

Code of ethics teaching and its application in nursing students: a cross sectional study

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Abstract

Background Codes of ethics is a guide for nursing practice. However, limited number of studies was conducted on code of ethics teaching and its application in nursing students. This study aimed to determine code of ethics teaching and its application in nursing students and the association between variables. Methods This was a cross-sectional study. A total of 134 nursing students from Shiraz University of Medical Sciences participated in this study. Codes of Ethics for Nurses Questionnaire were used. Data were analyzed by SPSS. Results Code of ethics teaching and its application in 98% and 97% of nursing students were in moderate and high levels. Beside, association between codes of ethics teaching and its application were significant in nursing students ($r=0.21$, $P=0.04$). Most of the participants were taught the codes of ethics by their lecturers (58.1%) in classroom (61.1%). Two third of the participants had moderate and above knowledge and capability to apply the codes of ethics. Furthermore, 75.2% of them believed that having codes of ethics were highly essential. Conclusions The teaching and application of the codes in approximately 50% of the students were in moderate level, which shows they need to acquire more knowledge on this subject. As the association between codes of ethics teaching and its application through increasing their knowledge, hence, application of these codes in nursing students who will become the future nurses is imperative.

Introduction

Modern healthcare is one of the challenges of today's world. Globalization, migration, shortage of nurses, emerging diseases, and aging population are an example of the problems that not only has created a new moral problems, also made these issues more complicated (1). Hence, these moral issues and challenges are the leading ethical dilemmas in nursing. To solve these matters, professional nursing councils have developed codes of ethics (2).

Initially, nursing codes of ethics were established in 1953 by ICN, and in later years several amendments were made to it. According to these codes, nurses' responsibilities consist of 4 principle elements including "Nurses and people", "Nurses and the profession", "Nurses and practice", and "Nurses and co-workers". The aim of these fundamental principles are to improve health, prevent diseases, restore health and relief suffering (3).

These codes guarantee the human rights regardless of their culture, and ethical backgrounds. In addition, these codes prevent unethical behavior, and evaluate individual moral behavior. Furthermore, nursing codes of ethics provide the best quality patient care (2). It guides nurses in legal and ethical responsibility towards clients and patients (4). Moreover, more understand ethical aspects of patients care associated with better students self-efficacy (5). Codes of ethics also provides an opportunity for nurses to respond to ethical issues while providing care (6). It is a guide for nursing practice and to protect professional nursing practice identity (2). In addition, the codes define nurses' roles, responsibilities and prohibitions related to patients, performances and nursing profession (1, 7).

With respect to nursing codes of ethics that defines the profession (8), and are important in practice, hence, teaching codes of ethics during students studies are crucial, and can be effective in professionalization of nursing and development of professional values (9). In other words, decision-making in complicated ethical issues, professional values are the basis of nursing practice (10) Researchers believed that the main reason for inadequate knowledge on codes of ethics' in nurses was due to their limited education nursing curriculum (11). Therefore, teaching the codes of ethics requires more development (9).

Teaching codes of ethics help students to become aware of patients' rights (12), and to apply these rights in practice (13). Moreover, students used patients' rights and quality of care statements in making moral decisions (14). The codes as a useful framework are effective in the development of ethical decision-making skills (15).

Despite the beneficial effects of these codes, a study indicated that 60% of nursing students were not familiar with the codes of ethics (16). Another study revealed that nursing students' knowledge and their ability to apply the codes of ethics were in moderate level (9). In addition, the results of a study on nurses in Iran showed knowledge and application of ethical codes were low in clinical practices (17). On the other hand, in recent years, a study in Iran showed that 86.4% of nurses were aware to these codes (18).

These controversial results regarding teaching and application of nursing students' ethical codes might be related to various social contexts of these studies. Additionally, only limited number of studies was conducted on teaching and application of codes of ethics in nursing students. Therefore, this study aimed to determine the codes of ethics teachings and its application in nursing students and association between these variables.

Methods

This was a cross-sectional study. BS, MS and PhD nursing students participated in this study. Inclusion criteria were being nursing students in BS, MS and PhD degree, and having at least passed one year of study period. The setting was Nursing and Midwifery School of Shiraz University of Medical Sciences (SUMS).

A pilot study on 10 nursing students was used to determine the sample size. A correlation coefficient between teaching and application codes of ethics were 0.20. Therefore, based on $r=0.20$, $=0.10$, and $=0.25$, sample size was estimated at 134 nursing students. Then, it was raised to 140 for the drop-outs. Convenience sampling method was used for data collection among BS, MS and PhD degree students.

Data were collected using demographic form and a researcher made questionnaire. In the demographic form data such as age, gender, marital status, living status and students' degree were collected. Moreover, some questions about students' knowledge and capability to apply the codes of ethics and the necessity of the codes in view point of nursing students were evaluated by using a 5 points Likert (never = 1 score to extremely high = 5 score).

In order to assess codes of ethics teaching and application, the researchers made questionnaire was created according to "The Codes of Ethics for Nurses". Code of Ethics for Nurses Questionnaire, (CENQ) was deigned based on Iranian nursing ethics guide by Zahedi et al., in 2009 (19). It has 71 provisions and five main parts including: "Nurse and People", Nurses and the Profession", "Nurses and Practice", "Nurses and Co-workers", and "Nursing, Education, and Research". Originally, this questionnaire had 71 items. Then, after content and construct validity, it was reduced to 68 items. The CENQ' items were based on 5 points Likert scale from never (score=0) to extremely high (score=4). The total score of the questionnaire were 0-272. Then, the scores were categorized in to three levels: 0-88, 89-177 and 178-272 that meant low, moderate and high level of code of ethics teaching. The questionnaire had 5 dimensions, "Nurse and People" (9 items), "Nurses and the Profession" (14 items), "Nurses and Practice" (19 items), "Nurses and Co-workers" (15 items), and "Nursing, Education and Research" (10 items). The CENQ for assessment of codes of ethics teaching and its application were similar. However, the subjects were asked to answer the questions based on how much they were taught and how much they applied the codes of ethics.

The content and construct validity of this questionnaire was confirmed by the researchers. Moreover, the test-re-test reliability of the codes of ethics teaching and application were 0.92, 0.94, respectively. Cronbach's alpha for the total items of the codes of ethics teaching and application were 0.97, 0.98. As Table 1 and 2 show the questionnaires had excellent internal consistency that Cronbach's alpha of all subscales were > 0.88.

Data were collected after obtaining permission from SUMS' vice chancellor of research. This study was approved by the Ethics Committee of SUMS. Consent form was taken from the participants. They were familiar with the aims of our study. Participation in this study was voluntarily. The participants could drop-out of the study whenever they wanted. They were told that their participation/nonparticipation in the study had not effect on their scores. Anonymity had been guaranteed. They were assured that data would be reported in general and without the name of the participants.

Data were analyzed using SPSS, version 22. Mean, SD and frequency and percentage were applied to determine the mean and level of codes of ethics teaching and application. The association between the codes of ethics teaching and application were assessed by Spearman's test.

Results

One hundred and thirty four nursing students participated in this study. Their mean age was 24.75 (SD=6.17). Most of the nursing students were female, single and lived in dormitory. Moreover, 70.4% of the subjects were studying BS degree. Table 3 shows the demographic characteristics of the participants.

The codes of ethics levels of teaching, it subscales, and also their mean score are shown in Table 1. As it can be seen, codes of ethics levels of teaching in 52.5% and 45.5% of nursing students were in moderate and high. Moreover, code of ethics application in 57.4% of them was moderate and in 40.0% was high. In addition, "Nurse and People", Nurses and the Profession", "Nurses and Practice", "Nurses and Co-

workers”, “Nursing, Education and Research” subscales of codes of ethics application in half of nursing students were moderate and in one third was high (Table 2).

The results of this study in nursing students indicated that an association between codes of ethics teaching and its application were statistically significant ($r=0.21$, $P=0.04$). This meant that those students, who had been trained properly, used the codes of ethics more in practice. Furthermore, some codes of ethics teaching subscales were correlated with its application subscales (Table 4).

Educational methods of code of ethics in nursing students were lectures ($n=75$, 58.1%), discussions ($n=17$, 13.2%), seminars and workshops ($n=15$, 11.6%), homework ($n=10$, 7.8%), problem solving ($n=5$, 3.9%), search in internet ($n=1$, 0.7%), and etc. ($n=6$, 4.7%). Therefore, most of the participants were taught the codes of ethics by their lecturer. They had learned in classroom based on their nursing curriculum ($n=80$, 61.1%) and workshops ($n=21$, 16.0%). Additionally, their familiarity with the codes of ethics had occurred by reweaving the Iranian Nursing Council booklet ($n=2$, 1.5%), or reading them on the internet, from their ethics text books ($n=14$, 10.7%), and etc. ($n=14$, 10.7%).

In general, most of the students reported that they were knowledgeable and capable to apply the codes of ethics (Table 5). Moreover, the findings of this study indicated that an association between knowledge and capability in applying the codes of ethics were statistically significant in nursing students ($\chi^2=98.03$, $P<0.0001$). The results of this study also showed that 75.2% ($n=100$) of the nursing students believed that having codes of ethics were extremely necessary. In addition, 17.3% ($n=23$) and 5.3% ($n=7$) of the participants reported that the codes of ethics were to some extent or slightly necessary, respectively. However, only three students (2.3%) believed that it was unnecessary.

Discussion

This study aimed to determine codes of ethics teaching and its application in nursing students, as well as the association between these variables. It showed that these codes teaching and its application in more than two third of the students were moderate and above. Moreover, code of ethics teaching was statistically associated with its application.

Our findings showed that 52.5% of the nursing students were taught these codes in moderate, and 45.5% of them in high level. In addition, most of them believed that they had moderate and high knowledge of these codes. Numminen et al., showed that nursing students knowledge of these codes was moderate (9). On the other hand, in another study researchers believed that the codes of ethics knowledge was low in nursing students (12). Clarke et al., in assessment of nurses’ codes value showed that the majority of nurses had low level understanding of these codes, in addition to their unfamiliarity with them. The codes also had low clinical and practical values due to numerous barriers (11). In this study, all the student were familiar with the codes and only two percent of them were taught in low levels. With respect to “Iranian Board of Nursing” in 2015, nursing ethics and professional relationships courses must be added to nursing BS curriculum (20). Therefore, all of the BS nursing students have to pass the nursing ethics

course. Moreover, for PhD and MS nursing students these topics and content have been added to their course curriculum. It was indicated that one of the factors affecting the development of ethical competency, is teaching ethics during the study course (20).

According to our findings, 57.4% and 40.0% of the nursing students revealed that they applied the codes in moderate and high levels, respectively. It was reported that the capability of nursing students in performing these codes were in moderate level (9). Moreover, 79% of the participants were fully agree or almost agree about the applicability of these codes (21). In a study in Tabriz, Iran 91.9% of the nurses reported they respected the codes of ethics(18). Researchers believed that as a result of teaching these codes to nursing students in recent years, they are more knowledgeable in comparison to the past. This increased their awareness and consequently their view to apply these codes.

This study showed a significant association between code of ethics teaching and its application in nursing students. In review of the literature, no study has assessed this association. However, researchers have maintained that teaching ethics enhances ethical perception of nursing students (22). Codes of ethics teaching had a positive effect on nursing students moral behavior (8). The codes as a guideline, explain the profession and are an essential part of nursing education (23).

The majority of nursing students are educated about these codes in classroom by lecture method. Moreover, educators used seminars and workshops, problem solving, and internet to encourage them to do homework to improve codes of ethics competency in nursing students. It was demonstrated that using ethical models in decision-making, nursing students awareness of these code by lecture, films and ethical scenario could conducted the nursing students practice and consequently improve nurses' ethical competencies (20).

Similar to our study that 97% of the nursing students had confirmed that codes of ethics were essential, in Numminen et al., study they had supported the need for these codes. Moreover, 88% of them had fully agreed and partially agreed with the necessity of the ethic codes (21). Considering the codes of ethics that help to make decisions; improve, conduct and give information about ethical assessments, beside, it determines professional responsibility nursing students approved the necessity of the present codes.

This study had some limitations. One was the limited number of participants. Thus, conducting another study with a bigger sample size from different nursing universities is recommended. Performing a cross-sectional study was another limitation. Therefore, conducting a longitudinal study and its continuation until working in clinical setting as a nurse is suggested.

Bu preforming qualitative study we aimed to determine nursing student experience in performing codes of ethics using phenomenological study. Moreover, the process of codes formation in nursing students by grounded theory study, and improvement in process of codes formation using action research are recommended.

The findings of this study were valuable in academic and clinical nursing profession. Nursing curriculum planners should focus on codes of ethics teaching and its application in nursing students.

Conclusion

This study showed that codes of ethics teaching and its application in 98% and 97% of nursing students were moderate and above. Moreover, more educated students had better view about its application. Most of the nursing students believed that they had moderate to extremely highly knowledge and capability to apply the codes. The nursing students also believed that ethical codes were essential. Conducting more studies to improve codes application in clinical setting is recommended.

Declarations

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Conflict of interest

The authors declare no conflict of interest regarding research, authorship and publication of this paper.

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Tables

Table 1. Levels, mean score and internal consistency for the codes of ethics teaching and its subscales in nursing students

Variables	Codes of ethics levels of teaching			Mean (SD)	Cronbach
	Low	Moderate	High		
Teaching of code of ethics	2(2.0)	52(52.5)	45(45.5)	174.04(40.08)	0.97
Subscales					
Nurse and People	11(8.3)	77(57.9)	45(33.8)	21.24(6.29)	0.88
Nurses and the Profession	7(5.4)	72(55.4)	51(39.2)	33.86(9.43)	0.90
Nurses and Practice	4(3.6)	106(96.4)	0(0.0)	51.02(13.06)	0.93
Nurses and Co-workers	7(5.6)	59(46.8)	60(47.6)	38.71(10.45)	0.93
Nursing, Education and Research	5(3.9)	63(48.8)	61(47.3)	26.10(6.86)	0.92

Table 2. Levels, mean scores and internal consistency of the codes of ethics application and its subscales in nursing students

	Codes of ethics levels of application			Mean (SD)	Cronbach
	Low	Moderate	High		
Application of code of ethics	3(2.6)	66(57.4)	46(40.0)	162.11(49.02)	0.98
Subscales					
Nurse and People	16(11.9)	80(59.7)	38(28.4)	20.35(7.05)	0.90
Nurses and the Profession	8(6.1)	79(59.8)	45(34.1)	32.92(10.24)	0.92
Nurses and Practice	7(8.5)	66(55.0)	47(39.2)	48.97(15.44)	0.95
Nurses and Co-workers	17(13.4)	66(52.0)	44(34.0)	33.08(12.45)	0.96
Nursing, Education and Research	12(9.2)	70(53.4)	49(37.4)	24.50(7.82)	0.91

Table 3. The demographic characteristics of the nursing students

n (%)	Variables
	Gender
38(28.1)	Male
97(71.9)	Female
	Marital Status
108(80.0)	Single
27(20.0)	Married
	Living status
97(72.4)	Dormitory
26(19.4)	Living at home with family members
11(2.8)	
	Degree
95(70.4)	BS
31(23.0)	MS
9(6.7)	PhD

Table 4. An association between codes of ethics teaching and application in the nursing students

		Codes of ethics teaching subscales					Codes of ethics teaching
		Nurse and People	Nurses and the Profession	Nurses and Practice	Nurses and Co-workers	Nursing, Education and Research	
		r, P	r, P	r, P	r, P	r, P	r, P
Codes of ethics application		.14, .13	.26**, .006	-.02, .81	.14, .14	.27**, .003	.21*, .04
Subscales' application of code of ethics	Nurse and People	.06, .49	.14, .09	.07, .44	.12, .17	.15, .07	.17, .08
	Nurses and the Profession	.16, .05	.27**, .002	.07, .41	.17, .05	.29**, .001	.15, .13
	Nurses and Practice	.11, .21	.265**, .004	.04, .63	.10, .26	.25**, .004	.19, .06
	Nurses and Co-workers	.21*, .01	.22*, .01	.12, .21	.21*, .02	.33**, <.0001	.23*, .02
	Nursing, Education and Research	.13, .14	.26**, .003	.13, .15	.11, .20	.28**, .001	.17, .09

Table 5. Nursing students' knowledge and capability to apply the codes of ethics

Variable	Very little	To some extent	moderately	highly	extremely high
	n(%)	n(%)	n(%)	n(%)	n(%)
Codes of ethics knowledge	6(4.5)	34(25.2)	66(25.2)	25(18.8)	2(1.5)
Capability to apply the codes of ethics	11(8.2)	37(27.6)	53(39.6)	31(23.1)	2(1.5)