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Prevalence of Impostor Phenomenon and Its Association with Reported Psychological Distress Among Indian College Students

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Abstract
The impostor phenomenon refers to persistent self-doubt and the tendency to attribute success to external factors despite evidence of competence. The present study examined the prevalence of impostor phenomenon and its association with self-reported psychological distress among Indian college students. A sample of 303 undergraduate and postgraduate students completed the Clance Impostor Phenomenon Scale and a self-report measure of psychological distress. Data were analyzed using t-tests, ANOVA, and logistic regression.
Results indicated moderate levels of impostor phenomenon in the sample. No significant differences were found based on gender or educational level. However, significant differences emerged across psychological distress groups, with higher distress associated with higher impostor scores. Logistic regression showed that psychological distress significantly predicted high impostor phenomenon, while demographic variables were not significant predictors.
The findings highlight psychological distress as a key factor associated with impostor phenomenon among college students and suggest the need for mental health support within academic settings.

Keywords: impostor phenomenon, psychological distress, college students, India

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1 Introduction

The impostor phenomenon (IP), first described by Clance and Imes (1978), refers to persistent feelings of intellectual fraudulence despite objective evidence of competence and achievement. Individuals experiencing IP often attribute their successes to external factors such as luck or effort rather than ability and fear that others will eventually discover they are less capable than perceived. Although originally described among high-achieving women, subsequent research has demonstrated that IP occurs across genders, occupations, and educational settings (Clance, 1985; Castro et al., 2004; Sakulku & Alexander, 2011).

College students are particularly susceptible to impostor feelings because higher education involves frequent evaluation, competitive environments, and increasing academic expectations. These experiences may lead students to question their competence despite objectively successful performance. A growing body of research has shown that Impostor Phenomenon is associated with several adverse outcomes, including anxiety, depression, psychological distress, burnout, reduced self-esteem, poorer academic adjustment, and diminished well-being (Chrisman et al., 1995; Cokley et al., 2013; Cokley et al., 2017; Leonhardt et al., 2017; Mak et al., 2019; Neureiter & Traut-Mattausch, 2016). Students with elevated impostor feelings are also more likely to report lower confidence in their abilities, avoid achievement-related opportunities, and reduce their career aspirations despite strong academic performance (French et al., 2008; Ross et al., 2001; Vergauwe et al., 2015). Collectively, these findings highlight IP as an important psychological construct with implications for students' academic experiences and overall well-being.

Despite increasing international interest in IP, several gaps remain. Much of the existing literature has focused on establishing relationships between IP and various psychological or academic outcomes or has been conducted within specific populations such as medical, nursing, engineering, or psychology students (Henning et al., 1998; Ferrari & Thompson, 2006; Felder, 1988). In the Indian context, research remains comparatively limited. For example, Gayathri and Krishnan (2023) reported a high prevalence of IP among Indian college students and examined its association with academic motivation and study engagement. While this study contributed valuable evidence regarding IP in Indian higher education, relatively little research has examined the prevalence of IP alongside factors associated with elevated impostor experiences among broader samples of Indian college students. In particular, limited evidence is available regarding whether self-reported psychological distress and demographic characteristics are associated with higher levels of IP within this population.

Addressing these gaps is important because prevalence studies provide an understanding of the extent to which IP is experienced within student populations, while identifying associated factors may help recognize students who are more likely to experience persistent impostor feelings. Such evidence can contribute to a broader understanding of IP in the Indian higher education context and inform future research, student support services, and institution-based mental health initiatives.

Therefore, the present study aimed to determine the prevalence of impostor phenomenon among Indian college students and examine whether self-reported psychological distress and selected demographic variables are associated with elevated impostor phenomenon. Specifically, the study sought to estimate the prevalence of IP, compare impostor scores across psychological distress groups, and identify predictors of high impostor phenomenon.

2 Methodology

2.1 Study Design

This study employed a cross-sectional quantitative research design to examine the prevalence of impostor phenomenon and its association with self-reported psychological distress among Indian college students. Data were collected using an online survey administered through Google Forms. The study further examined differences in impostor phenomenon across psychological distress groups and explored predictors of high impostor phenomenon.

2.2 Participants

A total of 303 college students from India participated in the study. Participants were recruited using convenience sampling through online platforms. The sample comprised 173 (57.1%) females and 130 (42.9%) males. Of the participants, 181 (59.7%) were postgraduate students and 122 (40.3%) were undergraduate students. Participation was voluntary, and informed consent was obtained from all participants prior to data collection.

2.3 Measures

2.3.1 Impostor Phenomenon

Impostor phenomenon was assessed using the Clance Impostor Phenomenon Scale (CIPS; Clance, 1985). The CIPS is a 20-item self-report instrument designed to measure the extent to which individuals experience feelings of intellectual fraudulence, self-doubt, and fear of being exposed as incompetent despite objective achievements. Responses are rated on a 5-point Likert scale ranging from 1 (not at all true) to 5 (very true), with total scores ranging from 20 to 100. Higher scores indicate greater impostor experiences. Based on established guidelines, scores of 40 or below indicate few impostor characteristics, 41–60 indicate moderate impostor experiences, 61–80 indicate frequent impostor feelings, and scores above 80 indicate intense impostor phenomenon.

2.3.2 Psychological Distress

Psychological distress was assessed using a single self-report item in which participants indicated whether they had experienced anxiety, depression, both anxiety and depression, or no psychological distress. This variable was intended to capture participants' perceived psychological distress rather than provide a clinical diagnosis. Self-reported psychological distress has been widely used in survey-based research as a practical method for identifying broad mental health status in non-clinical populations, particularly in large cross-sectional studies. For the present study, participants were classified into four categories: anxiety, depression, both anxiety and depression, and no psychological distress.

2.4 Procedure

Data were collected using an online survey administered through Google Forms. The survey link was distributed to undergraduate and postgraduate students in India using a convenience sampling approach through online platforms. Before participating, respondents were presented with an informed consent form describing the purpose of the study, the voluntary nature of participation, the confidentiality and anonymity of their responses, and their right to discontinue participation at any point without any consequences. Only participants who provided informed consent were allowed to proceed with the survey. No personally identifiable information was collected, and all responses were recorded anonymously.

2.5 Statistical Analysis

Data were analysed using IBM SPSS Statistics 20. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were computed to summarize participant characteristics and the prevalence of impostor phenomenon. The normality of impostor phenomenon scores was assessed using the Shapiro–Wilk tests, together with skewness and kurtosis values. A one-way analysis of variance (ANOVA) was performed to compare impostor phenomenon scores across self-reported psychological distress groups. As the assumption of homogeneity of variances was violated, Games–Howell post hoc tests were used for pairwise comparisons. Binary logistic regression analysis was conducted to examine whether gender, educational level, and self-reported psychological distress predicted high impostor phenomenon. Independent-samples t-tests were additionally performed to examine differences in impostor phenomenon scores across gender and educational level. Statistical significance was set at $p < .05$ for all analyses.

For logistic regression analysis, impostor phenomenon scores were dichotomized into low and high categories based on established score ranges of the Clance Impostor Phenomenon Scale. Participants scoring in the frequent (61–80) and intense (81+) categories were classified as high impostor phenomenon, while those scoring in the few characteristics (21–40) and moderate (41–60) ranges were classified as low impostor phenomenon.

3 Results

A total of 303 participants were included in the study. The demographic characteristics of the participants, including gender, educational level and psychological distress are presented in Table 1.

3.1 Table 1

Demographic Characteristics of the Participants (N = 303)

Variable	Category	n	%
Gender	Male	130	42.9
	Female	173	57.1
Education	Undergraduate	122	40.3
	Postgraduate	181	59.7
Psychological Distress	Anxiety	56	18.5
	Depression	85	28.1
	Both Anxiety and Depression	39	12.9
	No Psychological Distress	123	40.6

A total of 303 participants were included in the study. As shown in Table 1, the sample comprised 173 (57.1%) female participants and 130 (42.9%) male participants. Most participants were postgraduates (59.7%), while 40.3% were undergraduates. Regarding self-reported psychological distress, 123 (40.6%) participants reported no psychological distress, 85 (28.1%) reported depression, 56 (18.5%) reported anxiety, and 39 (12.9%) reported both anxiety and depression.

3.2 Table 2

Prevalence of Impostor Phenomenon among the Participants (N = 303)

Impostor Phenomenon Category	n	%
Few Impostor Characteristics	108	35.6
Moderate Impostor Experiences	62	20.5
Frequent Impostor Feelings	93	30.7
Intense Impostor Phenomenon	40	13.2

Table 2 presents the prevalence of impostor phenomenon among the participants. Of the 303 participants, 108 (35.6%) reported few impostor characteristics, 62 (20.5%) reported moderate impostor experiences, 93 (30.7%) experienced frequent impostor feelings, and 40 (13.2%) experienced intense impostor phenomenon. Overall, 133 (43.9%) participants reported frequent to intense levels of impostor phenomenon.

3.3 Table 3

Descriptive Statistics of Impostor Phenomenon Scores (N = 303)

Variable	Mean	SD	Minimum	Maximum
Impostor Phenomenon	55.69	21.86	21	96

Table 3 presents the descriptive statistics for the Impostor Phenomenon scores. The participants had a mean score of 55.69 (SD = 21.86), with scores ranging from 21 to 96, indicating considerable variability in impostor experiences within the sample. Prior to inferential analyses, the assumptions of normality were examined. Although the Kolmogorov–Smirnov and Shapiro–Wilk tests were statistically significant ($p < .001$), the skewness (0.06) and kurtosis (−1.25) values were within acceptable limits. Given the large sample size (N = 303), the distribution of impostor phenomenon scores was considered sufficiently normal for parametric analyses.

3.4 Table 4

Comparison of Impostor Phenomenon Scores Across Psychological Distress Groups (N = 303)

Distress Group	N	M	SD	F(3,299)	η^2
Anxiety	56	69.80	14.52	16.31***	.14
Depression	85	57.20	18.94		
Both Anxiety and Depression	39	58.54	21.78		
No Psychological Distress	123	47.32	22.95		

***p < .001

Table 4 presents the differences in impostor phenomenon scores across the four self-reported psychological distress groups. A one-way analysis of variance (ANOVA) was conducted to examine differences in impostor phenomenon scores across psychological distress groups. The analysis revealed a statistically significant difference in impostor phenomenon scores among the four groups, $F(3, 299) = 16.31$, $p < .001$, $\eta^2 = .14$, indicating a large effect. Participants reporting anxiety had the highest mean

impostor phenomenon score (M = 69.80, SD = 14.52), whereas participants reporting no psychological distress had the lowest mean score (M = 47.32, SD = 22.95). As Levene's test indicated unequal variances, Games–Howell post hoc comparisons were conducted to determine which groups differed significantly.

Table 5

Games–Howell Post Hoc Comparisons of Impostor Phenomenon Scores Across Psychological Distress Groups

Comparison	Mean Difference	p
Anxiety vs. Depression	12.60	< .001
Anxiety vs. Both Anxiety and Depression	11.27	.032
Anxiety vs. No Psychological Distress	22.49	< .001
Depression vs. No Psychological Distress	9.88	.005
Both Anxiety and Depression vs. No Psychological Distress	11.22	.036

Table 5 presents the Games–Howell post hoc comparisons between the psychological distress groups. Games–Howell post hoc analyses indicated that participants reporting anxiety had significantly higher impostor phenomenon scores than those reporting depression, both anxiety and depression, and no psychological distress. Participants reporting depression and those reporting both anxiety and depression also had significantly higher impostor phenomenon scores than participants reporting no psychological distress. No significant difference was observed between the depression group and the group reporting both anxiety and depression (p = .987).

3.5 Table 6

Binary Logistic Regression Predicting High Impostor Phenomenon (N = 303)

Predictor	B	OR (Exp(B))	95% CI	p
Gender	0.21	1.23	0.75–2.02	.414
Education	-0.19	0.83	0.50–1.36	.455
Anxiety vs. No Distress	1.94	6.93	3.39–14.18	< .001
Depression vs. No Distress	0.68	1.96	1.09–3.53	.024
Both Anxiety and Depression vs. No Distress	0.97	2.63	1.26–5.53	.010

Table 6 presents the binary logistic regression model examining predictors of high impostor phenomenon. A binary logistic regression analysis was conducted to examine whether gender, educational level, and psychological distress predicted high impostor phenomenon. The overall model was statistically significant, $\chi^2(5) = 35.13$, $p < .001$, explaining between 11.0% (Cox & Snell R^2) and 14.7% (Nagelkerke R^2) of the variance in high impostor phenomenon. The model correctly classified 65.7% of the cases.
Compared with participants reporting no psychological distress, those reporting anxiety had significantly greater odds of experiencing high impostor phenomenon (OR = 7.30, 95% CI [3.49, 15.26], $p < .001$). Participants reporting depression (OR = 2.01, 95% CI [1.12, 3.62], p = .020) and those reporting both anxiety and depression (OR = 2.69, 95% CI [1.28, 5.66], p = .009) also had significantly higher odds of

experiencing high impostor phenomenon. Gender and educational level were not significant predictors (*ps* > .05).

Independent-samples *t*-tests were also conducted to examine differences in impostor phenomenon scores based on gender and educational level. No statistically significant differences were observed between male and female participants, $t(301) = -0.38$, $p = .708$, or between undergraduate and postgraduate students, $t(301) = -1.18$, $p = .241$.

4 Discussion

The present study examined the prevalence of impostor phenomenon and its association with self-reported psychological distress among Indian college students. The findings indicate that impostor phenomenon is moderately high in the sample and varies significantly across levels of psychological distress, with psychological distress emerging as a strong predictor of elevated impostor feelings.

The descriptive findings suggest that impostor phenomenon is widely experienced among college students, consistent with previous research indicating that academic environments are particularly conducive to impostor feelings due to performance evaluation, peer comparison, and high achievement expectations (Clance & Imes, 1978; Cokley et al., 2013). The moderate to high mean scores observed in the present sample further support the view that impostor phenomenon is not restricted to clinical or high-performing subgroups but is relatively common in student populations.

The results of the independent samples t-tests indicated no significant differences in impostor phenomenon based on gender or educational level. This finding aligns with more recent literature suggesting that impostor feelings are not strongly determined by demographic variables but are instead more closely related to psychological and cognitive factors such as self-evaluation patterns and perceived competence (Mak et al., 2019). The absence of gender differences in the present study also supports the expanded conceptualization of impostor phenomenon beyond its original framing as a predominantly female experience (Clance & Imes, 1978).

A key finding of the present study was the significant difference in impostor phenomenon across psychological distress groups. Participants reporting higher levels of distress showed significantly higher impostor scores compared to those reporting lower or no distress. This pattern was consistent across post-hoc comparisons and indicates a clear gradient, where increasing distress is associated with increasing impostor feelings. This finding is consistent with prior research demonstrating strong associations between impostor phenomenon and anxiety, depression, and stress-related outcomes (Cokley et al., 2013; Leonhardt et al., 2017). It also supports cognitive interpretations of impostor phenomenon, which suggest that individuals experiencing distress may engage in maladaptive attributional styles, such as discounting success and overemphasizing perceived failures.

The logistic regression analysis further strengthened these findings by showing that psychological distress significantly predicted high impostor phenomenon, even after controlling for gender and education. Specifically, students reporting higher distress levels had significantly greater odds of experiencing elevated impostor feelings. This finding suggests that psychological distress is not only associated with impostor phenomenon but may also serve as a key risk indicator for identifying individuals more vulnerable to intense impostor experiences. This is consistent with previous findings that link impostor phenomenon to broader emotional dysregulation and internalizing symptoms (Neureiter & Traut-Mattausch, 2016). The classification of high and low impostor phenomenon was based on established

severity cut-offs of the Clance Impostor Phenomenon Scale, enhancing interpretability of logistic regression findings.

These findings should be interpreted in terms of perceived psychological distress rather than clinically diagnosed mental health conditions, given the self-report nature of group classification.

Interestingly, demographic variables such as gender and education did not significantly predict impostor phenomenon in the regression model. This further supports the idea that impostor feelings are more strongly shaped by psychological processes rather than static demographic characteristics. It also highlights the importance of focusing on internal cognitive-emotional variables when addressing impostor phenomenon in intervention settings.

From a contextual perspective, the findings are particularly relevant to Indian college students, who operate within highly competitive academic environments characterized by strong familial expectations and performance-oriented evaluation systems. Such contexts may amplify self-evaluative concerns and contribute to heightened vulnerability to impostor feelings, especially among students experiencing psychological distress. However, the present study suggests that distress itself may be a more proximal predictor of impostor phenomenon than demographic or educational factors.

5 Practical Implications

The findings of this study suggest that impostor phenomenon is prevalent among Indian college students and is associated with self-reported psychological distress. These findings highlight the importance of increasing awareness of impostor feelings within higher education institutions. Universities may consider incorporating psychoeducational programs, peer support initiatives, and mental health awareness activities that help students recognize and manage impostor experiences. In addition, routine student well-being assessments may assist institutions in identifying students who experience persistent self-doubt and facilitating timely referral to appropriate support services. Although psychological distress was assessed using a self-reported measure in the present study, the findings underscore the need for further research using standardized mental health assessments to better understand the relationship between impostor phenomenon and psychological well-being.

6 Limitations

The findings of this study should be interpreted in light of several limitations. First, the cross-sectional design precludes causal inferences between psychological distress and impostor phenomenon. Second, the use of convenience sampling may limit the generalizability of the findings to the broader population of Indian college students. Third, psychological distress was assessed using a single self-report item rather than a validated measure, which may not have fully captured the complexity of participants' mental health. Future research should employ longitudinal designs, more representative sampling methods, and standardized psychological assessments to strengthen the evidence.

7 Conclusion

The present study highlights that impostor phenomenon is a common experience among Indian college students and is significantly associated with self-reported psychological distress. Psychological distress emerged as a strong predictor of high impostor phenomenon, whereas demographic variables showed limited predictive value. These findings emphasize the importance of addressing psychological distress in understanding and managing impostor feelings in academic settings. Future research may

explore longitudinal patterns and intervention-based approaches to reduce impostor experiences among students.

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