

Original Research Article

Exploring the interplay of body image, quality of life, self-esteem, and psychological well-being on eating attitudes in adolescents

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ABSTRACT

Background: This study explores the associations between body image, quality of life (QOL), self-esteem, and psychological well-being with eating attitudes in adolescents. These psychological factors are theorized to influence the development of disordered eating.

Methods: A cross-sectional study was conducted with 100 adolescents aged 13-18 from private schools in Jaipur. Data collection used standardized tools: GHQ-12, EAT-26, BSQ-34, KIDSCREEN-27, and Rosenberg Self-Esteem Scale. Pearson correlations and independent t-tests were conducted using SPSS to explore relationships and group differences.

Results: Significant negative correlations were found between eating attitudes and both body image ($r = -0.477$, $p < 0.001$) and QOL ($r = -0.372$, $p < 0.001$). No significant correlations were found with self-esteem or psychological well-being. Likewise, t-tests showed significant differences in body image and QOL between problematic and non-problematic eaters, but not in self-esteem or well-being.

Conclusions: Body image and QOL significantly influence adolescents' eating attitudes. Interventions should focus on these factors to prevent disordered eating, though self-esteem and general well-being may play a more indirect role.

Keywords: Eating attitudes, Body image, Quality of life, Self-esteem, Psychological well-being, Adolescents

INTRODUCTION

Adolescence, defined by WHO as ages 10 to 19, is a crucial stage for physical, emotional, and cognitive development, where eating behaviours significantly impact mental health, self-esteem, and body image.¹ Unhealthy eating habits like emotional or uncontrolled eating are common and often driven by societal pressure and unrealistic body standards, leading to disorders such as anorexia nervosa, bulimia, and ARFID.²⁻⁴ Theories like Self-Discrepancy and Objectification highlight how internalized beauty ideals contribute to body dissatisfaction and disordered eating.^{5,6} These disorders, often beginning in adolescence, can result in severe physical and psychological harm, and negatively affect autonomy, relationships, and quality of life.^{7,8}

Eating attitudes refer to individuals' thoughts, beliefs, behaviours, and emotional responses related to food and eating. During adolescence a critical period marked by rapid physical, emotional, and psychological changes eating attitudes can be heavily influenced by societal pressures, body image concerns, and the desire for acceptance.^{9,10} Unhealthy eating attitudes, such as emotional eating, aimless eating, or excessive dietary control, are increasingly common among youth and can contribute to the development of eating disorders.^{11,12} These attitudes are often shaped by internalized societal ideals and can significantly impact adolescents' self-esteem, psychological well-being, body image, and overall quality of life.^{13,14}

Body image refers to how individuals perceive and feel about their physical appearance, influenced by

psychological, social, cultural, and individual factors.^{3,15} Negative body image, often beginning at puberty, is linked to dissatisfaction with one's body and is a major contributor to eating disorders.^{16,17} Many adolescents, especially girls, believe they are overweight even when they are not, leading to unhealthy weight-control behaviors.^{18,19} Theories like sociocultural, objectification, social comparison, and cognitive behavioural models explain how societal pressure and distorted thinking shape body image.^{17,20} Negative body image can result in restrictive dieting, emotional eating, and harmful behaviours such as purging or over-exercising, increasing the risk of psychological distress and eating disorders.^{21,22}

Quality of Life (QOL), as defined by the WHO, is an individual's perception of their life position within their cultural and value context, based on personal goals and expectations.²³ Maslow's Hierarchy of Needs suggests that as basic needs are fulfilled, individuals progress toward self-actualization, enhancing QOL.²⁴ Eating-disorders significantly lower QOL by affecting physical health, emotional well-being, and social functioning.^{25,26} Those with EDs often struggle with daily tasks and social interactions due to obsessions with food and body image.²⁶ The Subjective Well-Being Theory highlights personal happiness and life satisfaction as key to QOL, while the Social Model emphasizes participation and social inclusion as essential components of a good life.^{14,27}

Self-esteem refers to a person's overall sense of self-worth and is a key factor in the development and maintenance of eating disorders, especially in women and adolescents.^{5,28} Low self-esteem is linked to negative body image, distorted perceptions of weight, and unhealthy eating behaviours such as restrictive dieting, binge eating, or purging.^{29,30} It can lead to social isolation, further damaging self-worth and increasing the risk of eating disorders.^{31,32} The relationship is bidirectional eating disorders can also lower self-esteem.³³ Theories like Sociometer, Contingency, and Self-Discrepancy explain how self-esteem is shaped by social acceptance, external achievements, and gaps between one's actual and ideal self.^{30,34} High self-esteem is associated with healthier eating attitudes, while low self-esteem often leads to disordered eating patterns.^{35,36}

Psychological well-being (PWB) involves positive functioning in personal growth, autonomy, relationships, and self-acceptance, as outlined in Ryff's six-dimensional model³⁷. Eating disorders (EDs) significantly impair PWB, causing emotional, psychological, and social deficits in both males and females.^{33,38} They can also lead to chronic physical conditions.¹⁶ Seligman's PERMA model and Deci & Ryan's Self-Determination Theory highlight autonomy, meaning, and emotional engagement as vital to well-being.^{29,39} Negative eating attitudes such as body dissatisfaction and extreme dieting are strongly linked to emotional distress, depression, anxiety, and low self-esteem.^{22,35} Disordered eating patterns often emerge as

coping strategies, but ultimately harm both mental and physical health.^{26,38}

Aim

To investigate the relationships between self-esteem, body image, quality of life, and psychological wellness in relation to eating attitude in adolescent.

Objectives

To explore the relationship between body image, psychological wellness, self-esteem, and QOL to ascertain each variable's unique correlations with eating attitude in adolescent. To explore the significant difference in the level of body image, quality of life, self-esteem, psychological well-being between problematic and non-problematic group in adolescent

Hypotheses

One the basis of the above stated gaps in the literature and the study objectives, the following hypotheses were formulated:

H1: There will be significant relationship between self-esteem and eating attitude in adolescent

H2: There will be significant relationship between quality of life and eating attitude in adolescent

H3: There will be significant relationship between psychological well-being and eating attitude in adolescent

H4: There will be significant relationship between body image and eating attitude in adolescent

H5: There will be significant difference of the levels in eating attitude between adolescent problematic eating attitude and non-problematic.

METHODS

A cross-sectional study will be carried out in different school establishment. Simple random sampling will be incorporated. Total sample of 100 student age group of 13 to 18 years will be studied. The study was conducted over a period of eleven months, from January 2024 to November 2024.

Sample

A random sample will be drawn from school population which consisted normal population Random sampling technique would be used throughout the study. A total of 100 samples will be collected based on inclusion and exclusion criteria. The sample was collected from Seedling Public School, Jaipur, and Maheshwari Public School, Jaipur.

Inclusion criteria

Adolescent of private school age group of 13 to 18 years will be included. Those who are willing to participate and without any history of psychiatric illness. Participant who are fluent with English.

Exclusion criteria

Participant without any history of psychiatric illness. Participant not attending school and have difficulty with English.

Tools

Socio demographic Detail. Includes name, age, sex, education, occupation, socio-economic status, marital status, religion, and residence.

General Health Questionnaire (GHQ-12). The 12-item General Health Questionnaire (GHQ-12; Goldberg and Williams, 1988) consists of 12 items assessing the severity of mental problems over the past few weeks on a 4-point Likert scale (0–3). Total scores range from 0 to 36, with higher scores indicating worse health. It has shown good reliability (Cronbach's $\alpha = 0.89$; split-half reliability = 0.91).²¹

Eating Attitudes Test (EAT-26). The Eating Attitudes Test (EAT-26; Garner, Olmsted, Bohr, & Garfinkel, 1982) is a 26-item self-report measure for assessing eating disturbances in adolescents and adults. Items are rated on a 6-point Likert scale, with total scores ≥ 20 indicating clinical risk. The EAT-26 demonstrates strong reliability ($\alpha = 0.90$) and validity.¹⁹

Body Shape Questionnaire (BSQ). The Body Shape Questionnaire (BSQ; Cooper, Taylor, Cooper, & Fairburn, 1987) is a 34-item measure assessing body shape concerns. Items are scored from 1 ("never") to 6 ("always"), with total scores ranging from 34–204. It shows high concurrent and discriminant validity, and strong test–retest reliability.⁸

KIDSCREEN-27. The KIDSCREEN-27 (Ravens-Sieberer et al) is a validated 27-item questionnaire for assessing health-related quality of life (HRQoL) in children and adolescents aged 8–18 across five dimensions. Items are rated on a 5-point Likert scale. The tool has good validity and reliability (Cronbach's $\alpha > 0.70$).²⁴

Rosenberg Self-Esteem Scale (RSES). The Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965) is a 10-item self-report scale measuring global self-worth. Items are rated on a 4-point Likert scale, with scores ranging from 0–30. Scores below 15 suggest low self-esteem. The RSES has excellent internal consistency and test–retest reliability.⁵

EPOCH Measure of Adolescent Well-being. The EPOCH Measure of Adolescent Well-being (Kern, Benson, Steinberg, and Steinberg, 2016) is a 20-item self-report tool assessing Engagement, Perseverance, Optimism, Connectedness, and Happiness in adolescents aged 10–18. Items are rated on a 5-point Likert scale. The measure demonstrates strong reliability ($\alpha = 0.74\text{--}0.92$).²⁷

Procedure

The study was conducted after obtaining ethical clearance from the institutional review board, following the guidelines of the American Psychological Association (APA) for research with human participants.³² Written informed consent was obtained from all participants and their parents before data collection. Participants were individually administered the tools: GHQ-12, EAT-26, BSQ, KIDSCREEN-27, Rosenberg Self-Esteem Scale, and EPOCH in a quiet environment. Standardized instructions were given for each test.^{1,8,24,25,27} The confidentiality of responses was strictly maintained. Data were coded and entered into the computer. Statistical analysis was performed using SPSS (Statistical Package for the Social Sciences, version 21.0).³³ Descriptive statistics, correlation, and regression analysis were conducted to examine the relationships among eating attitudes, body image, quality of life, self-esteem, and psychological well-being.

Statistical analysis

Data analysis will be performed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics such as frequency (N), percentage (%), mean, and standard deviation (SD) will provide a summary of the demographic and key study variables. Inferential statistics will be employed to examine relationships and differences between groups. Pearson's correlation analysis will explore the associations between variables such as self-esteem, body image, psychological wellness, and quality of life with eating attitudes. Independent t-tests will be used to compare the means of problematic and non-problematic eating attitude groups on key variables. Assumptions of normality, homogeneity, and linearity will be checked before analysis. The significance level for all tests will be set at $p < 0.05$, ensuring robust and statistically meaningful interpretations of the findings.

RESULTS

The socio-demographic distribution of the total sample ($n=100$) indicates that age 16 (36%) and 17 (35%) were the most frequent categories, jointly accounting for 71% of the participants. A total of 43% were male and 57% were female. In terms of education, the highest proportion of participants were in Grade 10 (37%), followed by Grade 11 (27%) and Grade 12 (24%), while Grades 8 and 9 each accounted for 6% of the sample.

Table 1: Combined socio-demographic characteristics of the total sample (n=100).

Demographics	Category	Frequency (N)	Percentage (%)
Age (years)	13	2	2.0
	14	2	2.0
	15	17	16.7
	16	36	36.0
	17	35	35.0
	18	8	8.0
Gender	Male	43	43.0
	Female	57	57.0
Grade	8	6	6.0
	9	6	6.0
	10	37	37.0
	11	27	27.0
	12	24	24.0

Table 2: Comparison between non-problematic (Group 1) and problematic group (Group 2) on the level of self-esteem.

Non-problematic	Problematic	P	Cohen's
M	SD	M	SD
15.32	1.671	14.78	2.306
		1.341	0.268

Table 4: Comparison between non-problematic (Group 1) and problematic group (Group 2) on the level of body image.

Non-problematic		Problematic		t	P	Cohen's
M	SD	M	SD			0.268
Non-problematic		Problematic		P	t	Cohen
M	SD	M	SD			
66.20	31.013			101.66	41.761	-4.820<.001
						-0.964

Table 5: Comparison between non-problematic (Group1) and problematic group (Group 2) on the level of quality of life.

Non-problematic	Problematic	P	t	Cohen's
M	SD	M	SD	
151.92	33.311	185.08	43.622	-4.272<.001
				-0.854

Table 6: Eating attitude and selected variables.

Variables	Correlation with eating attitude
Self-esteem	0.049
Psychological wellbeing	0.095
Body image	-.477**
Quality of life	-.372**

**.-Correlation is significant at the 0.01 level (2-tailed).

t-test

The hypothesis was not supported, as the non-significant t-test ($p=0.183$, $d=0.268$) showed no significant difference in self-esteem between the non-problematic and problematic groups.

Findings

The hypothesis was not supported, as the t-test showed no significant difference in self-esteem between groups ($p=0.839$, $d=-0.041$), despite a slightly higher mean in the non-problematic group.

Table 3: Comparison between non-problematic (Group1) and problematic group (Group 2) on the level of psychological well-being.

Non-problematic	Problematic	t	P	Cohen's
M	SD	M	SD	
59.6	5.8	59.52	11.08	0.203.0839
				0.268

The hypothesis was supported, as a significant difference in quality of life was found between groups ($p<0.001$, $d=-0.854$), with the problematic group reporting significantly higher QoL scores than the non-problematic group.

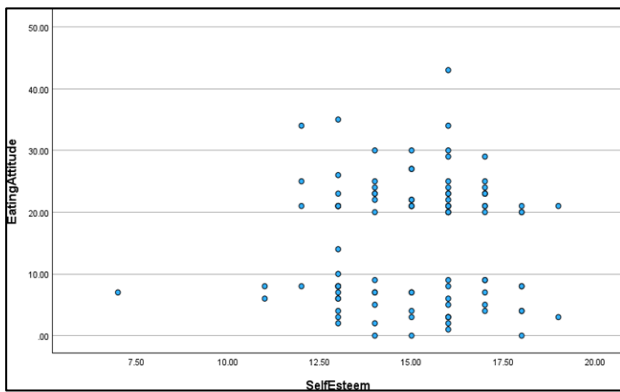


Figure 1: Scatter diagram depiction of correlation between eating attitude and self-esteem.

Finding

Scatter schematic representation reveals that there was no correlation with eating attitude and self-esteem. Pearson $r=0.049$.

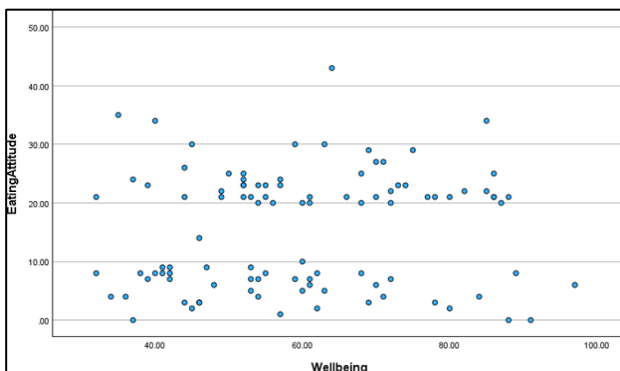


Figure 2: Scatter diagram depiction of correlation between eating attitude and psychological wellbeing.

Finding

Scatter schematic representation reveals that there was no correlation with eating attitude and psychological wellbeing. Pearson $r=0.095$.

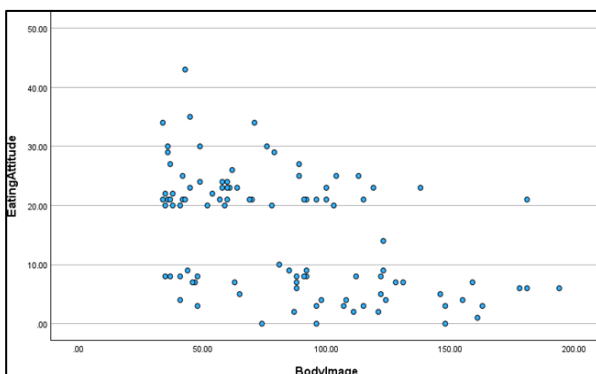


Figure 3: Scatter diagram depiction of correlation between eating attitude and body image.

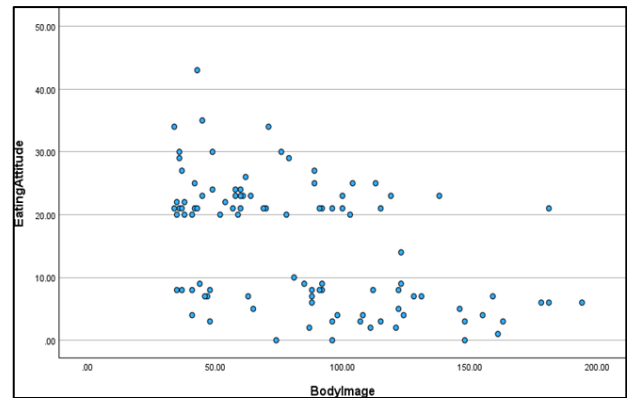


Figure 4: Scatter schematic.

Finding

Scatter schematic representation reveals that there was significant negative correlation between eating attitude and body image at <0.01 level. Pearson $r=0.372$.

No significant differences in self-esteem ($t=1.341$, $p=0.183$) or psychological well-being ($t=-0.203$, $p=0.839$) between groups.

Significant differences in body image ($t=-4.820$, $p<0.001$) and QOL ($t=-4.272$, $p<0.001$).

Correlations

Eating attitudes negatively correlated with body image ($r=-0.477$) and QOL ($r=-0.372$), but not with self-esteem or psychological well-being.

DISCUSSION

This study investigated the relationships between body image, quality of life (QoL), self-esteem, psychological well-being, and eating attitudes in adolescents aged 15–17. The findings revealed several key insights: Self-esteem and psychological well-being showed no significant difference between non-problematic and problematic groups, indicating that these psychological factors may not reliably distinguish between adolescents with healthy vs. problematic eating attitudes. Prior research supports that self-esteem is influenced by multiple factors and may not directly predict problematic behaviors.^{9,15} No significant correlation was found between self-esteem or psychological well-being and eating attitudes, suggesting these factors do not directly influence eating behaviours. Other mediators such as perfectionism, social pressures, and body dissatisfaction may have a stronger impact.¹³ In contrast, body image showed a strong, significant negative correlation with eating attitudes ($r=-0.477$, $p<0.001$), indicating that poorer body image is closely associated with more disordered eating behaviours. This aligns with prior studies showing a cyclical link between body dissatisfaction and negative eating behaviors.^{6,38} Similarly, quality of life was significantly negatively correlated with

eating attitudes ($r=-0.372$, $p<0.001$), implying that adolescents with unhealthy eating patterns experience a lower QoL. This supports findings highlighting the broad impact of eating behaviours on emotional, social, and physical well-being.^{12,26}

Limitation

One limitation of this study is that it examined correlations and t-tests, which cannot establish causality between body image, quality of life, self-esteem, psychological wellbeing, and eating attitudes. The study also relied on self-reported data, which may be influenced by biases such as social desirability or inaccurate self-assessment. Additionally, the sample may not represent all adolescents, as it might have been restricted to a specific demographic or geographic area. Future research could employ longitudinal designs and more diverse samples to better understand causal relationships and improve the generalizability of these findings.

CONCLUSION

The study reveals that eating attitudes in adolescents are significantly linked with body image and quality of life. While self-esteem and psychological well-being did not show direct effects, they may influence eating behaviour through indirect pathways. Programs promoting body positivity and life satisfaction could mitigate the risk of disordered eating.

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