

AWARENESS AND PERCEPTION OF NURSE PRACTITIONER IN CRITICAL CARE PROGRAMME AMONG UNDERGRADUATE NURSING STUDENTS

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ABSTRACT

Introduction: The Nurse Practitioner in Critical care programme aims to equip nurses with advanced skills and knowledge to manage critically ill patients. Understanding the level of knowledge and perception of this programme among undergraduate nursing students is crucial for enhancing educational strategies and promoting career advancement in Critical Care Nursing. The objective of the study is to assess the knowledge and perceptions about Nurse Practitioner in Critical Care Programme among Under Graduate Nursing Students.

Materials and Methods: A descriptive study was carried out in a single setting with a sample size of 202. The participants were recruited through Non Probability Convenience sampling technique. The data was collected using a structured knowledge questionnaire and a 3-point rating scale to assess the perceptions.

Results: The mean level of knowledge about the NPCC Programme was 6.25(SD = 1.00) indicating a moderate understanding among the students. The mean level of perception was 39.64 (SD= 35.38) reflecting a wide range of perceptions. The Wilcoxon signed rank test revealed a significant difference between the level of knowledge and perception ($p < 0.001$) indicating that students' knowledge and perceptions about the NPCC Programme vary significantly. **Conclusion:** The study highlights a moderate level of knowledge and a highly variable level of perception about the NPCC programme among undergraduate nursing students. The significant difference in knowledge and perception levels demands for targeted educational interventions to improve awareness and understanding of the programme. Improving knowledge and perception could encourage students to pursue this novice programme and ultimately contributing to the raising critical care demands.

Keywords: Nurse Practitioner in Critical care programme, undergraduate nursing students, knowledge, perception, awareness, critical care nursing.

INTRODUCTION

Nurse Practitioner in Critical Care Post Graduate programme is a novel programme which was introduced in India since 2017 with the intention to neutralize crisis in the CCUs. Since its

inception different institutes has implemented it successfully. But when we look at the overall admission rates for NPCC programme, it is less compared to the sanctioned number of seats per institute.

The undergraduate Nursing students lack awareness about the programme and its scope which leads to poor choice when it comes to Postgraduate admissions. The government of India and INC have initiated NP program in critical care to address the needs of increasing critical care admissions. However, NPs in the critical care program provide hope for improving the critical care nursing services in the country.¹

Kodi et.al conducted a descriptive, cross-sectional pilot study at AIIMS Rishikesh, Uttarakhand, India, among 205 participants using a proportionate stratified random sampling technique to assess the perception, perceived scope of practice, and potential barriers in developing a NP cadre in India. They concluded that participants had favorable views on employing NPs in India; thus, this role will improve healthcare access for beneficiaries. However, a lack of awareness, no cadre structure, and lack of a clear policy may hinder the development of the NP cadre in India.²

The Primary Objective of this Descriptive study was to “Assess the knowledge and perceptions about Nurse Practitioner in Critical Care Programme among undergraduate Nursing Students.”

The Study aims to determine the extent of awareness of the NPCC Programme among undergraduate Nursing Students. The study will throw insights to identify specific areas where students lack information or hold misconceptions about the programme. It will analyze how awareness levels vary based on demographic factors. The Research article is organized into the following sections: introduction, materials and methods, results, discussion and conclusion.

NEED OF THE STUDY

General public knowledge about NP roles and lack of understanding by healthcare personnel have been problematic over time. Further, it is the most frequently reported barrier, leading to a lack of acceptance of the role. As it is a novel/less known concept in India, it's essential to familiarize the concept regarding the role and responsibilities of NP to the beneficiaries and health care personnel to gain acceptance of the cadre.² Mokal et. al conducted a descriptive study with 60 final year undergraduate nursing students where they concluded that students have average knowledge and favourable attitude towards Nurse Practitioner in Critical Care Programme.³

Undergraduate Nursing students are the future of the Nursing workforce and their awareness of NPCC Programme influence their career choices. A gap in knowledge about the scope and benefits of NPCC Programme may affect their willingness to pursue the programme. Therefore, it is important to familiarize the concept and scope of NPCC programme among the undergraduate Nursing students.

Insights into the awareness and perceptions of the NP programme among undergraduate nursing students can inform health care policy makers about the greater need for integration of NP into the Critical care. Improved awareness among undergraduate nursing students about the contributions of NP can promote better collaboration and integration of role in clinical settings. A brief idea

about the awareness and perceptions of the undergraduate nursing students about the programme can guide plan targeted educational interventions.

The Researcher felt the need to assess the awareness and perceptions about the NPCC programme among undergraduate nursing students to ensure that future nursing professionals are well informed about the role of NP in critical care. The Researcher believes that the findings of the study will pave pathway for bridging the knowledge gap and foster a more informed, prepared and collaborative future nursing workforce.

AIM OF THE STUDY

The study aims to assess the knowledge and perceptions about the Nurse Practitioner in Critical care Programme among the undergraduate nursing students. It seeks to evaluate their understanding of NP and identify the knowledge gaps.

MATERIALS AND METHODS

Research Design

A Descriptive design was used to assess the knowledge and perceptions about Nurse Practitioner in Critical Care Programme among Under Graduate Nursing Students.

Site and Participants

The study was conducted at a Nursing College offering Under graduate and Post graduate Nursing Programmes including M.Sc Nurse Practitioner in Critical Care Programme. 202 Under graduate Nursing students enrolled in B.Sc Nursing programme at the institute were selected for the study through Non Probability Convenience Sampling method. The Participants were recruited into the study after obtaining informed consent.

Data Collection Instruments

The data was collected through a Structured knowledge questionnaire to assess their Level of knowledge about the Nurse Practitioner in Critical Care Programme and a 3 point Likert Rating Scale to assess their Level of Perception about the Nurse Practitioner in Critical Care Programme. The Structured Knowledge questionnaire on Nurse Practitioner in Critical Care Programme consisted of a) Demographic profile b) Seven knowledge questions about the Nurse Practitioner in Critical Care Programme. The Perception assessment tool consisted of 15 statements to rate. The items were based on a 3-point Likert scale ranging from 1 “Disagree”, 2 “Neutral”, 3 “Agree”. The tool was administered to the participants to rate their level of perception about the Nurse Practitioner in Critical Care Programme.

Procedure

The participants were informed about the purpose of the study and invited to participate as per the inclusion and exclusion criteria and those who had completed 6 month of training as an Under Graduate Nursing student were included in the study after obtaining informed consent.

Inclusion Criteria: Undergraduate Nursing students enrolled for B.Sc Nursing Programme and has completed at least 6 months of training as a Nursing student.

Exclusion Criteria: Undergraduate Nursing students enrolled for P.B.B.Sc Nursing Programme and not regular in his/her attendance to the College.

All required procedures were followed during the course of data collection. The participants were administered the tools for data collection through google forms making it cost effective and time saving.

Data Analysis

The Quantitative data collected from the participants was analysed using Frequency, Percentage, Mean and Standard deviation and illustrated in the tables. The Wilcoxon signed rank test was applied to compare the level of knowledge and perceptions among the Under Graduate Nursing Students and Chi-square was used to determine the association with the demographic variables.

RESULTS

The demographic data of the study participants depicted that most of the respondents (90%) of the study belongs to 17 - 21 year age group, 9% belongs to 22 -24 year age group and only 1% were above 24 years. Majority of them were females (87.6%), and 12.4% were males. 41.1% were first year students, 25.2% were second year students, 23.3% were third year students and 10.4% were fourth year students. Majority of them (83.2%) claimed that they had previous knowledge about the programme. Few (16.8%) did not have previous information about the programme. Their sources of information about the programme included the following Internet (3.4%), College (66.8%), faculty (3%), students (6%), Deeksharambh (2.5%) and friends and family (1.5%). Only 61.4% showed interest to prefer Nurse Practitioner in Critical care programme and 38.6% did not show interest in Nurse Practitioner in Critical care programme

Table 1: Distribution of Undergraduate Nursing Students based on the level of knowledge about NPCC Programme:

n = 202

Level of Knowledge	Poor		Moderate		Good	
	f	%	f	%	f	%
Undergraduate Nursing Students	30	14.9	172	85.1	0	0

The above table depicts that 14.9% of the undergraduate nursing students had poor knowledge, 85.1% had moderate knowledge and no one had good knowledge about the Nurse Practitioner in Critical care programme.

Table 2: Distribution of Undergraduate Nursing Students based on the level of Perception about NPCC Programme:

n = 202

Level of Perception	Negative Perception		Neutral Perception		Positive Perception	
	f	%	f	%	f	%
Undergraduate						

Nursing Students	32	15.84	136	67.33	34	16.83
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The above table shows that 15.84% of the undergraduate nursing students had negative perception, 67.33% had neutral perception and 16.83% had positive perception about the Nurse Practitioner in Critical care programme.

Table 3: Comparison of Level of Knowledge and Perception between Undergraduate Nursing students

n = 202

Categories	Mean	SD	Wilcoxon Signed Rank Test	Significance at 5% level
Level of Knowledge	6.25	1.00	1434.5	0.000
Level of Perception	39.64	35.38		P<0.05 S***

The comparison of the Level of knowledge and perception between the undergraduate nursing students shows a statistically significant difference. The level of knowledge is relatively consistent among the students as shown by the low standard deviation. The level of perception shows a wide variability as evidenced by high standard deviation. The significant Wilcoxon signed rank test result confirms the difference in means between knowledge and perception is not due to random chance and is statistically significant. It concludes that there is significant difference between the level of knowledge and perception among the undergraduate nursing students.

Table 4: Association of Level of knowledge about NPCC Programme among Undergraduate Nursing students with demographic variables

n = 202

Demographic Variable	Chi-square	P value	Significance
Age in years	60.49	P<0.00001	S***
• 17 – 21 years			
• 22 – 24 years			
• Above 24 years			
Gender	63.78	P<0.00001	S***
• Male			
• Female			

Year of Study			
• I Year	3.43	P>0.05	NS
• II Year			
• III Year			
• IV Year			
Previous Knowledge about NPCC Programme	17.67	P<0.05	S
• Yes			
• No			
Source of Information	22.85	P<0.01	S*
• Don't Know			
• Internet			
• College			
• Faculty			
• Students			
• Deeksharambh (Induction)			
• Friends and Family			
Prefers to join NPCC Programme	12.60	P<0.001	S**
• Yes			
• No			

The association table of Level of knowledge about Nurse Practitioner in Critical Care Programme among Undergraduate Nursing students with their demographic variables shows that there is significant association between the variables such age in years, gender, previous knowledge about NPCC Programme, source of information and their preference to join NPCC Programme. Also it shows that there is no significant association with year of study. Hence it is inferred that there is significant association between the level of knowledge and age in years, gender, previous knowledge about NPCC Programme, source of information, preference to join NPCC Programme. There is no significant association between the level of knowledge and year of study.

DISCUSSION

The data was collected from 202 undergraduate nursing students enrolled in B.Sc Nursing programme at an institution offering both undergraduate and postgraduate programmes. Most of the respondents (90%) of the study belongs to 17 - 21 year age group, majority of them were females (87.6%), 41.1% were first year students, 25.2% were second year students, 23.3% were third year students and 10.4% were fourth year students. Majority of them (83.2%) claimed that they had previous knowledge about the programme. Their sources of information about the programme included the following Internet (3.4%), College (66.8%), faculty (3%), students (6%), Deeksharambh (2.5%) and friends and family (1.5%). Only 61.4% showed interest to prefer Nurse Practitioner in Critical care programme.

The findings of the study show that 14.9% of the undergraduate nursing students had poor knowledge, 85.1% had moderate knowledge and no one had good knowledge about the Nurse Practitioner in Critical care programme. The mean level of the knowledge among students was found to be 6.25 with a standard deviation of 1.00. This suggests that while there is a moderate understanding of the NPCC program, there is still room for improvement. The moderate level of the knowledge may be attributed to limited exposure to the programme during undergraduate studies. Given the critical role that Nurse Practitioners play in managing critically ill patients, it is imperative to enhance the knowledge of the undergraduate nursing students about the programme. Van Soeren et. al has stated in his study that lack of knowledge of the role is the main cause for lack of acceptance of the programme⁴. Donald et.al highlights in his study that Lack of awareness and understanding about NP roles among the healthcare team and the public contributes to ambiguous role expectations, confusion about NP and scope of practice⁵.

The finding of the study reveals that 15.84% of the undergraduate nursing students had negative perception, 67.33% had neutral perception and 16.83% had positive perception about the Nurse Practitioner in Critical care programme. The perception of the Nurse Practitioner in Critical care programme among the undergraduate nursing students was highly variable with a mean of 39.64 and a standard deviation of 35.38. This wide variability indicates diverse perceptions about the programme indicating that some might have misconceptions or lack adequate information about the benefits and opportunities of the programme. Enhancing the perception through providing detailed information on the programme objectives, success stories of the NPCC graduates, and the impact of Nurse Practitioners in critical care settings.

The comparison of the Level of knowledge and perception between the undergraduate nursing students shows a statistically significant difference. The level of knowledge is relatively consistent among the students as shown by the low standard deviation. The level of perception shows a wide variability as evidenced by high standard deviation. The significant Wilcoxon signed rank test result confirms the difference in means between knowledge and perception is not due to random chance and is statistically significant.

It concludes that there is significant difference between the level of knowledge and perception among the undergraduate nursing students. This underscores the need for targeted educational interventions and the gap can be addressed by multifaceted approach which include curriculum enhancement, awareness campaigns, experiential learning along with NPCC Graduates. The Findings of Manal Banaser et.al indicate that advanced practitioners' educational preparedness, organizational, and contextual factors are important factors that need to be addressed to promote their role and to improve perception about the Nurse Practitioner in Critical care. There was little understanding of the role of Nurse Practitioners⁶.

The association of Level of knowledge about Nurse Practitioner in Critical Care Programme among Undergraduate Nursing students with their demographic variables shows that there is significant association between the variables such age in years, gender, previous knowledge about NPCC Programme, source of information and their preference to join NPCC Programme. Also it

shows that there is no significant association with year of study. Hence it is inferred that there is significant association between the level of knowledge and age in years, gender, previous knowledge about NPCC Programme, source of information, preference to join NPCC Programme. There is no significant association between the level of knowledge and year of study.

CONCLUSION

Awareness of Nurse Practitioner in Critical Care programme among Under Graduate Nursing students is essential to improve the choice of programme for higher studies. This descriptive study aimed to explore the awareness and perception of Nurse Practitioner in Critical care programme among Under Graduate Nursing students. The above findings reveal a varied level of awareness among the Under Graduate Nursing students. The majority of participants demonstrated a basic understanding of the programme. However, a significant portion of the samples exhibited limited awareness of the programme.

These results highlight the importance of enhancing educational initiatives to promote clear comprehension and uptake of the Nurse Practitioner in Critical care programme among future Nursing Professionals. Addressing misconceptions and providing comprehensive information could potentially increase the student interest in choosing the programme, thereby contributing to the enhancement of Critical care services.

Suresh K Sharma et.al suggests that the NP role implementation process must be proactive with a suitable model through well-defined roles, awareness, licensure, and cadre creation⁷. Further Research focusing on the effectiveness of targeted educational interventions and longitudinal studies tracking awareness trends over time could provide valuable insights for improving programme visibility and engagement among undergraduate nursing students.

Limitations

The study provides only a single snapshot of the awareness levels. The reliance of the self-reported data can be biased and the findings cannot be generalized to all undergraduate Nursing students in different regions or institutions.

Conflicts of Interest: There is no conflict of interest between the authors

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