

Privacy Protection and Affordable Education Program for Nursing Students

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Abstract

The study aimed to develop a Privacy Protection and Affordable Education Program (PPAEP) and evaluate its effects on increasing knowledge and perception of patients' privacy protection in nursing students. The participants in this study were 47 nursing college students in Korea (20 in experimental group and 27 in control group). We developed the PPAEP program for nursing students to increase knowledge and practice skills that are necessary to provide patients' privacy protect. The program consisted of three sessions. 1st: Lecture about concept of privacy, personal health information protection, laws related to privacy protection, video presentation of privacy threat cases. 2nd: Practice patients' privacy protection skills required in obstetrical nursing using human patient simulator. 3rd: Team discussion. At the beginning and end of the program, students were surveyed about their knowledge and perception of privacy protection. It consists of 10 items in 2-point scale (1 = correct, 0 = not correct) with higher scores indicating better knowledge. Perception was measured by perception about protecting patients' privacy. The perception questionnaire with 39 items was scored on a 5-point Likert scale ranging from 1 (not at all) to 5 (very much), with higher scores indicating better perception. Data was analyzed using SPSS statistics software, version 18.0, in Windows. The perception about patients' privacy protection in the experimental group was significantly increased compared to the control group ($t = 2.363$, $p = .022$). However, no statistically significant differences in the knowledge between both groups were observed. The findings indicate that the PPAEP program was effective to improve perception about patients' privacy protection in nursing students. In addition, this program might be implied to nursing curriculum related to patient safety.

Keywords: Education Program, Nursing Students, Privacy

1. Introduction

Human has the right to privacy. The legal right to privacy in the United States evolved in constitutional law from the Bill of Rights to the US. Constitution as well as the Liberty Clause in the Fourteenth Amendment. The current trend is toward requiring professionals to protect personal and/or health information given to us by a client¹. Right to privacy is an expectation of freedom from unauthorized intrusion², freedom from observation by others, avoiding identification or surveillance, limiting disclosure to others, and the right of individuals to determine when, how and to what extent information is shared with or transmitted to others³.

Privacy can be seen as an individual's freedom and having private space to be by oneself, being protected against physical and psychological intrusion, having the opportunity to achieve emotional release, ensuring that certain personal information is protected from others, and controlling how personal information is handled⁴.

However, the term 'privacy' has different meanings in different contexts⁵. In many medical care areas, in particular, childbirth or obstetrical area, little attention is paid to ensuring privacy for nursing students. Nowadays, the number of male nursing students is increasing, pregnant women do not want the physical presence of unwanted persons; unwanted observation of or by a male person⁴. Respect for confidential information and

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protecting their physical privacy are crucial in childbirth education.

Therefore, nursing program should be proceed patient privacy protecting knowledge and skill acquisition class including concealing certain aspects of their medical history, refusing medical examination, heightened anxiety levels, stress, aggression, unacceptable behavior and giving obscured⁶.

We developed the Privacy Protection and Affordable Education Program (PPAEP) for nursing students to increase knowledge and practice skills that are necessary to provide patients' privacy protect in obstetrical area. The current study was designed to its effects on increasing knowledge and perception of patients' privacy protection in nursing students contrast to prior to program.

2. Methods

2.1 Research Design

This study employed a two group pre- and post-test design.

The research hypotheses for the study were as follows:

- The experimental group which participated in the program would show greater increase in knowledge regarding privacy from pre- to post-measurements than the control group.
- The experimental group which participated in the program would show greater increase in perception about protecting patients' privacy from pre- to post-measurements than the control group.

2.2 Samples

The subjects were chosen by convenience sampling,

among the college students major in nursing from one university in Korea. A total of 47 students (20 experimental group and 27 control group).

2.3 Measurements

2.3.1 Knowledge Regarding Privacy

We developed was knowledge regarding privacy scale based on literature review. It consists of 10 questions measured in a 2-point Likert scale (1 = correct to 2 = not correct) with higher scores indicating greater knowledge. Cronbach α was 0.70 in this study.

2.3.2 Perception about Protecting Patients' Privacy

Perception about protecting patients' privacy was measured by perception about protecting patients' privacy behavior scale developed by Lee and Park⁷. It consists of 39 items in 5-point Likert scale (1 = strong opposite to 5 = strong agreement). Cronbach α was 0.92 in an original study⁷ and 0.91 in this study.

2.4 Privacy Protection and Affordable Education Program (PPAEP)

The program consisted of three sessions for 400 minutes. 1st: Lecture about concept of privacy, personal health information protection, laws related privacy protection, case presentation of privacy threats- watching video. 2nd: Practice patients' privacy protection skills required in obstetrical nursing area using human patient simulator. 3rd: Team discussion.

Table 1. Privacy Protection and Affordable Education Program (PPAEP)

Session	Contents	Running time (minutes)
1	# Lectures concept of privacy personal health information protection laws related privacy protection case presentation of privacy threats-watching video	100
2	# Simulation-based learning using standard patient practice patients' privacy protection skills required in obstetrical nursing area using human patient simulator.	230
3	# Debriefing (Team discussion) discuss about patients' privacy protect discuss about invasion of privacy analyze the problems and share the experience	50
4	Test	20
Total		400

2.5 Data Collection

From Oct 27, 2012 to Oct 28, 2012, data collection was carried out. The participants were briefed about the research objective and method, and submitted written consents. Then the self-administered questionnaires were distributed and collected. It took about 10 minutes to answer the questionnaire.

2.6 Data Analysis

The homogeneity of the two groups was analyzed using Chi-square tests, and Fisher Exact Test. The Kolmogorov-Smirnov test was used to test the normal distribution of the variables, and *t*-test were used for the hypothesis test of the differences in the pretest-post-test changes between the experimental and the control groups. Data was analyzed using SPSS statistics software, version 18.0 in Windows.

2.7 Ethical Consideration

This study was reviewed and approved by the Ethics Review Board of Namseoul university in Korea.

The subjects were briefed that the collected data would not be disclosed and never be used except for the research purpose, and that the subjects shall remain anonymous and their personal information shall remain confidential. The informed consent was obtained from all the participants.

We also explained the purpose and the method of the study to all participants who agreed to join. When participants signed the consent form, we explained that they would be free to withdraw from the study at any time.

2.8 Limitations

This study is limited by the convenience sampling and one group pre- and post-test design, limiting the generalization to a broad population.

3. Results

3.1 General Characteristics

The experimental and control groups showed similar general characteristics and infertility-related characteristics at baseline (Table 2). Most participants were female. Most than half participants (in both groups) had no religion (experimental group 57.1%, control group 51.9%), had no experience of hospital admission (experimental group 60.0%, control group 74.1%), had experience of privacy protect education (experimental group 65.0%, control group 81.5%) and had experienced of privacy education in nursing curriculum (experimental group 55.0%, control group 63.0%).

Appropriate time of privacy Protect education was 45.0% grade 2, 30.0% grade 1, 20.0% grade 3 and 15.0% grade 4 in experimental group. For control group,

Table 2. General characteristics of participants

Characteristics		(N = 47)n		x ² (p)
		Exp. (n=20) n (%)	Con. (n=27) n (%)	
Gender	Male	4 (8.2)	5 (18.5)	-0.125
	Female	45 (91.8)	22 (81.4)	(0.901)
Religion	Yes	21 (42.9)	13 (48.1)	0.209
	No	28 (57.1)	14 (51.9)	(0.835)
Experience of privacy protect education	Yes	13 (65.0)	22 (81.5)	1.276
	No	7 (35.0)	5 (18.5)	(.208)
Experience of privacy education in nursing curriculum	All subjects	11 (55.0)	17 (63.0)	0.327
	Some of the subjects	6 (30.0)	7 (25.9)	(0.849)
	Do not know	3 (15.0)	3 (11.1)	
Experience of hospital admission	Yes	8 (40.0)	7 (25.9)	-1.013
	No	12 (60.0)	20 (74.1)	(0.317)
Appropriate time of privacy protect education	Grade 1	6 (30.0)	7 (25.9)	0.395
	Grade 2	9 (45.0)	11 (40.7)	(0.941)
	Grade 3	4 (20.0)	7 (25.9)	
	Grade 4	1 (15.0)	2 (7.4)	

Exp. = experimental group

Con. = control group

appropriate time of privacy protect education was 40.7% grade 2, 25.9% grade 1, 25.9% grade 3, and 7.4% grade 4 (Table 2).

3.2 The Effect of Privacy Protection and Affordable Education Program (PPAEP)

Our finding that there was not statistically significant difference in knowledge regarding privacy between experimental and control group in pre- and post-test (Table 3).

Table 3. Difference between pre-test and post-test in knowledge regarding patient privacy (N = 47)

Criteria	Exp. (n=20)	Con. (n=27)	t (p)
	Mean ± SD	Mean ± SD	
Pre-test	0.94 ± 0.11	0.94 ± 0.09	141(.889)
Post-test	0.96 ± 0.09	0.94 ± 0.08	0.883(.382)
Difference	-0.02 ± 0.11	0.00 ± 0.12	-0.055(.582)

Exp. = experimental group

Con. = control group

However, perception about patient privacy protect was significantly different between experimental and control group in post-test (t = 2.363, p = .022) (Table 4).

Table 4. Difference between pre-test and post-test in perception patient privacy (N = 47)

Criteria	Exp. (n=20)	Con. (n=27)	t (p)
	Mean ± SD	Mean ± SD	
Pre-test	4.42 ± 0.28	4.50 ± 0.45	-0.744(0.461)
Post-test	4.79 ± 0.18	4.50 ± 0.39	3.082(0.004)
Difference	0.37 ± 0.25	-0.00 ± 0.68	2.363(0.022)

Exp. = experimental group

Con. = control group

4. Discussion

Both groups reported similar levels of knowledge. However, the perception of privacy protection in control group had not changed. On the other hand, it has increased significantly in experimental group who had participated in the program, which means that knowledge and awareness should be treated as a separate issue. In other words, education and training practice are needed to improve perception. The findings indicate that the PPAEP program was effective to improve perception about patients' privacy protection in nursing students.

Nursing students' perception about patient privacy

was a high level, and this is a similar result to that reported in Choi's⁸ study, reporting the level of nursing student's ethical value was higher than nurses'.

Lee and Kim⁹ studied the effect of simulation-based education in obstetrics, and the patient privacy score was highest before the simulation but dropped after the simulation. During the simulation, students were only looking at the patient's face, or they did not cover the patient's body after the physical exam even if they exposed the patient's lower body. This suggests the necessity of systematic education regarding patient privacy.

Exposure of medical records can directly affect the health and well-being of a number of people in a negative way, thus both information provider and consumer need to be careful, and a safe protection of medical information of all the people is needed¹⁰.

For this, the perception and practice of health professionals for the importance of the patient privacy should be improved¹¹. In particular, a nurse is at the closest distance to patients, and they need to do their best to protect the patient's medical information and privacy based on the understandings of the importance of medical information and various privacy issues and protection behaviors¹². Therefore, we need to develop an education program according to the understandings of the patients' characteristics and privacy-protection methods.

In addition, this program might be implied to nursing curriculum related to patient ethical issue and continuing nurse education.

5. Conclusion

The clinical training in nursing education should focus on the patient's informational, physical, social, and psychological privacy protection, as well as the understanding of the disease and the treatment according to symptoms. Therefore, the nursing education should include the privacy-related education programs, and proper education contents need to be proactively developed to help not only clinical training but also the actual nursing tasks in future.

By this research, the privacy-related education programs in future should reflect the characteristics and use cases of various areas and provide guidelines for privacy protection, and repeated development in nursing curriculum will achieve appropriate effectiveness of the program.

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