

Research Article

Relationship Between Body Image Concerns and Eating Disorder Risk, Social Fear and Quality of Life in School and College Girls

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ABSTRACT

Introduction: Body image concerns involve negative perceptions and attitudes about body size and shape. It is a significant public health concern linked to emotional distress, low self-esteem, depression, and eating disorders (ED), particularly among adolescent females.

Objectives: To examine the impact of body image concerns on eating disorder risk, social fear and quality of life among female students aged 15–21 years.

Method: A sample of 400 school and college girls was surveyed, those with body image concerns were selected for further analysis of ED risk, SF and QoL using a modified, pretested questionnaire, and the data were statistically analysed.

Results: The study found that 40.4% of participants had negative body image concerns, with schoolgirls (24.4 ± 3.4) showing a higher prevalence than college girls (25.9 ± 3.1). Eating disorder risk and combination(ED &SF) were more common among schoolgirls, while social fear prevalence was similar in both groups. Both groups reported poor quality of life, but schoolgirls with body image concerns had significantly lower quality of life linked to ED risk (t=3.96**) and combination of ED risk & SF (t=2.75**). No significant difference was observed in quality of life for SF alone. A strong negative correlation was found between quality of life and ED risk (t=-0.31*, -0.28*) or SF (t=-0.46*, -0.34*), but not for those with both ED risk and SF.

Conclusions: The study highlights how negative body image concerns contribute to other problems and affect the quality of life of female students. Interventions like self-monitoring, healthy eating, exercise, media literacy, self-esteem building, and psychoeducation can help reduce body image dissatisfaction.

Keywords: Body Image Concerns (BIC), Eating Disorder Risk (ED), Social Fear (SF), Qualityof life (QoL), School and College Girls

Introduction

Body image concerns refer to negative thoughts, feelings, or attitudes about one's physical appearance,¹ including dissatisfaction with body size, shape, weight, or specific features. These concerns often stem from societal pressures, unrealistic beauty standards, or internalised beliefs^{2,3} and can impact self-esteem, mental health, and overall well-being.⁴

Adolescence is a crucial period for shaping self-perception, influenced significantly by the physical and emotional changes of puberty. Unrealistic societal standards often cause many adolescents to develop distorted body images. In India, 10 to 30% of adolescent and college-aged females experience body image concerns. Females focused on weight loss are more likely to engage in unhealthy behaviours such as extreme dieting, excessive exercise, frequent weigh-ins, and the use of diet pills or steroids.6 Body image concerns represent a major public health issue, associated with emotional distress, low self-esteem, depression, and an increased risk of eating disorders.⁷ BIC can also lead to isolation, a loss of confidence, and an obsession with weight loss. In adolescents, elevated BIC increases the likelihood of Generalised Anxiety Disorder, Eating Disorders, Panic Disorder, and Sociophobia.8

Eating disorders (EDs) in India, affecting 4% to 45.4% of the population, are largely driven by media exaltation of the "size zero" ideal, body shaming, and societal thinness preferences. Body image concerns often lead to distorted thoughts, feelings, and behaviours around weight and shape, contributing to disorders like anorexia and bulimia. Severe EDs can result in life-threatening issues such as underweight, anaemia, menstrual irregularities, and chronic conditions like diabetes or osteoporosis, as well as unhealthy behaviours like laxative abuse and excessive exercise. Poor eating habits also impair mental function, emotional health, and learning, with obesity and disordered eating linked to mental health problems and reduced quality of life. 11

A strong dread of social settings that interferes with everyday activities, academics, and routines is the hallmark of sociophobia. People who are unhappy with their bodies frequently worry about being judged negatively, which makes them more anxious in social situations. Compared to others, people with body dysmorphic disorder exhibit higher degrees of discomfort and social avoidance. Research shows a higher correlation between female social fear and body dissatisfaction because of the pressure from society to meet beauty standards. A worse quality of life is a result of high levels of negative body worries, which also cause more functional impairment in social, educational, and professional contexts.

Body image concerns are negatively linked to both physical and mental health aspects of quality of life, leading to harmful psychosocial effects. Individuals with eating disorders and the fear of negative evaluation impact all four key domains of quality of life: achievement, personal growth, social functioning, and environment.

Scope of the Study

Body image concerns are strongly associated witheating disorders and social anxiety, and comorbidities can complicate treatment and have a detrimental effect on overall quality of life. Addressing body image issues is crucial for improving wellbeing. However, data on distorted body image among Indian teenagers and its role in eating disorder risk and social fear is limited. School and college girls represent different stages of adolescence and early adulthood, with distinct physical, psychological, and social changes that may affect how body image concerns and related risks develop. Transitioning from school to college also brings shifts in social environment, peer groups, academic pressures, and social exposure, influencing social fear, coping, and quality of life. This study aims to assess the prevalence of body image concerns and their impact on eating disorder risk, social fear, and quality of life among female students. Comparing school and college girls will clarify how these risks evolve with age and environment, providing insights to inform targeted intervention programmes promoting healthier body image. The findings will aid practitioners in managing body image concerns and associated conditions effectively.

Objectives

- 1. To identify the prevalence of body image concerns among school and college girls.
- 2. To compare the body image concerns, eating disorder risks and social fear between school and college girls.
- 3. To compare the quality of life between school and college girls with BIC, ED risks and SF.
- 4. To evaluate the relationship between BIC, ED risks, SFand quality of life of school and college girls.

Hypothesis

- There will be a significant difference in the prevalence of body image concerns, eating disorder risks and social fear between school and college girls.
- There will be a significant difference in the quality of life between school and college girls with various disorders.
- 3. There will be a significant difference in quality of life across different problems among school and college girls.
- There will be a significant difference in the relationship between different problems and quality of life among school and college girls.

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Methodology

Selection of the Respondents

The study used a cross-sectional descriptive design. From a total sample of 515, a sample size of 400 was calculated using a 95% confidence level and a 5% margin of error. The inclusion criteria for sample selection were individuals aged 15–21 years, currently studying in school or college, and willing to participate in the study. Those who did not provide consent were excluded. For participants under 18, both student and parental consent wereobtained. Participants were selected from South Indian Educational Trust Girls Higher Secondary School and JBAS Justice Basheer Ahmed Sayeed College for Women in Chennai. We conducted data analysis on 371 participants after excluding 29 incomplete responses.

Tools Used

A pretested questionnaire was used as the study tool, comprising the following components: The first section covered demographics and BMI. Participants provided demographicinformation along with self-reported height and weight, which were used to calculate BMIbased on Asian classification standards. To assess the main variables, standardisedinstruments were referenced: the BSQ-8c for body image concerns, 18 the EAT-26 for eating disorder risk, 19 the SPIN for social phobia, 20 and the BIQLI for quality of life.21 A total of 25 questionswere selected from standard tools, six each for body image concerns, eating disorders, andsocial phobia, and seven for quality of life rated on a 5-point Likert scale (0–4). Symptomseverity was categorised as: ≤4 (Nil), 5-9 (Mild), 10-14 (Moderate), 15-19 (Severe), and ≥20(Very Severe). The tool was refined after a pilot study and demonstrated good reliability(Cronbach's Alpha = 0.867) which was used as the tool of the study.

Collection of Data

The questionnaire was shared via class WhatsApp groups, with 197 college and 174 school students completing it. Participants with Body Image Concerns (BIC) were further assessed for eating disorder risks, social fear and their combinations. The study received approval from the JBAS College Institutional Ethics Committee. The collected data were analysed using frequency, mean, independent t-tests, one-way ANOVA, and Pearson correlation.

Results and Discussion

Out of 371 study participants, 197 (53.1%) were college girls, and 174 (46.9%) were school girls. The mean age of school girls and college girls was 16.3 and 18.7 years.

Figure 1 shows that 55% of schoolgirls and 65% of college girls had a normal BMI. Obesity was more prevalent in

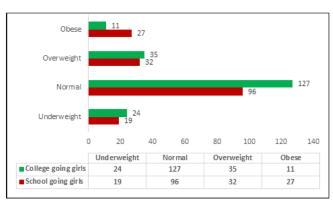


Figure 1.BMI of School and College girls

schoolgirls (16%) than college girls (6%). Mean BMI was 19.9 ± 3.4 for schoolgirls and 19.1 ± 4.2 for college girls. Globally, rising obesity is linked to negative body image, with higher BMI strongly associated with increased BIC, particularly among young women.²²

A higher risk value suggests that the person might be more likely to have or develop the disorder. Table 1 reveals that 67% of college girls and 45.4% of schoolgirls were satisfied with their body image, while 40.4% of participants overall experienced body image concerns.BIC was identified in 50.6% of schoolgirls and 32% of college girls. Eating disorder risks were found in 20% of schoolgirls and 10% of college girls, while social fear was present in 16% of schoolgirls and 14% of college girls. Additionally, 14% of schoolgirls and 8% of college girls had both ED risk and SF. The findings align with Saumya &Gupta (2024)²³ who reported 37.3% of college students with mild body image concerns, 16.3% with moderate concerns, and 4.3% with severe concerns. Similarly, Holland&Tiggemann (2016), and Suhag &Rauniyar (2024)^{24,25} found that high school girls were more prone to eating problems influenced by social media, which reinforces negative body image and unhealthy behaviours.

Table 2 compares the prevalence of problemsbetween school and college girls, showing significant differences in body image concerns (p=0.006) and eating disorder risks (p=0.000), but no notable differences in social fear (SF) or with combined problems. Thus, Hypothesis 1, predicting significant differences in problem categories (BIC, ED, SF, ED &SF), is partially supported. These finding are similar to Mallaram et al., (2023)¹⁰ who reported 7.5% of participants with eating disorder behaviours, and 10.6% of females scored high on the EAT-26. Iranian students with negative body image and low body esteem may be more likely to have unhealthy eating attitudes.²⁶ Body image influenced social anxiety in women subjected to catcalling, contributing 5.6% to SP levels 23.27 In contrast, higher SP prevalence (42.8%) in first-year students was found compared to later grade students.28

Table I.Prevalence of Body image concerns & other Disorders among School and College girls (In Percentage)

Catanami	BIC		ED		SP		ED &SP	
Category	SG	CG	SG	CG	SG	CG	SG	CG
Nil	45.4	67.0	79.9	89.8	83.9	86.3	85.6	92.4
Mild	24.7	17.8	5.7	6.6	1.1	4.6	9.2	4.1
Moderate	15.5	9.6	12.1	3.0	8.6	6.6	3.4	2.5
Severe	9.2	3.5	2.3	0.5	4.6	2.0	1.7	1.0
Very Severe	5.2	2.1	0	0	1.7	0.5	0	0
Total	50.6	31.5	20.1	10.1	16	13.7	14.3	7.6

Table 2. Comparison of different problems between School and College girls

Disorders	Samples	N	Mean ± SD	t value	Significance	
Dady image conseque	School girls	88	25.9 ± 3.4	2.750	0.006 *	
Body image concerns	College girls	62	24.4 ± 3.1	2./58		
Eating Disorder risks	School girls	35	25.31 ±1.3	0.44	0.0001**	
	College girls	20	22.4 ± 1.08	8.44		
Social Fear	School girls	28	51.5 ± 8.90	0.725	0.471 (NS)	
	College girls	27	49.7 ± 9.5	0.725		
BIC with ED &SF	School girls	25	42.32 ± 3.82	0.726	0.47(NS)	
	College girls	15	41.47 ± 3.07	0.736		

^{*}Significant at 5% level, ** Significant at 1% level, NS- Not Significant

The comparison of quality of life (QoL) between school and college girls with body image concerns revealed lower QoL scores in both, with schoolgirls scoring lower than college girls. Table 3 shows significant differences in QoL for those with eating disorder risks (t=3.63**), ED and SF combined (t=2.755). However, no significant differences were observed in QoL for those with social fear (t=0.179) which partially supports hypothesis 2. This suggests that social anxiety related to body image may similarly impact both groups, indicating these problems affect individuals regardless of age or academic level, though their severity may differ.

The comparison of quality of life (QoL) across disorder categories showed significant differences (F = 56.25, p <

0.001), highlighting the impact of disorder type on QoL in girls with body image concerns. Among schoolgirls, QoL was comparatively higher in the ED category (34.84 \pm 5.21) than in the SP (32.16 \pm 3.81) and ED &SP groups (31.6 \pm 3.54) (F = 4.76, p < 0.01). A similar trend was seen in college girls, where the ED group had the slightly higher QoL score (39.90 \pm 4.53), while SP (33.78 \pm 4.95) and ED &SP (32.58 \pm 2.59) groups scored lower (F = 15.72, p < 0.001). Poor body image, combined with social anxiety and excessive dieting or exercise, negatively affected personal, physical, and mental well-being, reducing QoL. These findings align with 11,29 confirm Hypothesis 3, showing significant differences in QoL across disorder categories (Table 4).

Table 3. Comparison of Quality of life between School and College girls

Category	Samples	Number	Mean ± SD	't' value	
DIC6 ED	School girls	35	34.84± 5.21	2.62**	
BIC& ED	College girls	20	39.90 ± 4.53	3.63**	
BIC&SF	School girls	28	32.16 ± 3.81	0 170 NG	
	College girls	27	33.78 ± 4.95	0.179 NS	
BIC, ED & SF	School girls	25	31.6 ± 3.54	2.755**	
	College girls	15	34.58 ± 2.59	2./55	

^{** -}Significant at 1% level, NS- Not Significant

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Samples	Category	N	Mean± SD	df	'F' value
	BIC& ED	55	37.55 ±3.46 ^{bc}		
	BIC&SF	55	33.03 ± 3.27°	2	56.25**
All samples	BIC, ED &SF	40	30.18 ± 3.62ab		
	BIC& ED	35	34.84± 5.21 ^{bc}		
	BIC&SP	28	32.16 ± 3.81 ^a	2	4.76*
School girls	BIC, ED &SF	25	31.6 ± 3.54 ^{ab}		
	BIC& ED	20	39.90 ± 4.53 ^{bc}		
	BIC&SF	27	33.78 ± 4.95°	2	15.72**
College girls	BIC, ED &SF	15	32.58 ± 2.59ab		

Table 4.Comparison of Quality of life of samples based on categories of disorders

Note: * Significant at 5 % level, ** Significant at 1% level

Table 5.Relationship between Quality of life and different problems of School and College girls

Samula	Categories				
Sample	BIC& ED	BIC&SF	BIC, ED &SF		
School girls	-0.31*	-0.46*	0.051 NS		
College girls	-0.28*	-0.34*	0.02 NS		

*Correlation is significant at 0.05 level, NS-Not Significant

Table 5 shows the relationship between quality of life (QoL) and various disorders (ED, SP, ED &SP). For schoolgirls, a significant negative correlation was found between QoL and both ED (r = -0.31*) and SP (r = -0.46*), indicating that these disorders negatively impact their QoL. However, no significant correlation was found between QoL and the ED &SP category (0.051, NS). In college girls, ED (-0.28*) and SP (-0.34*) were also negatively correlated with QoL, but no significant correlation was found with the ED &SP category (0.02, NS). These results support Hypothesis 4, confirming that body image concerns, eating disorders, and social anxiety negatively affect QoL in both school and college girls. This aligns with¹¹ found a positive correlation between body dissatisfaction and social anxiety in college girls, and with Sharif-Nia et al., (2022), 26 who identified negative BIC as a predictor of reduced QoL across age groups.

Conclusion

This study explores the link between body image concerns, eating disorders, social anxiety, and quality of life in school and college girls, highlighting the negative effects on physical, academic, and mental health, particularly in young females. Promoting positive body image can boost confidence, reduce social anxiety, and improve self-esteem. Given the significant impact of BIC on the development of eating disorder risks and social fear, interventions should focus on addressing these concerns through strategies

like cognitive restructuring, self-monitoring, fitness programmes, media literacy, and psychoeducation. These efforts can enhance self-worth, improve body image, and lead to better overall health outcomes.

Limitations of the Study

The study was based on self-reported data, which may be affected by social desirability bias. Its cross-sectional nature limits the ability to determine causal relationships. Additionally, the sample was confined to female students from two institutions in Chennai, which restricts generalisability, prevents gender comparisons, and may introduce institutional bias.

Implications and Future Research

These findings highlight the importance of understanding how different problems interact with each other and influence the overall quality of life of females. Future research should explore the long-term effects of co-occurring conditions. Additionally, the differences between male and female warrant further investigation into how age, gender and developmental stage may affect the relationship between these mental health condition.

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