

## Research article

## Comparison of effect between group discussion and educational booklet on Iranian nursing students' attitude and practice toward patient privacy

Mohsen Adib-Hajbaghery\*, Mona Faraji

Medical Surgical Nursing Department, Faculty of Nursing and Midwifery, Kashan University of Medical Sciences, Kashan, Iran

**Abstract**

**Purpose:** This study aimed to compare the effects between group discussion and educational booklet on nursing students' attitude and practice toward patient privacy in Iran. **Methods:** A two-group, pre-test and post-test design study was conducted in 2015. The study was conducted on 60 nursing students in Kashan, Iran who were randomly allocated into two groups to be trained on patient privacy either through group discussion or by an educational booklet. The students' attitude and practice was assessed before and after the education using a questionnaire and a checklist. Data analysis was performed through paired t-test, Wilcoxon signed ranks test, and independent samples t-tests. **Results:** Before the intervention, no significant difference was found between the group designated to group discussion and that designated to the educational booklet in the mean overall score of attitude ( $P=0.303$ ) and practice ( $P=0.493$ ) toward patient privacy. After the intervention, the mean attitude score significantly increased in the two groups ( $P=0.001$ ). Moreover, the students' practice score increased in the discussion group while it did not significantly change in the booklet group ( $P=0.001$ ). **Conclusion:** Both methods were effective on the students' attitude; however, the educational booklet did not affect their practice toward patient privacy. Group discussion can effectively improve the students' attitude and practice toward patient privacy.

**Keywords:** Attitude; Iran; Privacy; Nursing students; Surveys and questionnaires

### Introduction

Privacy is a feeling in adults regarding their identity, dignity, independence, and personal space. It is a multidimensional concept with physical, informational, social, and psychological aspects [1]. Respecting patient privacy is one of the basic patients' rights and plays a crucial role in effective communication between patients and healthcare workers. Violation to patient privacy makes them distrustful and anxious, and induces problems in patient assessment [1,2]. In contrast, respect to the patient privacy would not only lead patients feel

more comfort, safety, independence, and self-worth, but also accelerate their recovery and hospital discharge [3,4]. However, several studies indicated that patient privacy is frequently violated in the hospital settings [2,5]. It is believed that, training methods have great effects on the trainees' observance of patient privacy [2,6]. However, a recent study has reported that this issue is not only ignored in medical and healthcare education, but also appropriate methods are not used to train this important issue [7].

Group discussion is one of the active and student-centered teaching methods appropriate for privacy teaching [8]. Booklets, if appropriately prepared, can also be used to train many issues to different groups such as patients, nurses, and nursing students [9]. Studies are available on using one of these two methods or comparing them with other training methods in teaching a variety of issues and reported conflicting results on

\*Corresponding email: [adibhajbagheri\\_m@kaums.ac.ir](mailto:adibhajbagheri_m@kaums.ac.ir)

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the effectiveness of these teaching methods [9,10]. However, no study has compared the effects of group discussion and educational booklet on nursing students respecting for patients privacy. Therefore, considering the reported conflicts and lacking of experimental studies on the effect of educational methods on observing the patient privacy in the clinical settings, this study was conducted to compare the effect of group discussion and an educational booklet on nursing students' attitude and practice toward patient privacy in the hospital setting.

## Methods

### Study design

A single-blind, two groups, pre-test, and post-test design was conducted in this study. The study was conducted in the second educational semester of the year 2015 from 22 May 2015 to 31 July 2015.

### Materials and/or subjects

The study participants were nursing students of Kashan University of Medical Sciences. In a previous study, the effects of multimedia and booklet on women's knowledge was compared and the mean and standard deviation of the experimental and the control group was  $44.74 \pm 3.4$  and  $40.74 \pm 6.4$ , respectively [11]. Then, based on the mentioned study and considering  $\beta = 0.20$ ,  $\alpha = 0.05$ ,  $S_1 = 3.4$ ,  $S_2 = 6.4$ ,  $\mu_1 = 44.74$ , and  $\mu_2 = 40.74$ , 26 subjects were estimated to be needed in each group. However, we did not conduct a sampling in this study, and all the 60 students who were in their fourth semester of studying in nursing at the aforementioned university were recruited. Using the list of these students and through a random numbers table, they were randomly assigned into two groups of 30. Then, by coin tossing the two groups were randomly assigned to two interventions (i.e., group discussions or educational booklet methods). Afterward, in collaboration with the education office of the nursing school, each group was divided into 5 subgroups of 6 to pass their clinical rotations. Inclusion criteria were being a nursing student, passing at least two terms of clinical training, receiving no previous education on patient privacy in addition to the routine education the students receive in their first year of nursing education, and willing to participate in the study. A decision to withdraw from the study and absence of a student from the pre or posttest phases of their clinical apprenticeship were considered as exclusion criteria.

### The procedure

#### *The clinical rotation*

According to the schedule prepared by the education office, each subgroup of the students had to pass four clinical rotations during the semester and each rotation was conducted in

two consecutive weeks (i.e., three day a week). In each clinical setting, the students passed their apprenticeship under supervision of a clinical instructor who was informed by the education office that the students are under investigation. All instructors agreed to cooperate with the research team, but they did not know the exact study objectives. A day before the beginning of the students' formal clinical apprenticeship, they were gathered in a briefing session. Then, through a short speech, a nurse instructor who has been prepared for this session informed the students that their interactions with patients would be under investigation for sometimes, without informing the exact time.

#### *The pretest*

Two research assistants were trained on how to observe and document the students' interactions with patients during their clinical apprenticeship. Each student was observed by one of the research assistants. In each group, all pretest observations were taken placed covertly during the first week of each clinical rotation. After completion of the practice pretest in each subgroup, in coordination with the clinical instructors, the first researcher gathered the subgroup in a short meeting to complete the pretest of attitude.

#### *The structure and content of the educational interventions*

On the first day of the second week of clinical apprenticeship, a two-hour session of group discussion about patient privacy, its concept, principles, outcomes and consequences of respecting or disregarding patient privacy was held for each of the five small subgroups of the first experimental group assigned to the group discussion method. All sessions of group discussion were facilitated by the first author that was previously trained on how to facilitate a group discussion (Appendix 1). During each session, the facilitator supervised and steered the conduct of all participants to present their views and experiences, actively listen to each other, and talk in their turns. After greeting and explaining the session's objectives and the rules covering the group discussion, each student was given a piece of paper containing the theme of the meeting and four clinical cases. Each case was related to one of the domains of patient privacy (i.e., physical, informational, social, and psychological domains). A four choice question at the end of each case asked the student that "to which domain of patient privacy the presented case was related to?" The students were required to study and think of the four clinical cases and respond to the related questions in 30 minutes. Then, a brief speech was delivered by the session facilitator on the concept of patient privacy. Afterward, the group discussion was started and the students presented and discussed their views, observations, and experiences on respecting patient privacy in clinical set-

tings. Finally the facilitator steered the students to summarize the session.

In the 5 subgroups assigned to educational booklet method, a booklet about patient privacy was given to each student at the first day of the second week of clinical apprenticeship. The students were required to study the booklet and return it back to the researcher after a week. The booklet contained illustrated materials on the concept of patient privacy, its importance, domains and outcomes and also the four clinical cases related to the four domains of patient privacy (i.e., physical, informational, social, and psychological domains). These cases were the same as the cases presented in group discussions. Similar to the first group, a four choice question at the end of each case asked the student that “to which domain of patient privacy the presented case was related to?” The educational booklet was prepared through literature review and its content validity was confirmed by 10 faculty members in Kashan’s Faculty of Nursing and Midwifery.

#### *The posttest*

In the first group, the posttests were started 14 days after the group discussions and in the second group it was started 14 days after the educational booklets were returned back. The practice posttest observation of each student was performed covertly by the observer who conducted the pretest observation. After completion of the practice posttest in each subgroup, the first researcher gathered the subgroup in a short meeting to complete the posttest of attitude.

#### *Instruments*

A three-part instrument was used. The first part consisted of questions about demographic characteristics such as age, gender, marital status, the level of interest in the nursing profession, and witnessing any contention due to violation to the patient privacy in the clinical setting. The second part was a 34-item questionnaire for assessing the ‘students’ attitude about patient privacy’ (SAPP). This part has been made by the researchers through literature review. The SAPP questionnaire consists of four aspects of patient privacy including physical space (11 items), informational privacy (7 items), psychological privacy (8 items), and social privacy (8 items). All items are responded on a 3-point Likert scale, including disagree (= -1), having no idea (= 0), and agree (= 1). Then, total score ranged between -34 to +34. A higher score indicates a better attitude. The content validity of the questionnaire was approved by 10 nursing instructors and the content validity index (CVI) ranged from 0.85 to 0.94. Moreover, the content validity ration (CVR) was > 0.62. Reliability of the questionnaire was assessed through test-retest on 20 students (who were not included in the study sample) with a two weeks interval and the

Spearman correlation coefficient was 0.70.

The third part of the instrument was a checklist for assessment of the ‘students’ practice toward patient privacy’ (SPTPP). This checklist was developed through literature review and validated by the researchers and consists of 11 items on the four aspects of patient privacy including physical space (3 items), informational privacy (2 items), psychological privacy (1 items), and social privacy (5 items). All items are responded on a two-point scale, including compliance (= 2) and non-compliance (= 1). Then, total score ranged between 11 and 22. Higher score indicate a better practice. The content validity of the SPTPP checklist was confirmed by 10 nursing instructors (CVI ranged from 0.95 to 0.98 and CVR > 0.62). Reliability of the checklist was assessed through inter-raters method. To this end, the first researcher and one of the nurse instructors implemented the checklist on 10 nursing students simultaneously and the Kappa agreement coefficient was 0.864.

#### **Statistical analysis**

The SPSS ver. 11.5 software (SPSS Inc., Chicago, IL, USA) was utilized. Descriptive statistics (frequency, percentage, mean, and standard deviation) were calculated. Kolmogorov-Smirnov test was used to examine the normal distribution of the data. Paired t-test and Wilcoxon signed ranks test were used to compare the mean attitude scores before and after the intervention. Independent samples t-test was used to examine the differences between the mean scores of attitude and practice of the two groups. P-values < 0.05 were considered to be significant.

#### **Ethical approval**

The study was approved by the Ethics Committee of Kashan University of Medical Sciences (No. IR.KAUMS.REC.1394.24) and also registered at the Iranian registry for clinical trials with the number IRCT2015042721973N1. All students were briefed on the study objectives and signed a written informed consent before starting the study. They also were informed that they will be under covert observation, but the results will be kept confidential and would not affect their clinical apprenticeship scores. Permissions were sought from the authorities in faculty of nursing and midwifery. The researchers observed all ethical issues in accordance with the Helsinki ethical declaration.

#### **Results**

Among the 60 students, 5 were dropped and data of 55 students were analyzed (Fig. 1). Totally 41.8% of the students were male, 83.6% were single, and their mean age was  $20.65 \pm 1.48$  years. The two groups were homogenous in terms of demographic characteristics (Table 1).

Before the intervention, no significant differences were ob-

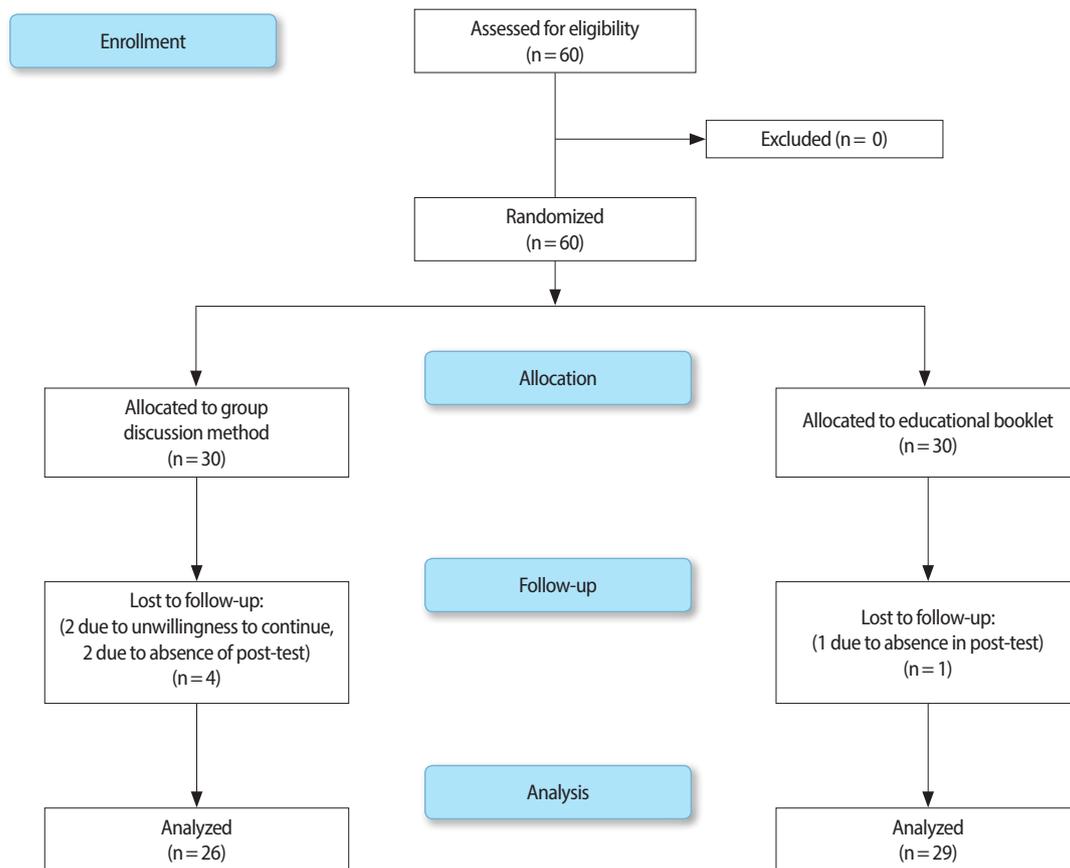


Fig. 1. Consort flow diagram of the study.

Table 1. The demographic characteristics of the nursing students in the group discussion and educational booklet methods

Variable	Groups		P-value
	Group discussion	Educational booklet	
Gender			0.94
Female	15 (57.7)	17 (58.6)	
Male	11 (42.3)	12 (41.4)	
Marriage			0.59
Single	21 (80.8)	25 (86.2)	
Married	5 (19.2)	4 (13.8)	
Interest in the profession			0.22
Yes	19 (73.1)	25 (86.2)	
No	7 (26.9)	4 (13.8)	
Witnessing any contention due to violation to the patients' privacy			0.79
Yes	9 (34.6)	11 (38.9)	
No	17 (65.4)	18 (62.1)	
Satisfaction of teaching method			0.59
Yes	21 (80.8)	22 (75.9)	
No	5 (19.2)	7 (24.1)	

Values are presented as number (%).

Table 2. Comparison of the overall mean and standard deviation of the nursing students' attitudes toward patient privacy in the group discussion and educational booklet methods

Time of assessment	Groups		P-value
	Group discussion	Educational booklet	
Attitude			
Before intervention	12.73 ± 7.08	14.55 ± 10.31	0.454 <sup>a)</sup>
After intervention	30.38 ± 4.73	23.34 ± 8.97	0.001 <sup>b)</sup>
P-value <sup>d)</sup>	0.001	0.001	
Practice			
Before intervention	14.34 ± 1.54	14.79 ± 2.95	0.493 <sup>a)</sup>
After intervention	18.15 ± 2.52	15.48 ± 2.42	0.001 <sup>a)</sup>
P-value <sup>d)</sup>	0.001	0.203	

Values are presented as mean ± standard deviation.

<sup>a)</sup>By independent samples t-test. <sup>b)</sup>By Mann-Whitney U-test. <sup>c)</sup>By Wilcoxon signed ranks test.

served between the two groups in terms of the mean overall score of students' attitude (P = 0.454) and practice (P = 0.493) toward patient privacy (Table 2). After the intervention, the mean attitude (P = 0.001) and practice (P = 0.001) scores were

**Table 3.** Comparison of the mean and standard deviation of the components of attitude of nursing students attitudes toward patient privacy in the group discussion and educational booklet methods

Components of patients privacy	Attitude		P-value <sup>a)</sup>	Practice		P-value <sup>a)</sup>
	Group discussion	Educational booklet		Group discussion	Educational booklet	
Physical space						
Before intervention	5.00 ± 2.48	5.70 ± 4.04	0.207	3.92 ± 0.93	4.20 ± 1.14	0.39
After intervention	10.00 ± 1.4	7.24 ± 3.70	0.003	5.23 ± 1.07	4.41 ± 1.01	0.005
P-value <sup>b)</sup>	0.001	0.001		0.001	0.534	
Informational privacy						
Before intervention	2.50 ± 2.50	1.45 ± 3.05	0.180	2.73 ± 0.66	2.86 ± 0.91	0.71
After intervention	10.00 ± 1.40	7.24 ± 3.70	0.024	3.18 ± 0.85	2.96 ± 0.77	0.28
P-value <sup>b)</sup>	0.001	0.001		0.050	0.624	
Psychological privacy						
Before intervention	3.19 ± 2.36	4.00 ± 3.06	0.182	1.30 ± 0.47	1.37 ± 0.50	0.58
After intervention	7.27 ± 1.51	5.83 ± 2.42	0.013	1.61 ± 0.49	1.44 ± 0.50	.031
P-value <sup>b)</sup>	0.001	0.001		0.050	0.617	
Social privacy						
Before intervention	1.90 ± 2.90	3.41 ± 3.40	0.093	6.38 ± 1.02	6.34 ± 1.52	0.47
After intervention	6.96 ± 1.56	5.70 ± 2.55	0.054	8.11 ± 1.24	6.65 ± 1.34	0.001
P-value <sup>b)</sup>	0.001	0.001		0.001	0.320	

Values are presented as mean ± standard deviation.

<sup>a)</sup>By Mann–Whitney U-test. <sup>b)</sup>By Wilcoxon signed ranks test.

significantly increased in the two groups. However, the mean posttest attitude and practice scores were significantly higher in students in the group discussion method.

Before the intervention, no significant differences were found between the two groups in terms of the mean attitude ( $P > 0.05$ ) and practice scores ( $P > 0.05$ ) in different components of patient privacy. However, after the intervention, the mean attitude scores in all components were higher in the discussion group ( $P < 0.05$ ), nonetheless, the difference was not statistically significant in the domain of social privacy (Table 3). Furthermore, after the intervention, the mean practice scores in all components of patient privacy were higher in the students who were taught through group discussion. The differences were significant in the two domains of physical and social privacy ( $P < 0.05$ ) (Table 3).

## Discussion

Both the group discussion and the educational booklet methods significantly improved the nursing students' attitude toward patient privacy. However, the increase in the attitude score after the group discussion was two times more than the increase occurred in the group that educated by educational booklet. Therefore, we can conclude that the group discussion method was more effective. On the other hand, our findings showed that the group discussion could significantly improve the nursing students' practice toward patient privacy, but the educational booklet did not significantly affect it. The previous studies on patient privacy are mostly descriptive or were

conducted on nurses [12]. Studies on the effects of educational booklet on students' attitude and practice toward patient privacy are rare. However, this method was frequently used in other issues and the results are also inconsistent. Some of the studies showed that educational booklet was effective on patients decisions [13] and healthcare practices [14]. However, evidence showed that this method had no effect on nurses' knowledge and they did not agree with this method [11]. It seems that educational booklets can appropriately affect the people's knowledge if appropriately designed and be used for specific purposes. However, this method may be less effective on the students or people's practice because in this method the students are not much active and there is no real human interaction. Moreover, when reading materials are being used in self-directed learning, there is no guarantee for active and in-depth reading [11].

Furthermore, as revealed in the present study, group discussion was more effective than educational booklet in affecting the students' attitude. This finding is consistent with some of the earlier studies [8,15]. It seems that group discussion is especially appropriate for affecting students' attitude and practice toward patient privacy because they not only have to listen to, and respect others actively but also should critically think of others opinions and enthusiastically prepare appropriate and logical opinions to reasonably respond, accept or reject other ideas which also improves their communication skills.

Before the intervention, all students in the present study had lower attitude and practice scores on respecting patient

privacy. Several studies reported that patient privacy is not appropriately observed by the medical and nursing team [2,3,16, 17,18]. Perhaps, patient privacy is not adequately noticed in the nursing curriculum. Therefore, urgent steps are needed to overcome this problem.

Both interventions in this study could improve the students' attitude toward all aspects of patient privacy, although the group discussion was more effective. However, while the group discussion was effective on all aspects of students' practice, the educational booklet method affected no aspects of the students' practice. Although the effectiveness of group discussion on learning of a variety of issues has already been shown, however, this method has rarely been used to improve the nursing students' attitude and practice toward patient privacy. Using group discussion immediately before entering the clinical setting, helped the students participated in the present study to reflect and think of their previous behaviors and clinical experiences. Such reflections might have affected their attitude and have led them to revise their behaviors in the clinical setting.

In this study, we assessed both the students' attitude and practice and one might assume that the posttest observation might affect the students' responses in posttest of attitude. However, all the posttest observations were conducted covertly and the students were not aware of the time of the observation. Therefore, we can be sure that the posttest observations had no effect on the students' responses in posttest of attitude.

In conclusion, subjected nursing students had low attitude and practice scores on respecting patient privacy at the beginning of the study. Both interventions in this study improved the nursing students' attitude toward patient privacy; however, the group discussion was more effective on improving the students' practice. Nurse educators are recommended to use group discussion method to enhance the students' attitude and practice toward patient privacy. Our sample was small, then, replication of similar studies with larger samples is recommended. Moreover, we had a short follow-up and also had no control on how the students read the educational booklet. Therefore, studies with longer follow-up and some strategies for assurance of careful reading of the educational booklet are recommended.

**ORCID:** Mohsen Adib-Hajbaghery: <http://orcid.org/0000-0002-9518-4329>; Mona Faraji: <http://orcid.org/0000-0003-4394-9446>

## Conflict of interest

No potential conflict of interest relevant to this article was reported.

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## Supplementary materials

Audio recording of abstract  
Raw data of the research

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### **Appendix 1.** Outline of the group discussion sessions

1. Greeting, introducing the sessions' facilitator and the students to each other.
2. The time and the structure of the sessions; the basic rules covering the group discussion, the time each person can talk each time, the role of the sessions facilitator and the students.
3. Presenting four clinical cases and asking the students to think of the cases and respond to the related questions in 30 minutes.
4. Questioning the students about the meaning of patient privacy. Answering the question by the students.
5. Presenting the concept of patient privacy, its importance, domains and outcomes, by the sessions facilitator.
6. Receiving feedback from the participants.
7. Asking the students to express their views on the four clinical cases and their own real experiences and observations of respecting or disrespecting patient privacy in the clinical setting and its consequences.
8. Asking the students to summarize the content of the session.