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Knowledge and Attitude Regarding Nursing Management of Medicolegal Cases among Final-Year Nursing Students: A Cross-Sectional Study

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ABSTRACT :

Background and purpose: Nurses play an essential role in managing medicolegal cases (MLCs), including accurate documentation, preservation of evidence and protection of patients' rights. Assessing nursing students' knowledge and attitude can help identify gaps in their preparation for these responsibilities. This study aimed to assess the final-year nursing students' knowledge and attitude towards nursing management of MLCs.

Materials and methods: A cross-sectional study involved 171 fourth-year B.Sc. Nursing students selected through purposive sampling from nursing colleges attached to medical colleges in Khordha and Cuttack, Odisha. Data were collected using a self-administered questionnaire with established content validity and reliability. Descriptive and inferential analyses were performed using SPSS 21, with significance set at $p < 0.05$.

Results: Participants' mean age was 22.34 ± 1.08 years, and their mean clinical exposure to MLCs was 15.30 ± 5.82 days. Most (84.2%) had received no special training. Overall, 60.3% had average knowledge, with a mean score of 12.56 ± 4.25 , while all expressed positive attitude. Knowledge was not significantly associated with age, clinical exposure, special training or willingness to work in emergency settings. Attitude was negatively correlated with clinical exposure duration ($p = 0.02$) and positively correlated with knowledge ($p = 0.001$).

Conclusion: Focused undergraduate training is needed to strengthen nursing students' knowledge and attitude towards nursing management of MLCs.

Medical teams encounter different types of emergencies in trauma and emergency departments and need adequate knowledge and skills to manage them effectively. This responsibility increases when a case has legal implications, and nurses, as integral members of the team, share this responsibility. A medicolegal case (MLC) is an injury or ailment that the attending doctor considers requires investigation by law enforcement agencies to establish the circumstances and responsibility. [1] Common MLCs in India include road traffic accidents, poisoning, falls, snakebites and assault. [2] Forensic nurses have advanced knowledge and skills in managing such cases, including preserving evidence, caring for victims of abuse and violence, and assisting in legal proceedings. [3]

Nurses are often among the first to see patients, communicate with families and handle personal belongings and specimens, making their medicolegal knowledge essential. However, limited training opportunities and gaps in knowledge highlight the need to prepare nursing students to manage MLCs effectively with a positive attitude. Studies of forensic nursing courses and structured educational interventions have reported improvements in nursing students' knowledge. [4,5] Research among nursing students in India remains limited. Therefore, this cross-sectional study assessed final-year nursing students' knowledge and attitude towards nursing management of MLCs, examined the relationship between knowledge and attitude, and explored their associations with selected sociodemographic variables.

Methodology

A quantitative, descriptive cross-sectional study was conducted among 171 fourth-year B.Sc. Nursing students selected through purposive sampling from nursing colleges attached to medical colleges in Khordha and Cuttack districts, Odisha. Students appearing for their final examination in 2022 and willing to provide consent were included. The calculated sample size was 168, based on a population of 320, an expected outcome frequency of 35.5%, 5% precision and a 95% confidence level. A self-administered questionnaire, developed through literature review and expert consultation, comprised four demographic items, 26 knowledge multiple-choice questions and a 27-item, four-point attitude scale. Correct knowledge responses scored 1 and incorrect responses scored 0; negative attitude items were reverse-scored. Four forensic medicine and toxicology experts established content validity. Reliability was assessed using the split-half method with Spearman-Brown correction for the knowledge questionnaire (0.76) and the test-retest method for the attitude scale (0.703). A pilot study among 20 third-year nursing students confirmed feasibility.

Ethical approval was obtained from the Institute Ethics Committee, AIIMS Bhubaneswar, and administrative permission was secured from the participating colleges. Data were collected from 1 April to 14 May 2022 after obtaining written or electronic informed consent, with confidentiality and anonymity maintained throughout. Participants completing paper questionnaires were given 30 minutes; 116 responses were collected in person and 55 through Google Forms from students unavailable during in-person collection. Data were analysed using descriptive and inferential statistics in IBM SPSS Statistics version 21.0, with $p < 0.05$ considered statistically significant.

Section-1: Socio-demographic characteristics of the study participants

The mean age of study participants was 22.34 ± 1.08 years. Mean duration of experience of working in casualty/ED/trauma department handling MLCs during undergraduate program was 15.30 ± 5.82 days. (Table 1)

Table 1: Socio-demographic characteristics of study participants
(n=171)

Variables	Range	Mean $\pm$ SD	Median
Age (Years)	20 -26	22.34 ± 1.08	22
Experience of working with MLCs (Days)	3 to 30	15.30 ± 5.82	14

Distribution of participants based on special training program undertaken on nursing management of medico legal cases

Majority of the study participants (84.2%) had not undertaken any training program on management of patient with MLCs apart from their curriculum set by the university. (Fig:1)

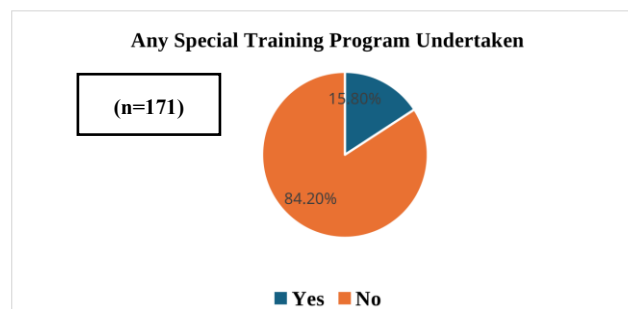


Figure 1: Distribution of participants based on special training program undertaken on nursing management of medico legal cases

Distribution of participants based on willingness to work in casualty/ED/Trauma department

Majority of the participants (84.2%) were willing to work in casualty/ emergency/ trauma department, handling MLCs if they were given a chance.

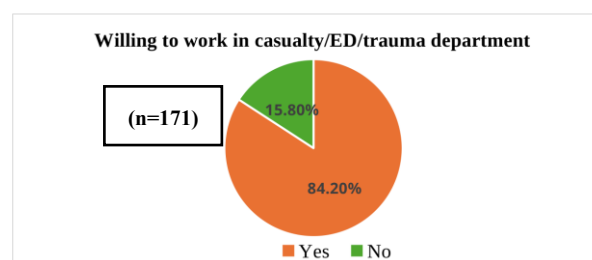


Figure 2 Distribution of participants based on willingness to work in casualty/ED/Trauma department

Knowledge and Attitude score of study participants on nursing management of medico legal cases

Total knowledge score of the study participants related to nursing management of MLCs ranged from minimum 3 to maximum 22 with the mean of 12.56 ± 4.25 . Total attitude score of the study participants related to nursing management of MLCs ranged from minimum 57 to maximum 95 with the mean of 77.02 ± 7.66 . (Table 2)

Table 2: Knowledge and Attitude score of study participants on nursing management of medico legal cases

(n=171)

Variables	Range	Mean $\pm$ SD	Median
Total Knowledge Score	3-22	12.56 $\pm$ 4.25	12
Total Attitude Score	57-95	77.02 $\pm$ 7.66	78

Distribution of participants based on knowledge score

Majority of the participants (60.3%) had average level of knowledge related to nursing management of MLCs. (Table 3)

Table 3: Distribution of participants based on knowledge score

(n=171)

Knowledge Level	Frequency	%
Low (0-8)	30	17.5
Average (9-16)	103	60.3
High (17-26)	38	22.2

Distribution of participants based on attitude score

All the participants have positive attitude towards nursing management of MLCs. (Table 4)

Table 4: Distribution of participants based on attitude score

(n=171)

Attitude Score	Frequency	%
Positive Attitude (≥ 55)	171	100

Relationship between knowledge and attitude of final year nursing students on nursing management of medico legal cases

A statistically significant, moderate positive correlation was found between knowledge and attitude scores ($r = 0.436$, $p = 0.001$), indicating that higher knowledge scores were associated with more favourable attitudes. (Table5)

Table 5: Correlation between Knowledge & Attitude of study participants on nursing management of MLCs

(n=171)

Variable	Variables	r Value	p Value
Knowledge	Attitude	0.436	0.001*

*Pearson's Correlation coefficient

Relationship between Knowledge and Attitude of study participants with Age & Clinical Experience

Knowledge scores were not significantly correlated with age ($r = -0.046$, $p = 0.274$) or clinical experience ($r = -0.015$, $p = 0.422$). Attitude scores were not significantly correlated with age ($r = 0.080$, $p = 0.300$), but showed a weak, statistically significant negative correlation with clinical experience ($r = -0.176$, $p = 0.020$). (Table.6)

Table 6: Correlation between Knowledge & Attitude of study participants with their Age & Clinical Experience

(n=171)

Variable	Variables	r Value*	p Value
Knowledge	Age	-0.046	0.274
	Clinical Experience	-0.015	0.422
Attitude	Age	0.08	0.3
	Clinical Experience	-0.176	0.02*

*Pearson's correlation coefficient

Association of knowledge of study participants with Training program undertaken and their willingness to work in casualty/ED/trauma department

Knowledge levels were not significantly associated with having undertaken a training programme ($\chi^2 = 2.26$, $p = 0.323$) or willingness to work

in settings handling medicolegal cases ($\chi^2 = 3.50$, $p = 0.173$) (Table 7).

Table 7: Association of knowledge of study participants with Training program undertaken and their willingness to work in casualty/ED/trauma department

(n=171)

Variable	Variables	χ^2 Value	p Value
Knowledge	Training program undertaken	2.26	0.323
	Willingness to work	3.5	0.173

χ^2 Chi square test

Discussion

In the present study, participants' mean age was 22.34 ± 1.08 years, similar to findings from an interventional study among nursing students^[5] possibly reflecting the similar entry age for nursing courses. Their mean clinical exposure in casualty/emergency/trauma departments was 15.30 ± 5.82 days. Most participants (84.2%) had not received special training in handling MLCs, comparable to a study reporting specific emergency department training among only 16%.^[6] In contrast, 81.2% of medical interns had received medicolegal education^[7] suggesting differences in educational preparation. Although 84.2% of participants were willing to work in settings handling MLCs, another study reported that only 13% were willing to pursue forensic specialisation.^[8]

Overall, 60.3% of participants had average knowledge, with scores ranging from 3 to 22 and a mean of 12.56 ± 4.25 out of 26. Previous studies reported adequate knowledge among 66.27% of medical students^[9] and inadequate knowledge among most participants in another study.^[10] All participants in the present study had positive attitudes, broadly consistent with positive attitudes among 71.47% of medical students in Jeddah.^[9] Knowledge and attitude were positively correlated ($p=0.001$), indicating that students with higher knowledge scores also had higher attitude scores.

Knowledge was not significantly associated with age, clinical exposure, special training or willingness to handle MLCs. In contrast, a study among doctors and nurses found significant associations with experience ($p=0.003$) and training ($p=0.001$).^[7] Attitude was not significantly associated with age but was negatively correlated with clinical exposure, whereas the comparison study reported an association with work experience ($p=0.005$).^[7] All the participants in the present study had positive attitude. These findings highlight the need to strengthen undergraduate education and supervised training in the medicolegal aspects of patient care. Studies among practising nurses and doctors have similarly identified gaps in medicolegal knowledge and preparedness. A study among emergency nurses found that although 70% had emergency department experience, only 16% had received specific training.^[6] Another study reported that 95% of trauma nurses considered forensic education important, while 63% felt inadequately prepared to manage forensic issues in clinical practice.^[12] An Indian study among staff nurses revealed that 91.7% had inadequate knowledge of medicolegal aspects of patient care.^[10] In contrast, a study among forensic nurses reported positive perceptions of their professional competencies, with 87% identifying opportunities for further development of their roles.^[13] These findings emphasise the need to strengthen medicolegal education during undergraduate nursing training.

Conclusion

Final-year nursing students demonstrated positive attitudes towards managing medicolegal cases, but most had average knowledge and lacked special training. Strengthening undergraduate education through structured teaching and supervised clinical training may improve their knowledge and preparedness for medicolegal care.

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