

Title: Prevalence of Body Dysmorphic Disorder and other Clinically Significant Body Image Concerns in Adolescents

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Abstract

Body dysmorphic disorder (BDD), is marked by distressing or impairing preoccupations with imagined or slight defects in appearance, including preoccupation, repetitive thoughts and behaviours. Although body image is salient during adolescence and BDD often begins during this developmental period, BDD among adolescents has received little systematic investigation. This study assessed the prevalence of BDD and other clinically significant body image concerns in 376 hospital outpatient adolescents who completed the Body Dysmorphic Disorder Questionnaire (BDDQ) and DSM-5 criteria for BDD diagnosis. We found that 2.9% of adolescents met the criteria for BDD, 34.3% had significant overall appearance concerns and 20.5% had concerns about shape or body built. In summary, a high proportion of adolescents had clinically significant body image concerns or a body image disorder, especially higher among female participants.

Keywords: Body dysmorphic disorder; body image concern or preoccupation; adolescents.

1. Introduction

Body dysmorphic disorder (BDD) is a common, often severe, and complex disorder characterized by excessive concern about one or more perceived defects in one's physical appearance [1,2].

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Body dysmorphic disorder (BDD) is the DSM term for a subgroup of the broader but ill-defined syndrome of dysmorphophobia, which was first described by Morselli in 1886 as ‘a subjective description of ugliness and physical defect which the patient feels is noticeable to others [3].’ In DSM-V, Body dysmorphic disorder is classified as ‘Obsessive-compulsive and related disorders while in ICD-10 it is subsumed within the category of hypochondriacal disorder [4].

Adolescence is the most important transitional phase of life between childhood and adulthood, during which significant physical, psychological, behavioural and social changes occur [5]. Various factors, such as family, peer group, educational institutions and social media have a great impact in building the system of values and beliefs that are the basis of adolescent self-confidence [6].

Adolescents tend to lean towards a kind of aesthetic, causing them to show excessive concern for their body image due to a variety of socio-cultural reasons [7]. Cinematographic personalities idealization and increased social media usage, where self-beautification and perfection in body shaping are enhanced, has led them to disordered eating habits, such as unsupervised diets, fasting, self-induced vomiting, laxative, diuretic and weight loss or weight gaining products intake, either with or without the help of some other factors, such as exercise [8]. An inaccurate self-perception of body shape increases the risk of weight preoccupations and weight control among normal-weight adolescents [9]. Perception of beauty, critical appraisal and media literacy, and other internal factors, such as people’s personality and ways of being, attitude toward self and others, and one’s cognitive strategies, have been associated with self-perception of body image [10,11]. The preoccupation with perceived appearance flaws, usually focusing on the face, skin or hair, typically occurs for many hours a day. At some point during the course of the disorder, the individual performs repetitive behaviors (e.g., mirror checking, excessive grooming, skin picking, reassurance seeking) or mental acts (e.g., comparing his or her appearance with that of others) in response to the appearance concerns.

2. Material and methods

Study design and Participants

The study was conducted in adolescents (age group 12-18 years) attending the General Medicine outpatient department at Phulo Jhano Medical College Hospital, Dumka, Jharkhand, India during the period of 6 months from June 2021 to November 2021.

Data collection and Tests

Data collection was performed after informed consent from the participants. There were no exclusion criteria, except non-compliance or inability to complete assessment measures due to cognitive limitations such as intellectual disability.

Measures and Tools

1. For screening measures, we used The *Body Dysmorphic Disorder Questionnaire (BDDQ)*, a brief, widely

used self-report measure that assesses the presence of current BDD. The BDDQ has high sensitivity (100%) and specificity (89-93%) for the BDD diagnosis in psychiatric, cosmetic surgery, and dermatology samples.

2. Structured Clinical Interview for DSM-5 (SCID): The SCID's BDD module is a brief semi-structured clinician-administered measure. We used DSM-5 criteria for the diagnosis of BDD[12].

Data analysis

Data analysis was done with the help of IBM SPSS Statistics 25.

3. Results

Table 1: Prevalence of BDD, concern for Shape or Body Built and concern for Appearance in a total population of 376 adolescent participants.

Participants	N	GENDER		TOTAL %
		MALE	FEMALE	
BDD	11	2(0.5%)	9(2.4%)	2.9
Shape or body-built concern	77	25(6.7%)	52(13.8%)	20.5
Appearance or look concern	129	46(12.2%)	83(22.1%)	34.3
No BDD, shape or body-built concern or appearance concern	159	48(12.8%)	111(29.5%)	42.3

Table 1 shows the prevalence of BDD, concern for Shape or Body Built and concern for Appearance in a total population of 376 adolescent participants. 2.9%(n=11) of the population, out of which 0.5%(n=2) male and 2.4% (n=9) had BDD in self-measure BDDQ. A good sum of the population had a preoccupation with their shape or body build and appearance; however, they did not qualify for the diagnosis of BDD. 20.5% (n=77), male 6.7% (n=25) and female 13.8% (n=52) had Shape or Body Built concern without BDD. 34.3%(n=129) of the participants responded to the concern of appearance or look, male 12.2% (n=46) female 22.1% (n=83) without BDD. 42.3% (n=159) participants had neither BDD, shape or body-built concern nor appearance concern.

Table 2: Frequency of preoccupation body area among BDD cases.

Body area of concern	N	% ¹
Overall face	8	72.73
Nose	3	27.27
Ear	1	9.09
Eyes	4	36.36
Lips	3	27.27
Teeth	2	18.18
Skin	2	18.18
Hair	4	36.36
Breast	3	27.27
Genitals	1	9.09

¹Percentages are based on BDD cases n=11. Percentages exceed 100% as many subjects responded to more than one area of preoccupation.

Table 2 shows the percentage of the preoccupation of body area among participants qualified for BDD diagnosis. The most common body area of preoccupation was the face 72.7% (n=8 out of 11) followed by eyes and hair with an equal percentage of 36.4% (n=4 for each). The least focus of preoccupation was on genitals and ears with the percentage of 9.09% (n=1).

4. Discussion

In this study, the prevalence of BDD was found to be 2.9% which is almost similar (2.3%) to a previous study performed in a community high school sample [13], but lower than the rate obtained in the previous BDD inpatient study (14.3% of 21 adolescents) [14]. However, we found contrasting results about the concern for body area of preoccupation. We found a higher percentage of concern about eyes and hair, which were the least concern of body area in previous studies.

A very high proportion of participants reported preoccupation with overall appearance and shape or body-built. It is noteworthy that we found a higher prevalence of BDD among female (n=8 out of 11) participants than males. This finding is consistent with previous literature indicating that shape or weight concerns are relatively common among both adults and adolescents, as well as with developmental literature indicating that the pubertal changes that accompany adolescence often give rise to an intense bodily focus and body dissatisfaction, particularly among adolescent females [15,16]. The present findings are novel and importantly add to the current literature in that the pattern of results confirms the importance of bodily appearance in adolescents.

5. Limitations

The preliminary study includes limited statistical power due to the relatively small size of the participants. Limited number of participants, relatively small size of the sample might have some bias on the prevalence of BDD. Eating disorders were not included in the study, which might have caused some differences in the result of our findings. The key definition of body dysmorphic disorder is the gap between individuals' self-perceptions of their body and others' views of the individual's body. Accordingly, it would have been informative to know what other people such as friends, classmates, sports colleagues, neighbours, and family members thought about the participants' body shape and beauty. This would have allowed the comparison of individuals' self-perceptions of body shape with the perceptions of others and would have reduced the rating bias inherent in any single source of data.

6. Conclusion

This study shows that a significant proportion of adolescents had body image concerns or body image disorder. These concerns were also noted in a higher proportion in females than males. Although a relatively common, yet less explored topic needs further study to better understand the presentation of body image disorder and to improve health in adolescents. Adolescents with symptoms of body dysmorphic disorders might need

counselling and treatment against the possibility that notions about appearance, body shape and others' expectations regarding social behaviour and success become dysfunctional.

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