

## Effect of Education on Nurses' Knowledge about and Attitude toward Nursing Ethics Codes in south east of Iran

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### ABSTRACT

**Background:** Nurses encounter certain ethical problems when they take care of patients; therefore one of the most important issues in the nursing education is to learn ethical principles.

**Objectives:** This study aims to determine the effects of nursing ethics codes education on nurses' knowledge and attitude toward ethics issues at hospitals in South east of Iran.

**Methods:** In this quasi-experimental study, 88 nurses were selected using the clustering sampling method in 2013. They were allocated randomly into experimental and control groups (n= 44). The experimental group received a hand book about guidelines to nursing ethics codes.

Before and after the intervention data were collected through a questionnaire containing three parts (participants' demographics, knowledge and attitudes about nursing ethics codes).

**Results:** The educational program caused a significant increase in the knowledge ( $P < 0.001$ ) and attitude ( $p < 0.001$ ) of experimental group towards the nursing ethics codes. Also there was statistically significant correlation between years of work experience and attitude mean score after training ( $r = 0.27$ ,  $P < 0.05$ ).

**Conclusion:** According to the results, it is recommended that the nursing managers and planners pay more attention to teaching the ethics codes as one of the basic parts of nursing education in order that development and improvement of the nurses' knowledge and attitudes of ethics codes enhance the quality of nursing care.

**KEYWORDS:** Education, Nursing Ethic Codes, Iranian Nurses, Knowledge, Attitude.

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### INTRODUCTION

Nursing is a branch of medical science and its mission is to provide standard services required to protect and improve social health (1). Nurses encounter certain ethical problems when they take care of patients; therefore one of the most important issues in the nursing education is to learn ethical principles (2). Nursing knowledge has been considerably developed and it focuses on the technical competence of nurses (3). The nurses faced enormous challenges in medical environments that sometimes this challenges are so complex and they can have influences on their performance(4). Shortage of nurses, new diseases, increasing elderly population and the level of access to health care services, are factors that increase this complexity (5). The ethical practice is a principle component for quality care to patients and this is necessary for nurses in various position to commit to nursing profession their activities based on shared unit values (1) and the professional ethics, especially in healthcare is very important because of the potential impact on patients' well-being(6). The International council of Nurses (ICN) and other relevant councils prepared a framework for nurses ethical practice that promotes welfare and public health and causes that they are protected against ethical dilemmas (7,8) and this framework so called" Nursing Ethics Codes" and these professional codes were sources for ethical decision-making of nurses (1).The ethics codes are one of the most basic principle for nursing knowledge and despite many challenges in modern health care systems, we need to apply moral codes more than ever (9).

Currently nursing in Iran is aimed to change pattern of professional performances. Since, the principle of ethical codes is according to the human and moral issues, therefore the Iranian nurses should be along with of care, in addition to pay attention to the ethical aspects of their profession (10). The moral nurses who are responsible and accountable for their works and suitable work environment which disciplined environment, that this have a structured and encourages nurses to have an idea of moral (11). In 2012, the Iranian Nursing Organization presented the national codes of ethics in nursing. This law was developed by the Islamic Republic of Iran in order to complete

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a series of health-related procedures and ethical guidelines and its audiences are all employees of the nursing profession in all fields: education, research, managerial, clinical and health. In the Islamic Iranian culture the nursing is worship and Human values that govern the nursing profession is confirmed. Therefore these codes based on Islamic values and culture, and considering the international standards have been developed (12). Experts believe that the evolution of the professional practice of nursing faces challenges and to achieve this purpose, factors affecting this process should be identified and managed and one of the most important principles in professional nursing practice is ethical issues. So nurses must have the knowledge in this field and the evolution towards achieving the moral character (13).

In a study about the development and challenge of Professional nursing ethics, Persian and English literature related to nursing ethics education were studied and concluded in the number of studies, knowledge of Iranian nurses about ethical issues is less than of nurses of other studies (14). In another study the researcher emphasize that knowledge and attitude ethical principles are learnt better in real situations (15) and these learning methods are a bridge between theory and practice (16). In a review study Olivia Numminen *et al.*, (2009) found that the knowledge of nursing was deficient for applying nursing ethics codes and although the values of these codes are known in nursing, it seems that the nursing practice is based on environmental contexts and personal experiences rather than these codes (17). Hassanpoor *et al.*, (2011) determined the effect of teaching professional ethical principles on ethical sensitivity in nurses' decision-making. In this semi-empirical study, an educational workshop on nursing ethics was held for the intervention group before and after the workshop, the ethical sensitivity in decision-making was evaluated in the intervention and control group. Based on the findings of this study, teaching nursing ethical principles has a positive effect on nurses' ethical sensitivity in decision-making (18). Review of literature showed that the studies have been performed on a small part of ethic codes and don't consider all aspects, the investigation showed that the studied groups after training have acquired knowledge nursing ethics codes and nurses need more training and more continually in this field (19, 20).

### **Objectives**

This study was aimed to study the general characteristics and nursing ethics codes knowledge and attitude of nurses who are working in hospitals of South East of Iran.

## **MATERIALS AND METHOD**

The present study is a quasi-experimental design. The formal survey was conducted from Oct.20 to Dec.20, 2013. A self-administered questionnaire was developed based on previous studies including Joolae *et al.*, (1) Shahriari *et al.*, (21) and Parsapour *et al.*, (22) and the second author experiences. The ethical questions were based on four sections of the national codes of ethics in nursing provided by Nursing Organization in Iran (Nurses and Society, Nurses and practice, Nurses and the profession, and Nurses and co-workers), and five ethical principles of non-maleficence, beneficence, autonomy, social justice and confidentiality. This questionnaire included three parts: First section includes: basic information and demographic characteristics such as age, sex, marital status, education level and years of work experience of participants. The second section included 34 items about nurses' knowledge of nursing ethics codes. The responses were designed using a five-point Likert scale (5= fully correctly, through 1= fully incorrectly). The third section included 30 items that questioned about participants attitude of ethical issues (completely agree=5, completely disagree=1).

### **Data Collection**

To determine the sample size the Hassanpours *et al.*, study was used (18) and the sample size of 88 participants was calculated into SPSS19 software, The sample size was predetermined by using power analysis based on the large effect size of  $\alpha = 0.05$  and power =0.95; 44 participants in each group were determined to be qualified to test the study's hypothesis. The subjects of this study were 88 nurses from four hospitals selected by clustering methods. They were enrolled and divided randomly into experimental and control groups (n= 44). The selection criteria were satisfaction for participating in the study (experimental or control group) and having more than one year of work experience. Then the nurses, who satisfied to participate in the study and had more than one year of work experience were randomly selected from each ward. Therefore, in order to achieve the generalization of the research results, the investigation targeted hospital nurses in the Kerman hospitals and four hospitals were selected. In this study the relationship between the two groups was predicted, so after completing the questionnaires by participants (before the intervention), nurses of two hospitals were randomly placed in control group, and nurses of the other two hospitals were placed in the experimental group.

### **Validity and Reliability**

A pretest of the questionnaire was performed to ensure content validity and reliability within the target context. Ten experts were invited to assess wording clarity, question item sequence adequacy, and task relevance. Several minor modifications of the wording and the question item sequence were done based on the comments collected from these experts, and internal consistency of the questionnaire was assessed by Cronbach's alpha coefficient (23). The alphas of knowledge and attitude questions were 0.83 and 0.80 respectively.

### **Ethical considerations**

Study approval was obtained from Kerman University of Medical Sciences and Islamic Azad University Kerman branch and the hospitals supervised by these two universities. We explained to nurses the research objectives, process, data collection procedure, and their right of refusal. Only those who gave informed consent were included in the study. All nurses invited by researchers agreed to participate in the study.

### **Teaching of the nursing ethics codes**

Today the codes are regarded as an important part of nurses' ethical knowledge base throughout the nursing world and these have offered guidance for ethical decision-making and informed the public of nurses' intent and approach, as well as informing patients, policy makers, employers and other providers of nurses' core values and standards. Thus the researcher designed a hand book entitled 'Guideline to nursing ethics codes'. This hand book was designed according to national codes of ethics in nursing which was provided by Nursing Organization in Iran. The contents of the hand book, included:

- Ethical guidelines in nursing and society.
- Ethical guidelines on the care and professional commitment.
- Ethical guidelines on the care and clinical services.
- Ethical guidelines on the care and treatment team collaboration.
- Ethical guidelines on the care, education and research.

Because the large volume of content, especially its sensitivity, more resolution, complete details and it was as possible practical for daily use nurses, used of articles: " Iran's moral codes " Joolae et al., (1), the "code of ethics in nursing care for patients," Shahriari et al., (21). Content validity and experts opinions have been used for validity of collected subjects. Two experts evaluated all scales for content relevance and appropriateness, and some items were revised according to their suggestions and then after passing the necessary process edited and designed in pocket Hand Book that enables the nurses to access it easily and quickly. This hand book was given to the experimental group freely.

### **Data analysis**

Data was analyzed by SPSS version 19 and mean standard deviation, number and frequency percentage were used to describe statistics and Chi-square, fisher tests and independent *t-tests* were used to test the differences between the experimental and control groups. Relationships between variables were estimated by Pearson's correlation coefficient(*r*). The significant level was defined by  $p \leq 0.05$ .

## **RESULTS**

### **Demographic Information**

Many factors could affect the effectiveness of this type of training, such as age, sex, marital status, education level and years of work experience of participants. A comparison of the experimental and the control group personal data are presented in Table (1). Participants' background characteristics in two experimental and the control groups were compared in table 1. Nurses in experimental group were aged from 23 to 45 years and the age of nurses in control group was between 23 and 48 years. The minimum of work experience for two groups was one year and the maximum of work experience for experimental group was 24 and for control group was 26 years. The distributions of personal data in both groups were homogeneous ( $p < 0.05$ ).

Variable	Experimental group n=44		control group n=44	P
	No (%)		No (%)	
Age (years)	†	33.5(0.9)	34.1(1.1)	<b>0.67</b>
Mean (SD)				
Gender	‡			<b>0.06</b>
Male		4(9.1)	2(4.5)	
Female		40(90.9)	42(95.5)	
Marital Status:	□			<b>0.07</b>
Single		8(18.2)	10(22.7)	
Married		36(81.8)	34(77.3)	
Other		0(0)	0(0)	
Education Level:	□			<b>0.96</b>
Associate		0(0)	0(0)	
Bachelor		44(100)	44(100)	
Masters		0(0)	0(0)	
PhD		0(0)	0(0)	
Work experience (years)		10.5(0.9)	10.1(1.1)	<b>0.83</b>
Mean (SD) †				
† (t)	‡ (chi)	□ Fisher test		

### Descriptive Findings

A comparison of the experimental and the control group's knowledge and attitude data is shown in Table (2). Data showed homogeneity of variance between experimental and control groups, based on Levene's test. Results showed that by using independent *t*-tests, there was no significant difference in the mean (SD) of knowledge and attitude before training ( $p>0.05$ ), but there were statistically significant difference in the mean (SD) of knowledge and attitude between experimental group and control group after intervention ( $p<0.001$ ).

		Levene's Test		Experimental group	control group	t	df	Sig
		F	Sig.	Mean (SD)	Mean (SD)			
Pre-test	knowledge	.147	.702	98.52(2.8)	99.32 (2.7)	-2.04	86	.839
	attitude	1.588	.211	87.05(3.3)	89.32 (2.6)	-.539	86	.592
Post-test	knowledge	6.094	.061	131.48 (5.02)	109.32 (2.05)	4.086	86	.000*
	attitude	3.410	.068	114.09 (4.6)	95.80 (2.5)	3.491	86	.001*

\*  $p<0.05$

Finally, no differences were found between variables such as age, sex, and education level and the mean (SD) knowledge and attitude of participants ( $P>0.05$ ). But there was statistically significant correlation between years of work experience and mean score of nurses' attitude after training (SD). The participants who had more nursing experiences, their attitude towards ethics issues improved after invention ( $r=0.27$ ,  $P<0.05$ ). (Table 3)

Variable	Knowledge		attitude	
	Pre-test	Post-test	Pre-test	Post-test
Gender	$P=0.9$	$P=0.6$	$P=0.9$	<b><math>P=0.2</math></b>
$P$ ( <i>t</i> -test)	$t=-0.16$	$t=-0.48$	$t=0.16$	<b><math>t=-1.30</math></b>
Marital Status	$P=0.7$	$P=0.2$	$P=0.06$	<b><math>P=0.06</math></b>
$P$ ( <i>t</i> -test)	$t=-0.41$	$t=-1.29$	$t=-1.98$	<b><math>t=-2.19</math></b>
Age	$P=0.06$	$P=0.73$	$P=0.11$	<b><math>P=0.8</math></b>
$P$ (Pearson's correlation)	$r=0.58$	$r=-0.04$	$r=0.17$	<b><math>r=-0.03</math></b>
Work experience	$P=0.3$	$P=0.11$	$P=0.10$	<b><math>P=0.01</math></b>
$P$ (Pearson's correlation)	$r=0.02$	$r=0.3$	$r=0.18$	<b><math>r=0.27^*</math></b>

\*  $p<0.05$

## DISCUSSION

Some studies showed that nursing knowledge wasn't sufficient for applying Nursing Ethics Codes, but the nurses believed for improve and extent of professional identity, needed these Codes (24- 27). Therefore, it seems that ethics training is one of the most impressive factors for committed and professional nurses and to improve the quality of care (14). The aim of this study was to examine the effect of education on nurses' knowledge about and attitude towards nursing ethics code in south east of Iran. Findings showed that nurses' knowledge about ethics codes in experimental group after intervention significantly improved. Borhani.et.al did a study in which they assessed the ethics education importance on development of nurses' ethics competence and concluded significant and positive impact of the ethics education on nurses' knowledge (28). Similar results were reported by Ersoy et al., (20). Wehrwein et al., believes that ethics education improves knowledge of moral issues and ethics decisions making of nursing students (29). Numminen et al., in our study determined that professional educations, methods of teaching and codes knowledge had significant effect on learning of concepts, laws and agreement of health care professionals' codes in nursing educators (5). There are other studies that showed the different methods of effectiveness of ethical principles education on knowledge improvement(30, 31)

Another result of this study was positive and significant effect on attitude of experimental group. Ralf believes that one of the most important effects of nursing ethics codes education is improvement of nurses' attitude and belief for ethical behavior development (32). The result of study of Gocmen Baykara et al., showed significant improvement in perception of ethical principles and moral sensitivity in experimental group after the ethical education (33). Grundstein et al., showed that ethical training programs had significant influences on nurses' attitude in relation to ethical issues (34). Jolae et al., used a new design in training ethics, and concluded that the ethics education improved attitude of nursing student (35). Finally, there was a statistically significant correlation between participants' variables; years of work experiences and after training attitude mean score. Of course it seemed logical that with increasing in years of work experience, not only the participants attitude mean score improved, but also the participants knowledge mean score increased because knowledge and attitude of nurses improved by increasing mean years of practice and work experience, So we can realize the importance of the need for training in this regard. Results of Hassanians et al., study also showed that there is a significant correlation between the participants' works experience and attitudes of nurses about patients' rights (36). Numminen et al., conducted a study on the effectiveness of training in nursing ethical codes. In their results, there was a significant correlation between age and work experience with rate of participants learning but there was no significant correlation between sex, education and rate of participants learning (5).

The results of this study showed that nursing ethics codes education increases the knowledge and attitudes of nurses. Design of "Guide line to nursing ethics codes" Hand Book to Pocket form, will enable nurses to access it permanently, and refer to it quickly and easily if necessary and increase their knowledge in this field. Also since this educational resource was new, it increased nurses' motivation for learning and improved their ethics codes attitude. Therefore, it is suggested that managers and planners pay attention to ethics codes training as an important factor in nursing education rather than development and increase of the knowledge and attitudes of nurses in relation to nursing ethics codes, improve and enhance the quality of care. So nurses need more training and more frequent in this field. Also the nurses need to be confirmed source, because sometimes they to take a decision quickly and accuracy that human dignity is preserved of their clients and not involved in ethical dilemmas.

### Recommendations and Implications for Nursing Practice

It is important for nurses who take care of patients in ethical environments to have adequate knowledge and positive attitude about the universal nursing ethics codes. Hence, some suggestions could be proposed: Nurses should have a dynamic education about professional codes. Nurse educators should empower nurses through continuing education and professional development. Ethics should be woven through the nursing curriculum and should be developed based on the socio-cultural context. It is suggested that barriers and fascinators of ethical codes education be evaluated in further researches.

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