Ethics Section

Relationship between Demographic Characteristics and Ethical Reasoning of Nurses Working in Medical Wards

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ABSTRACT

Introduction: Professional ethics and moral reasoning are among the critical factors influencing professional nursing practice, the quality of patient care, and the patient's health outcome.

Aim: This study aimed to determine the relationship between demographic characteristics of nurses and their ethical reasoning in the medical wards.

Materials and Methods: This was a cross-sectional study with descriptive-analytical approach that was conducted in 2016. The study participants consisted of 180 nurses working in the medical wards of hospitals affiliated to Tabriz university of Medical Sciences. The census sampling method was implemented. Data collection tools included a demographic questionnaire and the Nursing Dilemma Test questionnaire (NDT) designed to measure the ethical reasoning among nurses in pre-conventional, conventional and post-conventional levels.

Data were analysed by using SPSS version 21.0 with, one-way ANOVA, t-test and Pearson correlation tests.

Results: The results indicated that the mean score for ethical reasoning among nurses in medical wards was 45.7 ± 6.1, where nurses scored 37.5%, 35.08%, and 27.42% for pre-conventional, conventional and post-conventional levels respectively. Researchers found a statistically significant relationship between nurses ethical reasoning and nurses' shift (p-value <0.05). There were no significant relationships between age, sex, work history and other demographic characteristics, and ethical reasoning scores (p>0.05).

Conclusion: Nurse's ability to accurately identify and manage ethical dilemmas was among the factors that influenced their ethical decision making process. The relationship between nurses' shift and type of work contributed to the way ethical reasoning was applied. These findings are essential for healthcare administrators to design strategies towards the highest quality nursing care.

INTRODUCTION

Ethical issues have significant influences on professional nursing practice and the quality of nursing care [1], and require careful consideration [2,3]. In recent years, professional ethics have been considered as a means of improving health care practices [4]. Ethics is essential in every profession; however, in nursing practice ethical standards have an important role for improving patient's health conditions [5,6] and the quality of care [3].

In nursing care, ethics is often more important than the technical aspects of nursing practice [7]. Some researchers believe that commitment and observation of ethical practice in patient care is superior and observing ethical principles is an integral part of nursing practice [2,8]. But studies have shown that nurses face significant problems trying to observe ethical components of their daily practice [5,9]. Compliance with ethical dimension in care giving is practically difficult for nurses, since most nurses cannot act according to their values and norms [9]. Also, in challenging ethical situations, nurses are not the only decision makers, and several factors can affect their decision and may create conflicts for them that affect their moral reasoning in dealing with moral dilemmas [10].

An ethical reasoning at the appropriate level is one of the main aspects of ethical care. It includes cognitive reasoning process leading to ethical decision-making and the real implementation of those decisions [9]. However, studies show that most nurses play a diminutive role in the decision making process of everyday nursing activities due to lack of moral reasoning ability [11,12].

Due to the irrefutable positive impact of moral development on the health status of societies, evaluation and identification of moral development remarkably help the promotion of moral reasoning [13]. According to Kohlberg, an ethical reasoning development occurs at three main levels, with every level having two stages. Pre-conventional

level includes "punishment-obedience orientation" and "instrumental relativist orientation." People at this level are mostly self-centered and their behaviours are reward oriented to reduce negative results. Conventional level includes "good boy-nice girl orientation" and "law and order orientation". People at this level usually use laws and social principles to make decisions. Post-conventional level includes "social contract. orientation" and "universal ethical principles orientation". People at this level behave based on ethical principles and make humanitarian and moral decisions. At this level, human character formed moral conciseness [2,14].

Iranian researchers have found different results on nurses' ethical reasoning and their demographic characteristics [12,15,16]. A study on professional ethics among the Iranian nurses reported the need for additional nursing training on ethical issues [17]. Given the contradictory results of studies in this field [12,15], and the extent of ethical problems and its impact on ethical reasoning of nurses, especially in medical wards with characteristics such as large number of patients, high work load and long hospitalization time and negative consequences hospitalization [18,19], further studies are needed. So the aim of this study was to investigate the ethical reasoning of nurses and its relation with demographic characteristics in medical wards.

MATERIALS AND METHODS

The present research was a cross-sectional investigation based on a descriptive and analytical approach that has been done in 2016 on the employed nurses in the medical wards of hospitals affiliated to Tabriz University of Medical Sciences which, provide services to clients in the northwest of the country in the fields of medical diseases such as the Cardiology, Neurology, Nephrology, Endocrinology, Gastrointestinal, Pulmonary and infectious diseases.

The census method was implemented for sampling, with regard to a limited population of nurses working in the medical wards of the mentioned hospitals. The inclusion criteria were: holding a baccalaureate or higher degree in nursing, having clinical experience of at least six months, employment in one of the medical wards and no previous participation in an ethics workshop. The initial sample size was 206 and 26 participants were excluded due to submission of incomplete questionnaire or not responding to the questionnaire. Finally, the data of 180 qualified nurses were used for final analysis.

Ethical Considerations: The study design was approved by the Ethics Committee of Tabriz University of Medical Sciences. Informed consent assured nurses of anonymity, freedom to withdraw from the study at any time and data security.

The Study Instrument: The data collection tool comprised of two questionnaires for demographic data and Nursing Dilemma Test (NDT), which was developed based on the Kohlberg theory. Demographic questionnaire consisted of standard variables such as age, gender, and marital status, level of education, work experience, work shift, residency status, and recent critical events. The NDT questionnaire by Crisham P was designed to assess ethical reasoning among nurses [20] with two questions in each six scenarios on the nursing care of a newborn with anomalies; forced medication administration; medication error; patient's request for euthanasia; orientation of a new nurse and care of the terminally ill. We used the Farsi version of this questionnaire, developed by Borhani F et al., [12]. Nurses were asked to explain their answers by six given items, explaining the reasons for choosing their answers and sorting the order of priority.

Each given item referred to one of the six stages of the Kohlberg ethical development. Based on this item, two important features were evaluated. First, nurses' ethical developments were assessed according to Kohlberg's stages. In fact, nurses' answers to this part of the questionnaire determined their main ethical reasoning. Hence, answers to all other items referred to one of the three ethical development levels, reasoning development and summed up the selected items. In totality, ethical reasoning development among nurses was determined at three levels of pre-conventional (stages 1 and 2), conventional (stages 3 and 4), and post-conventional (stages 5 and 6). The second feature was the scoring of ethical reasoning among nurses, in which the total score of stage 5 and 6 was based on the Kohlberg ethical development levels. The calculation of the ethical reasoning score for each nurse consisted of scores for six scenarios with each scenario score ranging from 3 to 11. Hence, the maximum scores for the six scenarios could be 18 to 66. In every scenario two items were accounted for ethical reasoning and the nurses were scored based on the priorities given to each item. As much as these options are prioritized, the score for ethical reasoning will be higher [20].

STATISTICAL ANALYSIS

Researchers re-evaluated the questionnaire's reliability for this study by test-retest as a pilot on 30 respondents within 10 days and affirmed the reliability coefficient of 0.80.

The final obtained data from the completed questionnaires were analysed by using SPSS version 21, with ANOVA, t-test, and the Pearson correlation coefficient tests.

RESULTS

In this study, 180 nurses in medical wards in hospitals of Tabriz participated. The mean age of nurses was 32.42±5.6 years; the majority were female (96.7%), married (65.6%), and had a bachelors' degree in nursing (97.2%). The mean for work experience was 7.6±5.4 years [Table/Fig-1]. In this study, the mean score for nurses' ethical reasoning was (45.07±6.1). Among the 180 nurses

in this study, 37.5% were at the post-conventional, 35.08% were conventional, and 27.42% were at pre-conventional levels of ethical reasoning.

The results of the independent samples t-test showed no significant difference in the mean score of ethical reasoning by gender (t = 0.49; p >0.05). Also, no significant relationship was found between nurses' ethical reasoning scores and their age (r=0.068; p>0.05), or work experience (r=0.073; p>0.05). The results of ANOVA and the independent sample t-test showed a significant statistical relationship between the work shift and type of hospitals, with

Type of variable		n (%)
Gender	Female	174 (96.7)
	Male	6 (3.3)
Marital status	Single	60 (33.3)
	Married	118 (65.6)
	Divorced	2 (1.1)
Education level	Bachelor	175 (97.2)
	Masters	5 (2.8)
Work shift	Morning	14 (7.8)
	Evening	2 (1.1)
	Night	2 (1.1)
	Rotational	162 (90)
Location	Native	149 (82.8)
	Non-native	31 (17.2)
Experience about critical event	Yes	49 (27.2)
	No	131 (72.8)
Hospital	Imam Reza	80 (44.4)
	Sina	36 (20)
	Madani	34 (18.9)
	Razi	30 (16.7)
Age (years)		(Mean±SD) 32.42±5.6
Work experience (years)		(Mean±SD) 7.6±5.4

[Table/Fig-1]: Demographic characteristics of nurses.

Dimensions/ Type of variable		Nursing ethical reasoning		Dimensions/ Type of variable		Nursing ethical reasoning	
		Mean± SD	Statistical index			M±SD	Statistical index
Marital status	Single	43.7± 5.44	f=.140 p=.869	Gender	Female	45.12± 6.4	t=.576 p=.656
	Married	45.24± 6.25			Male	43.66± 7.28	
	Divorced	45.01± 1.41		Educational level	Bachelor	45± 6.04	t=.975 p= .331
Work shift	Morning	41.64± 5.99	f=2.207 p= .047*		Masters	48± 7.39	
	Evening	46.5± 3.53		Location	Native	45.42± 5.78	t=1.708 p= .089
	Night	38.0± 15.55			Non-native	43.38± 6.08	
	Rotational	45.43± 5.88		Experience about critical event	Yes	45.28± 5.73	t=.28 p= .774
Hospital	Imam Reza	44.12± 6.45	f=3.061 p= .03*		No	44.99± 6.21	
	Sina	44.16± 6.09		Age(years)		45.07± 6.07	r=.068 p= .363
	Madani	47.52± 4.58		Work experience (years)		45.07± 6.07	r=.073 p=.328
	Razi	45.90± 5.54					

[Table/Fig-2]: Comparison of mean scores of nurses' ethical reasoning based on their demographic characteristics; * Statistical Significance <0.05

nurses' ethical reasoning scores (p<0.05). In other words, nurses who were working in night-shifts had lower levels of ethical reasoning compared to other shifts. In addition, nurses working at Madani Hospital had higher levels of ethical reasoning compared to nurses in other hospitals. There was no statistical significance between other personal and social variables in relation to nurses' ethical reasoning scores (p<0.05) [Table/Fig-2].

DISCUSSION

The results of this study showed that most of the nurses are at the conventional and post-conventional levels of ethical reasoning that is compatible with other studies [16,21,22]. Koohi A et al., reported that majority of nurses were at the conventional level and only a few of them were at the post-conventional level [15]. Goethals S et al., reported a contrasting finding, where nurses were mostly at the conventional level when they faced complex situations [9]. According to Kohlberg's theory, the basis of individual's ethical reasoning at the conventional level is adherence to the rules of the organization, being in conformity to people, and to show themselves well to others [14]. The low number of nurses with the post-conventional level can be due to the over-emphasis of the authorities to comply unconditionally with the rules of the organization and the complexity of ethical decision making in clinical settings. Also, nurse's ethical reasoning is influenced by the relationship between the nurse and the patient's family, as influenced by the relationship with colleagues, doctors and institute; and nurses usually abandon their opinions and arguments in order to be compatible with the other colleagues [9].

Several studies have shown that nurses are mostly at conventional and post-conventional levels [12,16,21], and the existing gap for an acceptable ethical reasoning skills at the post-conventional level remains to be desired. Since nurse's ethical reasoning process is a part of their ethical performance and ethical behaviour [9], it is necessary to provide the conditions for converting ethical reasoning to ethical behaviour. But, the results of researches indicate that in Iran, nurses don't have the ability to apply ethical knowledge in clinical decision making in the real environment [23]. With due attention to the importance of the ability of ethical reasoning in proper ethical decision making [12] and the role of ethical education in its development [24-26], it can be possible to significantly contribute to increasing the ethical reasoning of a nurse by providing new solutions and models [27], using simulated situations [28] and contacting challenging situations [12].

In this study, the mean score of nurse's ethical reasoning was 45.07. The mean score of nurse's ethical reasoning had been reported 42.16 in the study of Borhani F et al., 40.81 in the study of Koohi A et al., and 44.1 in Fazljoo E et al., study [12,15,29]. The results of the present study are in line with the results of previous studies. The mean score of Iranian nurse's ethical reasoning is less compared to the nurses of the other studies which have been carried out by using the same tool in the other countries such as Turkey [30], and the United States [10]. The score difference in the ethical reasoning ability among nurses can be due to various individual, social and cultural factors. These factors can be type of curriculum, workplace rules and regulations, the level of education, the cultural, social, religious and beliefs differences, values and beliefs, the customs governing society, clinical experiences of nursing personnel, nurse's perception of their role, in-service training of personnel, staff skills, and the other factors in nurse's ethical behaviour that all have direct and indirect effect on expanding the ethical reasoning and ethical decision making [9,31].

In this study, there was no significant relationship between the work record (work experience) of nurses and their reasoning ability. Whiles the study of Ham KL showed that ethical reasoning ability of nurses decreases with increasing work records [10]. Zirak M et al., also concluded that the ethical reasoning has negative relationship with work record [16], that is not compatible with the results of our study.

Perhaps this difference is due to the conditions of the various work environments that govern the nurses. It is likely that, with increased work record, nurse's commitment to the organization will increase and they will prefer organizational interests to patients' rights [32]. On the other hand, the manager's and doctor's support of nurse's decision making ability that arises from the ethical reasoning and opening the space for implementing their ethical decisions can lead to create the ethical reasoning in nurses by increasing the work record and facing with the happened conditions.

Results of the current study showed that, nurse's ethical reasoning has a significant relationship with their shift and type of work. We found that the ethical reasoning scores of nurses on the night shift were lower than the other shifts. This is likely due to the nature of night work shift and its high fatigue and stress compared to the other work shifts and it's negative effect on nurse's morale and type of thinking and reasoning. The studies show that, the most important barriers to the ethical sensitivity from nurse's viewpoint is related to inappropriate and compact work shifts [33,34]; so that the night working has unpleasant outcomes for nurse's natural life [35]. These findings can be compatible with the results of the present study.

Also, in this study, the mean score for ethical reasoning was significant in terms of hospital type, educational programs, patients' diagnosis, types of hospitalized patients, and the style of organizational support. Several studies reported that a positive atmosphere and a supportive organizational environment play an important role in nurses' ethical reasoning scores, motivation and ethical performance [36,37].

In this study, nurses' demographic variables did not have a significant effect on their ethical reasoning ability, while Goldman A and Tabak N reported that nurses' demographic characteristics had a relative effect on their perception of ideal ethical climate [38]. Similarly, Keller AC et al., reported that having religious beliefs and previous work experience influenced ethical decision making [26].

LIMITATION

Since nurses in this study were selected from general wards at teaching hospitals in Tabriz, Iran; the findings could be limited to one site and not generalizable to all the Iranian nurses. Another limitation is the nurses' personal characteristics regarding fatigue, emotional status and boredom. Researchers estimate that physical exhaustion and heavy workload could have played a role in nurses' response to any of the questions on the questionnaire.

CONCLUSION

Nurses on average manage patient care by applying ethical reasoning and being equipped with proper ethical and professional training will enhance their ability to address multiple types of ethical dilemmas. Nurses need to plan proper strategies to provide high standard of nursing care under the acceptable ethical codes. Furthermore, necessary measures should be applied to improve night shift nursing care regarding ethical reasoning. Shift schedule modification could improve nurses' commitment to patient care.

Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and publication of this article.

Ethical considerations: The study was approved by the Ethics Committee of Tabriz. Informed consent assured nurses of anonymity, freedom to withdraw from the study at any time and data security.

ACKNOWLEDGMENTS

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FINANCIAL OR OTHER COMPETING INTERESTS: None.