

Effectiveness of interventional package on body image perception and self-esteem among adolescents – A pilot study

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ABSTRACT

Background of the Study: In adolescence various physical and psychological changes, impact their overall perception that leads to either satisfaction or dissatisfaction with body image. Adolescents can suffer from body image dissatisfaction. Counselling sessions, video and documentaries can be used to improve the body image concerns. So, this study aims to evaluate the impact of interventional package on the body image perception and self-esteem among adolescents. **Materials and Methods:** The sampling technique used to enrol 65 adolescents was simple random. Body image was assessed in the form of affective and behavioural body image perception. Two different structured scales were used to assess affective and behavioural body image perception. Pre-test was conducted to assess the body image perception among adolescents; then, documentary was shown in the form of intervention 1 and the post-test 1 was taken, again booklet was distributed as intervention 2 and post-test -2 was taken. **Results:** A statistically significant improvement in the satisfaction with weight, height, complexion, hair, teeth, buttocks, thigh and moustache, after the use of interventional package. In behavioural perception of body image, no significant association was found in pre-test, post-test 1 and 2, there is statistically significant improvement in self-esteem of adolescents, as $P = 0.03$. **Conclusion:** Interventional package in the form of documentary and booklet is useful in improving body image perception among adolescents. Significant improvement was seen in perception related to certain body parts.

Keywords: Adolescents, body image perception, interventional package, self-esteem

Introduction

The morphological and psychological changes that happen in adolescent age influence body image perception. Adolescence represents a stage in which there is formation of positive or negative body image perception.^[1] Issues with body image are seen all over the world from last many decades.^[2] Researchers had elaborated body image as one's 'perceptions, thinking and feelings' related to one's body. It is divided into three dimensions,

i.e. 'cognitive how one thinks he or she looks and emotional, which include, how one feels he or she looks. Third one is idealistic, how an individual wants to look like'.^[3]

People of all ages are affected by body image problems. Children and adolescents from very early age are aware of body image,^[4] which force them to prefer thin bodies.^[5] More than 50% of adolescent girls have negative perception about their body shape or size.^[6,7] Body image dissatisfaction is more prevalent in girls (66%) as compare to boys (21%).^[8,9]

The main contributing factor to body image perception is family, peer and media, body image dissatisfaction that occur

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in childhood and adolescent period, which is linked with more negative affect.^[10]

Various factors associated with body image dissatisfaction in boys include academic achievement, weight control, type of school and exercise in school gym and in girls are academic achievement, weight control and socio-economic status.^[11] Sociocultural pressure higher BMI and depression all are linked with body image dissatisfaction.^[12] Family members and society encourage males to become stronger and masculine; however, females must look feminine. Adolescents are criticised for their looks, and they do efforts to modify it as per societal demands.^[13]

Body image perception (BMI) is positively correlated with body image dissatisfaction (BID).^[14] A significant correlation was found between perceived body mass index (BMI) and actual BMI. Also, there is a significant strong correlation of actual BMI with the BID ($r = 0.57, P < 0.001$).^[15]

Self-esteem and body image satisfaction are also correlated. There is a positive correlation between both.^[16]

Symptoms of disturbed eating behaviour were common, especially among girls, and associated with body-related perceptions. Around 30% of boys and more than 50% girls reported using various unhealthy weight control methods such as use of diuretics, inducing vomiting, intake of diet pills and cigarette smoking and for reducing weight.^[17] Medicine use and of vomiting inducement constituted 12% and 11%, respectively.^[18]

Many of the adolescents with body image dissatisfaction have psychological distress. So, school authorities must organize counselling sessions/stress management workshops/classes for students. Body image dissatisfaction among adolescent's points towards the need for future research in initial developmental years.^[19]

Considering that many students are dissatisfied with body image, some interventions can be included in school health programmes, which must address body image concerns.^[20] Body image dissatisfaction previously thought to be a prevalent in Western countries; however, it also affects Indian adolescents especially girls. So, interventions must be designed to improve awareness on ideal body weight and protecting youngsters from negative body image.^[22] Yager Z *et al.* (2013) did a systematic review on class room-based body image programmes. Out of many programmes seven were effective in improving body image satisfaction.^[19] Another study conducted by Mcvey GL *et al.* (2004) evaluated a school-based programme to improve body image satisfaction self-esteem and eating attitudes, on 258 girls.^[21] The result concluded that body image satisfaction and self-esteem were improved after the use of six-session school-based intervention.^[21] So, this study has been planned to evaluate the use of interventional package on body image perception and self-esteem among adolescents.

Materials and Methods

Quantitative research approach with quasi-experimental research design was used to assess the effectiveness of interventional package on body image perception and self-esteem, among 65 adolescents selected by simple random sampling in a selected school. Total sample size estimation was 665, whereas pilot study was performed on 65 adolescents. Data collection tools include socio-demographic variables questionnaire: it consists of variables like age, gender, birth order, class and body mass index of adolescents. Body Image Perception tool: Body image perception was studied under two categories, i.e. affective body image perception and behavioural body image perception. To study affective body image perception, structured questionnaire assessing satisfaction with each body part was assessed as highly dissatisfied, somewhat dissatisfied, uncertain, somewhat satisfied and highly satisfied. For assessing behavioural body image perception, 17-item structured Likert scale was used. It is scored as: Never = 0, Occasionally = 01, Often = 02, Frequently = 03, Always = 04. Maximum and maximum scoring was 60 and 0, respectively. Rosenberg self-esteem was used to assess self-esteem among adolescents. It is a 10-item scale, and it is four points. Scoring is strongly agree: 04, Agree: 03, Disagree: 02, Strongly disagree: 01. Maximum scoring is 40, and minimum scoring is 10. Interventional Package was the use of documentary and booklet for improving body image perception as well as self-esteem among adolescents. Data collection procedure includes pre-test, intervention 1, post-test 1, intervention 2 and post-test 2 [Figure 1]. Chi-square was used to evaluate the effectiveness of interventional package on affective body image perception. Item analysis was performed. ANOVA was used to ascertain the effectiveness of interventional package on behavioural body image perception and self-esteem. SPSS version 21 was used to carry out the calculations.

Results and Analysis

Description of socio-demographic variables: In the present study, the mean age of adolescents was 14.86 ± 0.7263 years, 44.6% were younger child in family, and more than half (61.5%) were females. Most of the adolescents (86.2%) had normal BMI.

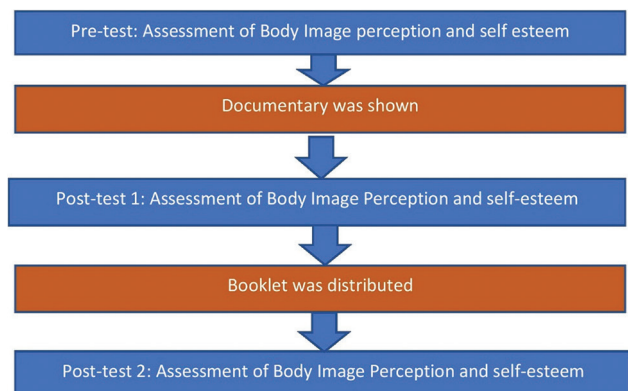


Figure 1: Data collection procedure (flow chart)

Affective perception: Satisfaction of adolescents with each body part or features. It shows there is statistically significant improvement in the satisfaction with weight ($P = 0.026$), height ($P = 0.033$), complexion ($P = 0.013$), hair ($P = 0.013$), teeth ($P = 0.0026$), buttocks ($P = 0.038$), thigh ($P = 0.023$) and moustache ($P = 0.0125$) after the use of interventional package [Table 1].

Behavioural perception of body image among adolescents. In pre-test, 08 (12.30%) adolescents were highly satisfied, 37 (56.92%) were satisfied, 17 (26.15%) were uncertain, 03 (04.61%) were dissatisfied and with their body image. In post-test 1, 13 (20%) adolescents were highly satisfied, 34 (52.30%) satisfied, 15 (23.07%) were uncertain, and 03 (4.61%) were dissatisfied with their body image. In post-test 2, 17 (26.15%) adolescents were highly satisfied, 36 (55.38%) satisfied, 12 (18.46%), uncertain with their body image, respectively, and no one was dissatisfied. There is no significant difference in the behavioural body image perception of adolescents in pre-test, post-test 1 and post-test 2 ($P = 0.646$) [Figure 2]. The mean of behavioural perception was 45.49 ± 9.47 in pre-test, 46.90 ± 10.17 in post-test 1 and 46.98 ± 10.03 in post-test 2. The difference was statistically nonsignificant [Table 2].

Self-esteem among adolescents. It shows that there is statistically significant association in pre-test, post-test 1 and post-test 2 in self-esteem of adolescents, as $P = 0.03$ [Table 3].

Discussion

Various studies have shown that dissatisfaction with body image can occur during late childhood and adolescence. Media present men and women by very thin images, some adolescents having normal weight tend to compare them with these images and think that they are overweight.^[4] In the present study, the affective perception of body image perception improved in post-test 1 and post-test 2. There is statistically significant improvement in the satisfaction with weight, height, complexion, hair, teeth, buttocks, thigh and moustache. A study conducted by Smith HL *et al.* (2023) showed that students who had undergone a school-based intervention, had increased body-esteem at post-intervention when compared with control students.^[22]

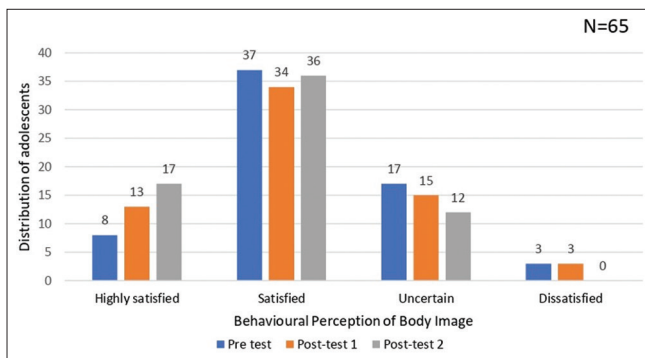


Figure 2: Distribution of adolescents as per behavioural perception of body image

There is no significant difference in the behavioural body image perception of adolescents in pre-test, post-test 1 and post-test 2. A study conducted by Mcvey GL *et al.* concluded that satisfaction with body image and self-esteem improved by the use of six sessions in a school-based programme.^[21]

Conclusion

Interventional package in the form of documentary and booklet is useful in improving body image perception among adolescents. Significant improvement was seen in perception related to certain

Table 1: Comparison of affective perception of body image in pre-test, post-test 1 and post-test 2 (n=65)

Satisfaction with	Pre-test f (%)	Post-test 1 f (%)	Post-test 2 f (%)	Chi-square, P
Weight				
Satisfied	43	53	55	7.278
Dissatisfied	22	12	10	$P=0.026$
Height				
Satisfied	42	53	53	6.781
Dissatisfied	23	12	12	$P=0.033$
Complexion				
Satisfied	54	61	63	8.6352
Dissatisfied	11	04	02	$P=0.013$
Hair				
Satisfied	56	62	64	8.5714
Dissatisfied	09	03	01	$P=0.013764$
Teeth				
Satisfied	54	64	64	16.4835
Dissatisfied	11	01	01	$P=0.0026$
Buttocks				
Satisfied	58	63	64	6.5351
Dissatisfied	07	02	01	$P=0.0380$
Thighs				
Satisfied	56	61	64	7.5414
Dissatisfied	09	04	01	$P=0.0230$
Moustache*				
Satisfied	11	19	20	8.76
Dissatisfied	14	06	05	$P=0.0125$

*n=25, f=frequency, %=percentage

Table 2: Comparison between the mean behavioural perception among adolescents in pre-test, post-test 1 and post-test 2 (n=65)

Mean±SD behavioural perception of body image			F, P
Pre-test	Post-test 1	Post-test 2	
45.49±9.47	46.90±10.17	46.98±10.03	0.467, $P=0.627$

F=ANOVA, SD=Standard deviation

Table 3: Comparison between the mean self-esteem among adolescents in pre-test, post-test 1 and post-test 2 (n=65)

(Mean±SD) self-esteem			F, P
Pre-test	Post-test 1	Post-test 2	
28.06±2.87	29.63±3.56	30.03±3.79	5.965, $P=0.03$

F=ANOVA, SD=Standard deviation

body parts. These types of interventions can be incorporated in school curriculum, which will help in improving body image perception in adolescents.

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Conflicts of interest

There are no conflicts of interest.

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