An Experimental Study to Assess Effectiveness of Healthy Body Image Programme on Body Image Perception, Self-Esteem, and Self-Compassion among Adolescents in Selected Institute of the City

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Abstract: <u>*Introduction*</u>*: Human life is divided into five main stages namely infancy, childhood, adolescence, adulthood and old age. In each of these stages, an individual finds himself in different situations and face different problems. Adolescence is the phase of growth and development between childhood and adulthood. Body image is an issue in adolescents. If self-esteem and self-compassion are low then adolescents will face different problems like psychological disturbances, disturbed interpersonal relationships, and poor academic performance, etc. A healthy body image programme will promote awareness about the concept of healthy body image, puberty, self-esteem, and self-compassion. This will result in a happier and healthier future of adolescence.*

Keywords: Body image, self-esteem , self-compassion , adolescents and healthy body image programme

1. Objectives

Primary Objectives
- To assess the baseline level of body image perception, self-esteem, and self- compassion among adolescents in selected institute of the city.
- To assess the effectiveness of healthy body image programme on body image perception, self-esteem, and self- compassion among adolescents in selected institute of the city.

Secondary Objectives
- To find the association between baselines level of body image perception, self- esteem, and self-compassion with selected background variables among adolescents.

Hypotheses Primary hypotheses
H01: There is no significant effectiveness of a healthy body image programme on body image perception among adolescents at 5% level of significance.
H02: There is no significant effectiveness of a healthy body image programme on self- esteem among adolescents at 5% level of significance.
H03: There is no significant effectiveness of a healthy body image programme on self-compassion among adolescents at 5% level of significance.

Secondary hypotheses
H04: There is no significant association between baseline level of body image perception, self-esteem, and self-compassion with selected background variables among adolescents at 5% level of significance.

2. Methodology Research approach

This research used a quantitative research approach. A quantitative research approach is considered best suited to the study, which aims to find out the effect of healthy body image programme on body image perception, self-esteem, and self-compassion among adolescents.

Research design
In this research experimental design, the pre-test-post-test control group design was used. Experimental group with 30 samples and control group with 30 samples who were selected through simple random sampling method.

Research variables
A healthy body image programme was the independent variable in this study.
Body image perception, self-esteem, and self-compassion among adolescents were the dependent variables in this study.

Population
The population under study was comprised of all the adolescents from the age group 14 to 15 years in the selected institute of the city.

Sample size
The sample size was 60 samples. The sample size calculated on the pilot study and required 22 samples in each group. However, considering a 10% attrition sample more as an attrition rate hence 30 samples were taken in each group.

Reliability of the tool
The reliability of the tool was tested by Cronbach's alpha test. Cronbach's alpha measures the internal consistency of the items in a scale.

The tool was administered to 20 adolescents of the selected institutes of the city; the correlation coefficient of self-structured body image perception scale was 0.607 and thus found the tool reliable and valid.

The self-compassion scale developed by Kristin D. Neff was used to assess the self- compassion. Internal consistency for the 26-item Self-compassion scale was .92. Thus the tool found reliable and valid.

The self-esteem scale developed by Morris Rosenberg was

used to assess self-esteem. The Rosenberg Self-esteem demonstrates a Guttman scale coefficient of reproducibility of .92, indicating excellent internal consistency. Test-retest reliability over 2 weeks reveals correlations of .85 and .88, indicating excellent stability. Thus the tool found reliable.

Ethical aspects
1) The research was presented in the ethical committee and was duly approved by the committee.
2) The title and synopsis were sent to MUHS, for approval and approved by the MUHS.
3) The prerequisites were fulfilled and the permission was obtained from the concerned authority.
4) The concerned authorities, departmental heads were briefly informed about the study in order to gain confidence.
5) Subjects in the study have full right for information regarding the purpose of the study and their role n study.
6) Informed written consent will be obtain from all the subjects.
7) The information collected from the subjects will be kept confidential and will be used only for research purpose.

Tools and techniques

Section I: Background information data

The section consists of 8 questions. The questions included Demographic profile- like age, sex, type of family, educational status, family income, height, weight, BMI (BMI will be calculated by the investigator).

Section II: Self -Structured body image perception scale
This section consisted of 40 statements related to body image perception. It includes physiological, psychological, social and functional aspects. Scoring will be done by adopting the numerical values to each point on the scale from 0 to 4 and few statements have reverse scoring for being a negative statement. The key scores will be as follows-

The scale ranges from 0-160.

Poor body image perception: 0-40 Fair body image perception: 41-80 Good body image perception: 81-120

Very good body image perception: 121-160

Section III Rosenberg self-esteem scale
This section consisted of 10 statements related to self-esteem. Scoring will be done by adopting the numerical values to each point on the scale from 0 to 3. Few statements have reverse scoring for being a negative statement. The scores will be as follows-

The scale ranges from 0-30. Scores below 15- Low self-esteem. 15 and 25 - Normal range.
Above 25- High self-esteem

Section IV Self-Compassion Scale
This section consisted of 26 statements related to self-compassion. Scoring will be done by adopting the numerical values to each point on the scale 1 to 5. The scores will be as follows-

The total score of self-compassion is 130. High self-compassion: 87-130
Moderate self-compassion: 44- 86
Low self-compassion: 1-43

Data gathering process
- The permission letter from the college and the investigator including the study details were sent to the institute of the city.
- The investigator was approached the administrative department and Principle of the institute to seek permission to conduct the study.
- The study subjects were introduced to the study and the topic will be explained to them before starting with the data collection process.
- Informed written consent was obtained from the subject's guardian.
- The tool was distributed to the subjects and any difficulties while filling the tool were addressed by the investigator.
- The average time required for filling the tool was 30min. After pretesting the sessions along with activity was taken on growth and development in adolescents, body image perception, self-esteem and self-compassion for the experimental group.
- A post-test was being conducted. The control group was received standard intervention as per institute policy. Only pre-test and post-test were conducted in the control group.

The major findings of the study and discussions Section I
This section dealt with the distribution of subjects according to their demographic variables of age, gender, parent's occupation, parent's monthly income and health status (height, weight, and BMI). The majority of subjects (Control group 60 % and experimental group 56.7 %) belong to the age group of 14 years. 50.00 % of subjects in the control group and 50.00 % of subjects in the experimental group were having a BMI of less than 18.5 kg/m2 which considered as underweight. 50.00 % of subjects in the control group and 50.00 % of subjects in the experimental group were having BMI between 18.5 to 24.9 kg/m2 which considered a normal range of BMI. All subjects from the control and experimental groups were female.
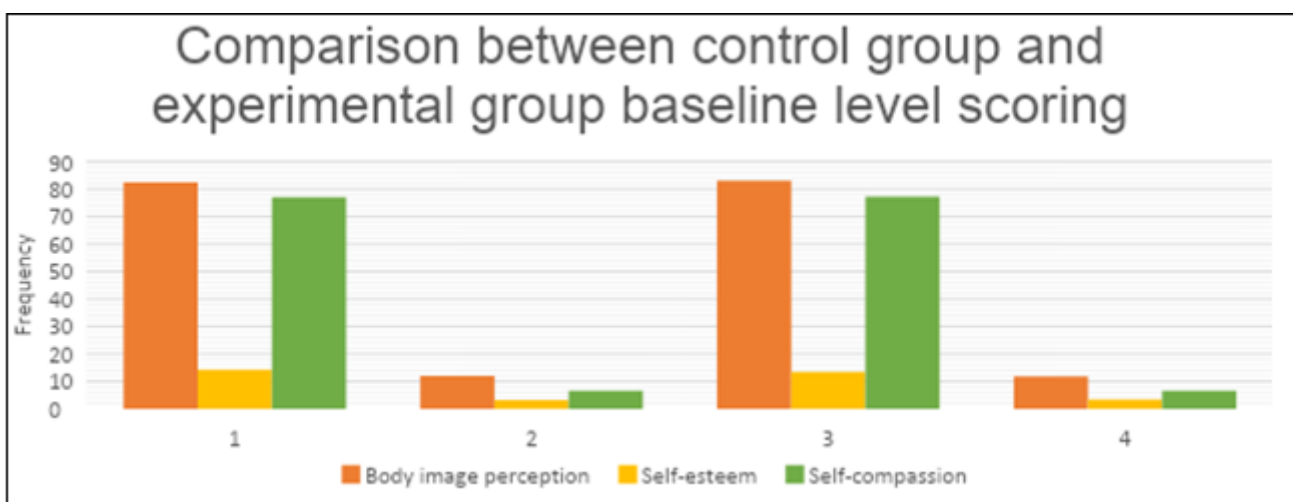
Section II
This section dealt with the baseline level of body image perception, self-esteem, and self- compassion among adolescents in selected institute of the city.
1) The majority of subjects were having fair body image perception in an experimental group. The majority of subjects were having good body image perception in the control group. Before the intervention, both groups had approximately the same level of body image perception as per mean calculation. The baseline level mean of the experimental group was 83.10 and the mean of the control group was 82.43. There was no statistically significant difference between control and experimental group for baseline body image perception level.
2) The majority of subjects were having low self-esteem in an experimental group. There was an equal distribution of subjects in low self-esteem and normal self- esteem in

the control group. Before the intervention, both groups had approximately the same level of self-esteem as per mean calculation. The baseline level means of self-esteem in the experimental group was 14.16 and the mean of the control group was 13.36. There was no statistically significant difference between control and experimental group for baseline self-esteem level.

3) The majority of subjects were having a moderate level of self-compassion in the control and experimental group. Before the intervention, both groups had approximately the same level of self-compassion as per mean calculation. The baseline level mean of self-compassion in the experimental group was 77.36 and the mean of the control group was 77.06. There was no statistically significant difference between control and experimental group for baseline self-compassion level.

4) The comparison between the control group and experimental group pre- intervention scoring. Before

intervention in control group mean = 82.43, SD= 11.98, and in experimental group mean = 83.10, SD= 11.71. *The p* value was 0.82. Because the *p*- value was greater than 0.05, there was no statistically significant difference between experimental and control groups for body image perception. Before intervention in control group mean =14.16, SD= 3.19, and in experimental group mean = 13.36, SD= 3.47. *The p* value was 0.35. Because the *p*- value was greater than 0.05, there was no statistically significant difference between the experimental and control group for self-esteem. Before intervention in control group mean =77.06, SD= 6.67, and in experimental group mean = 77.36, SD= 6.68. *p*-value was 0.86. Because the *p*- value was greater than 0.05, there was no statistically significant difference between experimental and control groups for self-compassion.

Graph 1: Comparison between control group and experimental group baseline level scoring. Section III

This section analyzed the effectiveness of healthy body image programme on body image perception, self-esteem, and self- compassion among adolescents in selected institute of the city.

1) Post intervention means of body image perception in the control group were mean= 83.56 , SD= 12.51, and in experimental group mean = 105.93, SD= 10.57. *p*- value was 0.00. Because the *p*- value was less than 0.05 so, there was a statistically significant difference between experimental and control groups for body image perception. In the experimental group, it was proven that the program promoted a significant improvement in the adolescents' perception of their body image with *a p*-value of 0.000 < 0.05 which is highly significant.

2) Post intervention means of self-esteem in the control group were mean =14.96, SD= 3.18, and in experimental group mean = 19.26, SD= 3.13. *p*- value was 0.00. Because the *p*- value was less than 0.05, there was a statistically significant difference between experimental and control groups for self-esteem. In the experimental group, it was verified that the program promoted a significant improvement in the adolescents' self-esteem with *a p-value* of 0.000< 0.05 which is highly

significant.

3) Post intervention means of self-compassion in the control group mean was mean =77.83, SD= 7.51, and in experimental group mean = 85.76, SD= 7.60. *p*- value was 0.00. Because the *p*- value was less than 0.05, there was a statistically significant difference between the experimental and control group for self-compassion. In the experimental group, it was verified that the program promoted a significant improvement in the adolescents' self-compassion with *a p-value of* 0 .000 < 0.05 which is highly significant.

The primary null hypothesis was rejected as there was significant effectiveness of healthy body image programme on the level of body image perception, self-esteem and self-compassion among adolescents with *a p-value* of 0.000 and it is also highly significant at 0.01 level of significance. This answers a primary research question that there was an effect of a healthy body image programme on the level of body image perception, self- esteem, and self-compassion among adolescents.
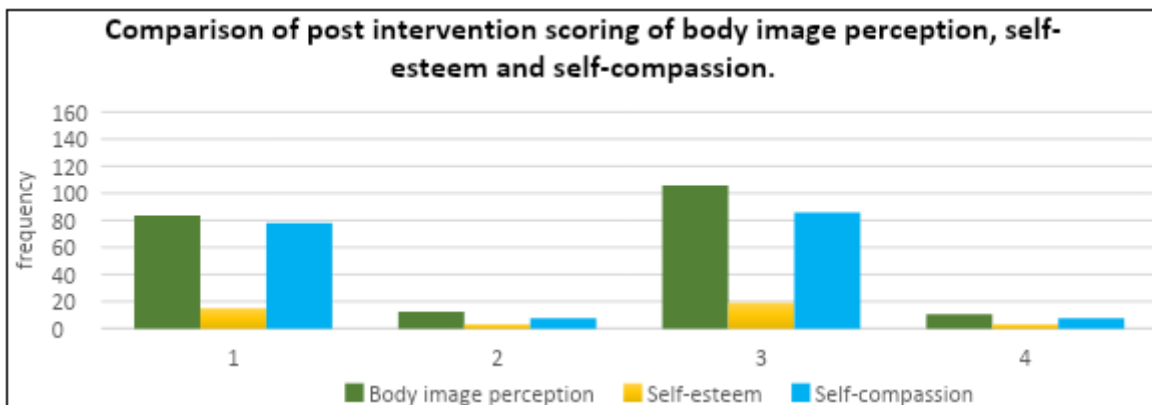
Graph 2: Comparison of post-intervention scoring of body image perception, self-esteem, and self-compassion

Section IV

This section dealt with the association between baselines level of body image perception, self-esteem, and self-compassion with selected background variables among adolescents.

1) The comparison of baseline level of body image perception with selected background variables like age, gender, parent's occupation, and monthly income health status and body mass index. There was no association of baseline level of body image perception with selected background variables like age, gender, parent's occupation, and monthly income health status and body mass index. Hence secondary null hypothesis was accepted as there is no association between the levels of body image perception with selected background variables among the adolescents at 0.05 % level of significance. For the secondary research question, it can answer that there was no association between levels of body image perception with selected background variables like age, gender, parent's occupation, and monthly income health status and body mass index.

2) The comparison of baseline scores level of self-esteem with selected background variables like age, gender, parent's occupation, and monthly income and health status. There was no association of baseline scores level of self-esteem with selected background variables like age, gender, parent's occupation, and monthly income and body mass index. There was an association of baseline scores level of self-esteem with health status with an F- value of 6.00 and *p-value* of 0.04. Hence secondary null hypothesis was rejected as there is an association between the levels of self-esteem with selected background variables i.e. health status of the adolescents at 0.05 % level of significance. For the secondary research question, it can answer that there was an association between levels of self-esteem with selected background variable i.e. health status of adolescents.

3) The comparison of baseline scores level of self-compassion with selected background variables like age, gender, parent's occupation, and monthly income and health status. There was no association of baseline scores level of self-compassion with selected background variables like age, gender, parent's occupation, and monthly income and health status. Hence secondary null hypothesis was accepted as there was no association between the levels of self-compassion with selected background variables among the adolescents at 0.05 % level of significance. For the secondary research question, it can answer that there was no association between levels of self-compassion with selected background variables like age, gender, parent's occupation, and monthly income and health status.

3. Conclusion

Based on the research done and analysis findings it can be concluded that the healthy body image programme promoted a significant improvement in the adolescents' body image perception, self-esteem and self-compassion with *p*- value of $0.000 < 0.05$ which is highly significant. There was an association of baseline scores level of self-esteem with health status with F- value of 6.00 and *p*- value of 0.04. From the present study investigator recommended that effective interventions to improve awareness on ideal body weight, media literacy and harmful effects of extreme weight control measures have to be planned.