



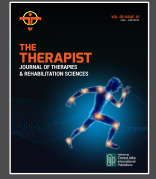
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Original Article



Association of Body Shaming with Insomnia and Depression Among Female University Students: A Cross-Sectional Study

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ABSTRACT

Body shaming is becoming more and more common, and especially with the advent of social media, there has been the emergence of unrealistic body images and perceptions of self.

Objectives: To test the relationship between body shaming, insomnia, and depression in female university students and to test the predictive value of body shaming on insomnia and depression. **Methods:** The study was a descriptive cross-sectional study that was carried out between July and December 2023 at GIFT University, Gujranwala. Two hundred unmarried female students between the ages of 18 and 30 years were selected. The instruments were validated for data collection: the Objectified Body Consciousness Scale (OBCS), the Athens Insomnia Scale (AIS), and the Goldberg Depression Scale (GADS). Correlation and regression analysis were done using SPSS version 25.0. **Results:** The average age of participants was 21 ± 2.3 years old, and most of the participants were in the 18-23 years old age bracket (86.5%). Body shaming was found to have a strong positive relationship with insomnia ($r=0.91$) and a significant relationship with depression ($r=0.79$). Regression analysis revealed that body shaming was a strong predictor of insomnia ($R^2=0.828$) as well as depression ($R^2=0.633$). There was no important difference between age groups in body shaming and insomnia, but there was a small difference in depression. **Conclusions:** There is a strong relationship between body shaming and increased prevalence of insomnia and depression among females at the university. Discussing body image issues can be a way of enhancing the mental health outcomes and preventing psychological distress in this group.

INTRODUCTION

Body shaming is a growing phenomenon that has intensified in recent years with the rise of social media [1]. The places where we live are covered in images and ads of flawlessly contoured and airbrushed bodies, creating an unjustified standard for perfection [2]. Even social media can have an impact since users choose to alter and filter their "reality" online before posting the finest photos [3]. There is an enormously unfavorable attitude toward those who have bigger bodies in our modern culture [4]. The size discrimination and stigma are important issues in several settings, including the workplace, care facilities, and

educational institutions [5]. However, it is prevalent in both genders, i.e., males and females, but is most common in university females because of their young age and more exposure to the modern and socially liberal society. Body shaming is the act of degrading someone by using unflattering or disparaging remarks about their appearance [6]. Negative remarks may be made about you, whether you're underweight or regarding a particular body area, in addition to "fat shaming." You can criticize yourself or other people in this way [7]. It could be hard on yourself and feel self-conscious about your weight or how your body



appears [8]. Major depressive disorder, sometimes known as depression, is a significant medical condition that frequently affects people's feelings, thoughts, and behaviors, including how they look and present themselves [9]. Thankfully, it is also curable. Sadness and/or a loss of interest in previous hobbies are symptoms of depression [10]. It can impair your ability to perform well in your studies at university and in daily tasks, causing a few mental and physical. Whereas Insomnia is common sleep issue that can make it difficult to fall asleep, stay asleep, or lead you to wake up too early and have trouble falling back asleep [11]. When a person wakes up, they could still feel worn out. The health, productivity at studies in university, and quality of life can all be negatively impacted by insomnia, in addition to your energy level and mood [12]. Previous literature shows that young women studying in universities and educational institutions suffer disturbance in sleep cycles and experience anxiety and depression [13, 14]. In the present study, insomnia was assessed using the Athens Insomnia Scale (AIS), while depression was evaluated using the Goldberg Depression Scale (GADS) [15-17].

Despite increasing evidence of mental health issues among young adults, the specific impact of body shaming on depression and insomnia in university students remains underexplored. The objectives of this study were to examine the association between body shaming, depression, and insomnia among female university students, and to explore variations across age groups, as well as the relationships between body shaming and both depression and insomnia.

METHODS

A descriptive cross-sectional survey was conducted between July and December 2023 at GIFT University, Gujranwala, Pakistan, to examine the relationship between body shaming, insomnia, and depression among female university students. The study also incorporated brief psychological therapy sessions after data collection. These sessions were not part of the measured outcomes; however, their potential influence on participant perception is acknowledged as a limitation. The sample consisted of 200 unmarried female students aged 18 to 28 years from Gift University, with the sample size calculated using the WHO calculator, assuming an expected prevalence of depression of 35.7%, a 5% precision level, and a 95% confidence interval. A convenience sampling technique was used to recruit participants. Inclusion criteria included unmarried female students aged 18-28 years enrolled at the university. Participants with diagnosed psychiatric disorders or currently receiving psychological treatment were excluded. Data were collected online using Google Forms. Before participation, all students received a detailed information sheet

explaining the study objectives, procedures, voluntary nature, confidentiality, and potential risks and benefits. Written informed consent was obtained electronically via Google Forms before participation. Participants completed the survey, which included the Objectified Body Consciousness Scale (OBCS) to assess body shaming, the Athens Insomnia Scale (AIS) to assess sleep disturbances, and the Goldberg Depression Scale (GADS) to evaluate depressive symptoms [15-17]. After completing the survey, participants who scored above the threshold on the Athens Insomnia Scale (AIS) or Goldberg Depression Scale (GADS) were immediately offered brief psychological therapy sessions. These sessions were conducted by trained faculty professionals from the Department of Psychology and provided strategies for managing body-related stress, improving mental well-being, and promoting healthy coping. The sessions were informational and supportive in nature and were not part of the study's hypotheses or measured outcomes. The study followed ethical standards, including informed consent, voluntary participation, and confidentiality. Participants were provided with psychological therapy to promote awareness about mental health and well-being.

Data from Google Forms were analyzed using SPSS version 26.0. Descriptive statistics were computed, and normality was assessed with the Shapiro-Wilk test. Associations between body shaming, insomnia, and depression were examined using Pearson correlation and linear regression, while independent t-tests compared age groups; $p < 0.050$ was considered significant.

RESULTS

The participants included were students at GIFT University, Gujranwala, in which a total of 200 participants were included following the inclusion criteria of age and other demographics. Data were collected through a survey method. The results were evaluated based on demographics related to their age. The second part evaluated body shaming using the body shaming scale, which was a subscale of the objectified body consciousness scale (OBCS). The third part measured insomnia using the Athens Insomnia Scale, which was correlated with body shaming to find the relationship. The fourth part measured depression using the Goldberg Depression Scale and was also correlated with body shaming to find the relationship. This study shows the descriptive statistics of age, in which the minimum age of the participant was 18, and the maximum was 28, with a mean age of 21.1 ± 2.3 . This table shows the two age groups in which the highest occurrence was in the 18 to 23-year-old age group. The majority of the participants were from the urban population. This table shows the distribution of the socio-economic status of participants, from which 44%

cases are from the upper middle class. The 'upper lower' socioeconomic category refers to individuals with low income but relatively stable employment (Table 1).

Table 1: Overall Frequency and Percentages of Demographics of Participants (n=200)

Variables	n (%)	
Age	18-23	173 (86.5%)
	24-28	27 (13.5%)
Area of Residence	Urban	130 (65%)
	Rural	70 (35%)
Socio-Economic Status	Upper Class	28 (14%)
	Upper Middle	88 (44%)
	Lower Middle	51 (25.5%)
	Upper Lower	27 (13.5%)
	Lower	6 (3%)

The body shaming was strongly positively correlated with insomnia ($r = 0.91, p < 0.001$) and significantly correlated with depression ($r = 0.79, p < 0.001$), indicating that higher levels of body shaming are associated with greater sleep disturbances and depressive symptoms among female university students (Table 2).

Table 2: Correlation of Body Shaming with Insomnia and Depression

Variables	Body Shaming	Insomnia	Depression
Body Shaming	—	0.91**	0.79**
Insomnia	0.91**	—	0.89**
Depression	0.79**	0.89**	—

The results present the psychometric properties of the scales used in this study. The Objectified Body Consciousness Scale (OBCS) had a mean score of 20.2 ± 6.3 and demonstrated good reliability ($\alpha = 0.85$). The Athens Insomnia Scale (AIS) showed a mean of 12.99 ± 5.65 with excellent reliability ($\alpha = 0.97$), while the Goldberg Anxiety and Depression Scale (GADS) had a mean of 12.38 ± 4.07 and excellent reliability ($\alpha = 0.98$), indicating that all instruments were consistent and suitable for measuring the intended constructs (Table 3).

Table 3: Psychometric Properties

Item	Mean \pm SD	Range	α
OBCS	20.2500 ± 6.31641	31.00	0.85
AIS	12.9850 ± 5.64651	23.00	0.97
GADS	12.3800 ± 4.06549	9.00	0.98

This study shows regression analysis indicated that body shaming was significantly associated with both insomnia ($B = 0.813, p < 0.001, R^2 = 0.828$) and depression ($B = 0.513, p < 0.001, R^2 = 0.633$), suggesting that higher body shaming scores are linked to greater sleep disturbances and depressive symptoms among female university students (Table 4).

Table 4: Regression analysis of Insomnia and Depression with Body Shaming

Dependent Variable	Constant (a)	B (Regression Coefficient)	B	SE	R ²
Insomnia	-3.488	0.813	0.910	0.026	0.828
Depression	1.997	0.513	0.797	0.028	0.633

There were no significant differences between the two age groups (18–23 vs. 24–28 years) in body shaming ($p = 0.800$), insomnia ($p = 0.430$), or depression ($p = 0.430$). This indicates that the mean levels of body shaming, sleep disturbances, and depressive symptoms were similar across both age groups in this sample of female university students (Table 5).

Table 5: Independent Samples T. Test among Assessment of Body Shaming, Insomnia, and Depression

Variables	18-23	24-28	t (df)	p-value
	Mean \pm SD			
Body Shaming	20.2 ± 6.7	19.9 ± 2.4	0.253 (198)	0.800
Insomnia	13.1 ± 6.04	12.1 ± 0.7	0.791 (198)	0.430
Depression	12.6 ± 4.24	10.8 ± 2.05	2.171 (198)	0.430

DISCUSSION

Size discrimination and stigma are important issues in several settings in educational institutions. However, it is prevalent in both male and female genders, but most common in university females because of their young age and more exposure to the modern and socially liberal society. Body shaming is the act of degrading someone by using unflattering or disparaging remarks about their appearance. The current study evaluated demographics related to their age, with a minimum age of 18 years and a maximum of 28 years old. The mean age was 21 ± 2.3 [18]. Regression analysis showed statistically significant results ($p < 0.001$), with confidence intervals and assumptions (linearity, homoscedasticity) satisfied. The very high correlation ($r = 0.91$) may indicate overlapping constructs or potential multicollinearity, which should be interpreted cautiously. The researcher clearly depicted in a review that the majority of the students whose objective was to relate body shaming results in losing self-confidence and lack of motivation, is closely related to body and fat shaming. Young girls were the population most impacted. After reading the review, she concluded that self-objectification may be a helpful indicator of depression, especially in women and young people, and may have therapeutic significance among these groups. While body shaming was discovered to have a positive relationship with significant values as a predictor of depression in the current investigation, regression was also used among the dependent variable, which was depression. The previous demonstrates in the review article that the majority of research on women discovered that self-objectification

had a mediated impact on depression. Every study that looked at teenagers discovered a clear connection. A rise in self-objectification over time was linked to a parallel rise in depression in each of the two prospective longitudinal studies, indicating a causal connection. The prevalence observed in this study appears higher compared to global estimates (~20-30%), indicating a potentially greater burden in this population. Another study shows that women may absorb our society's objectification of them, which can have detrimental psychological effects resulting in insomnia and depression which is also clearly mentioned in our current study, also [18]. The previous researcher found the associations between self-objectification, disordered eating, and depressive symptoms in undergraduate women using Fredrickson and Roberts' objectification theory [19, 20]. Self-objectification can cause a loss of internal awareness, which may act as a mediator between self-objectification and symptoms of restricted eating, bulimia, and depression, according to one postulate of the self-objectification hypothesis. According to the findings, depressive symptoms are directly correlated with self-objectification, which was also found by the current study using a subscale of the objectified body consciousness scale. It shows the detrimental effect of appearance-based harassment among young people, which frequently causes low self-esteem, low body dissatisfaction, and depressive symptoms. The researcher explained that 44.9 percent of respondents said they had experienced body shame at least once in the previous year. In co-ed schools, it is highest for males and lowest for girls, respectively, which relates to current research in terms of gender and body shaming resulting in psychological effects. The prevalence found in the current study is higher than that seen in international sources, highlighting the need for more research on the topic of related body shame with mental disturbances, causing lack of sleep and depression. Both studies estimated body shaming among young students, as well as examining its distribution and correlation with other characteristics such as insomnia and depression [21]. According to research, body shame and social anxiety are important mediators in the link between self-objectification and depression. The results contribute to a better understanding of the causes of women's sleeplessness and sadness, as well as providing further evidence for the objectification theory [20]. Targeting self-objectifying and socially anxious actions and cognitions may be a key strategy for lowering susceptibility to self-blame, according to the practice implications of these findings. Another study by Antonia Ypsilanti in 2018 found that individuals with insomnia reported significantly higher scores in self-disgust, anxiety, and depression than normal sleepers. Insomnia significantly predicted self-disgust, but

this association was explained by higher scores in anxiety and depression among people with insomnia [12]. Another study discovered that those with insomnia substantially outperformed healthy sleepers in terms of self-disgust, anxiety, and sadness. Body shaming was strongly predicted by insomnia, although this link might be explained by insomniacs' greater levels of anxiety and sadness. The current study, which showed a connection between body shaming in young students, is significant, with a clinical diagnosis of insomnia, depression, and anxiety [14].

This study has certain limitations, as it has self-reported data from questionnaires, which may introduce response bias. Additionally, only female students from one university were included in the study, which reduces the generalizability. Also, this study provided brief psychological therapy sessions, but their effectiveness was not measured. Future studies should provide the before-and-after results of therapy. Boys should also be included in the studies.

CONCLUSIONS

In conclusion, body shaming is significantly associated with depression and insomnia, especially among female university students. These findings highlight the importance of addressing body shame to mitigate its impact on mental health.

Authors' Contribution

Conceptualization: TH

Methodology: MJ

Formal analysis: MJ

Writing and Drafting: MJ, TH, IF, MI

Review and Editing: MJ, TH, SR, IF, MI

All authors approved the final manuscript and take responsibility for the integrity of the work.

Conflicts of Interest

All the authors declare no conflict of interest.

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REFERENCES

- [1] Goss K and Gilbert P. Eating Disorders, Shame and Pride: A Cognitive-Behavioural Functional Analysis. *Inbody Shame*. 2014 Jan 219-255.
- [2] Gilbert SC and Thompson JK. Body Shame in Childhood and Adolescence: Relations to General Psychological Functioning and Eating Disorders. *Body Shame*. 2014 Jan: 55-74. doi: 10.4324/9781315820255.
- [3] Baker N, Ferszt G, Breines JG. A Qualitative Study Exploring Female College Students' Instagram Use

- and Body Image. *Cyberpsychology, Behavior, and Social Networking*. 2019 Apr; 22(4): 277-82. doi: 10.1089/cyber.2018.0420.
- [4] Schlüter C, Kraag G, Schmidt J. Body Shaming: An Exploratory Study on Its Definition and Classification. *International Journal of Bullying Prevention*. 2023 Mar; 5(1): 26-37. doi: 10.1007/s42380-021-00109-3.
- [5] Arumugam N, Manap MR, Mello GD, Dharinee S. Body Shaming: Ramifications on an Individual. *International Journal of Academic Research in Business and Social Sciences*. 2022 Apr; 12(4): 1067-78. doi: 10.6007/IJARBS/v12-i4/13180.
- [6] Kenny B, Orellana L, Fuller-Tyszkiewicz M, Moodie M, Brown V, Williams J. Depression and Eating Disorders in Early Adolescence: A Network Analysis Approach. *International Journal of Eating Disorders*. 2021 Dec; 54(12): 2143-54. doi: 10.1002/eat.23627.
- [7] Sick K, Pila E, Nesbitt A, Sabiston CM. Does Self-Compassion Buffer the Detrimental Effect of Body Shame on Depressive Symptoms? *Body Image*. 2020 Sep; 34: 175-83. doi: 10.1016/j.bodyim.2020.05.012.
- [8] Melizza N, Rahmawati A, Arfianto MA, Mashfufa EW, Kurnia AD, Masruroh NL. The Relationship Between Body Shaming and Self-esteem in Students. *KnE Medicine*. 2023 Mar; 488-99. doi: 10.18502/kme.v3i2.13084.
- [9] Gam RT, Singh SK, Manar M, Kar SK, Gupta A. Body Shaming Among School-Going Adolescents: Prevalence and Predictors. *International Journal of Community Medicine and Public Health*. 2020 Mar; 7(4): 1324. doi: 10.18203/2394-6040.ijcmph20201075.
- [10] Riemann D, Benz F, Dressle RJ, Espie CA, Johann AF, Blanken TF et al. Insomnia Disorder: State of the Science and Challenges for the Future. *Journal of Sleep Research*. 2022 Aug; 31(4): e13604. doi: 10.1111/jsr.13604.
- [11] Akram U, Allen SF, Stevenson JC, Lazuras L, Ackroyd M, Chester J et al. Homogeneity of Cognitive and Behavioural Processes Underlying the Relationship Between Insomnia and Body Image Disturbance. *Cognitive Processing*. 2021 Nov; 22(4): 701-9. doi: 10.1007/s10339-021-01039-0.
- [12] Chamorro Coneo AM, Navarro MC, Hernández Vargas B, Mebarak MC, Serpa Diaz AJ, Palencia Londoño RI. Psychosocial Predictors of Anxiety and Depression in Individuals with Acne and Atopic Dermatitis (AD): The Role of Self-Disgust. *Psychology, Health and Medicine*. 2025 Oct: 1-7. doi: 10.1080/13548506.2025.2581895.
- [13] Rizk-Hildbrand M, Semple T, Preisig M, Haeberling I, Smigielski L, Pauli D et al. The Body as a Battleground: A Qualitative Study of the Impact of Violence, Body Shaming, and Self-Harm in Adolescents with a History of Suicide Attempts. *International Journal of Environmental Research and Public Health*. 2025 May; 22(6): 859. doi: 10.3390/ijerph22060859.
- [14] Mirza H, Rodriguez A, Robson A, Patel A, Ledesma M, Pagadala V. The Psychological Impact of Body Shaming on Adolescents and Young Adults: A Narrative Review. *INNOVAPATH*. 2025 Jun 25; 1(Suppl): 12-. doi:10.63501/8vkhnf42.
- [15] McKinley NM and Hyde JS. The Objectified Body Consciousness Scale: Development and Validation. *Psychology of Women Quarterly*. 1996 Jun; 20(2): 181-215. doi: 10.1111/j.1471-6402.1996.tb00467.x.
- [16] Soldatos CR, Dikeos DG, Paparrigopoulos TJ. The Diagnostic Validity of the Athens Insomnia Scale. *Journal of Psychosomatic Research*. 2003 Sep; 55(3): 263-7. doi: 10.1016/S0022-3999(02)00604-9.
- [17] Aminpoor H, Afshinfar J, Mostafaei A, Ostovar S. Validation of Goldberg's Depression Scale in Academic and Non-Academic Peoples. *Annals of Biological Research*. 2012; 3(9): 4564-73.
- [18] Martínez-González MB, Pérez-Pedraza DC, Alfaro-Álvarez J, Reyes-Cervantes C, González-Malabet M, Clemente-Suárez VJ. Women Facing Psychological Abuse: How Do They Respond to Maternal Identity Humiliation and Body Shaming? *International Journal of Environmental Research and Public Health*. 2021 Jun; 18(12): 6627. doi: 10.3390/ijerph18126627.
- [19] Fredrickson BL, Roberts TA. Objectification Theory: Toward Understanding Women's Lived Experiences and Mental Health Risks. *Psychology of Women Quarterly*. 1997 Jun; 21(2): 173-206. doi: 10.1111/j.1471-6402.1997.tb00108.x.
- [20] Landweer H and Marcinski I. *Dem Erleben auf der Spur: Feminismus und die Philosophie des Leibes*. Transcript Verlag. 2016. doi: 10.1515/9783839436394.
- [21] Kahalon R and Klein V. Self-Objectification and Sexuality: A Systematic Scoping Review. *The Journal of Sex Research*. 2025 Nov; 62(9): 1722-43. doi: 10.1080/00224499.2025.2552910.