



AstudyToAssessTheKnowledge Regarding ForensicNursingAmongUndergraduateStudentsOf Selected Nursing College Of Bhopal

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Abstract:

Abstract:

This study explores the critical role of forensic nursing in connecting healthcare and the legal system, particularly in emergency and disaster settings. It identifies significant gaps in education and training, emphasizing the need for specialized programs to improve knowledge among nursing students. Quantitative research conducted at Career College of Nursing in Bhopal reveals associations between forensic nursing knowledge and socio-demographic factors. Findings advocate for curriculum reform and policy initiatives to strengthen the forensic nursing workforce, ultimately enhancing patient care and legal outcomes.

Keywords:forensic nursing, education, research, emergency settings, disaster settings, knowledge gaps, curriculum reform, policy initiatives, socio-demographic factors, nursing students, patient care, legal outcomes.

Introduction:

Forensic nursing is a specialized field that bridges healthcare and the legal system, playing a crucial role in addressing violence, abuse, and trauma. Forensic nurses are responsible for providing medical care to victims while ensuring the proper collection and preservation of forensic evidence for legal proceedings. Their work extends to collaborating with law enforcement, testifying in court, and supporting criminal investigations.

Despite its growing importance, forensic nursing remains underrecognized in many healthcare settings. Studies highlight gaps in knowledge, training, and integration within emergency departments and broader clinical environments. While forensic nursing has gained traction in countries like the United States and Canada, its development in regions such as India is still in its early stages, with educational programs recently introduced to bridge the gap between healthcare and the judiciary.

This research explores the evolving role of forensic nursing, its challenges, and the need for structured education and policy frameworks to enhance forensic healthcare practices. By analyzing global trends and existing studies, the study aims to highlight the significance of forensic nursing in strengthening medico-legal systems and improving patient care outcomes.

Review of Literature:

Forensic nursing plays a crucial role in bridging the gap between healthcare and the legal system, ensuring proper care for victims while preserving crucial forensic evidence. Several studies highlight the evolving scope, challenges, and educational needs in this field.

Forensic Nursing in Emergency and Disaster Settings

Research by Oliveira Citolinet et al. (2024) indicates that while forensic practices are embedded in emergency nursing, many professionals do not recognize their role in forensic procedures. Similarly, Silva et al. (2022) emphasize the critical contributions of forensic nurses in disaster situations, where their role spans medical, psychological, and legal aspects of care. These studies highlight the need for structured forensic training to enhance nurses' effectiveness in evidence collection and victim support.

Education and Training Needs in Forensic Nursing

Studies by Maguire et al. (2022), Doğan et al. (2022), and Machado et al. (2018, 2020) consistently report a gap in forensic nursing education. While forensic nursing courses positively impact students' understanding of forensic procedures, their inclusion in undergraduate curricula remains limited. Özden et al. (2018) advocate for making forensic nursing a mandatory course, reinforcing the need for specialized postgraduate programs. Reis et al. (2021) stress the importance of integrating forensic nursing concepts into nursing education to better equip future professionals.

Forensic Nursing and Violence-Related Cases

The role of forensic nurses in addressing violence is emphasized in studies by Valentine et al. (2024) and Emami et al. (2023), which highlight the need for trauma-informed, evidence-based care. These studies underscore the necessity of integrating forensic nursing protocols into emergency settings to improve the response to victims of violence. Similarly, Upreti et al. (2021) stress the role of nursing education in addressing societal violence, advocating for the inclusion of forensic nursing principles in nursing programs.

Challenges and Workforce Issues in Forensic Nursing

Oates et al. (2020) explore workforce challenges in forensic mental health nursing, identifying staffing shortages, workplace constraints, and inequities in working conditions as major barriers to sustaining forensic nursing services. Garg et al. (2018) discuss the difficulties forensic nurses face in cases of human trafficking, highlighting the importance of interdisciplinary collaboration and continued professional training. The reviewed studies collectively emphasize the expanding role of forensic nurses in emergency, mental health, and disaster settings. While forensic nursing is vital for evidence collection and victim care, there is a significant gap in education and training. Addressing these gaps through curriculum reform, specialized training, and policy initiatives will enhance forensic nurses' ability to support both patients and the justice system effectively.

OBJECTIVE:-

To assess the knowledge regarding forensic nursing among undergraduate students of selected nursing college.

1. To assess the association between sociodemographic data and knowledge regarding forensic nursing among undergraduate students of selected college Bhopal.

Hypothesis - H₀: There is no significant association in the level of knowledge regarding forensic nursing among undergraduate students of the selected nursing college.

H₁: There is a significant association in the level of knowledge regarding forensic nursing among undergraduate students of the selected nursing college.

Research Methodology:-

This study adopted a **quantitative research approach** using structured questionnaires to assess the knowledge of forensic nursing among nursing students. An **exploratory research design** was implemented, with the study conducted at **Career College of Nursing, Bhopal**, selected based on geographical proximity, subject availability, and feasibility. The **target population** included undergraduate nursing students aged **18-31 years**, with a **sample size of 100 students**, selected through a **systematic sampling technique**.

Data collection involved **demographic information** and a **structured questionnaire** to evaluate forensic nursing knowledge. The tool's **validity** was ensured through expert review, while **reliability**, measured using a questionnaire method, yielded an '**r**' value of **1.87**. A **pilot study** was conducted on **January 24, 2024**, at **SAM College of Nursing, Bhopal**, with 40 students to test feasibility and reliability.

Ethical considerations included obtaining **written permission** from the college principal, and data was collected via **Google Datasheet** over **one day**. The **main study**, conducted on **February 13, 2024**, involved a **pre-test with 100 students**. **Descriptive statistics** (percentage, mean, and standard deviation) and **inferential statistics** (paired 't'-test and chi-square test) were used for data analysis. This methodology ensures a structured and ethical approach to understanding forensic nursing knowledge among nursing students.

Result :- The findings indicate a **significant association** between forensic nursing knowledge and specific **socio-demographic variables** at $p < 0.05$. Age groups **18-20 years (P-0.671, SD-0.25)** and **20-22 years (P-0.952, SD-0.5)** demonstrated a significant relationship, while the older age groups showed no such association. Both **male (P-0.923, SD-0.90)** and **female (P-0.737, SD-0.5)** participants had a significant association with knowledge levels. Among religious groups, **Hindu participants (P-0.848, SD-0.81)** had a significant association, whereas other religions did not. In terms of education, **B.Sc. Nursing (P-0.991, SD-1.69)** and **GNM (P-0.007, SD-0.0)** students showed a significant association with forensic nursing knowledge. Additionally, **married participants (P-0.531, SD-0.81)** had a significant association, while **unmarried students** did not.

These results support **H1**, confirming a **significant association** between forensic nursing knowledge and socio-demographic variables among nursing students at a **$p < 0.05$ significance level**.

Conclusion: The study to assess the knowledge regarding forensic nursing highlights the critical need for enhanced awareness and education in this specialized field. The findings suggest that while participants demonstrate a basic understanding of forensic nursing, significant gaps remain in their comprehension of its scope, application, and importance in bridging healthcare and legal systems. Strengthening educational initiatives and integrating forensic nursing concepts into nursing curricula and professional development programs are essential steps to empower healthcare providers with the skills and knowledge required to contribute effectively to forensic investigations and support victims of violence and trauma. This underscores the importance of continued research and collaboration to advance the field and its impact on healthcare and justice systems.

Limitations:

The researcher could not generalize the study findings as the sample size is small and also conducted the study in single setting. The researcher does not conduct this study in large group and also in longer duration.

Result statistics:-

The collected data was tabulated, organized and analyzed by using descriptive and inferential statistics.

- Demographic variable in categories were given in frequency with their percentage
- Association between demographic variable and knowledge score analyzed
- Simple bar diagram, Multiple bar diagram and Box plot were used to represent the data

Section-A

Distribution of nursing college students according to their selected demographic variables

Section-B

A distribution of pre-existing knowledge among nursing students of forensic nursing

Section-C

Distribution of the association between knowledge on forensic nursing and sociodemographic data

Section-A Distribution of nursing college students according to their selected demographic variables**Table-4.1** Age

Age	No. of Respondents	% of respondents
20 to 22 years	38	37.37 %
18 to 20 years	45	45.45 %
22 to 24 years	13	13 %
24 to 26 years	04	4 %
Total	100	100 %

Fig-4.1 Age

N=100

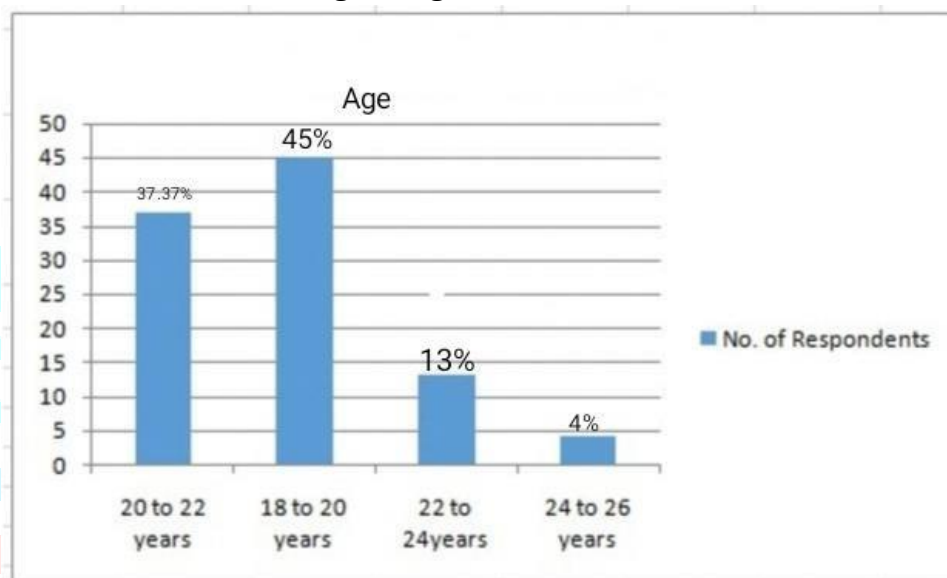


Fig and table 4.1 shows the frequency and percentage distribution of nursing college students according to their age (N=100). Bar chart diagram shows the age of nursing students. Age group 18 to 20 years showed highest % as 45.54 % with 45 frequency whereas on contrast age group 24 to 26 years showed lowest % as 4% with 4 frequency. The age group 20 to 22 years showed 37.37% with frequency of 37 students and age group of 22 to 24 years showed 13% with 13 frequency. Total number of samples is 100.

Table-4.2 Gender

Gender	No of Respondents	% of Respondents
Male	65	65%
Female	35	35%
Total	100	100%

Fig-4.2 Gender

N=100

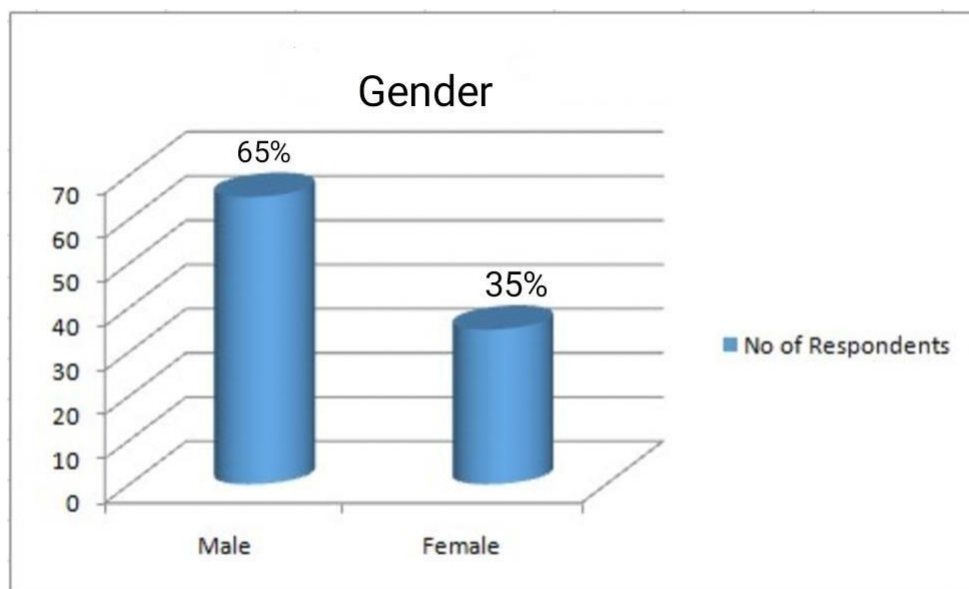


Fig and table 4.2 shows the gender distribution of respondents in a survey. Out of a total of 100 respondents, 65 identified as male, representing 65% of the total participants. On the other hand, 35 respondents identified as female, accounting for the remaining 35% of the group. This breakdown highlights a higher proportion of male respondents compared to female respondents, resulting in a 30% difference between the two groups.

Table-4.3 Nursing Course

Course	No. of Respondents	% of respondents
BSC Nursing	66	66 %
GNM	34	34 %
Total	100	100 %

Fig-4.3 Nursing Course

N=100



Fig and table 4.3 shows the recent survey to understand the distribution of students among different nursing courses, data was gathered to indicate the number of respondents pursuing either B.Sc. Nursing or General Nursing and Midwifery (GNM). The results reveal that out of a total of 100 respondents, 66 are enrolled in the B.Sc. Nursing program, representing 66% of the surveyed population. This suggests that the B.Sc. Nursing course is the more popular choice, drawing a significant majority. On the other hand, 34 respondents, making up 34% of the total, are pursuing the GNM course. This indicates that while there is substantial interest in GNM, it appeals to a smaller segment compared to the B.Sc. Nursing course. Overall, the data underscores a clear preference for B.Sc. Nursing among the surveyed group, highlighting trends in course selection within the field of nursing education.

Table-4.4 Knowledge regarding forensic nursing

Sectors	No. of Respondents	% of respondents
Yes	70	70%
No	30	30 %
Total	100	100 %

Fig-4.4 Knowledge regarding forensic nursing

N=100

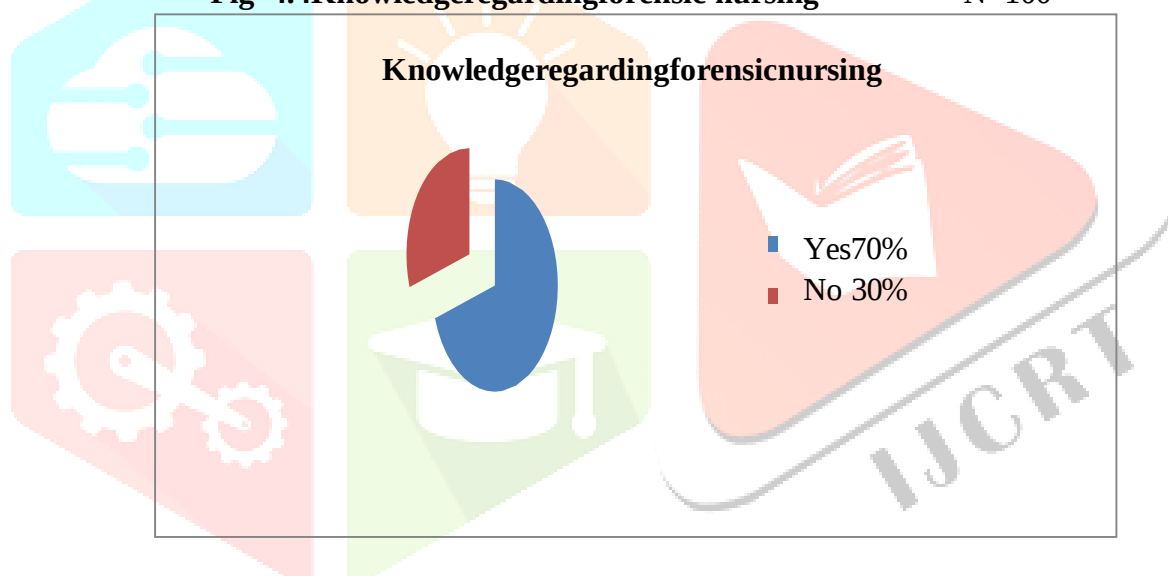


Fig and table 4.4 shows the 70% of respondents had heard about forensic nursing during their undergraduate studies, while 30% had not. This indicates that a majority of students were exposed to the concept of forensic nursing during their education. However, the significant minority who were not aware highlights a potential gap in undergraduate curricula that could be addressed to improve awareness and foundational knowledge of forensic nursing.

Section-B Distribution of pre-existing knowledge among nursing student of forensic nursing

Table-4.5 Distribution of knowledge Sample

Knowledge	Frequency	Percentage
Adequate Knowledge	45	45%
Moderate Knowledge	35	35%
Inadequate Knowledge	20	20%
Total	100	100%

Fig-4.5 Distribution of Knowledge Sample

N=100

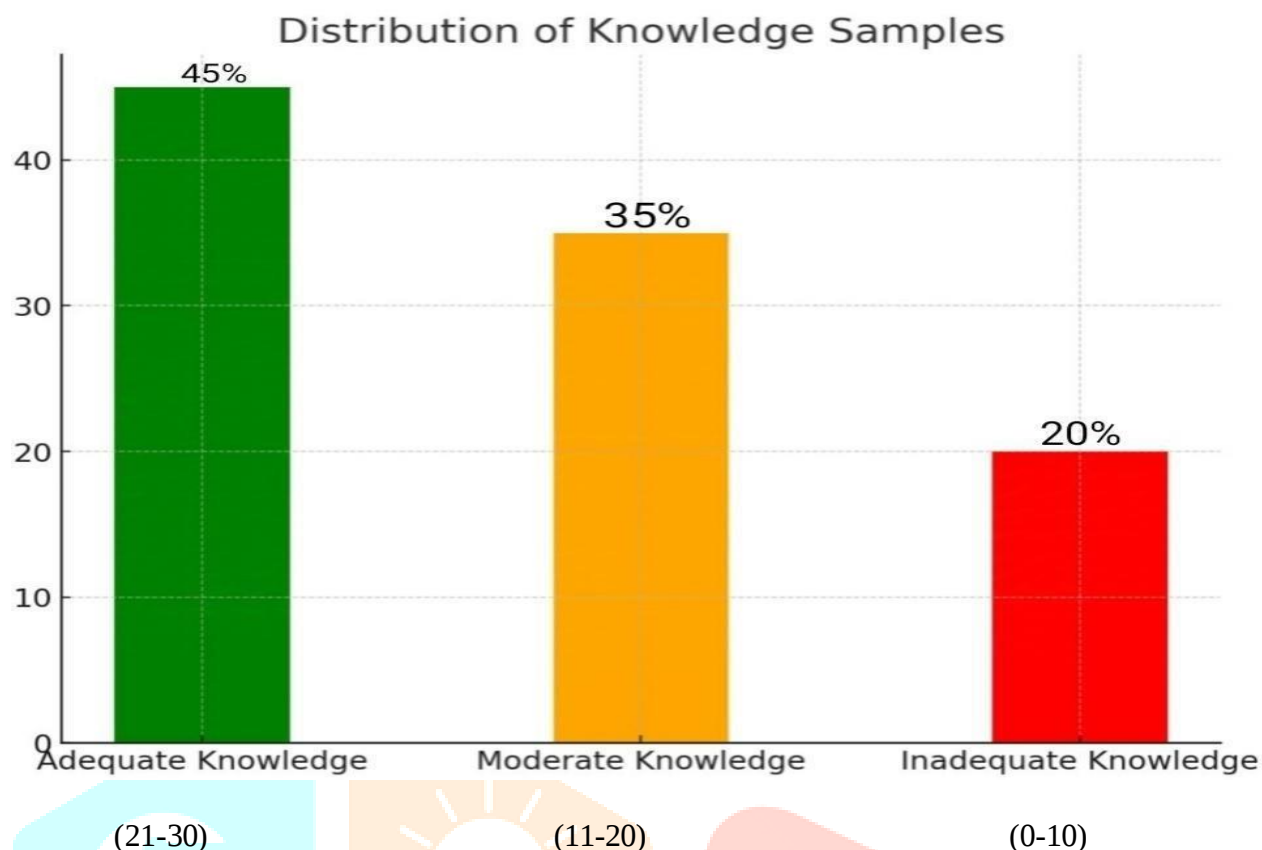


Fig and table 4.5 shows the majority of nursing students (80%) possess either adequate or moderate knowledge of forensic nursing, suggesting that there is a baseline understanding among most participants. However, the presence of 20% within inadequate knowledge indicates a gap that may require targeted educational interventions or curriculum enhancement. The data shows that 45% of nursing students have adequate knowledge of forensic nursing, while 35% have moderate knowledge, and 20% have inadequate knowledge. This indicates that most students possess a reasonable understanding of the subject, but a significant minority lacks sufficient knowledge. Educational efforts should focus on addressing this gap to ensure all students are well-prepared in forensic nursing.

Section-CD Distribution of the association between knowledge on forensic nursing and sociodemographic data.

Table -5 Assess the association between Knowledge on forensic nursing and socio demographic data
N=100

	Demographic Variable	Inadequate (0-10)		Moderate (11-20)		Adequate (21-30)		Parameter				
			Percent		Percent		Percent	SD	Chi-Square	P value	DF	S/ NS
Age	1(18-20)	3	10%	16	24%	46	45%	0.25	0.80	0.671	5	S
	2(20-22)	4	7%	16	24%	25	47%	0.5	1.60	0.952	3	S
	3(22-24)	0	0	1	10%	1	10%	0	0	0.001	5	NS
	4(24-26)	0	0	0	0	0	0	0	0	0.003	5	NS
Gender	1 (Male)	17	10%	25	10%	18	8%	0.35	0.90	0.923	5	S

	2 (Female)	3	20%	10	10%	27	20%	0.5	1.80	0.737	7	S
Religion	1(Hindu)	8	30%	27	10%	36	30%	0.81	1.9	0.848	6	S
	2(Muslim)	5	0	3	0	7	20%	0	0	0.002	8	NS
	3(Christian)	7	0	5	10%	2	0	0	0	0.003	4	NS
Education	1 (GNM)	20	30%	29	10%	36	10%	1.69	0.39	0.991	3	S
	2 (Bsc)	0	0	6	20%	9	10%	0	0	0.007	2	S
Marital	1(Married)	8	0	24	10%	14	10%	0	0	0.003	1	NS
Status	2 (Unmarried)	12	30%	11	30%	31	10%	0.81	5.08	0.531	5	S

Interpretation:

This table mentioned above shows us the significant association between the knowledge regarding forensic nursing and the socio demographic variables. The association is assessed by considering value of $p < 0.05$ level. This table shows that there is significant association of age group 18-20 years and 20-22 years with knowledge having value of $P = 0.671$, $SD = 0.25$ and $P = 0.952$, $SD = 0.5$ respectively while other two age groups had nonsignificant association. With regards to Gender Male and Female both had significant association with $P = 0.923$, $SD = 0.90$ and $P = 0.737$, $SD = 0.5$ respectively. According to table Hindu religion had significant association with knowledge having $P = 0.848$, $SD = 0.81$ and other religions had insignificant relationship. In education BSC nursing and GNM both showed significant association as $P = 0.991$, $SD = 1.69$ and $P = 0.007$, $SD = 0$ respectively. The marital status shows significant association of married socio demographic variables with knowledge as $P = 0.531$ and $SD = 0.81$ and unmarried having insignificant association with knowledge regarding respectful maternity care.

Thuse H1 approved is: There is significant association between knowledge of Forensic nursing and sociodemographic data of nursing students selected college of nursing at level $p < 0.05$.