

The effect of motivational interviewing on the moral sensitivity of nurses working in intensive care units.

Somayeh Ghafari^{1*}, Razieh Shahroki², Fariba Mosavy³, Mehrdad Mohamadi Armandi⁴

¹Department of Critical Care Nursing, School of Nursing and Midwifery, Nursing and Midwifery Care Research Center, Isfahan University of Medical Sciences, Isfahan, Iran

²Department of Nursing, Islamic Azad University, Dehaghan, Isfahan, Iran

³Department of Nursing, Islamic Azad University, Isfahan, Iran

⁴Department of Nursing, Islamic Azad University, Khorasgan, Isfahan, Iran

Abstract

Background: Moral sensitivity is the ability to identify a moral challenge and is the first step in moral decision-making and professional behavior.

Objective: It is therefore necessary to examine the level of moral sensitivity in nursing and find interventions for its promotion.

Methods: This two-stage pretest-posttest empirical study was conducted on 70 nurses working in Special Care Units (SCUs). The samples were recruited from SCUs including emergency departments, ICUs and CCUs and the share of each department was determined based on quota sampling. The samples were then randomly and regularly assigned to control and experimental groups based on the inclusion criteria. Data were collected using a demographic questionnaire and the Modified Moral Sensitivity Questionnaire before, immediately after and one month after the intervention and were then analyzed in SPSS-20 software.

Results: The mean score of the nurses' moral sensitivity in SCUs was 84.7 ± 6.51 before the intervention in both groups, which is considered good. The mean score of moral sensitivity did not change immediately after the intervention compared to before, but according to the repeated measures ANOVA, there was a significant difference in the mean score of moral sensitivity in the nurses working at SCUs one month after the intervention compared to before. The moral sensitivity score ultimately increased to 92.62 ± 6.28 in the last follow-up.

Conclusion: Motivational interviewing is a practical technique that can enhance nurses' moral sensitivity by altering their mental insight as a key factor in overcoming the fundamental challenges of the healthcare system.

Keywords: Motivational interviewing, Moral sensitivity, Nurse, Special care units.

Accepted on 19 May, 2020

Introduction

Nurses have longer contact with patients compared to other healthcare professionals and their presence has a crucial role in the patients' clinical outcome [1]. Regarding the importance and extent of nursing, Bucknall states that, every 30 seconds, nurses perform a nursing intervention on a new patient, evaluate their clinical status and engage in interaction with them [2]. In addition, nursing is an independent discipline from medical sciences whose mission is to provide the highest level of standardized healthcare and rehabilitation services to ensure and promote community's health [3]. Taking the steps to the provision of standardized care requires the presence of nurses who meet the patients' needs professionally while observing the moral requirements. Moral performance is one of the key components of providing quality care to patients, but unfortunately, despite recognizing the moral issues at work, many nurses do not act on them [4]. The current developments in the world, the growing advances, and factors such as

improved medical technology, the ways of resource allocation, the increased expenses, the increased aging population, the increased attention to personal rights and the changes made in nurses' roles can lead to ethical conflicts in nurses' day-to-day work and affect nursing ethics in the realm of health[5]. This reality has made the issue of ethics an indispensable necessity. According to studies, about 11% of nurses face ethical challenges and problems every day and 36% of them face these challenges every few days [6]. Moral sensitivity can help promote nursing in two areas. On the one hand, it solves moral dilemmas and explains the cause of individuals' behavior, and on the other, it prevents moral dilemmas. The main components of moral sensitivity include honesty and benevolence, respect for the patient's independence, knowledge of how to communicate with the patient, the amount of professional knowledge, the application of moral concepts in clinical decision-making and the experience of moral problems and conundrums [7]. Moral sensitivity, defined as the ability to identify the moral challenges of nursing, is actually the first

step in moral decision-making and practicing professional behaviors. Lautzen et al. described moral sensitivity as an immediate understanding of the status of vulnerable patients and awareness about the moral implications of decision-making [8]. A morally-sensitive attitude (moral sensitivity) makes healthcare providers themselves be affected by the situation first and then respond to others' care needs [9].

Despite the strong recommendations to pay attention to moral principles and aspects in all phenomena, the review of literature showed a skepticism on nurses' professional competence to make moral decisions, which has often been criticized through the health system and beyond. Baghaei et al. estimated the mean moral sensitivity score of all the nurses working in a hospital as 61.1, which is within the moderate range of moral sensitivity and demonstrates the need for planning and the discovery of strategies to elevate and enhance nurses' moral sensitivity in a profession that is filled with different moral codes [10,11]. Arsalan et al. also reported a moderate level of moral sensitivity among nurses working in pediatric care units in Ankara. In a study in Brazil, Dala Nora reported moderate levels of moral sensitivity among nurses working in healthcare units [12]. The failure to resolve moral dilemmas is one of the main concerns of healthcare team members. In Corley's study, 25% of the surveyed nurses working in the treatment sector resigned from work due to their inability to resolve their patients' moral dilemmas [13]. In Malt's study, 50% of the surveyed nurses sought to change their job due to their failure to deal with moral dilemmas [14]. According to Gran Destin, this inability results from the lack of adequate training on moral dilemmas to change the perspectives and increase nurses ability to solve moral dilemmas [15].

Due to the complex nature of clinical care and the numerous challenges faced by nurses, their continued presence at the patient's bedside and their direct impact on the quality of patient satisfaction, the moral decisions taken by this group affect the healthcare system, and since the main component of nurses' moral decision-making is moral sensitivity, finding ways to enhance the motivational power of nurses with respect to moral sensitivity is essential [16]. Motivational interviewing is a controversial method with a developmental approach that can encourage moral sensitivity and decision-making. Motivational interviewing is a client-centered approach that acts as a guide to reinforce and enhance intrinsic motivation and is used to make transformations through the discovery, identification and resolution of the doubts and biases.

Objective: Given the importance of this issue, the present study was conducted to investigate the effect of motivational interviewing on the moral sensitivity of nurses working in SCUs.

Methods

Study Design and Participants

In this empirical study, 70 eligible nurses working in the SCUs of Shohada Hospital in Lordegan, Chaharmahal and Bakhtiari

Province, Iran, were recruited through quota sampling (44 from the emergency department, 13 from the ICU and 13 from the CCU) and were divided into experimental and control groups through regular random allocation. For the regular random allocation, lists of eligible nurses were collected from the three departments and a number was randomly selected from each list, and then the number was regularly summed with 2 every time to select the next subject. The control group was completed first and the experimental group next. The inclusion criteria consisted of consent to participate in the study, at least six months of work experience in SCUs and not having received moral training during the past year. The exclusion criteria consisted of the lack of consent to participate in the study or absence from more than one session of the intervention.

Instruments

Data were collected using the standard MMSQ, which consists of two parts: A demographic part and the valid Modified Moral Sensitivity Questionnaire for nurses. This questionnaire has 25 items that are scored based on a 5-point Likert scale (4=completely agree, 3=somewhat agree, 2=No comments, 1=somewhat disagree, and 0=completely disagree). The score ranges from 0 to 100 (12). Scores of 0-50 are taken to indicate low moral sensitivity, 51-75 moderate sensitivity and 76-100 high sensitivity. The MMSQ was developed in 1994 by Kim et al. in Sweden and was modified by Barbara and Kumary in 1997 and 2003. It was used in 2010 by Sung Suk with an acceptable validity and reliability, i.e. Cronbach's alpha coefficients of 78% and 81% [17,18]. In Iran, the questionnaire's validity and reliability were confirmed with Cronbach's alpha coefficients of 81% and 97% after translation by Hassanpour et al, and Izadi et al. also confirmed its validity and reliability with a Cronbach's alpha coefficient of 80% [19,20].

Data Collection Procedure

In order to prevent information leakage between the two groups, the control group was evaluated first and then the intervention was performed in the experimental group. The control group completed the MMSQ after learning about the aims of the study, giving their informed consent and getting ensured about the confidentiality of the research data; they then attended a short one-hour training session on moral sensitivity. One month later, they completed the MMSQ again without receiving any interventions.

Intervention

In the next step, the intervention group (n=35) was divided into three groups (two groups of 12 and one group of 11) to enhance the quality of teamwork. The subjects were included in the intervention after completing the questionnaire and consent form. Each group participated in the following program held over four weeks, in two-hour sessions, twice a week. Three sessions consisting of discussions of moral sensitivity followed by five motivational interviewing sessions

held by psychiatric nurses. The content of these five sessions was as follows. First session: Introduction session for the group members to get to know each other and the researchers, teaching about the stages of change and practicing the change cycle. Second session: Discussions about emotions, reviewing the previous session, practicing emotion recognition and practicing the recognition of aspects of behavior. Third session: Understanding the positive and negative dimensions of behavior and change, practicing brainstorming on short and long-term gains and losses, practicing how to complete a table of positive and negative dimensions of one's behavior and changing them and describing and practicing corrective and alternative options. Fourth session: Finding values, defining values, performing value recognition and prioritization exercises, understanding first-order values, practicing value definition and practicing compatibility between values and behaviors. Fifth session: Vision and final assessment, summary and conclusion of prior sessions' exercises and starting the change program.

The sessions were managed using group discussions, Q&A and case studies. In the moral sensitivity sessions, after defining moral sensitivity and explaining its place in nursing by examining the guideline on the code of ethics in nursing in Iran, samples of moral conflicts in nursing were presented as case studies and the events and situations experienced by the subjects were revealed in narrative form. These issues were then used in the motivational interviewing sessions for the subjects to practice change in attitude and performance [21]. During the one-month follow-up, the subjects were added to a group on a messaging app and the researcher and psychiatric nurse reminded them of the key points related to the issues and their relevant exercises. One month later, the MMSQ was completed and the data obtained were analyzed in SPSS-20.

Results

General Characteristics of Participants

The present empirical, two-group, two-stage, pretest-posttest study was conducted on 70 nurses working in SCUs with a mean age of 31.57 ± 4.9 years and age range of 26 to 44 years, including 17 (48.6%) female and 18 (51.4%) male subjects.

Time	Experimental group		Control 1 group		Independent t-test	
	Mean ± SD		Mean ± SD		t	P
Before the intervention	84.7±6.51		84.8±7.41		0.51	0.95
Immediate after the intervention	87.05±6.48		84.57±8.36		1.49	0.13
One month after the intervention	92.62±6.8		84.82±7.57		4.68	0.0001
Repeated measures ANOVA	F		2.34		0.17	
	P		0.0001		0.53	

Table 2. The mean score of moral sensitivity in three times between control and experimental groups.

The mean work experience was 5.01 ± 3.61 years in the control group and 6.4 ± 3.82 years in the experimental group. The mean work experience in SCUs was 3.36 ± 3.68 years in the control group and 3.27 ± 2.53 years in the experimental group. Based on Fisher's exact test and the results of the independent t-test, the distribution of the samples was similar in both groups in terms of demographic characteristics (P>0.05; Table 1).

Groups	Experimental	Control	The chi-square and the Fishers exact tests*	
			P	t
Variables	Mean ± SD	Mean ± SD		
Age	31/25 ± 5/5	31/57 ± 4/79	0/83	0/21
Clinical practice experience	6/40 ± 3/82	5/01 ± 3/61	0/804	0/25
work experience in Scus	3/27 ± 2/53	3/68 ± 3/63	0/45	0/76
Gender	Male	18(51/4%)	26 (86/4%)	
	Female	17(48/6%)	4 (13/3%)	P*=0/5

Table 1. Frequency distribution of participants demographic characteristics.

According to the findings, before the intervention, the nurses' mean moral sensitivity score was 84.8 ± 7.41 in the control and 84.7 ± 6.51 in the intervention group, indicating a good level of moral sensitivity in SCUs. Based on the independent t-test results, there was no statistically significant difference in this score before (p=0.95, t=0.51) and immediately after (p>0.13, t=1.49) the intervention. According to the repeated measures ANOVA, one month after the intervention, the mean moral sensitivity score increased significantly in nurses working in SCUs to 92.62 ± 6.28 (p=0.0001, t=4.68; Table 2). According to the two-way ANOVA, the mean score of moral sensitivity was significantly higher one month after the intervention (p<0.05) compared to before and immediately after the intervention (Table 2).

Discussion

According to the findings, motivational interviewing increased the mean moral sensitivity score significantly in nurses

working in SCUs. These findings are inconsistent with the results of the descriptive study by MahdaviSeresht et al. entitled "Correlation between moral courage and moral sensitivity in nurses" on ten nurses working in different departments, which showed a moderate level of moral sensitivity in nurses [22]. The study by Izadi et al. on the effect of moral sensitivity in nurses working in neonatal intensive care units on their clinical decision-making and its relationship with care performance in Bandar Abbas Hospital showed a moderate level of moral sensitivity in NICU nurses [23]. In a descriptive-analytical study, Baghaei et al. showed a moderate level of moral sensitivity in nurses working in Ayatollah Taleghani Health Center in Urmia in general and reported scores of 60.4, 62.9 and 60.2 in the CCU, ICU and emergency departments, respectively, explaining that this level of moral sensitivity is due to the lack of moral training programs developed specifically for nurses [2]. A study by Borhani et al. entitled "A comparison of moral awareness perceptions and moral sensitivity level in nurses" reported a moderate level of moral sensitivity [24]. In their descriptive study, Kohansal et al. reported a moderate level of moral sensitivity in sophomore and senior nursing students [25]. All these studies were similar to the present study in terms of their data collection tools; however, most of them and most other studies on moral sensitivity have been descriptive, comparative or correlational, while the present study was an empirical, two-group, pretest-posttest study. Contrary to the results of the aforementioned studies, in the present study, nurses' moral sensitivity was 84.8 ± 6.51 before the intervention, which is considered a good level. The difference in the mean scores of moral sensitivity could be due to the departments in which the nurses worked. This study was carried out on nurses working in SCUs with different codes of ethics than other parts of hospitals. The moral risks associated with work in SCUs, such as higher exposure to aggressive treatment, dying patients, unnecessary testing, inadequate and incomplete treatment by the staff, unequal distribution of power among the employees and lack of organizational support, lead to distinctions and increased levels of moral sensitivity in this group of nurses, which demonstrates the necessity of processing and finding ways to further enhance moral sensitivity in these nurses [22]. Weaver and Morse believe that the workplace and the clinical environment have a significant impact on nurses' moral sensitivity [26]. Another difference between this study and the aforementioned studies was the inclusion criterion of having at least six months of work experience in SCUs.

In a descriptive study by Huang et al. entitled "Chinese nurses' perceived barriers and facilitators of ethical sensitivity", the mean score reported was good and relatively high, which is consistent with the present findings. The nurses in the Chinese study noted the lack of knowledge about ethics and the lack of clinical experience as barriers to increased ethical sensitivity [27]. In another consistent study, Mousavi et al. reported higher than moderate moral sensitivity in students and nurses working in AJA University of Medical Sciences using Lutzen's Moral Sensitivity Questionnaire, and found the reason to be the different educational environment of this particular university,

which provides extensive and well-founded moral training [28].

The studies conducted on motivational interviewing in Iran have examined the effect of motivational interviewing on lifestyle self-efficacy in obese men, depression and anxiety in patients with primary hypertension, the intention to exercise in obese women [22], the control of diabetes in patients with diabetes type 2 and the correction of posture in nurses among other things [29,30]. There was, however, no similar study on motivational interviewing in relation to moral issues [31-33]. In line with the present study, all the cited studies acknowledged the efficacy of motivational interviewing in changing the attitudes of the subjects in treatment and prevention domains [34]. Motivational interviewing is a client-centered approach for reinforcing and enhancing intrinsic motivation and is used to make changes through the discovery, identification and resolution of doubts and biases. According to Diala and Weiss, motivational interviewing is a guide for individuals to develop their goals and discover the discrepancies between their goals and behaviors. They consider examining and resolving ambivalences as the main purpose of motivational interviewing and argue that revealing these conflicts and resolving this inconsistency are at the heart of motivational interviewing [35]. This interventional method was initially used to treat addiction, but due to being an easy, accessible, pervasive and low-cost method, it rapidly entered preventive and educational health as well [36]. Weaver et al. argue that education and intervention would be more effective in enhancing the moral sensitivity of nurses if they were more objective and illustrative and used teaching aids [26]. Studies on nurses' moral sensitivity have repeatedly pointed to the moral conflicts and struggles of nurses and even stated that nurses have difficulty resolving these conflicts [16,18,20]. Moral sensitivity is a mental insight that stresses what one should do; that is, the individual's inner struggle on the goodness or badness of an action occurs with this particular mental insight, which allows him to conclude whether the action must be taken or not [37,38]. In the present study, the contradictions between the moral thinking and goals of nursing and the nurses' practice were revealed by the subjects themselves through narration based on the study method. For instance, regarding the code of ethics of observing the rules of professional practice and performing sterile procedures, it is general knowledge that the injection of medications to patients shall take place in a sterilized form, and if the IV set becomes non-sterile for any reason, morality and conscience hold that the set should not be used, but in practice, a nurse may use that IV set for a patient by ignoring her conscience. By practicing reflection, revealing these conflicts and trying to resolve them, motivational interviewing has a positive effect on the moral sensitivity of nurses working in SCUs, which have the largest number of moral codes among all hospital wards.

Conclusion

Nurses with higher moral sensitivity make better decisions in clinical situations, and moral sensitivity helps nurses become more aware of the moral issues of their profession and find

creative solutions to them. Motivational interviewing is a controversial method with a developmental approach that can encourage moral sensitivity and decision-making. To the researchers' knowledge, the present study is the first and only on the effect of motivational interviewing on the moral sensitivity of nurses in SCUs. Motivational interviewing is a skillful clinical method and style for calling and eliciting individuals' good motivations for making behavioral changes toward improvement. The strength of this project was the introduction of motivational interviewing as a way to reinforce the moral sensitivity of nurses working in SCUs. Based on the findings, further studies are recommended to be conducted on this subject with larger sample sizes and also on nurses working in general wards and their results should then be used to promote the structure of nursing ethics education.

Acknowledgments

The present study was derived from a research project approved by the Research Deputy of Isfahan University of Medical Sciences under the code 297093 and the ethics code IR.MUI.RESEARCH.REC.1397.321. We would like to express our gratitude to the authorities of Lordegan Shohada Hospital, Isfahan University of Medical Sciences and all the nurses who participated in this study.

Declaration of Conflicting Interests

The Author(s) declare(s) that there is no conflict of interest.

Funding

The author(s) received support for the research of the Isfahan University of Medical Sciences, Isfahan, Iran.

Ethical Considerations

The present study was approved by the Ethics Committee of Isfahan University of Medical Sciences, Isfahan, Iran (IR.MUI.RESEARCH.REC.1397.321) and the hospital authorities' permission was sought as well. Moreover, the participants signed the written informed consents for voluntarily taking part in the study before completing the questionnaires. Questionnaires were anonymized and the participants' information was collected privately by the researchers. The participants who completed the questionnaire received a small gift for their participation.

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Citation: Ghafari S, Shahrokhi R, Mosavy F, et al. The effect of motivational interviewing on the moral sensitivity of nurses working in intensive care units. *J Intensive Crit Care Nurs.* 2020;3(2):1-6.

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*Correspondence to

Dr. Somayeh Ghafari,
Department of Critical Care Nursing
School of Nursing and Midwifery
Nursing and Midwifery Care Research
Iran
Islamic Republic of Iran
E-mail: somayehghafari@nm.mui.ac.ir
Tel: 00983137927544