



## A descriptive cross-sectional study to determine imposter phenomenon and its influence on self-esteem and academic performance among undergraduate students

Jiny Riju George

Principal, Professor, Department of Nursing, St. George College of Nursing, Univ. Rajiv Gandhi University of Health Sciences Bangalore, Karnataka, India

### Abstract

**Background:** The Imposter Phenomenon (IP) refers to pervasive feelings of self-doubt and the belief that one's successes are attributable to luck rather than ability, despite evidence of competence. Initially identified among high-achieving women, IP affects many students and has been linked to anxiety, lower self-esteem, burnouts, failure of success, denial of ability, communication skills, and potential impacts on academic outcomes. Understanding how IP is associated with self-esteem and academic performance can help educators, counselors, and policymakers design targeted support programs.

**Research Aim:** To determine the prevalence of Imposter Phenomenon among undergraduate students and to examine its influence on self-esteem and academic performance.

**Material and Methods:** The current study makes use of a quantitative cross-sectional research design. An online survey on Google forms was forwarded through whatsapp among undergraduate students of a college after informed consent, to one hundred ten participants, 85 students selected through non probability convenient sampling technique. They completed the survey questionnaire which included structured demographic questionnaire, scales like Clance Impostor Phenomenon, Rosenberg SelfEsteem Scale (RSES), and Academic performance scale. Appropriate descriptive and inferential statistics were used to generate the result.

**Results:** The e-questionnaire was sent to 110 potential study participants out of which 85 completed the questionnaire and the recorded data was analyzed. The mean age of students was 18-25 years. Analysis of the data was done with IBM-SPSS version 22. Out of the 85 undergraduate students, 56.47% were found to be suffering from imposter phenomenon, indicating a high prevalence among the study population. Impostor phenomenon, self-esteem and academic performance were found to be positively correlated ( $r=-0.097$  &  $0.62$ ,  $p<0.05$ ).

**Conclusions:** The coexistence of high academic achievement & enhanced self-esteem with imposter feelings suggests that external success does not necessarily translate into internal confidence. These findings emphasize the need for early identification, awareness programs, and supportive interventions within nursing education to enhance students' self-esteem, psychological wellbeing, and academic confidence.

**Keywords:** Imposter phenomenon, Clance's Imposter Phenomenon Scale, Rosenberg's Self-Esteem Scale, Academic Performance scale

### Introduction

The transition to undergraduate education is a critical developmental period characterized by increased academic demands, heightened expectations, and significant psychosocial adjustments. During this phase, students are required to demonstrate competence, independence, and academic excellence, often within highly competitive environments. While many students appear outwardly successful, a substantial number experience persistent self-doubt and a fear of being exposed as intellectually inadequate despite objective evidence of achievement. This psychological experience is commonly referred to as the.

### Imposter Phenomenon

The Imposter Phenomenon is characterized by feelings of intellectual fraudulence, self-doubt, and the tendency to attribute success to external factors such as luck rather than personal ability. Individuals experiencing this phenomenon often set excessively high standards for themselves, experience anxiety related to performance, and remain dissatisfied with their accomplishments. Among undergraduate students, especially those enrolled in professional courses, these feelings can negatively influence mental health, self-esteem, and academic engagement.

According to studies conducted on student populations, self-esteem is a key prerequisite and predictor of IP. self-esteem is the evaluative aspect of self-knowledge, it refers to how someone views themselves, either positively or negatively. Self-esteem has a favorable correlation with mental health, competence, to cope effectively with academic stressors, confidence, productivity and maintain motivation whereas poor self-esteem is correlated with inferiority complexes, may exacerbate imposter feelings, leading to emotional distress, reduced academic confidence, and impaired performance melancholy, depression, desperation, suicide ideation, and impaired performance. Initial gender-typical investigations revealed that this was a feature found more frequently in females. However, subsequent studies found that males and females were equally susceptible to IP.

Similarly, academic performance, a key indicator of educational success, may be influenced not only by intellectual ability but also by students' psychological well-being and self-perceptions.

Nursing, can contribute to significant stressors like time pressure, memorization of large amounts of information, frequent evaluations, financial difficulties, limited time for recreation and relationships, peer competition, and increased responsibilities related to patient care. In the context of

Nursing Education, where rigorous training and high academic standards are paramount, the prevalence of imposter feelings among students is a matter of growing concern as there's atmosphere of intense academic scrutiny, which puts certain students at possibility of feeling like intellectual fraudulence and phoniness.

Despite increasing recognition of the Imposter Phenomenon globally, limited attention has been given to its prevalence and impact among undergraduate students in the Indian context, particularly within professional education programs. Understanding the extent of the Imposter Phenomenon and its relationship with self-esteem and academic performance is essential for developing effective academic and psychological support strategies.

Therefore, this study adopts a descriptive cross-sectional design to determine the prevalence of the Imposter Phenomenon and to examine its influence on self-esteem and academic performance among undergraduate students. The findings of this study are expected to provide valuable insights for educators and administrators to design timely interventions aimed at promoting psychological well-being, enhancing self-confidence, and supporting academic success among undergraduate students.

### Objectives

- To determine the prevalence of imposter phenomenon among the under graduate students.
- To Examine the Relationship between Imposter phenomenon and Self-Esteem among the undergraduate students.
- To Examine the Relationship between Imposter phenomenon and Academic Performance among the undergraduate students.
- To find out the association between the imposter phenomenon with their selected demographic variables.

### Research Questions & Hypotheses

#### Questions

1. What is the level of impostor phenomenon among undergraduate students?
2. What is the level of self-esteem among undergraduate students?
3. Is there a significant relationship between impostor phenomenon and self-esteem?
4. Is there a significant relationship between impostor phenomenon and academic performance?

#### Hypotheses

- **H01:** There will be no significant relationship between impostor phenomenon, self-esteem & academic performance.
- **H02:** There will be no significant association between impostor phenomenon and selected demographic variables.
- **H1:** There will be a significant relationship between impostor phenomenon, self-esteem & academic performance.
- **H2:** There will be a significant association of impostor phenomenon and selected demographic variables.

### Materials and Methodology Research Design

The present study adopted a quantitative descriptive cross-sectional research design. An online survey was conducted using Google Forms, which was circulated to 110

undergraduate nursing students of a selected Nursing college through WhatsApp after obtaining informed consent. Among them, 85 students who met the inclusion criteria and willingly responded were selected using a non-probability convenience sampling technique.

### Variables

- Demographic variables age, religion, year of study, number of siblings, parental occupation, interpersonal relationships, academic, extracurricular activity, fear of getting teased by others and knowledge regarding imposter phenomenon etc.
- Independent Variable: Imposter Phenomenon
- Dependent Variables:
  - o Self-esteem
  - o Academic performance

### Study instrument

The Google form questionnaire consisted of 4 sections. Section 1 Socio-demographic details, Included items age, gender, religion, year of study, number of siblings, parental occupation, interpersonal relationships, and academic activity participation etc. Section 2 consisted Clance's Impostor Phenomenon Scale (CIPS)

Section 3 consisted Rosenberg Self-Esteem Scale (RSES).

Section 4 consisted Academic performance Scale (APS).

The 20-item Clance's Impostor Phenomenon Scale is a proven tool for measuring the IP. Every item on the scale has a five-point Likert score (1-2-3-4-5), with a maximum score of 100. The impostor traits increase with scoring.

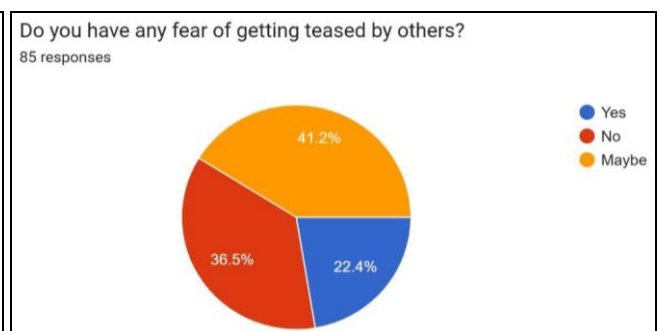
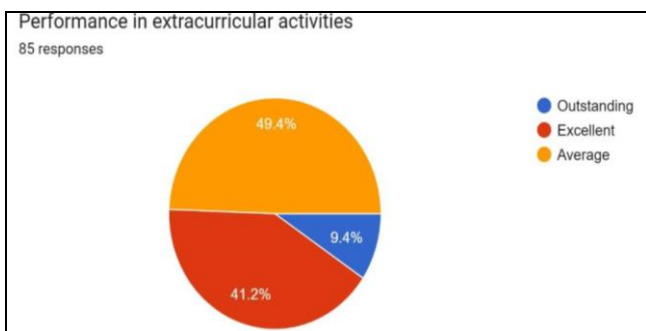
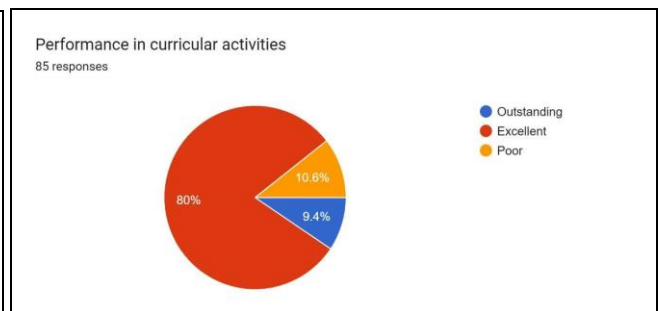
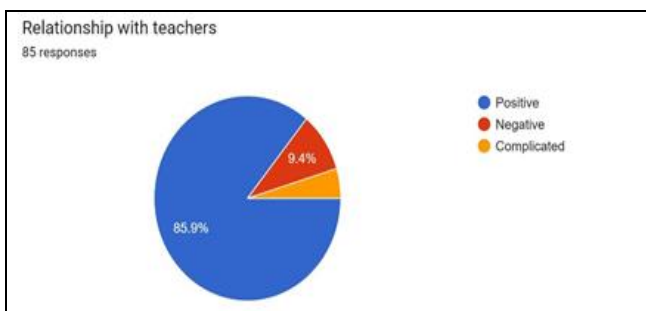
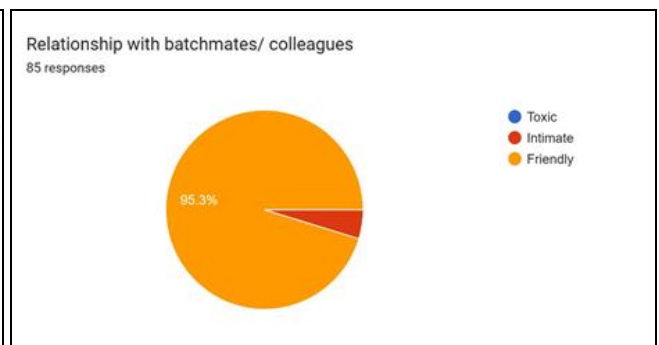
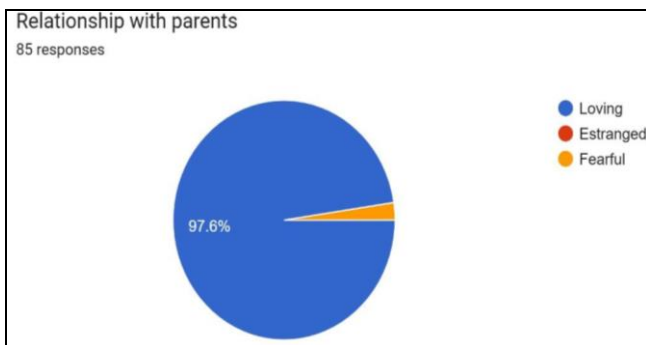
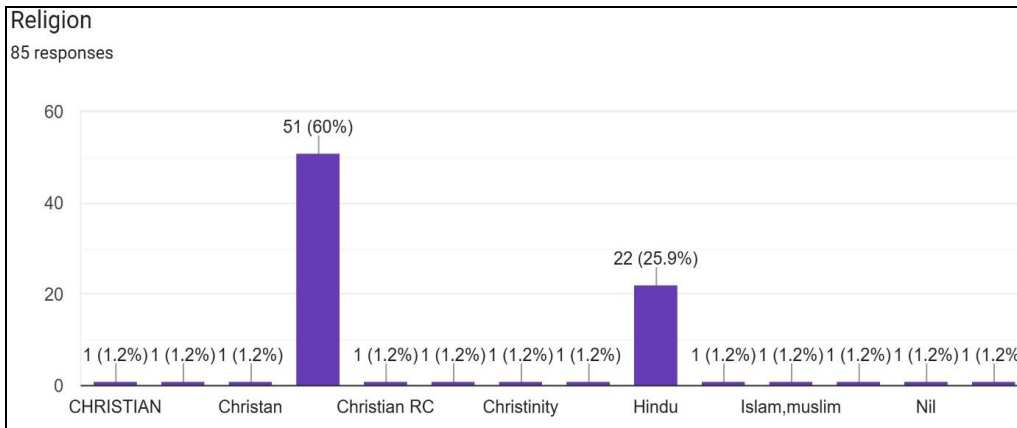
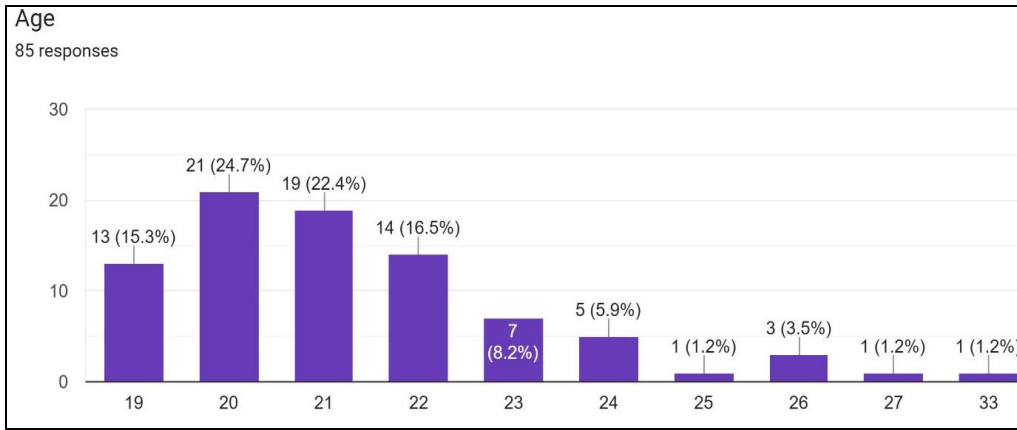
The Rosenberg's Self-Esteem Scale is accustomed to measure self-esteem. It is 10-item self-reported global self-esteem test that evaluates feelings of acceptance and worth in oneself. Responses to the questions are given on a 4-point Likert scale (0-1- 2-3), with a maximum score of 30. Its internal reliability is strong ( $\alpha = 0.79$ ).

The Academic performance scale is a tool for measuring the academic performance Each item was scored on a Likert-type scale, and the total score was obtained by summing the responses to all items. Higher scores indicated better academic performance, while lower scores indicated poorer academic performance. Based on the total score, the respondents were categorized into low, average, and high academic performance levels for the purpose of analysis.

**Ethical Considerations:** Ethical clearance was obtained from the Institutional Ethics Committee. Confidentiality and anonymity of the participants were maintained throughout the study. Participation was voluntary, and students were informed of their right to withdraw from the study at any time without any penalty.

**Data/ statistical analysis:** The collected data were analyzed using appropriate descriptive and inferential statistics to generate the study results. Data was added into IBM-SPSS Statistics Version 22, which was then cleaned, coded, and analyzed.

**Descriptive statistics:** The mean, standard deviation, frequency, and percentage were used to describe demographic variables, Imposter Phenomenon, self-esteem, and academic performance. Pearson Correlation was used to relate CIPS, RSES and APS Chi-squared test was used to find the association of impostor and selected demographic variables.



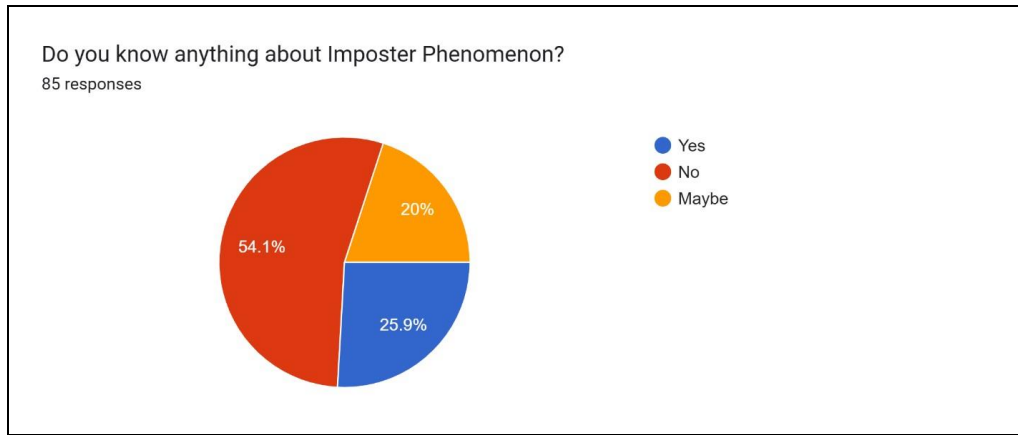


Fig 1.a: Demographic profile of the participant

**Results**

**The demographic profile (Figure 1: a-j)**

- The findings reveal that most of the respondents were Christian females, predominantly belonging to the 20- and 21-years age group, accounting for 24.7% and 22.4% respectively, and were studying in the second year BSc Nursing program. Most of the respondents had one sibling, and most of their mothers were housewives.
- Regarding interpersonal relationships, 97.6% of the students reported having a loving relationship with their parents, while only 2.4% described it as fearful. With respect to siblings, 72.9% of the students reported a loving relationship, whereas 27.1% described their relationship as friendly. Concerning peer relationships, 95.3% of the students reported having a friendly relationship with their batchmates, while 4.7% reported an intimate relationship. Relationships with teachers were reported as positive by 85.9% of the students, negative by 9.4%, and complicated by 4.7%.
- In terms of academic and co-curricular performance, 80% of the students demonstrated excellent performance in curricular activities, 9.4% showed outstanding performance, and 10.6% had poor performance. Regarding extracurricular activities, 41.2% of the students exhibited excellent performance, 9.4% outstanding performance, and 49.4% reported average performance.
- With respect to psychosocial factors, 22.4% of the students reported a fear of being teased by others, 41.2% responded “maybe,” and 36.5% reported no such fear. Concerning awareness of the imposter phenomenon, 54.1% of the students reported no knowledge, 25.9% reported having knowledge, and 20% were unsure.
- Overall, out of the 85 undergraduate students, 56.47% were found to be suffering from imposter phenomenon, indicating a high prevalence among the study population.

Table 1: comparison of CIPS, RSES and academic performance scores

	N	MEAN	SD
CIPS	85	60.31	11.78
RSES	85	48.55	5.12
APS	85	27.03	6.04

Table 1: The comparison of CIPS, RSES scores and APS Mean and Std. Deviation CIPS Mean 60.31, SD 11.78, RSES Mean 48.55, SD 5.12, APS, Mean 27.03, and SD 6.04 respectively.

Table 2: Absolute and relative frequency of imposter, low self-esteem, and academic performer.

	Frequency	%
Imposter	48	56.47
Low Self Esteem	2	2.35
Low Academic performer	23	27.05

There were 48 (56.47%) participants who were imposters (i.e., high CIPS) 2 (2.35%) participants classified as having low self-esteem (i.e., low RSES) and 23(27.05%) were low academic performer.

Table 3: Correlation and two tailed tests between Impostor phenomenon and Self-esteem

		Imposter	Self esteem
Imposter	Pearson correlation	1	.093
	Sig.(2-tailed)		.399
	N	85	85
Self Esteem	Pearson correlation	.093	1
	Sig.(2-tailed)	.399	
	N	85	85

**Interpretation of the correlation result**

The Pearson correlation analysis shows a very weak positive correlation between Imposter Phenomenon and Self-Esteem (r = 0.093). This indicates that as imposter phenomenon scores increase, self-esteem scores tend to increase slightly; however, the relationship is negligible in strength. The correlation is not statistically significant (p = 0.399, which is greater than 0.05). Therefore, the observed relationship could have occurred by chance.

**Conclusion**

There is no significant relationship between imposter phenomenon and self-esteem among the undergraduate students in the present study (N = 85). Imposter phenomenon does not appear to meaningfully influence self-esteem in this sample

**Interpretation of the correlation result**

The Pearson correlation analysis reveals a negligible positive correlation between Imposter Phenomenon and

Academic Performance ( $r = 0.024$ ). This value indicates an almost no linear relationship between the two variables. The correlation is not statistically significant ( $p = 0.826$ , which is greater than 0.05), suggesting that the relationship observed is likely due to chance.

**Table 4:** Correlation and two tailed tests between Impostor phenomenon and Academic performance.

		Imposter	Academic
Imposter	Pearson correlation	1	.024
	Sign. (2 tailed)		.826
	N	85	85
Academic	Pearson correlation	.024	1
	Sign. (2 tailed)	.826	
	N	85	85

**Conclusion**

There is no significant relationship between impostor phenomenon and academic performance among the undergraduate students in the present study ( $N = 85$ ). Thus, impostor phenomenon does not appear to have a measurable influence on academic performance in this sample.

Chi square test has been obtained to find the association of impostor phenomenon with age, relationship with batchmates, performance in curricular activities, *performance in extracurricular activities*, fear of getting teased by others and awareness of Impostor Phenomenon  $\chi^2 = 3.95$

The findings revealed that there was no statistically significant association of impostor with their selected demographic variables ( $\chi^2 = 3.95$ ,  $df = 6$ ,  $p = 0.683$ ). This indicates that the selected demographic variable did not significantly influence impostor phenomenon among the undergraduate students.

**Discussion**

The present descriptive cross-sectional study was conducted to determine the prevalence of impostor phenomenon and its relationship with self-esteem and academic performance among undergraduate BSc Nursing students. The findings provide important insights into the demographic characteristics, psychosocial factors, academic performance, and psychological wellbeing of the students.

The demographic profile revealed that the majority of the respondents were Christian females, predominantly aged 20 and 21 years, and enrolled in the second year of the BSc Nursing program. This age distribution is consistent with the typical academic progression of undergraduate nursing students in India. Most respondents had one sibling, and the majority of mothers were housewives, which may reflect the prevailing socio-cultural and familial structure of the study setting.

Interpersonal relationships among the students were largely positive. An overwhelming majority reported loving relationships with parents and siblings, and friendly relationships with batchmates. Relationships with teachers were also largely positive, although a small proportion reported negative or complicated relationships. These findings suggest the presence of a supportive social environment, which is generally considered a protective factor against psychological distress and poor self-esteem among students.

With regard to impostor phenomenon, more than half of the students (56.47%) were identified as experiencing impostor

feelings, indicating that impostor phenomenon is relatively common among undergraduate nursing students. This finding aligns with previous studies reporting a high prevalence of impostor feelings among health-care students due to academic pressure, performance expectations, and fear of failure. Despite this high prevalence, only a small proportion of students exhibited low self-esteem (2.35%), suggesting that most students were able to maintain a positive self-evaluation despite experiencing impostor feelings.

The mean scores of the Clance Impostor Phenomenon Scale (CIPS), Rosenberg Self-Esteem Scale (RSES), and Academic Performance Scale (APS) indicate moderate levels of impostor phenomenon, adequate self-esteem, and satisfactory academic performance among the respondents. Most students demonstrated excellent or outstanding academic performance in curricular activities, and average to excellent performance in extracurricular activities, reflecting overall academic competence.

Correlation analysis revealed no statistically significant relationship between impostor phenomenon and self-esteem ( $r = 0.093$ ,  $p = 0.399$ ), nor between impostor phenomenon and academic performance ( $r = 0.024$ ,  $p = 0.826$ ). These findings indicate that, in the present study, impostor feelings did not significantly influence students' self-esteem or academic performance. This may be attributed to strong peer support, positive family relationships, and effective coping mechanisms among the students.

In terms of psychosocial factors, a notable proportion of students expressed fear or uncertainty about being teased by others, which may contribute to self-doubt and impostor feelings. Additionally, more than half of the respondents reported no awareness of the impostor phenomenon, highlighting a significant gap in psychological literacy among nursing students. Lack of awareness may prevent students from recognizing and addressing impostor feelings effectively.

**Conclusion**

The present study concludes that impostor phenomenon is prevalent among undergraduate BSc Nursing students, with more than half of the respondents experiencing impostor feelings. However, these feelings were not found to have a statistically significant relationship with self-esteem or academic performance. Most students demonstrated adequate self-esteem, satisfactory academic achievement, and positive interpersonal relationships, suggesting the presence of supportive personal and academic environments.

Despite the absence of significant associations, the high prevalence of impostor phenomenon and limited awareness about it underscore the need for early identification and supportive interventions. Incorporating mental health education, mentorship programs, and counseling services within nursing education may help students recognize and manage impostor feelings effectively. Creating awareness about the impostor phenomenon and fostering a supportive academic climate can enhance students' psychological well-being, confidence, and overall academic success.

**Implications**

Understanding the influence of impostor phenomenon on self-esteem and academic performance can help educators and mental health professionals develop supportive

interventions aimed at enhancing students' self-confidence and coping strategies. Early identification and awareness programs may assist students in managing impostor feelings effectively, thereby promoting healthier academic and psychological outcomes.

### Conclusion

By addressing these objectives, we aimed to not only contribute to the expanding body of research on the IP but also to provide actionable recommendations for educational institutions seeking to create environments that foster confidence, competence, and well-being among Nursing student population. It is unclear from the literature on educational research how closely IP and self-esteem, as measured in student populations, are related. No such studies on this topic, however, was conducted on Nursing students with a substantial multicultural student body.

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### Conflict of Interest

Authors declared no potential conflicts of interest with respect to research, authorship, and/or publication of this article.

### Limitations

This study is limited to the students of Nursing college in south India. Selection bias may be introduced by convenience sampling.

### Expected Outcomes

- A profile of how common IP is among undergraduates.
- Understanding of how IP relates to self-esteem and academic performance.
- Identification of students at risk due to high impostor feelings.
- Basis for recommendations for counseling or academic support.

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