

The Relationship between the Degree of the Forensic Nursing Capacity, Ethical Dilemma and Ethical Decision-Making Confidence Perceived by Nurses: For Small and Medium Hospital Nurses

Mi-Ran Kim¹, Jae-Woo Oh^{*2}

^{1, *2}Department of Nursing, Konyang University, 158, Gwanjeodong-ro, Seo-gu, Daejeon, 35365, South Korea

Abstract

This research was attempted to provide basic data for developing forensic nursing education programs by confirming the degree of the forensic nursing capacity, ethical dilemma and ethical decision-making confidence recognized by nurses at small and medium hospitals. Data collection was conducted from April 30 to May 10, 2020 for 120 nurses in small and medium hospitals. The collected data were analyzed using the SPSS 20.0 program. As a result, the low age and forensic nursing capacity of nurses showed the influence on the ethical decision-making confidence, and the explanation power for the ethical decision-making confidence was 32.4%. It is thought that it is necessary to arrange the measures and develop educational programs to improve the capacity, including the forensic nursing knowledge for new nurses.

Keywords: Nurse, forensic nursing competency, ethical dilemma, ethical decision-making Confidence, Small and Medium Hospital

*Corresponding Author :

Name : Jae-Woo Oh

Email : ojw77@konyang.ac.kr

Contact : +82 10 9078 8579

Fax : 042 600 8555

Date of Submission : 2020. 10. 02

Introduction

With the opening of the legal market, and rapid economic growth, many changes, that is, social damages such as traffic and safety accidents increase as society is industrialized and informatized. Violent crimes, sexual violence, and child and senior abuse, along with the collapse of traditional families, happen to the socially disadvantaged. In addition, medical people

are increasingly exposed to patients in situations related to such incidents, accidents, and crimes. In particular, their obligation to report crimes against the socially disadvantaged are emphasized by the government through medical and related special laws(Korea Ministry of Government Legislation , 2014) . Because of trial-centeredness, the national jury system, and evidence-based trials, the forensic nursing role is required in many areas(JeongOungSeok, 2007). It is emphasized that the role of nurses for physical and psychological care as well as the role of forensic nursing role for recognizing, collecting and preserving evidence is necessary(Emergency Nursing Association, 2011). In addition, in order to improve the rights consciousness in line with the social problems, and changes and demands in the judicial systems, there is a need for nurses to know the conceptual difference on the terms of abuse, neglect, physical and sexual violence, intentional trauma and unintentional accidents, etc. apart from the diagnosis and planning of nursing practices and to have critical thinking for the decision-making needed in practice. A new interpretation of nursing and the practice of a role in forensic medicine and forensic nursing where health care and justice work together to find a solution are required(Lynch, 2006). For example, the patients who visit hospitals for appropriate treatment and care related to trauma and violence are not only the victims of crimes, but also potential prisoners or convicted felonies. For this reason, investigators visiting hospitals demand forensic advice from nurses and physicians in order to accurately document the degree of injury for patients and obtain relevant evidence. In fact, they conduct physical inspection and tests, transmit or store the relevant blood, tissues, etc. to the examination room, and record the results of the patients(Lynch, 1991). However, while conducting treatment and nursing activities for patients with such legal problems, medical people who lack forensic medicine and forensic nursing capacity sometimes expose patients to risk(McGillivray,2005). In particular, biological evidence that is likely to be lost or contaminated over time can lead to incorrect judgment in the trial process by mishandling and overlooking evidence, because the nurse has no knowledge of forensic medicine or does not follow forensic guidelines, which makes it impossible to perform normal tasks by physically and mentally damaging not only the patients, but also the nurses(Kelli, 2008). Thus, the evidence for reconstruction of the case, proof of crime, and proof of innocence may disappear or be destroyed during trauma treatment, and the role of the nurse in the discovery and management of forensic cases is important(Sullivan , 2006).

Sullivan(2006), who argued that nurses should have the basic capacity to prove legal facts in a hospital environment, and that they should be able to express forensic nursing knowledge and skills in addition to existing nursing capacity, presented the forensic nursing capacity of clinical nurses by classifying it into knowledge and skills. Thus, a nurse should continue to provide the

forensic nursing and maintain the continuity of evidence, which requires nurses in various fields dealing with trauma patients, such as emergency rooms, outpatients, wards, intensive care units, operating rooms, etc. to acquire the knowledge and skills of forensic nursing which are essential for practice, and to have a professional attitude (Kim Yong Soon et al., 2011). Ethical dilemma refers to a situation in which a decision must be made by choosing in conflicts between the ethical problems that seem to be impossible to solve satisfactorily in a nursing field, and one of two or more ethical problems that are equally unsatisfactory. It is reported that the situations encountered in nursing practice are role limitation, difficulty in judgment, self-defense attitudes, difficulties in human relations, inextricable practices, problems due to lack of adequate nursing staff, conflicts due to lack of nursing knowledge and experience when attempting the active treatment in patients who are unable to recover, excessive nursing work, and when there is no hope for patient's life extension (Kim Yong Soon et al., 2011). Ethical dilemma usually arises from the confusion of values or beliefs about the best behaviour, and choice. The ethical decision-making in the ethical dilemma situation should be based on the values and ethical knowledge of each nurse, and systematic and logical thinking should be the basis of it (Sim OkJoo, 2002). The ethical decision-making confidence is the identification of value confusion, recognition of expectations, recognition of readiness for knowledge and skills, and the ability to do the right thing in a given situation, and the subjective recognition of one's abilities, which can have a positive effect on the ethical decision-making in the ethical dilemma situation.

In other words, nurses need to have a high confidence in decision-making so that they can recognize the ethical dilemma in the various situations which they face in their practice and perform the ethical decision-making based on the forensic nursing capacity. In Korea, however, the Department of Forensic Nursing at the Graduate School of Investigative Science was established in the 2000s. The history of forensic nursing is short, and the research and awareness of it are still insufficient, indicating a high lack of forensic nursing knowledge among nurses. Therefore, this research was attempted to provide basic data for developing forensic nursing education programs by confirming the degree of the forensic nursing capacity, ethical dilemma and ethical decision-making confidence recognized by nurses at small and medium hospitals.

Materials and Methods

Study Design

This is a descriptive survey research to identify the relationship between the degree of the forensic nursing capacity, ethical dilemma and ethical decision-making confidence which nurses perceive

Study Subjects

This study was conducted for 120 nurses working at small and medium-sized hospitals located in

K City.

Research Tools

The Degree of Forensic Nursing Capacity

The tool for measuring the degree of the forensic nursing capacity of nurses was developed by Jo Na-young(2017), which consisted of eight sub-areas(53 questions in total), such as nursing practice, information delivery, critical thinking, care and evidence management, active information collection, professional development, and knowledge integration. In the 4-point Likert scale, the higher the score, the higher the degree of forensic nursing capacity. Cronbach's $\alpha = .96$ in the study at the time of tool development, however, Cronbach's $\alpha = .98$ in this study.

Ethical Dilemma

In order to measure the ethical dilemma, it was measured using the tool that Kim Ji-Hye(2012) modified and supplemented with the tool developed by Han Sung-Sook(1992). It consisted of 4 sub-areas(34 questions in total), including human life areas(7 questions), subject area(6 questions), professional work area(14 questions), and collaborator area(7 questions). Each question was measured with the 4-point Likert scale, which is “Not Very”(1 point) to “Very Much”(4 points), meaning the higher the score, the higher the ethical dilemma. In this study, Cronbach's $\alpha = .94$.

Ethical Decision-Making Confidence

The contents of the ethical decision-confidence were measured using the tool that Kim Ji-hye(2012) modified and supplemented with the tool of perceived ethical confidence scale which Sulmasy et al.,(1990) developed. The questionnaire, which consisted of 9 questions in total, used the 5-point Likert scale(from “Not at all”(1 point) to “Very yes”(5 points), indicating the higher the score, the higher the ethical dilemma. In this study, Cronbach's $\alpha = .91$.

Data Collection

The data was collected from Apr 30, 2020 and to May 10, 2020. As for the method of data collection, the purpose and method of the study were explained to the head of the hospital department, the questionnaires were distributed to the subjects who agreed to participate in the study, and the cautions and response methods were explained to them by the researcher. Before collecting the data, the subjects were explained about the purpose of the study, personal confidentiality, and that the questionnaire wouldn't be used for purposes other than research, according to the research ethics.

Data Analysis

The collected data were analyzed using SPSS/Win 20.0 Program. The general characteristics of the subjects were done with real numbers and percentages, the degree of the forensic nursing capacity recognized by nurses was done with the average and standard deviation, and the

correlation between variables was done with the Pearson correlation coefficient, and the factors affecting the ethical decision-making confidence of the subjects were done with regression analysis.

Results and Discussion

Results

General Characteristics of Subjects

As a result of examining the general characteristics of the subjects, it is like Table 1. 108 people were women(91.5%) in gender, 68 people were 20-29 years in age(57.6%), 71 people were unmarried in marital state(60.2%), 71 people graduated from a university in academic background(60.1%), 35 people worked at the surgical ward(29.6%) in duty wards, and 30 people had clinical experience of more than 5 to less than 10 years(25.4%), which was highest. For the question of whether they knew about the forensic nurse, 72 people(61%) answered that they generally didn't know, which was highest, and for the question of the experience of forensic nursing education and that of the need for forensic nursing education, 94 people answered "No"(79.7%), and 108 people did "Yes"(91.5%), respectively< Table 1>.

Table 1. General Characteristics of Subjects N=118

Variables	Categories	No(%)	Mean±SD
Gender	Female	108(91.5)	
	Male	10(8.52)	
Age	20~29 years	68(57.6)	30.29(6.273)
	30~39 years	39(33.0)	
	40 years or more	11(9.4)	
Marital State	Married	47(39.8)	
	Single	71(60.2)	
Academic Background	College Graduate	44(37.2)	
	University Graduate	71(60.1)	
	Graduate School or Higher	3(2.7)	
Duty Wards	Internal Medicine Ward	14(11.8)	
	Surgical Ward	35(29.6)	
	Intensive Treatment Room	10(8.5)	
	Emergency Room	15(12.7)	
	Operating Room	17(14.4)	
	Others	27(23.0)	

Clinical Experience	Less than 3 years	36(30.5)	
	3 ~ 5 years	25(21.2)	
	5 ~ 10 years	30(25.4)	
	10 ~ 15 years	16(13.6)	
	15 years or more	11(9.3)	
Recognition of Forensic Nurses	Knowing Well	8(6.8)	
	Knowing	24(20.3)	
	Generally Not Knowing	72(61.0)	
	Not Knowing At all	14(11.9)	
Experience of Forensic Nursing Education Completion	Yes	24(20.3)	
	No	94(79.7)	
Necessity of Forensic Nursing Education	Yes	108(91.5)	
	No	10(8.5)	
Proper Education Type	Supplementary Education	72(61.0)	
	Preceptor Education	8(6.8)	
	Job Training	29(24.5)	
	Graduate Education	6(5.1)	
	Others	3(2.6)	

Degree of Variables Recognized By Subjects

The degree of the forensic nursing capacity recognized by the subjects was an average rating of 3.2 out of 4, the ethical dilemma was an average rating of 3.0 out of 4, and the ethical decision-making confidence was an average rating of 3.7 out of 5, which were above normal < Table 2 >.

Table 2. Degree of Variables Recognized By Subjects

Variables	Mean±SD	Range
Forensic Nursing Capacity	3.289± 0.373	1-4
Ethical Dilemma	3.019± 0.388	1-4
Ethical Decision Making Confidence	3.707± 0.544	1-5

Correlation between Variables

As a result of analyzing the correlation between the forensic nursing capacity, ethical dilemma, and ethical decision-making confidence of the subjects, the forensic nursing capacity showed a positive correlation with the ethical decision-making confidence ($r = .518, p < .001$) < Table 3 >.

Table 3. Correlation between Variables

Variables	Forensic Nursing Capacity(r)	Ethical Dilemma	Ethical Decision-Making Confidence
Forensic Nursing Capacity	1		
Ethical Dilemma	.064	1	
Ethical Decision-Making Confidence	.518***	.158	1

Factors Affecting the Ethical Decision-Making Confidence of Subjects

As a result of analyzing the factors that affect the ethical decision-making confidence of the subjects, among the general characteristics of the subjects, the low age and forensic nursing capacity of nurses showed the influence on the ethical decision-making confidence, and the explanation power for the ethical decision-making confidence was 32.4% < Table 4>.

Table 4. Factors Affecting the Ethical Decision-Making Confidence of Subjects

Variables	B	SE	β	R ²	Adj. R ²	t	p
Constant	1.404	.364				3.860	
Forensic Nursing Capacity	.748	.109	.512	.269	.263	6.877	.000
Low Age of Nurses (20~29 세)	-.282	.081	-.259	.335	.324	-3.474	.000

R²=.335, Adj. R²=.324, F=30.280, p<.001

Discussion

The relationship between the forensic nursing capacity, ethical dilemma, and ethical decision-making confidence of small and medium hospital nurses was examined, and the effect of the forensic nursing capacity and the ethical dilemma on the ethical decision-making confidence was identified. The major results are discussed as follows.

The degree of the forensic nursing capacity recognized by the subjects was average rating of 3.2 out of 4. As there are no prior studies that measured the forensic capacity of nurses, direct comparison with them is difficult. However, it is considered that this result indicates the increase in the forensic nursing capacity in many areas due to trial-centeredness, national jury system, and evidence-based trials in the medical field, along with many changes due to the opening of the legal market and rapid economic growth. The ethical dilemma recognized by the subjects was an average rating of 3.0 out of 4, which was similar to the research result of Kim Ji-Hye(2008). This result was higher than that of the research of Ki Eun-Hee(2008).for the nurses in Seoul(2.15 points), which identified that the ethical dilemma situation increased according to the rapidly

changing medical environment. The ethical decision-making confidence recognized by the subjects was average rating of 3.7, which was higher than that(3.4 points) of Kim Ji-Hye(2012).It is thought that in recent medical conditions that demand the specialization of health services and the improvement of quality of nursing, due to the changes in new disease patterns, advances in medical technology, and the improvement of awareness of consumer rights, the nurses are required to take the responsibility of decision- making and decision as a professional in the situation where the ethical dilemma which can affect the life quality of the subjects happens, which led to this result.

As a result of analyzing the correlation between the forensic nursing capacity, ethical dilemma, and ethical decision-making confidence of the subjects, the forensic nursing capacity showed a positive correlation with the ethical decision-making confidence($r=.518$, $p<.001$).That is, it could be identified that the higher the forensic nursing capacity, the higher the ethical decision-making confidence. Sullivan(2006) insisted that nurses should have the basic capacity to prove legal facts in the hospital environment, and should be able to express forensic nursing knowledge and skills in addition to the existing nursing capacity to do so. Lynch(2006) said that the new interpretation and the practice of a role of nursing in the field, such as forensic science and forensic nursing, where medical and justice work together to find solutions for improving citizens' rights awareness in line with the social problems, changes and demands in the judicial system, are required to nurses in Korea.As a result, in the ethical dilemma situation that can affect the life quality of the subjects, it is considered that in order to adapt to changes in the current medical environment that require nurses to take responsibility for decision- making and decisions as a professional, they need to improve the forensic nursing capacity.

As a result of analyzing the factors affecting the ethical decision-making confidence of the subjects, among the general characteristics of the subjects, the low age and forensic nursing capacity of nurses showed an influence on the ethical decision-making confidence, and the explanatory power for the ethical decision-making confidence was 32.4%. Nurses should have the forensic nursing capacity to deal with the social and legal changes in providing the quality nursing for the victims and perpetrators, and families and communities related to trauma, injury, accidents, abuse, neglect, exploitation, and all types of violent crimes. Shim Ok-Ju(2002) said that nurses are heavily influenced by their beliefs and values in ethical decision-making, so it is thought that the results of this study suggest that it is necessary to develop and support strategy classes and educational programs focused on improving the ethical decision-making confidence of nurses.

Based on the results of this study, as it was identified that the lower the age of nurses, the higher the forensic nursing capacity, the higher the ethical decision-making confidence of nurses, it is

thought that it is necessary to arrange the measures and develop educational programs to improve the capacity, including the forensic nursing knowledge for new nurses.

Conclusion

Changes in the medical environment where life science and medical technology are highly developed and where patients' rights are very important require nurses to have decision-making ability and responsibility as a professional. Therefore, it is considered that in order to improve the ability with which a nurse can perform decision-making, showing the forensic nursing capacity in the ethical dilemma situation which is experienced in the nursing field, it is necessary to arrange the institution and to develop the systematic education program. In the future, it is suggested that based on the results of this study that the lower the age, the higher the ethical decision-making confidence, the nursing curriculum should be revised to improve the forensic nursing capacity and the ethical decision-making confidence.

References

1. EldredgeK., 2008. Assessment of trauma nurse related to forensic practice. *Journal of Forensic Nursing*, 4(4), pp. 157-165.
2. Emergency Nursing Association< homepage on the internet> Position statement; Forensic Evidence collection, 2011. Retrieved september 9 from http://www.ena.org/publiccaations/statements/positionpdf_forensicevidence.pdf.
3. JeongOungSeok, 2007. A effect that the expert opinion on the forensic medicine is influenced in the connection with court-oriented trials. *Korean Journal of Criminology*, 19(2), pp. 283-290.
4. DOI :[10.36999/kjc.2007.19.2.283](https://doi.org/10.36999/kjc.2007.19.2.283)
5. Kelli E., 2008. Assessment of trauma nurse knowledge related to forensic practice. *Journal of Forensic Nursing*, 4(4), pp. 157-165.
6. Ki EunHee, 2008. *Clinical Nurses' Ethical Dilemma and Professionalism*. Master's thesis.Hanyang University. Seoul. <http://www.riss.kr/index.do>
7. Kim JiHye, 2012. *The Relationships Among Ethical Dilemma, Professional Values, Ethical Confidence of Clinical Nurses*. Master's thesis. Chungnam national University. Daejeon.
8. <http://www.riss.kr/index.do>
9. Kim Yong. Soon., Park Ji. Won. & Bang Kyoung. Sook.,2011. A study on the persistence of nursing ethics education for nurses` ethical decision making. *The Journal of Korean Nursing Administration Academic Society*, 7(2), pp. 253-263.
10. UCI(KEPA) : I410-ECN-0101-2016-512-002756998

11. Korea Ministry of Government Legislation, 2014. The criminal procedure code(internet).
Seoul: Author, Available from <https://www.law.go.kr/>
12. Lynch VA., 2006. *Concepts and theory of forensic nursing*. In: Lynch VA., Duval JB. editors. Forensic nursing. 1st ed. St.Louis, MO:elseviermosby, pp. 19-29.
13. Lynch VA.,1991. Forensic nursing in the emergency department : A new role for 1990's.
Critical Care Nursing Quarterly, 14(3), pp. 69-86.
14. McGillivary B., 2005. The role of victorian emergency nurse in the collection and preservation of forensic evidence: a review of the literature. *Accident and Emergency Nursing*, 13(2), pp. 95-100.
15. Sim OkJoo, 2002. *A Study of Ethical Decision-making in a Nurse's Moral Dilemma Situation* .Master's thesis. Dong-A University. Pusan. <http://www.riss.kr/index.do>
16. Sullivan KM., 2006. *Forensic nursing in hospital setting*. In: Lynch VA., Duval JB. editors. Forensic nursing. 1st ed. St.Louis, MO:elseviermosby, pp.551-569.