studies have shown that because of the socio cultural and peer pressure even normal weight individuals are often concerned about body shape and majority of them want to be thinner. The study population belonged to age group ten to fourteen years. The reason for selecting this age group was it has been found out in longitudinal studies, that gender differences in body dissatisfaction emerged between 13 and 15 years and were maintained at 18 years. Also considering the fact that with changing lifestyles and dietary habits, girls tend to attain puberty earlier by the age of ten to twelve years. As more girls than boys have experienced pubertal changes, there could be more girls reporting about body image changes. Maturing girls tend to increase in weight and proportion of fat, which may increase the discrepancy between body shape and ideal. A Scottish study showed that body image mediated the relation of pubertal timing on self-esteem. In this study physical activity score was calculated as per the activities the children did in past 7 school-going days. The score of Physical activity level on Physical Activity questionnaire showed moderate level of physical activity levels. These findings resonate with most of the studies which suggest that eighty percentage of teenagers worldwide are not sufficiently active. World health organisation guidelines recommend that Children and adolescents should do 60 minutes or more of physical activity each day. Most of the 60 minutes should be either moderate- or vigorous intensity aerobic physical activity and should include vigorous-intensity physical activity at least 3 days a week. In spite of these recommendations, physical inactivity among adolescence remains a pressing issue and the barriers for being active need to be identified. A study could be done in future to identify the barriers that students perceive are contributing to their physical inactivity and health personnel and policy makers can try to do the recommendations to promote physical activity.

In the present study we found there are gender differences in body dissatisfaction. 57 % of boys and 43 % of girls were dissatisfied with their weight. This is in contrast to most of the studies which have proved that body dissatisfaction is generally more in adolescent girls as compared to boys. It was found in a European study by Mc Elhone et al., that only 31% females were satisfied with their weight as compared to 46% of males. The gender differences in body image perception could be due to socio cultural and peer pressure which act as the markers of their identity. Literature has suggested that the desire to be muscular has emerged as a central issue associated with male body image and has been reported as common concern by boys during adolescence. This desire for muscularity may promote potentially dangerous behaviours such as body building, taking food

supplements and anabolic steroid use. In addition, the drive for muscularity is associated with emotional ramifications such as lower self-esteem, heightened depression and body dissatisfaction.

56% of boys had the highest degree of dissatisfaction of -3 on contour which means that there is a 3 contour negative difference between their body image perceived and body image they want to be. 61% of girls had -1 degree of dissatisfaction i.e. they want shift of 1 contour less from their body image perceived. Also, it is found out that in the study 63% of boys want to improve their body image by adding 2 contours (+2) to the body image they perceived. In the overall study it is found out that nearly half of the adolescent report of body image dissatisfaction. The present findings suggest that body image is an important target of investigation to improve subjective health in adolescents.

5. Conclusion

In the study the score of physical activity of 3 had the highest number of adolescents with denotes their physical activity being moderate. Body image perception was obtained from the subjects. 57 % of boys and 43 % of girls were dissatisfied with their weight. This study suggest that the body image is an important target of investigation to improve subjective health in adolescents.

Clinical application

Education and counselling to the adolescent children about being physically active is essential. Health Education and identifying the students having poor body image and physical inactivity will help to prevent eating disorders, low self-esteem, depression and non-communicable diseases in future.

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