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A STUDY TO ASSESS THE KNOWLEDGE AND ATTITUDE OF MILLENNIAL NURSES ON FORENSIC SCIENCE NURSING.

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ABSTRACT

Forensic nursing is a growing speciality of nursing that combines healthcare with legal and forensic sciences, focusing on providing care to victims while also handling legal evidence and processes. This study aims to assess the knowledge and attitude of millennial generation nurses on forensic nursing as they may lack exposure to it during their education or early careers. A descriptive research design was used with a convenient sampling of 50 nurses from Kannur district and the results showed that a majority 83% have inadequate knowledge, 17% have moderate knowledge, and none of the participants have adequate knowledge of forensic nursing. Attitudes of millennial nurses toward forensic nursing depict that 76% have positive attitude and 24% have neutral attitude but none of them have negative attitudes.

INTRODUCTION

Back ground

The word nurse has originated from the Latin word *nurtix* which means to nourish. According to Hemmer and Henderson Nursing is an art and science. It may be defined as a service to the individual which helps him or her to obtain or maintain a healthy state of mind and body and the relief of pain and comfort. Expert clinical practice is a commitment to application of knowledge, ethics, standards and clinical expertise. Today, nursing has changed from a passive state to an independent, decision-maker profession.¹

Forensic nursing is a specialty in the nursing discipline, which brings the concepts as well as principles of both law and nursing sciences together. This creative and evolving specialty seeks to meet the needs of the healthcare system with legal problems. The advancement of forensic nursing in the last few decades has developed a new and better image of the nursing profession and provided services to living and dead people.² This discipline provides a new perspective on the approach of holistic care for patients at hospitals or community centers involved in legal issues. Today, applying legal sciences in nursing has formed wider roles in clinical research related to crime and legal processes to promote public health and safety.³

Millennials, like generations before them, are making their own unique and indelible mark on our society. Nurses Those who are 29-44 years old, (those born between 1981 and 1996) often called the millennial generation or just millennials, are positioned to occupy a larger portion of the workforce in the next few years⁴. Coming of age with the internet, social media, mobile communication, and changing societal dynamics, Millennials seem to hold very different expectations from previous

generations – and they assume that their contributions will be different, too. These characteristics may be magnified in the nursing workforce, because this helping and caring profession always demands an extraordinary level of individual commitment. Millennial nurses are bringing a dynamic new perspective on such factors as career, leadership, education, and work environment.⁵

The term forensic nursing was officially coined in the year of 1992. In 2021 the Indian Nursing Council introduced Forensic nursing as a course in the undergraduate Nursing Curriculum.⁴ As it is a relatively young nursing specialty many millennial nurses might not have had an exposure to it during their education or early career development.

Need for the study

Forensic nursing is a global application of nursing where health and legal regulation collide. It is one of the youngest nursing specialties growing rapidly. It involves patient care in the context of evidence documentation, collection and preservation effort. Forensic Nurses play a crucial role in bridging the gap between the health care and the legal system, ensuring that victims of trauma and violence receive appropriate care while preserving crucial evidence that can aid in pursuit of justice. To effectively serve in this role, a nurse must possess deep knowledge across a range of specialized areas within forensic nursing. This comprehensive expertise is essential to ensure that they are not only providing high quality care but also upholding the integrity of evidence ensuring victims' rights are respected.

Many nurses including those from the millennial generation often lack knowledge and understanding in different aspects of forensic nursing and this statement is supported by the following studies

A study was conducted in Mumbai (2022) to assess the knowledge regarding forensic nursing among undergraduate nursing students. This study shows that the majority of students (64.17%) have average knowledge regarding forensic nursing. Statistically proved that the mean score was 11.8 knowledge regarding Forensic Science and the standard deviation was 5.47 of the study. Chi square test shows that association between selected demographic variable and knowledge regarding forensic nursing among undergraduate nursing students. Whereas, there is no association between previous knowledge regarding Forensic Science and current knowledge score.⁶

A study was conducted in Saudi Arabia to assess university nursing students' knowledge and attitudes towards forensic nursing, as well as identify factors influencing their knowledge. A mixed-methods design was conducted at a Saudi nursing college with a convenience sample of 250 students. The data were collected using a structured questionnaire comprising two parts. The quantitative part included demographic and academic characteristics, knowledge and opinions on forensic nursing, knowledge of forensic evidence, and attitudes towards forensic nursing. The qualitative part consisted of four open-ended questions about factors affecting forensic knowledge. Data analysis involved inferential statistics and content analysis

The study revealed that 80.4% of nursing students lacked prior knowledge of forensic nursing, and only 59.76% had some awareness of forensic evidence. A strong positive relationship was found between attitudes towards forensic nursing and knowledge of forensic evidence ($r = 0.817$, $p < 0.001$), indicating that positive attitudes could predict 66.8% of the variance in forensic evidence knowledge.⁷

A descriptive study design was applied to assess the level of knowledge on forensic psychiatry among staff nurses at selected hospitals, Amritsar. Sixty staff nurses were selected using convenient sampling technique. The tool contained demographic and clinical variables and a self-structured knowledge questionnaire regarding forensic psychiatry, which was distributed to collect the data. The results of the study show the level of knowledge of staff nurses regarding forensic psychiatry, revealing that 39(65%) had excellent knowledge and 21(35%) had good knowledge with an average mean and standard deviation (SD) of 21.38 ± 3.23 . The findings of the study conclude that staff nurses working in psychiatry and critical care units have less knowledge regarding forensic psychiatry.⁸

A study was conducted to assess the knowledge, experience, and attitudes of nurses toward forensic cases in Turkey; critically evaluates the appropriateness of current practices in the collection and preservation of evidence; and assesses nurses' level of awareness on the law enforcement perspective of forensic cases. The study involved 178 nurses of 202 employed in three healthcare centers operated by the same private healthcare group located in Istanbul, Turkey. The primary method of data collection was a questionnaire composed of three sections. The first section recorded data concerning the participants' age, gender, number of years spent in the profession, number of years spent in current workplace, department in which they worked, and their job title. The second section sought to assess the participants' academic background and, specifically, the extent of their educational training on forensic cases at the undergraduate and graduate levels. Finally, the third section aimed to assess the participants' knowledge of and approach toward the management of forensic cases in real-life time setting by collecting data on their previous experience with forensic cases. Results showed that of 178 nurses, 139 (78.1%) were female and 39 (21.9%) were male. The mean age was 28.6 years, ranging from 18 to 51 years. The participants expressed that they experienced difficulties in medicolegal procedures (21.9%), evidence collection (14.0%), history taking and preparation of the patient (10.1%), forensic case reporting (10.1%), registry (9.0%), and physical examination (7.9%). The level of knowledge of the collection of forensic evidence and the protection of wet evidence was statistically higher among the participants who previously received training on the collection, preservation, and transfer of forensic evidence versus those who were not previously trained ($p < 0.001$ for both)⁹

A study was conducted in New Zealand to establish the level of forensic knowledge and skills currently known and used by nurses in clinical practice working in New Zealand District Health Boards (DHB)'s emergency departments. The study aimed to develop a tertiary education course based on the needs and the knowledge required, to enable nurses to practice confidently and safely with Forensic patients in the emergency department setting. A descriptive approach using online questionnaires including both quantitative and qualitative components was sent to all emergency departments in New Zealand DHB's as well as the New Zealand Nurses Organisation (NZNO) emergency nurses' section. Open-ended questions were analysed by thematic analysis. Results of the questionnaire revealed limited knowledge in being able to correctly identify all forensic patients, insufficient knowledge around evidence preservation and collection and limited knowledge around legislation or legal processes governing clinical care were discovered. However, 84% of all participants felt that having forensic knowledge was important for their practice, indicating a need for increased forensic education. Practice implications indicate that forensic education is warranted, needed and desired among ED nurses within the clinical setting.¹⁰

A study was conducted in Sweden to describe Nurses' views of forensic care provided for victims of violence and their families in EDs, to identify factors associated with Nurses' attitudes towards families in care and to investigate if these attitudes were associated with the involvement of patients' families in care. A cross-sectional design was used with a sample of all registered nurses ($n = 867$) in 28 emergency departments in Sweden. A self-report questionnaire, including the instrument Families' Importance in Nursing Care - Nurses' Attitudes, was used to collect data. Descriptive statistics, multiple linear regression and ordinal regression were used to analyse data. Results showed that four hundred and fifty-seven nurses completed the questionnaire (53%). Most nurses provided forensic care, but few had specific education for this task. Policy documents and routines existed for specific patient groups. Most nurses involved family members in care although education and policy documents rarely included them. Being a woman, policy documents and own experience of a critically ill family member were associated with a positive attitude towards family. A positive attitude towards family members was associated with involving patients' families in care.¹¹

Objectives

- To assess the knowledge of millennial nurses on forensic nursing

- To assess the attitude of millennial nurses on forensic nursing
- To find an association between the knowledge and attitude of nurses on forensic nursing with selected socio demographic variables.

MATERIALS AND METHODS.

Research Approach

A Quantitative approach was considered for the present study.

Study Design

A descriptive research design is used to assess the knowledge and attitude of millennial nurses forensic nursing

Population

In the present study, it consists of nurses from selected nurses from Kannur

Sample

In this study, the sample consists of 50 nurses from kannur.

Sampling Technique

In this study, the sampling technique was used convenient sampling

Inclusion Criteria

- Nurses between the age group of 29-44 years
- Nurses who are willing to participate in the study.
- Nurses who have not got any training on forensic nursing

Description of the Data Collection Tool

To assess the knowledge and attitude of millennial nurses a structured questionnaire is developed by the investigator.

The data collection tool has been divided into 3 sections.

Section A

A structured questionnaire is used to collect the socio demographic data. It included age, gender, marital status, experience and qualification.

Section B

It consists of 20 multiple-choice questions to assess the knowledge regarding forensic nursing. The questions are distributed under 3 sections as follows, section A history and concept of forensic nursing (6 items), section (role and functions of forensic nurses) and section C scope of forensic nursing. Each item has four options, score 1 for each correct answer and zero scores for each wrong answer. The scoring of knowledge regarding forensic nursing is shown in Table 1.

Table 1. scoring of knowledge based on self structure questionnaire

Range	Level of knowledge
>85%	adequate

65-85%	moderate
<66%	inadequate

Section C

It included 10 attitude questions to assess the attitude of millennial nurses on forensic nursing. Each attitude questionnaire was rated using a 5-point Likert rating scale strongly agree, agree, neutral, disagree, and strongly disagree. Score 5 for strongly agree and score 1 for strongly disagree.

Table 2 scoring of attitude scale based on likert sclae

percentage	Level of attitude
>85%	Positive
65-85%	neutral
<85%	negative

Data Collection Method

The data was collected from November 1st to November 15th 2024. All nurses who fulfilled the inclusion criteria were invited through WhatsApp and mail to participate in the study.

A total of 50 nurses participated in the present study. A structured online self-administered knowledge, and attitude questionnaire was developed using web-based Google forms

with attached information sheets and instructions. Before the data collection the purpose of the study was explained to the participants, confidentiality was assured to all the subjects and informed consent was obtained. The average time taken answer the questionnaire ranged from 30 minute.

Plan of Data Analysis

The collected data were summarized by using descriptive statistics: frequency, percentage; mean and SD. The likelihood ratio or Chi-square test was used to find the association between the knowledge, of millennial nurses on forensic nursing into the undergraduate nursing curriculum and selected socio-demographic variables. The *p-value* < 0.05 was considered as significant. Data were analyzed by using the SPSS software.

RESULTS AND DISCUSSION

Results

The majority of the participants were in the age group of 29 to 34 years (70%). Female (92%) and the highest percentage of participants had qualification of B.Sc Nursing (72%) and most of the participants (86%) were married. Majority of participants (84%) had 9-13 years of experience.

Table 3 Distribution of socio demograhic variables

SL NO	DemographiC variable		frequency	%
1	age	29years-34yeras	35	70

		35-years-39yeras	12	24
		40years-44 years	3	6
2	gender	female	46	92
		male	4	8
		others	0	0
3	Marital status	married	43	86
		unmarried	7	14
4	Qualification	GNM	12	24
		B.Sc Nursing	36	72
		M.Sc Nursing	2	4
5	Experience	4-8 years	11	22
		9-13years	29	58
		14 and more	10	20

knowledge level of nurses showed that majority 83% have inadequate knowledge, 17% have moderate knowledge, and none of the participants have adequate knowledge of forensic nursing.

Table 4 Level of knowledge

knowledge	percentage
adequate	83
moderate	17
inadequate	0

Attitudes of millennial nurses toward forensic nursing depict that 76% have positive attitude and 24% have neutral attitude but none of them have negative attitudes.

Table 5level of attitude.

attitude	Percentage
positive	76

neutral	24
negative	0

There was no relation between knowledge of nurses on forensic nursing with the demographic variables such as age, gender and marital status. • There was a significant association between between with socio-demographic variables such as qualification of participants (p value =0.01) and experience of participants (p value 0.03)

DISCUSSION

The major findings show that the majority (65%) of millennial nurses have inadequate knowledge, 17% had moderate knowledge and none of them have adequate knowledge on forensic nursing. A similar study was conducted at Hafar Al Batin , suadi Arabia (Dr.Salma Muhammed,2023) to assess the nursing students knowledge on forensic nursing and the study reveled that majority (57.6%)of them had poor knowledge ,29.1% had good knowledge and 13.3% had moderate knowledge.¹² current study also had showed that most of the participants(76%) have positive attitude towards forensic nursing ,24%have neutral attitude and none of them have negative attitude towards forensic nursing .This findings contrasts the findings of a study done at West Bengal (Tintu A mathew 2023) to assess the attitudes of nursing faculty towards integrating forensic Nursing into the nursing curriculum which depict that none of the participants had positive attitudes, 94% are neutral and 6% have negative attitudes.¹³

CONCLUSION

This study focuses on millennial nurses knowledge and attitude on forensic nursing and findings of the study reveled that while millennial nurses exhibit a positive attitude towards forensic nursing ,they lack sufficient knowledge in the field.this gap in knowledge suggests the need for ongoing education and training help nurses develop a deeper understanding and competence in forensic nursing practices, the research emphasizes the importance of continuing education programmes to bridge the gap and enhance the role of nurses in forensic settings.

Nursing Implication

Nursing education

- Forensic nursing is an important and specialized field and to prepare future nurses for the complex needs of victims and trauma and legal cases forensic nursing should be an integral part of nursing education.

Nursing practice

- To play advanced nursingroles, in addition to professional concepts, nurses should be familiar with legal concepts not only to provide quality care in multidisciplinary teams but also to defend their rights in appropriate situations.
- The study recommends the development and implementation of continuing education to improve nurses expertise in forensic nursing.

Nursing research

- As forensic nursing is a relatively new and specialized field research helps to establish its credibility and contributes to the development of evidence based guidelines, protocol and

interventions specific to forensic settings.

Limitation

- This study was limited to a descriptive approach.
- This study was restricted to be performed only in a selected area nursing college.

A structured questionnaire constructed by the investigator was used to collect information on forensic nursing which was of restrictive responses

Recommendations For Further Studies

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

- A similar study can be conducted with a large sample.
- continuing education for millennial nurses and other generation nurses who did not have exposure to forensic nursing during their curriculum will strengthen the forensic nursing practices.

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