Exploring The Prevalence and Factor Structure of The Impostor Phenomenon Among College Students in Eastern India

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Abstract: Impostor Phenomenon (IP) refers to a consistent psychological pattern where individuals doubt their accomplishments and persistently fear being exposed as frauds. Intense IP is often associated with anxiety, depression, burnout, and diminished self-esteem. This study explored the prevalence, factor structure and demographic determinants of the IP among college students in Eastern India, using the Clance Impostor Phenomenon Scale (CIPS) as the primary instrument. Conducted in the post-pandemic context, data were collected from those respondents who had undergone a major shift in the teaching-learning environment and assessment process during pandemic. The study indicated more than 90% students experienced moderate to intense impostor feelings and that was shaped by complex interplay of socio-demographic characters like age, education, genders and employment status. A sample of 386 students was analysed through exploratory and confirmatory factor analyses, revealing that a three-factor model comprising of fear of being fake, discounting praise, and the feeling of being lucky provided the best fit. The study indicated the need and importance of structured and sensitive interventions in higher education for mitigating the risk of IP related psychological consequences like stress and depression and improve overall mental wellness.

Keywords: Imposter phenomenon, Factor Analysis, Clance Imposter Phenomenon Scale (CIPS)

INTRODUCTION

The swift advancement of the use of technology in higher education and the COVID-19 pandemic had resulted in a notable alteration to academic learning and assessment process due to the trend of asynchronous learning. Many students experienced a new learning environment when learning and assessments were conducted fully online or through alternative methods, which offered more freedom of learning but also presented new psychological issues. Students who performed well in this setting could now wonder if their accomplishments accurately represented their skills, which would only serve to exacerbate feelings of uncertainty and unease. This perception, as commonly known as the imposter syndrome or imposter phenomenon (IP), may lead to lower self-esteem and psychological unease among them. University students may be more susceptible to IP because of the competitive environment of higher education, and studies indicate that treating IP could enhance students' mental health (Wang et al., 2019). Hence, many young adults who did remarkably well on asynchronous or online learning process during COVID may now question the validity of their accomplishments, wondering if the more laid-back and distant format of the learning had any bearing on their performance; feelings of fraudulence and inadequacy may result from this.

Imposter syndrome was first identified in 1978 by psychologists Pauline Clance and Suzanne Imes. It is the feeling that one's accomplishments are unworthy even in the face of overwhelming proof of one's ability and success. People who suffer from this condition frequently feel like frauds, believing that luck or other outside forces are more responsible for their achievements than their own skills (Chrisman et al., 1995). People with IP, initially aim for excellence and establish lofty standards for themselves, desiring to be acknowledged as the finest in their domain. They frequently demonstrate perfectionism in all facets of their work, feel overwhelmed by unachievable ambitions, becomes unable to remain compassionate and believe that they are failures (Clance, 1985; Thompson, Davis, & Davidson, 1998; Schmulian at al., 2020). Moreover, those with imposter phenomena often worry about failing and about being exposed as scammers, which makes them take precautions to avoid being exposed (Harvey & Katz, 1985). Finally, they tend to minimise compliments and undervalue their own skills. While the majority of capable people are happy of their accomplishments, those with IP frequently feel like frauds and think they are misleading other people (Clance & Imes, 1978; Harvey, 1981; Harvey & Katz, 1985). They thus find it difficult to appreciate or process the acknowledgement they get. Despite evidences of their expertise, people experiencing the IP feel like frauds, attributing their accomplishments to chance or unimportant factors rather than their own abilities (Clance, 1985). IP sufferers frequently minimise their skills and credit luck or overindulgence for their accomplishments (Clance, 1985; Harvey & Katz, 1985).

Individuals with IP are frequently preoccupied with worries all the time. Anxiety, depression, and low self-esteem are more common in those with high IP scores (Rohrmann et al., 2016; Schubert & Bowker, 2019; Wang et al., 2019).

By examining IP in connection to self-esteem level and instability, Schubert and Bowker (2019) proved that high IP was related to low self-esteem level and high self-esteem instability. Vergauwe at el (2015) studied the role of all five big personality traits (Neuroticism, Extraversion, Openness, Agreeableness, Conscientiousness) in the formation of imposter phenomenon. The study indicated a significant positive correlation between neuroticism & IP and a strong negative correlation between Conscientiousness, Extraversion and Agreeableness with IP. Harvey & Katz (1985) established the connection between IP and work-holism. Work-holism is linked to anxiety, despair, and dissatisfaction from not living up to one's own expectations. IP was validated among managers by Rohrmann et al. (2016), increasing its applicability in leadership settings. Bechtoldt (2015) discovered a correlation between impostorism and leadership traits: managers with high impostorism were more inclined to assign tasks to employees who were insecure. IP as an internal obstacle to empowerment and achievement among women was investigated by Clance and O'Toole (2014). Neureiter and Traut-Mattausch (2016) talked about the internal barrier that imposter phenomena posed to job advancement. Their study reflected that prevalence of IP negatively affect career planning, motivation to lead and career striving. It also indicated that IP was determined by fear of failure, fear of success and self-esteem.

A comprehensive analysis of the prevalence, causes, and therapies of impostor syndrome was carried out by Bravata et al. (2020), providing a thorough systematic literature survey of studies related to IP. They gave a detailed summary of the studies based on demographic variables including gender, age and ethnic status. Their findings also included a strong correlation between the prevalence of IP, depression and anxiety; and a harmful association between IP and job performance. In their investigation of the gender disparities in the relationship between IP and performance, Badawy et al. (2018) shown how men and women experience impostorism in different ways and react differently towards feedback and accountability. Castro et al. (2004) looked at the connection between parenting style and the imposter phenomenon, providing insight into how impostorism was influenced by family dynamics. Clance and Imes (1978) were among the first to uncover impostor syndrome among high-achieving women, and McDowell et al. (2015) studied imposter syndrome and its relationship with self-efficacy and perceived organisation support and concluded that in both cases, the relationships were negative and significant.

Leary et al. (2000) examined how people with impostor syndrome perceived themselves and interacted with others. They argued that IP was basically a combination of unfavourable self-appraisal and favourable reflected appraisal and identified that for people with higher IP, the negative discrepancies between how they rated themselves and they thought other do was negative and significant. Vergauwe at el (2015) in their study indicated presence of IP is significantly related to low career planning & motivation, higher emotional exhaustion and lower self-evaluation.

LITERATURE REVIEW

The prevalence and impact of IP in higher education has been studied by many especially in international context. In Indian context the majority of the study has been done among medical students (Gupta et al, 2025; De at el, 2024). Prevalence of IP was detected by De et al (2024) using CIPs among medical students, indicating that as high as 93.8% of students had some amount of imposter feeling with as high as 48.5% had frequent to intense imposter feeling. They also identified that the IP was significantly less at the later stage of the course as compare to initial semesters. They also indicated that female suffered more than male and students belonged to middle-class background had higher IP as compare to other social groups. Newar et al (2025) identified significant prevalence of IP among university students of India and also indicated a significant negative impact of the same on academic performance. In a study among undergraduate college students, Nanda (2021) studied the relationship of self-esteem and locus of control with IP among Indian undergraduate students. They identified 18% of the undergraduate students characterised with intense & 37% had frequent IP. They also identified that presence of IP among female was significantly higher as compare to the male students. Almost all identified studies have used Clance Impostor Phenomenon Scale (CIPS; Clance, 1985) of 20 items.

In international literature several studies on the prevalence and impact of IP has been conducted among minority and students of colour. A culturally-aware IP model was presented by Stone et al. (2018) for graduate students of colour. The nexus of IP and minority stress was also highlighted by Cokley et al. (2017), who looked at how impostor sentiments influenced the association between reported discrimination and mental health in racial and ethnic minority students. In their 2017 study, Lige et al. examined the relationship between African American students' racial identification, self-esteem, and IP as well as how it affected their psychological results. Peteet et al. (2015) connected IP to psychological distress in African American students.

Higher education research had also emphasised the frequency and complexity of imposter phenomena (IP) among faculty members, exploring its connections to gender, educational background, efficacy, and the classroom setting. The impact of academia's socio-political setting on imposter phenomena was studied by many (Breeze, 2018; Hutchins & Rainbolt, 2017). Impostor syndrome among university teachers was also examined by Brems et al. (1994), with a focus on how it was related to relationships with advisors and teaching evaluations. They examined the relationship between IP and teaching effectiveness and discovered that, even after adjusting for other variables, students tended to rate teachers with high IP scores lower on the effectiveness scale. Additionally, researchers had shown that IP could be made worse by the academic setting itself, especially for graduate and undergraduate students (Cozzarelli & Major, 1990; King & Cooley, 1995). Harvey (1981) observed a negative link between academic tenure and IP, suggesting that IP tended to diminish as persons advance in their careers, but no

significant gender variations was found in IP among faculty members. Topping and Kimmel (1985) discovered that IP decreased as faculty members achieve greater success in academia. However, their study revealed that males were less inclined to credit their achievement to their intellectual prowess. However, there was a favourable link between IP and self-monitoring behaviour in both genders of educationalists.

Different scales has been employed over the period to evaluate impostor phenomenon (IP). Among the most widely used were the Harvey Impostor Scale (HIPS; Harvey, 1981), the Clance Impostor Phenomenon Scale (CIPS; Clance, 1985), the Perceived Fraudulence Scale (PFS; Kolligian & Sternberg, 1991), the Leary Impostorism Scale (LIS; Leary et al., 2000), and the State Impostor Phenomenon Scale (SIPS; Fujie, 2010). Mak et al.'s (2019) review of several IP scales helped to standardise IP evaluations. Among these, Clance Impostor Phenomenon Scale (CIPS) has been the most commonly cited and utilised one by the practitioners (Mak et al, 2019). The HIPS, a 14-item tool, had shown that it was inadequate to distinguish between those who genuinely experienced impostor feelings and those who did not (Holmes et al., 1993). It exhibited psychometric shortcomings (Chrisman et al., 1995), and demonstrated poor internal consistency (Kolligian & Sternberg, 1991).

In the psychological literature, there has been continuous discussion about the factor structure of the Clance Impostor Phenomenon (CIP) scale. Clance and Imes's (1978) original conceptualisation of the imposter phenomenon did not consider any factor structure, however Clance (1985) acknowledged that the IP scale was a multi-factor phenomenon but the scale was designed as unidimensional. More recent research proposed more complex and multi-layered structures. A two-factor model had received support from a few studies, including Mak et al., (2019) who identified "Fraudulence" and "Self-deprecation" components in a sample of Chinese professionals, and French et al. (2008) who proposed "Fake" and "Discount" factors. These two-factor models implied that a propensity to minimise one's accomplishments and a sense of inauthenticity may be the origins of imposter sentiments. With "Fake," "Luck," and "Discount" identified as crucial components by Chrisman et al. (1995) and McElwee and Yurak (2010), a three-factor structure had also drawn a lot of attention in the field. The extra dimension of attributing success to outside variables like luck was incorporated into this paradigm. The "Fake" factor evaluated feelings of self-doubt and worries regarding one's intelligence and capabilities. The "Discount" factor included items tied to the tendency of individuals to acknowledge a successful performance and tended to underestimate their capabilities. The "Luck" factor, the third component, measured the inclination to credit success to chance rather than personal competency (Sahin & Gulsen, 2022). In recent times, four-factor models have surfaced, including the structure proposed by Simon and Choi (2018), which comprised the "Fake," "Discount," "Luck," and "Failure" aspects. Additionally, the model included the fear of failure as a separate component. In a German sample, Brauer and Wolf

(2016) discovered support for a four-factor structure, suggesting possible cross-cultural consistencies. Inconsistent structures, ranging from one to four factors, have been found in factor analyses, indicating that individual, environmental, and cultural variables may have an impact on how IP manifests itself. This heterogeneity highlighted how crucial it was for IP research to take into account a variety of demographics and analytical techniques. Cross-cultural research was necessary since studies such as Mak et al. (2019) with Chinese professionals, Brauer and Wolf (2016) with German samples and Yaffe (2020b) with Hebrew speaking women population had identified potentially culture-specific factor structures of CIPS.

Chassangre and Callahan (2017) talked about impostor syndrome treatment strategies. In 2020, Zanchetta et al. investigated therapies including coaching and training with the goal of lowering IP, where the study reflected coaching to be more effective; adding to the body of knowledge about useful strategies for mitigating the condition. But compare to the intensity with which the prevalence and impact of IP has been studied, the number of studies concentrating on the mitigation of IP related risk is substantially low.

Objective & Rationale
While imposter syndrome had been studied in a variety of contexts, including academic settings, workplaces, and high achievers, little was known about how common it was among young adults who adopted a paradigm shift in learning and assessment methods in Indian context especially during post COVID era.

In addition to illustrating the intricacy of IP, the differences in factor structures also implied that any evaluation instruments might require improvement in order to fully capture its subtleties across various sociodemographic categories. This emphasises the critical need for more thorough, culturally aware assessment tools that could reliably gauge IP in a range of settings and demographics. Furthermore, there was a need for greater research to provide more specialised, effective treatments and support systems as emerging adults negotiate in an increasingly complex professional field. In addition to determining the IP factor structure, such research should clarify the ways in which these variables appear and interact in various sociodemographic settings. In summary, even though the profession had made great strides, more thorough, cross-sociodemographic factor analytic investigations would be beneficial. These initiatives may contribute to the synthesis of conflicting theories, the creation of more culturally sensitive evaluation instruments, and, in the end, the development of more potent approaches to IP treatment for a range of growing adult populations. No published study could be identified on the factor structure of CIPS in Indian context although several studies had indicated that socio-cultural and demographic background has its impact not only in detecting IP but also in its factor structure.

The primary purpose of this study hence was to explore the prevalence of imposter syndrome among Indian students

using CIPs who had undergone through an alternative teaching-learning and assessment phase during post COVID era. It also aimed to study the factor structure of the CIPS as applicable in Indian context. The study also explored the connections between imposter syndrome and a range of sociodemographic characteristics, such as gender, age, educational attainment and employment status.

DATA & METHODOLOGY

The study consisted of a sample of 386 students, of which 135 were female (34.97%) and 251 were male (65.03%). These students hailed from diverse undergraduate colleges in Kolkata, India; covering a wide geographical range across the city based on their provided residence address. Before participating in the study, all potential respondents were informed in a cover letter that their participation was voluntary and that their responses would remain anonymous. Those who agreed to take part were provided with a link to an online form, which introduced them to the research objectives. They were given instructions on how to complete the anonymous questionnaires, contingent upon confirming their informed consent. All respondents provided demographic information, including age, gender, and employment status, in addition to other relevant information. No incentives were offered for their participation. All of these students had experienced with both physical and online modes of learning & assessment, with online examinations being more prevalent during the COVID-19 lockdown.

CIPS consisted of 20 self-report items, and each item was scored on a five-point Likert scale which was scored from 1 (not at all true) to 5 (very true). The prevalence was assessed based on the total score of all 20 items. This study assessed the psychometric characteristics of the CIPS by determining its factor structures. Exploratory Factor Analysis (EFA) was used to determine the number of factors and the underlying factor structure without any presumptions. Subsequently Confirmatory Factor Analysis was used to decide whether the factor structure fitted the data and the validity. One, two, three and four factor models were also compared to establish model fit. Several statistics including Chi-square divided by degrees of freedom (χ^2/df), Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), Goodness of Fit Index (GFI), Standardized Root Mean Square Residual (SRMR), and Non-Normed Fit Index (NNFI) were used to evaluate the final model fit.

The fitted model then was used to determine the demographic determinants of IP among undergraduate and post graduate students. The study considered four demographic variables; age, gender, levels of education and prior job experience to understand whether these variables had any determining effect on IP level. There were 3 levels of education in the sample set; the level was considered as the level which they were pursuing during the COVID 19 lockdown and the examination they appeared in online mode. Based on which the dataset consisted of 3 groups; students who have appeared – i. high school level, ii. Graduation level and iii. Post-graduation level examinations in On-line mode during COVID period. The current employment status was considered as probable explanatory variable that might alter the level of IP among students. Multivariate analysis was used to analyse the data for identifying demographic determinants.

SPSS 21 and AMOS was used to analyse the data.

Findings & Analysis

The original CIPS has 20 items to measure the IP. The details of the 20 items and the average score and standard deviation of each item are reflected in table 1 along with the notation used for each of the items in the study.

Table 1: Descriptive Statistics of CIPS Items

CIPS Items	Notation used	Mean	Std. Deviation
1—I have often succeeded on a test or task even though I was afraid that I would not do well before I undertook the task	V1	3.427	1.040
2—I can give the impression that I'm more competent than I really am	V2	3.280	1.219
3—I avoid evaluations if possible and have a dread of others evaluating me	V3	2.671	1.186
4—When people praise me for something I've accomplished, I'm afraid I won't be able to live up to their expectations of me in the future	V4	2.990	1.309
5—I sometimes think I obtained my present position or gained my present success because I happened to be in the right place at the right time or knew the right people	V5	3.570	1.351
6—I'm afraid people important to me may find out that I'm not as capable as they think I am	V6	2.640	1.404
7—I tend to remember the incidents in which I have not done my best more than those times I have done my best	V7	3.321	1.232
8—I rarely do a project or task as well as I'd like to do it	V8	2.834	1.332
9—Sometimes I feel or believe that my success in my life or in my job has been the result of some kind of error	V9	1.951	1.257
10—It's hard for me to accept compliments or praise about my intelligence or accomplishments	V10	2.593	1.357
11—At times, I feel my success has been due to some kind of luck	V11	2.334	1.191
12—I'm disappointed at times in my present accomplishments and think I should	V12	3.415	1.214

have accomplished much more			
13—Sometimes I'm afraid others will discover how much knowledge or ability I really lack	V13	2.585	1.317
14—I'm often afraid that I may fail at a new assignment or undertaking even though I generally do well at what I attempt	V14	2.894	1.284
15—When I've succeeded at something and received recognition for my accomplishments, I have doubts that I can keep repeating that success	V15	2.855	1.279
16—If I receive a great deal of praise and recognition for something I've accomplished, I tend to discount the importance of what I've done	V16	2.606	1.301
17—I often compare my ability to those around me and think they may be more intelligent than I am	V17	3.041	1.404
18—I often worry about not succeeding with a project or examination, even though others around me have considerable confidence that I will do well	V18	3.212	1.247
19—If I'm going to receive a promotion or gain recognition of some kind, I hesitate to tell others until it is an accomplished fact	V19	3.788	1.362
20—I feel bad and discouraged if I'm not "the best" or at least "very special" in situations that involve achievement	V20	3.187	1.322

While interpreting the CLIPS score, prevalence was typically estimated by the range of score one received. Theoretically, the score could vary from 20 to 100. In the original work of Clance (1985), she mentioned a score of 40 or less indicated low imposter characteristics, whereas 41 to 60 reflected moderate imposter experience and 61 to 80 reflected frequent imposter feelings. A score of 80 or more was termed as intense imposter experience. Overall, the higher was the score more prevalent was the imposter experience. This demarcation however was heuristic in nature and not based on any psychometric standardisation. The sample reflected moderate to high imposter syndrome among a large number of the respondents with the minimum and maximum score were 22 and 96 respectively. The descriptive statistics of the total score from 20 items are shown in Table 2A whereas the distribution of the score according to the prescribed prevalence range is shown in Table 2B

Table 2A: Descriptive Statistics of Total IP Score

Mean	59.19
Standard Deviation	12.26
Skewness	0.103
Kurtosis	0.311

Table 2B: Distribution of IP Score

Prevalence of IP	Frequency	Percentage	Category
< 40	23	5.96%	Few
41 - 60	199	51.55%	Moderate
61 - 80	146	37.82%	Frequent
>80	18	4.66%	Intense
Total	386	100%	

The average score of total IP score, 59.19, in Table 2A itself indicated moderate to frequent prevalence of imposter experience among the group. The phenomena was common across samples depicted by a comparatively lower standard deviation. The distribution was symmetric with negligible skewness and did not deviate much from a normal distribution. The results also revealed that the majority of participants (344 individuals, or 89.03%) scored above 40, indicating the presence of at least moderate impostor feelings. Specifically, 51.55% (n = 199) of respondents fell within the moderate range (scores 41–60), suggesting they experienced impostor feelings occasionally but might still manage them effectively. 37.82% (n = 146) reported frequent impostor experiences (scores 61–80), reflecting stronger, more recurring self-doubt and a higher likelihood of psychological impact. 4.66% (n = 18) scored in the intense range (>80), indicating a severe level of impostor experience that might interfere with personal and professional functioning. In contrast, only 5.96% (n = 23) scored below 40, indicating few or negligible impostor characteristics.

Table 3: Demographic Characteristics of the Respondents

Demographic Distribution	Range/ Character	Frequency
Age	20-21	64
	22-23	208
	24-25	97
	26-27	17
Gender	Male	251
	Female	135
Education	UG	267

	Grad	108
	PG	11
Employment Status	Employed	27
	Unemployed	359
Total		386

The demographic characteristics of the respondents are represented in Table 3. The respondents were in between 20-27 year of age with 54% in between 22 and 24 years followed by 25% in between 24 to 26 years of age. Majority of the students were in undergraduate levels during the study and appeared for On-line examination of 12th Standard (69.2%). 28% of the students were in graduation level and appeared the undergraduate examinations in on-line mode. Only a limited no. of students had a post-graduation qualification (2.8%) and had appeared examination at post graduate level in online mode.93% of the students were unemployed at the time of the study and only 7% reported employed.

The factor structure was analysed by using exploratory (EFA) and subsequently confirmatory factor analysis (CA). The correlation matrix of these 20 items did not reflect any high value with maximum significant correlation noticed to be .54 between v6 and v13. Hence, multi-collinearity was not present. Bartlett's Test of Sphericity estimated a chi-square value of 1644.2 with the p value of 0; hence the observed correlation matrix significantly differed from an identity matrix indicating that the variables were related and suitable for EFA. Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy estimated a value of .873, hence the data was suitable for factor analysis. The reliability of the data was checked through Cronbach's Alpha, which was estimated as .822 indicating the 20 item scale is reliable.

Table 4 explores the factor structure of the sample data to determine the best fit model for analysis. EFA was run with factor restriction of 1, 2, & 4 factor model, whereas the unrestricted model that chose the number of factors based on Eigen value came up with a 3 factor model.

The original one factor model could explained only 25.5% of the variance and three variable V1, V2 & V5 were insignificant with each having a factor loading less than 0.3. Several literature (Chirsman et al, 1995; French et al, 2008; Sahin and Gulsen, 2022) had also indicated that items 1and 2 - "I have often succeeded on a test or task even though I was afraid that I would not do well before I undertook the task.", and "I can give the impression that I'm more competent than I really am." failed to have adequate factor loading. Sahin and Gulsen, 2022, identified low correlation of these three items with other items in the scale. Even removing these three variables did not improve the model fit for the single factor model much, as the cumulative percentage of variance explained was only 29.99% as indicated in the updated one factor model. The two-factor models reflected modest improvements (29.99% and 38.39%, respectively). The updated three-factor model explained 45.09% of the variance, which was nearly equivalent to the four-factor model (45.29%), indicating that adding a fourth factor yielded marginal gains in explained variance.

The other model fit statistics as depicted in table 4, reflected a moderate to good fit for all the models. Goodness of Fit Index (GFI),which measured the relative amount of variance and covariance accounted for by the model progressively improved from the updated one-factor model (GFI = 0.932) to the updated three-factor model (GFI = 0.951). While the four-factor model maintained acceptable fit (GFI = 0.939), it did not outperform the three-factor model. Adjusted Goodness of Fit Index, GFI adjusted with the number of estimated parameters also reflected the same trend with three factor model being the best fit.

Comparative Fit Index (CFI), which compared the fit of the target model to an independent model indicated a similar pattern. The updated three-factor model achieved the highest CFI (0.960), exceeding the conventional cut-off value of 0.95 indicative of excellent fit.

Root Mean Square Approximation Error (RMSAE) also reflected the superiority of the updated three-factor model (RMSAE = 0.036), which was the lowest among all models and less than the threshold of 0.05, indicating a close approximate fit. In comparison, the four-factor model had a marginally higher RMSAE (0.040), and earlier models exhibited progressively higher error levels.

Table 4: Model Fit Statistics for Factor Structure of CLIPS

Model Type	Cumulative Extraction Sums of Squared Loadings	GFI	AGFI	CFI	RMSAE	χ^2/df
One Factor Model	25.56%					
Updated One factor model	29.99%	0.932	0.911	0.919	0.051	1.993
Two factor model	32.77%					
Updated Two factor model	38.39%	0.941	0.922	0.938	0.045	1.772

Updated Three Factor Model (Unrestricted Model)	45.09%	0.951	0.933	0.96	0.036	1.501
Four Factor Model	45.29%	0.939	0.92	0.935	0.04	1.601

The χ^2/df ratio is another widely accepted indicator of model fit, with values below 2 considered indicative of a good fit. The updated three-factor model ($\chi^2/df = 1.501$) satisfied this criterion most effectively. Considering all statistics, this study supported a 3 factor model where IP is constituted by three components: Fake, Luck & Discount. The standardised regression weights of each of the 1st order and second order observed and latent variables are presented in Table 5. Each factor loading was more than 0.4 and all the estimates were found to be statistically significant at 99% level.

Table 5: Standardized Regression Weights

Variables			Estimate
Fake	<---	IP	0.939
Luck	<---	IP	0.681
Discount	<---	IP	0.771
V7	<---	Fake	0.44
V6	<---	Fake	0.611
V4	<---	Fake	0.553
V3	<---	Fake	0.429
V13	<---	Fake	0.719
V14	<---	Fake	0.568
V15	<---	Fake	0.65
V16	<---	Fake	0.522
V17	<---	Fake	0.624
V18	<---	Fake	0.615
V10	<---	Luck	0.551
V9	<---	Luck	0.525
V8	<---	Luck	0.403
V19	<---	Discount	0.46
V12	<---	Discount	0.563
V11	<---	Luck	0.5
V20	<---	Discount	0.622

The study also examined the effects of multiple demographic variables and their interactions—age, gender, education, and employment status—on the level of IP score that the respondents displayed. The only singular factor that had a significant impact on the level of IP was found to be age. Subsequent regression analysis estimated the coefficient as -.037 with a p value of .033, indicating that the IP experience reduced with increase in age. None of the other demographic factor was found to be statistically significant as a main factor. In two-way interaction, the combined effect of age and education was found to be significant with (F= 2.78) a p value of .04 indicating, education moderated the relationship between age and IP prevalence. No other two-way interactions were proved to be statistically significant. The three-way interaction of age, gender and education was also found to be statistically significant (F=2.667 and p=.048) indicating age-related differences in IP prevalence are moderated by both gender and employment, possibly indicating nuanced socio-demographic dynamics.

CONCLUSIONS

The primary objective of the study was to explore the prevalence of IP and the rooted reasons for the same. It also focused in assessing the influence of key demographic variables on impostor phenomenon among college students in Eastern India.

A substantial proportion of the respondents were subject to moderate to intense impostor experiences, indicating a high prevalence of IP among college students in India especially when they were learning in online and alternative mode. This study couldn't analyse whether the surge in online teaching mode had increased their feeling of being inadequate or fraud but the prevalence of imposter experience in the post COVID might have been contributed by limited social and classroom interaction, assessment ambiguity and stress related to sudden shift into self-learning. The preceding years of prolonged distance and online education and abrupt transition to remote learning environments might have had a lingering psychological impact on students leading to a situation where almost 94% of the students encountered some amount of imposter syndrome. This was also reflective of the sociocultural pressures associated with academic achievement and career

uncertainty in Indian context. The prevalence figures corroborated findings from other national and international studies that had identified students as a high-risk group for experiencing impostor feelings. The high incidence of IP in this sample underscored the need for targeted psychological and institutional interventions which could include mentorship programs, workshops on self-efficacy and attributional retraining in higher education systems to help students to better manage their self-doubt and performance anxiety.

The findings of the exploratory and confirmatory factor analyses indicated that a three-factor model provided the best fit for the dataset. The model outperformed the original one-factor model and subsequent two- and four-factor models as identified by many researchers. The three-factor model reflected the multidimensional nature of imposter phenomenon. The extracted factors, broadly aligned with constructs such as discounting the own success, and attributing success to external factors or luck and the fear of nor continuing with their achievements or not being good enough. This reconciled with similar multidimensional frameworks proposed in more recent literature in international studies. This study indicated that a three-factor model might be a good start to use in IP related studies in India. The interrelated dimensions of IP also suggested that practitioners should consider the specific domains of impostor experience when designing assessments and interventions.

Despite the high prevalence of IP, the impact of demographic variables such as age, gender, educational levels, and employment status as determinants of IP were largely non-significant except age which had a significant negative relationship with IP. ANOVA results showed that no other variables independently predicted impostor scores at a statistically significant level. However, the combined impact of age and education and the three-way interaction between age, gender, and employment status significantly impacted the presence of IP, suggesting that the experience of IP might rather be determined by complex interplays between multiple socio-demographic factors. These interaction effects required further investigation and highlights the need of exploring the full spectrum of psychosocial influences on impostor feelings.

The result of this study provided the empirical support of not only the presence of moderate to intense imposter experience among students but it also reflected its multidimensional nature and its complex interaction with sociodemographic determinants. These findings called for the tailor-made prevention and intervention strategies including the incorporation of psychological wellness programme. Several studies indicated that intense and prolonged IP may lead to chronic anxiety, stress, depression, feelings of burned-out which may impair the academic and professional growth of a student. These outcomes were widely supported in the psychological literature including. Studies by Clance and Imes (1978), Thompson et al. (1998), and Parkman (2016) have all documented correlations between IP and symptoms of anxiety, depression, and diminished life satisfaction.

This study was subject to few limitations. Firstly, the samples were drawn exclusively from the colleges of in and around Kolkata city in eastern India which limited the generalisation of the findings to other geographic regions or to non-student populations. Secondly, while the study controlled for basic demographic variables, it did not include other potentially relevant psychological constructs such as self-esteem or perfectionism, which could mediate or moderate the imposter experience. Finally, although the three-factor model demonstrated good fit indices, further validation using larger and more diverse samples was needed before definitive conclusions about the factor structure of the CIPS. Further research can throw more light by using a more diverse data set and with broader range of psychological, cultural, and academic variables for better understanding of the determinants and consequences of IP.

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