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PREVALENCE OF BODY DYSMORPHIC DISORDER AMONG UNDERGRADUATE STUDENTS IN SELECTED COLLEGES OF RANCHI, JHARKHAND : CROSS SECTIONAL STUDY

Mental Health Nursing

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ABSTRACT

Body dysmorphic disorder (BDD) is a distressing psychological condition characterized by excessive preoccupation with perceived defects in physical appearance, leading to emotional distress and social dysfunction.1 Despite growing awareness of mental health issues, BDD remains under recognized among young adults, particularly within academicenvironments.2 The present study aimed to determine the prevalence of Body Dysmorphic Disorder among undergraduate students in selected colleges of Ranchi, Jharkhand. A quantitative, non-experimental descriptive research design was adopted. Data were collected from 159 undergraduate students through a non-probability convenience sampling method. The assessment tools included a validated Socio-Demographic Performa and the Cosmetic Procedure Screening Questionnaire (COPS)for BDD. Data were analyzed using descriptive and inferential statistics. The findings revealed a 2.52% prevalence of BDD among the participants. Although inferential analysis was not the primary focus, chi-square testing indicated a statistically significant association between BDD and relationship status, with minor variations across different college types. The results suggest that BDD, while present at a relatively low rate, may remain under diagnosed among undergraduate populations. Early screening and psycho-education programs addressing body image concerns are essential to fosterpsychologicalresilienceandwell-beingamongstudents.3Thestudyemphasisestheneed for integrating mental health awareness and body image education into institutional wellness and nursing programs to promote holistic student development.

KEYWORDS

Body Dysmorphic Disorder, Prevalence, Undergraduate Students, Body Image, Mental Health, Nursing

INTRODUCTION

Body Dysmorphic Disorder (BDD) is a psychiatric condition characterized by Persistent distressing concerns about perceived physical flaws that are minimal or unnoticeable to others. These concerns are commonly associated with repetitive behaviours such as mirror checking and excessive grooming, leading to significant impairment in social, academic, and occupational functioning.[4] Body dissatisfaction or a critical preoccupation with one's own appearance (E.g., muscles) is considered normal to some extent, but when unwanted thoughts, i.e. intrusions, become too excessive or repetitive behavior becomes time-consuming and causes major distress, the diagnosis of body dysmorphic disorder (BDD) needs to be considered.[5] Although recognized in DSM-5 and ICD-11, BDD remains under-diagnosed, particularly among adolescents and young adults, despite its strong association with psychological morbidity and suicidality.

Global prevalence estimates range from 0.7%–1.1% in the general population and up to 13% among students, with high rates of suicide attempts reported.[6] the phenomenon of"Snap chat dysmorphia" exemplifies how social media platforms intensify unrealistic beauty standards, thereby increasing vulnerability to BDD, particularly among young people.[7]

In the Indian context, research indicates that societal emphasis on physical appearance, fat phobia, and pervasive diet culture significantly contributes to body image disturbances and associated mental health conditions. Studies suggest that a substantial proportion of both men and women report dissatisfaction with their bodies, increasing vulnerability to BDD. Despite evidence indicating that the risk of suicide among individuals with BDD is approximately three times higher than that of the general population, diagnosis is often delayed, with many individuals engaging in intentional Self-harm before receiving appropriate care.[8,9] Although studies from India's major cities report BDD prevalence among college students ranging from 6.9% to 30.7%, there is little data from smaller cities. which means the findings may not apply to students in other regions [10,11]

This study aims to assess the prevalence of BDD among undergraduate students in selected colleges of Ranchi, Jharkhand, and it association with selected socio-demographic variables.

OBJECTIVES

This study aimed to assess the prevalence of Body Dysmorphic Disorder (BDD) among undergraduate students in selected colleges in Ranchi, Jharkhand, and to determine the association between Body Dysmorphic Disorder and selected socio-demographic variables.

HYPOTHESIS

There will be a significant association between body dysmorphic disorder and selected socio-demographic variables.

STUDY DESIGN

A quantitative, non-experimental descriptive cross-sectional design was adopted to assess the prevalence of Body Dysmorphic Disorder (BDD) among undergraduate students in selected colleges of Ranchi, Jharkhand. The study was conducted at the College of Nursing, RIMS, Ranchi; Ram Lakhan Singh Yadav College, Ranchi; and Jharkhand Rai University, Ranchi. Usinga Convenience sampling technique, 159 undergraduate students were recruited for the main study, while a pilot study was conducted on 22 students to assess feasibility and clarity of the tools, with no subsequent modifications required.

The sample included undergraduate students from different age groups, genders, academic streams, and years of study. Data were collected using a structured socio-demographic proforma and the Cosmetic Procedure Screening Questionnaire (COPS), administered

through a Google Form. Ethical approval was obtained from the Institutional Ethical Committee, RIMS, Ranchi, and permission was secured from the respective institutions. Written informed consent was obtained from all participants before participation. Participants' responses were collected anonymously via Google Form, with access restricted to the research team, and all data were stored securely to ensure privacy and confidentiality Data collection was carried out from 1st August 2025 to 29th August 2025. The use of convenience sampling and self-reported online responses were recognized as methodological limitations that may affect generalisability.

TOOL

After expert validation, data were collected using a **Socio-Demographic Proforma** and the **Cosmetic Procedure Screening Questionnaire (COPS)**to assess BDD among undergraduate students in selected colleges of Ranchi. Section A captured socio-demographic variables, including age, gender, academic details, family type, living arrangement, relationship status, internet use, body-image experiences, cosmetic use, bullying, and substance use. Section B included the **9-item COPS**, scored 0–8 per item (total 0–72), with higher scores indicating greater impairment; a cut-off ≥40 suggests further psychological assessment. The tool demonstrates good internal consistency (Cronbach's $\alpha = 0.856$).

RESULT

A total of 159 undergraduate students participated in the study. The majority were18–20years old, female, and enrolled in government colleges. Participants were from diverse academic streams, with Engineering and Nursing comprising the largest groups. Most were in the third year, belonged to joint families, and lived either with family or in hostels. The majority was single, reported 2–4 hours of daily internet use, mainly for academic purposes, and spent less than one hour per day thinking about body image. Cosmetic use was generally infrequent, primarily to enhance appearance, and only a small proportion reported using addictive substances for stress or appearance-related concerns.

Table 1:Frequency and percentage distribution of selected demographic variables. N=159

S.No	Variables	Frequency (f)	Frequency percentage (%)
1	AGE		
	1. 18-20YRS	80	50.3%
	2. 21-23YRS	72	45.3%
	3.24YRSANDABOVE	7	4.4%
2	Gender		
	1. Male	67	42.1%
	2. Female	92	57.8%
3	Type of college/institute		
	1. Government	116	73.0%
	2. Private	43	27.0%
	3. Semi-Government	0	0
	4. Trust	0	0
4	Course of study		
	1. Science	30	18.9%
	2. Nursing	40	25.2%
	3. Engineering	42	26.4%
	4.ArtsandHumanities	29	18.2%
	5. BCA	18	11.3%
5	Year of study		
	1. 1styear	48	30.2%
	2. 2ndyear	13	8.2%
	3. 3rdyear	92	57.9%
	4. 4thyear	06	3.8%
6	Family type		
	1. Nuclear Family	71	44.7%
	2. Joint Family	82	51.6%
	3. Extended Family	06	3.8%
7	Current Living Accommodation		
	1. With Family	58	36.5%
	2. In Hostel	56	35.2%
	3. In Rented Accommodation	45	28.3%
8	Locality		
	1. Urban	80	50.3%
	2. Semi-urban	21	13.2%
	3. Rural	58	36.5%
9	Relationship status		
	1. Single	137	86.2%
	2. In-Relation	14	8.8%
	3. Engaged	02	1.3%
	4. Married	06	3.8%
10	Duration of Internet Use Per Day		
	1. Lessthan2hours	29	18.2%
	2. 2-4hours	72	45.3%
	3. 5-7hours	34	21.4%
	4. More than 7 hours	24	15.1%
11	Primary Purpose of Internet Use		
	1. Academic purpose	68	42.8%
	2. Social Media	38	23.9%
	3. Entertainment (Movies,Games, etc.)	43	27.0%
	4. Others	10	6.3%
12	How much time do you spend thinking about your body image per day on average?(add up all the time you spend)		
	1.Lessthan1houraday	129	81.1%
	2. 1-3hoursaday	22	13.8%
	3. More than 3hoursaday	08	5.0%
13	Have you experienced bully in go abuse related to body appearance?		
	1. Yes	40	25.2%
	2. No	119	74.8%
14	Do you feel uncomfortable or anxious without applying cosmetics?		
	1. Yes	13	8.2%
	2. Sometimes	40	25.2%
	3. No	106	66.7%
15	How often do you use cosmetics (e.g. makeup, skincare, hair products)?		
	1. Daily	25	15.7%
	2. Occasionally (1-3 times per week)	34	21.4%
	3. Rarely (less than once a week)	62	39.0%
	4. Never	38	23.9%
16	What is your main reason for using cosmetics?		
	1. To enhance appearance	85	53.5%
	2. To cover perceived flaws	13	8.2%
	3. Due to societal or peer pressure	03	1.9%
	4. For professional or academic settings	38	23.9%
	5. Others	20	12.6%
17	Have you ever used any addictive substances to overcome your stress/anxiety/over concern towards your body image/appearance		
	1. Yes	11	6.9%
	2. No	148	93.1%

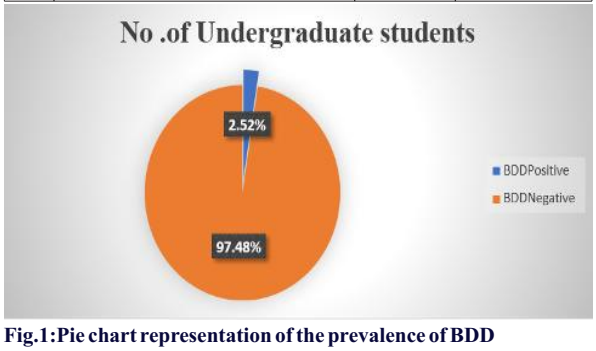

Fig.1:Pie chart representation of the prevalence of BDD

Association with socio-demographic variables was analyzed using the chi-square test. Significant associations were found only for type of college and relationship status; all other variables were not significantly associated with BDD (Table 2).

Table 2:Association between Body dysmorphic disorder and

Socio-demographic variables. N=159

S. No.	Socio-Demographic Variable	Chi square (χ)2	Df	p value	Significance
1.	Age	4.33	2	0.115	Not significant
2.	Gender	1.82	2	0.402	Not significant
3,	Typeof college/institute	4.78	1	0.029	Significant
4.	Courseof study	7.03	5	0.218	Not significant
5.	Yearofstudy	2.99	3	0.393	Not significant
6.	Familytype	1.56	2	0.458	Not significant
7.	Current living accommodation	4.78	2	0.092	Not significant
8	Locality	4.05	2	0.132	Not significant
9.	Relationshipstatus	8.74	3	0.033	Significant
10.	Durationofinternetuse per day	1.06	3	0.787	Not significant
11.	Theprimarypurposeof internet use	2.24	3	0.524	Not significant
12.	Howmuchtimedoyou spendthinkingaboutyour bodyimageperdayon average?	4.57	2	0.102	Not significant
13.	Have you experienced bullying or abuse related to body appearance?	1.38	1	0.240	Not significant
14.	Doyoufeeluncomfortable or anxious without applying cosmetics?	2.50	2	0.287	Not significant
15.	Howoftendoyouuse cosmetics?	7.19	3	0.066	Not significant
16.	What is your main reason for using cosmetics?	5.97	4	0.201	Not significant
17.	Have you ever used any addictive substances to overcome your stress/ anxiety/ overconcern towards your body image/appearance?	2.08	1	0.149	Not significant

Subsequent binomial logistic regression confirmed the association between BDD and type of college, while the trend for relationship status was non-significant (Table 3).

Table 3: Binomial Logistic Regression Results

Predictor Variable	Model Deviance	AIC	R^2 McF	χ^2 (Omnibus Likelihood Ratios Tests)	Df	p-value	Significant Association	Estimate	SE	Z	P
Type of College/ Institute Government vs Private	33.3	37.3	0.110	4.10	1	0.043	Yes	2.15	1.17	1.84	0.065
Intercept	-	-	-	-	-	-	-	-4.74	1.00	- 4.72	<.001
Relationship status Inrelation vs Engaged Married vs Engaged Single vs Engaged	32.4	40.4	0.134	5.00	3	0.172	No	16.8 1.71e-8 14.4	4612 5326	0.00364 3.21 e-12	0.997 1.000
									4612	0.00311	0.998
Intercept	-	-	-	-	-	-	-	-18.6	4612	- 0.00403	0.997

DISCUSSION

The study revealed a low prevalence of Body Dysmorphic Disorder (BDD) (2.52%) among undergraduate students, consistent with prior population-based surveys reporting rates of 1.7–2.4% (Rief et al., 2006; Koran et al., 2008; Buhlmann et al., 2009). [12,13,14] **Type of college** was significantly associated with BDD, suggesting that differences in institutional culture, academic pressure, peer dynamics, or access to mental health resources may influence body image concerns. Although **relationship status** showed a significant association in univariate analysis,itdidnotremainanindependentpredictorinregression,indicatingthatitseffectmay be moderated by other factors.

Descriptive trends indicated higher prevalence among males, older students, urban residents, and those exhibiting appearance-focused behaviours such as prolonged internet use, cosmetic-related anxiety, or frequent rumination on body image. These observations align with existing literature highlighting the multifactorial nature of BDD, shaped by personal, social, and environmental influences.

IMPLICATION

While the overall prevalence was low, the findings underscore the importance of identifying at-risk students, particularly in specific institutional or social contexts. It is important to recognise body image concerns early, raise awareness among peers, and support access to counselling and mental health resources to help at-risk students and prevent complications such as anxiety, depression, or suicidal behaviour. Early detection, awareness programs, and targeted mental health interventions could prevent the progression of BDD and reduce its potential impact on academic performance and psychosocial well-being.

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