



TOPIC: “TO ASSESS THE EFFECTIVENESS OF CARE BUNDLE ON MANAGEMENT OF IMPOSTER PHENOMENON AMONG STUDENTS OF SELECTED NURSING COLLEGES”.

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ABSTRACT

Background: The Imposter Phenomenon (IP), first identified by Clance and Imes (1978), describes a psychological pattern in which individuals, particularly high-achievers, struggle to internalize their success, attributing achievements to external factors rather than competence. Research links IP to anxiety, stress, burnout, and disengagement from academic and professional opportunities. It is prevalent across various disciplines, including psychology, engineering, and medicine, and negatively impacts students' academic performance and career aspirations. Given its long-term effects on mental health and professional development, early identification and intervention in academic settings are crucial to mitigating its impact. The study explores the effectiveness of a care bundle in managing Imposter Phenomenon (IP) among nursing students, who are particularly vulnerable to psychological distress due to academic and clinical stressors. Research indicates that nursing students experience higher levels of anxiety, stress, and depression than their peers. A care bundle, comprising evidence-based interventions like workshops, discussions, and coaching, can help mitigate IP. Institutional strategies, such as diversity promotion and supervisor support, also play a crucial role. **Objectives:** 1. To assess the baseline imposter phenomenon score among students of selected nursing colleges. 2. To evaluate the effectiveness of care bundle on management of imposter phenomenon 3. To find out association of study findings with selected demographic variables **Material and method:** The research design used for the study was quasi-experimental, one group pre-test post-test design with quantitative research approach. 80 subjects were selected by the non-probability convenience sampling technique. The data was collected with the help of a self-structured questionnaire. After the pretest, the same day care bundle was conducted to reduce the severity of Imposter Phenomenon symptoms among nursing students. Post-test was conducted on the 7th day. The data was analyzed, by using descriptive and inferential statistics on the basis of objectives and hypotheses of the study. To

compute the data, a master data sheet was prepared by the investigator. The collected data was analyzed in terms of frequency, mean, percentage, standard deviation, 't-test, and chi-square. **Result:** The study assessed the Imposter Phenomenon among nursing students before and after implementing a care bundle. In the pre-test, 71.3% of students had a "frequent" level of Imposter Phenomenon, while 26.3% had a "higher" level. The scores ranged from 39 to 90, with a mean score of 74.86 ± 8.27 . After the intervention, in the post-test, 96.25% of students had a "mild" level, and 3.75% had a "moderate" level. The post-test scores ranged from 24 to 45, with a mean score of 30.45 ± 3.74 . The effectiveness of the care bundle was statistically tested using a paired t-test, comparing pre-test and post-test mean scores. The results showed a significant reduction in Imposter Phenomenon scores, confirming the effectiveness of the intervention at a 5% level of significance ($p < 0.05$). **Conclusion:** The study concluded that the care bundle is effective in managing the Imposter Phenomenon among nursing students, significantly reducing its severity. Post-test scores showed an association with age and area of residence, while other demographic factors had no significant impact. The investigator's prepared material and the care bundle intervention played a crucial role in this improvement.

Keywords: Imposter Phenomenon, Care bundle, Management, Students of Selected Nursing College.

INTRODUCTION

Imposter syndrome (IS) is a behavioural health phenomenon defined as self-doubt of intellect, skills, or accomplishments amongst high-achieving people. These people can't internalize their success and subsequently experience pervasive feelings of self-doubt, anxiety, depression, and/or apprehension of being exposed as a fraud of their work, despite verifiable and objective evidence of their successfulness. Imposter syndrome (additionally commonly-termed imposter phenomenon, fraud syndrome, impostorism, and perceived fraudulence) was first defined in 1978 through Suzanne Imes, Ph.D., and Pauline Rose Clance, Ph.D. as an observation first amongst a successful women and other marginalized groups.¹ The occurrence of Imposter Phenomenon has been established across various high-achieving professions which includes nursing, psychology, law, engineering, business, academia, and medicine, each proposing unique approaches to tackle it. Several research have related IP with depression, anxiety, burnout, and perfectionism. These result in emotional exhaustion, work-existence conflict, and, in extreme cases, even the risk of self-harm and suicide. The potential impact of Imposter Phenomenon in the healthcare sector is concerning. Imposter Phenomenon is hazard to diversity, may negatively affect patient care, obstruct individuals from pursuing management roles and further challenge their career progression and professional identity within local and national organizations. Hence, there is a growing need to deal with IP to restrict its impact within healthcare.²

Studies have suggested that nursing college students and nurses are prone to negative psychological problems, along with stress, anxiety, and depression. This is probably due to the fact nurses face effective stressors on each day basis, which includes conflicts with physicians, excessive workload, and with patients and their families.³ Negative psychological problems are well-known amongst nurses, especially amongst nursing college students.⁴ Nursing college students battle to cope with not only the stressors common in higher education institutions but also with the stressors of clinical practice. Furthermore, there is evidence that nursing college students exhibit higher levels of negative psychological problems than the general student population⁵. As susceptible groups, each nursing college students and nurses experience emotions related to the Imposter Phenomenon that affect not only their personal mental health but also their level of patient care.⁶ This can be due to fact the Imposter Phenomenon can cause low self-esteem and even burnout.⁷ Accordingly, it is far critical to take note of the Imposter phenomenon amongst nursing college students and nurses. A care bundle is a set of evidence-based interventions aimed at addressing a particular problem. In this case, the care bundle would be designed to manage Imposter Phenomenon amongst nursing college students. Early studies indicate person and group psychotherapy principles such as validating doubts and addressing individual fears of failure as potential methods to alleviate feelings of Imposters. Group and individual interventions such as

workshops, small group discussions and coaching is useful to overcome IP in healthcare. Institutional changes like diversity promotion, supervisor education, and support networks are crucial in managing IP. Further long term and speciality specific assessments are needed to evaluate impact. Educational awareness and a variety of strategies can be implemented to create a supportive environment for professionals dealing with IP, promoting their well-being and success.⁸

OBJECTIVES

- 1) To assess the baseline imposter phenomenon score among students of selected nursing colleges.
- 2) To evaluate the effectiveness of care bundle on management of imposter phenomenon
- 3) To find out association of study findings with selected demographic variables

HYPOTHESIS

H₀: There is no significance difference between pre-test and post-test on management of care bundle interventions

H₁: There is significant difference between pre-test and post-test on management of care bundle interventions

MATERIAL AND METHODS

Research Design- Pre-experimental One Group Pre-Test Post-Test Research Design

Research Setting - The study will be conducted in Selected Nursing Colleges of Nagpur district, Maharashtra, India.

Participants- Students of Nursing Colleges

Sample size calculation:

Formula used:

$$n = (Z^2 * p (1-p)) / MOE^2$$

- Z= 1.96 (FOR 95% confidence)
- P= 0.5 (estimated proportion)
- MOE= 0.5 (margin of error)

Putting this value in formula the required sample size is 72.5

Adding 10% nonresponse rate i.e, 7.2

The required sample size is 79.7=80

Sampling Technique - Nonprobability Convenience Sampling

Inclusion criteria:

In this study, the inclusion criteria were

- Those who have informed written consent to participate in the study
- 2nd and 3rd semester BSc (N) Students

Exclusion criteria:

In this study, the exclusion criteria were

- The student nurses who are already participated such type of management of Imposter Phenomenon

VARIABLES**Demographic Variables:**

Age, Gender, Year of study, Socio-Economic status, Area of residence

Independent Variable:

Care Bundle.

Dependent Variable:

Imposter Phenomenon

Description of the Tool

The tool used for data collection in this study consisted of two parts:

Part I: Demographic Data

A self-structured questionnaire was developed to collect baseline information about the participants. It included variables such as:

- Age
- Gender
- Year of study
- Socio-economic status of family
- Area of residence

This information was used to assess associations between demographic variables and levels of Imposter Phenomenon.

Part II: Clance Imposter Phenomenon Scale (CIPS)

The standardized Clance Imposter Phenomenon Scale (CIPS), developed by Pauline Clance (1985), was employed to measure the presence and severity of Imposter Phenomenon among nursing students.

- The scale consists of 20 items, rated on a 5-point Likert scale ranging from *1 = not at all true* to *5 = very true*.

- The total score ranges from 20 to 100.
- Score interpretation:
 - ≤ 40 – Few Imposters characteristics
 - 41–60 – Moderate IP experiences
 - 61–80 – Frequent IP experiences
 - > 80 – Intense IP experiences

VALIDITY AND RELIABILITY:

Construct validity was established by referring to previous research confirming that the Clance Imposter Phenomenon Scale (CIPS) is a valid measure of Imposter Phenomenon (IP).¹² Factor analysis consistently identified key dimensions—self-doubt, fear of failure, and external attribution for success—confirming its multidimensional construct. Content validity was ensured through expert review, which verified the relevance and clarity of all 20 items for nursing students. Reliability was supported by high internal consistency (Cronbach's $\alpha = 0.85\text{--}0.96$) reported in prior studies and by the present study's parallel-form reliability ($r = 0.727$; reliability coefficient = 0.8381), confirming the tool's stability and consistency.

INTERVENTION (CARE BUNDLE)

The care bundle included:

1. **Psychoeducation:** On IP, triggers, and coping strategies.
2. **Peer support groups:** To share experiences and foster mutual support.
3. **Mentoring:** Sessions with faculty/clinical guides.

The intervention consisted of a structured Care Bundle implemented immediately after the pre-test, lasting approximately two hours. It included a psychoeducation session 45 minutes to raise awareness about Imposter Phenomenon, its triggers, consequences, and coping strategies through an interactive lecture, case examples, and Question and answer. This was followed by peer support group discussions 30 minutes where students were divided into small groups to share experiences, brainstorm coping mechanisms, and provide mutual encouragement. Mentoring and faculty interaction sessions 30 minutes offered guidance on managing academic and clinical stress, promoting help-seeking behaviour, and utilizing institutional resources. Practical exercises included reflective journaling to reframe negative thoughts and affirmation-building activities to enhance self-confidence. A WhatsApp peer group was created for continued support during the 7-day interval before the post-test, which was conducted on Day 7 to assess the effectiveness of the intervention.

DATA COLLECTION

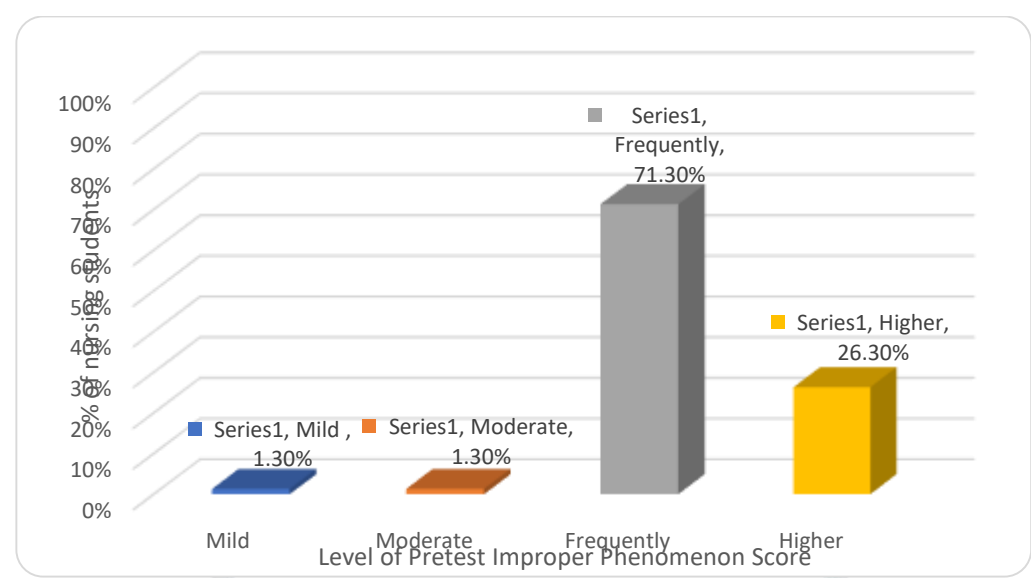
The Clance Imposter Phenomenon Scale (CIPS) was used to assess IP levels. Pre-test was conducted before the intervention; post-test was administered after 7 days.

STATISTICAL ANALYSIS

Data were analyzed using SPSS. Descriptive statistics (mean, SD, frequency, percentage) summarized data. Paired t-test assessed effectiveness. Chi-square tested associations with demographic variables.

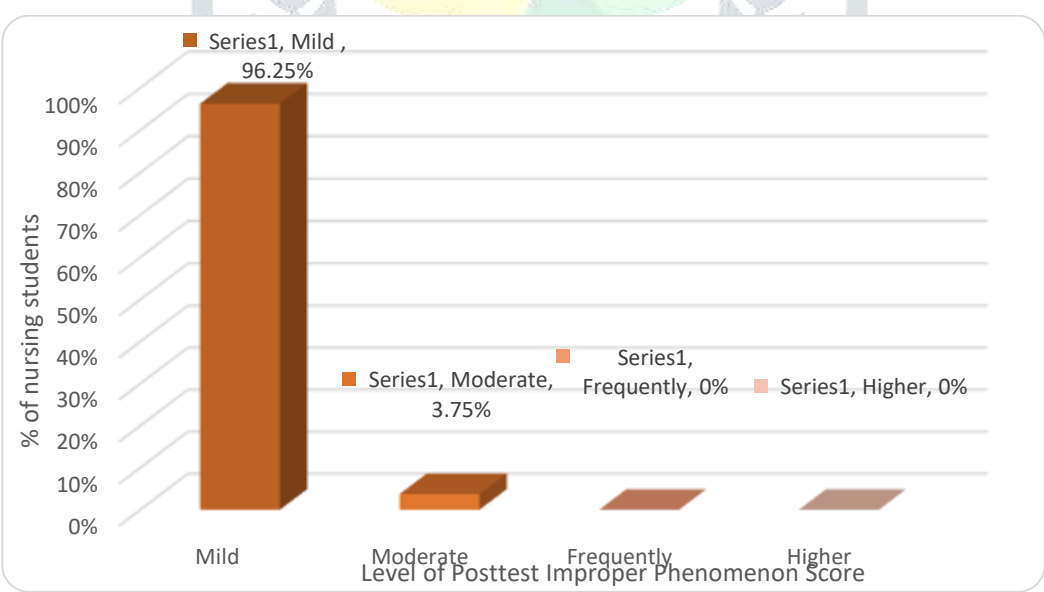
RESULTS: The care bundle intervention produced a marked and statistically significant reduction in Imposter Phenomenon scores among nursing students.

Graph 1. Assessment with level of pretest Imposter Phenomenon score



Graph 1. shows that 71.30% of nursing students in pre-test had Frequently level of Imposter Phenomenon Score and 26.3% had Higher level of Imposter Phenomenon Score. Minimum Imposter Phenomenon score in pretest was 39 and maximum Imposter Phenomenon score in pre-test was 90. Mean Imposter Phenomenon score in pretest was 74.86 ± 8.27 and mean percentage of Imposter Phenomenon score in pretest was 74.86 ± 8.27 .

Graph 2. Assessment with level of post-test Imposter Phenomenon score



Graph 2. shows that 96.25% of nursing students in post-test had mild level of Imposter Phenomenon Score and 3.75% had Moderate level of Imposter Phenomenon Score. Minimum Imposter Phenomenon score in post-test was 24 and

maximum Imposter Phenomenon score in post-test was 45. Mean Imposter Phenomenon score in post-test was 30.45 ± 3.74 and mean percentage of Imposter Phenomenon score in post-test was 30.45 ± 3.74 .

Table 1. Significance of difference between Imposter Phenomenon score in pre and post-test of Nursing Students

Overall	Mean	SD	Mean Difference	t-value	p-value
Pre-Test	74.86	8.27	44.41 ± 9.63	41.21	0.0001 S, $p < 0.05$
Post-Test	30.45	3.74			

Table 1. shows the comparison of pretest and post-test Imposter Phenomenon scores of nursing students from selected nursing colleges. Mean, standard deviation and mean difference values are compared and student's paired 't' test is applied at 5% level of significance. The tabulated value for $n=80-1$ i.e. 79 degrees of freedom was 1.98. The calculated 't' value i.e. 41.21 are much higher than the tabulated value at 5% level of significance for overall Imposter score of nursing students which is statistically acceptable level of significance. Hence it is statistically interpreted that the Care Bundle on management of Imposter Phenomenon among nursing students from selected nursing colleges was effective. Thus, the H_1 is accepted.

DISCUSSION

The study aimed to evaluate the effectiveness of a care bundle in managing Imposter Phenomenon (IP) among nursing students.

Baseline IP Scores: Pre-test results showed 71.3% of students had "frequent" IP and 26.3% had "higher" levels, with a mean score of 74.86 ± 8.27 , indicating severe IP. These findings are consistent with Christensen et al. (2016), who reported high prevalence of IP among nursing students, and Peng et al. (2022), who noted rates ranging from 19–100%.¹⁰

Effectiveness of Care Bundle: Post-intervention, 96.25% of students reported "mild" IP, with a mean score of 30.45 ± 3.74 . The paired t-test ($t = 41.21$, $p < 0.05$) confirmed a significant reduction (mean difference = 44.41 ± 9.63), demonstrating the care bundle's effectiveness. This aligns with Siddiqui et al. (2024), who emphasized psychoeducation and peer support in IP management.⁸

Association with Demographic Variables: Significant associations were found with age and residence, with younger students and rural residents showing higher IP levels, supporting findings by Siraj et al. (2024). No associations were found for gender, year of study, or socioeconomic status.¹¹

LIMITATION

- The study was limited to assess the effectiveness care bundle on management of Imposter Phenomenon among Nursing Students

RECOMMENDATIONS

Based on the findings of the study the following recommendations are made:

- A similar study can be replicated on a larger population for a generalization of findings.
- A study may be conducted to evaluate the effectiveness of care bundle on management of Imposter Phenomenon.
- A similar study can be conducted for nursing students as well as nurse educators.
- A similar study can be conducted among community health leader e.g., ASHA, ANM, MPW.

CONCLUSION

The study concludes that care bundle interventions are effective in managing Imposter Phenomenon among nursing students. Integrating structured psychological support programs in nursing curricula may reduce IP, enhance student mental health, and improve academic and clinical outcomes.

CONSENT AND ETHICAL APPROVAL:

The present study was approved by the Institutional Ethics Committee and concerned authorities of Government Medical College, Nagpur (GMC/IEC/2024/2106 dated 23.02.2024). All participants of this study were asked to read and sign the written informed consent form.

Conflict Of Interest: Authors declare no conflict of interest.

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