The effect of group reflection on the development of Communication Skills in undergraduate nursing students

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Abstract

BACKGROUND

Communication skills are one of the main capabilities expected from nursing students and the core of nursing care. This study was conducted with the aimed of the effect of group reflection on the development of communication skills.

Methods

The study was a two-group quasi-experimental pre-test-post-test that was conducted at Fasa University of Medical Sciences in the south-west of Iran. The study population consisted of 48 second-semester nursing students enrolled in clinical fundamental of nursing course in February 2018. Group reflection based on Borton’s Development Framework was used in learning communication skills to the test groups for 6 sessions. Conventional method was used for control groups.

Results

The mean score of communication skills among students in both control and test groups, before and after the group reflection sessions, indicated a significant difference (P < .001).

CONCLUSION

This study suggests that employing a reflection group can be a basis for developing students’ communication skills in clinical education.

Introduction

The ability to communicate effectively in the health system is one of the most important characteristics of healthcare workers (Abdrbo, 2017; Bramhall, 2014). In nursing, effective communication is considered as an essential factor in effective care provision for the patient (Tuohy, 2019). As the implementation of each stage of the nursing process, given the data collection or the implementation of any procedures is not possible without communication establishment (Kourkouta & Papathanasiou, 2014). American Association of Critical Care Nurses considers nursing communication skills as one of the six standards required for the establishment and maintenance of healthcare centers (Nurses, 2005). The positive effects of effective communication with patients include improved vital signs, reduced pain and anxiety, increased satisfaction, improved therapeutic outcomes, better participation in therapeutic programs, increased job satisfaction of the staff, and the feeling of affinity between the nurse and the patient (Pangh. et al, 2019 ). In a study, 44% of patients considered the relationship with the care team, especially nurses, to be helpful and effective (Abdolrahimi, Ghiyasvandian, Zakerimoghadam, & Ebadi, 2017). On
the other hand, communication disruption leads to mistakes in diagnosis, reduction of patient participation in treatment and reduction of information given by patients (Rosen & Pronovost, 2014). In this regard, some studies have shown that nurses have not been successful in communicating with patients and their families, and the amount of time a nurse spends to interact with a patient is very little (Norouzinia, Aghabarari, Shiri, Karimi, & Samami, 2016). As a result, communication with patients and their families is often ineffective (Wang, Wan, Lin, Zhou, & Shang, 2018).

The role of education in shaping communication skills is very important (Mullan & Kothe, 2010), and finding the weaknesses and strengths of students in communication skills is an indispensable part regarding the goals of nursing education (Arnold & Boggs, 2019). In Iran, in the curriculum for nursing undergraduates, communication skills are considered as a professional task and the overall potential of nursing graduates (Mamaghani et al., 2018). Based on nursing courses, the training of communication skills is not a separate trial unit and it is addressed in the unit of nursing ethics and the professional communication is only considered in one lecture-based educational session (Namdar, Rahmani, & Ebrahimi, 2009). On the other hand, the training of communication skills in clinical education does not have a specific place in the curriculum and the adherence to education and assessment of the communication skills is not observed (Heidari & Mardani Hamooleh, 2015). This caused the communication of nursing students with patients to be very poor and to be of a more non-therapeutic nature (Shafakhah, Zarshenas, Sharif, & Sarvestani, 2015). In this way, numerous studies in Iran have identified the reason for the poor communication skills of nursing students as inadequate training (Mirzaei-Alavijeh, Motlagh, Hosseini, & Jalilian, 2017; Shafakhah et al., 2015). Xie et al. (2013) also found that most nursing students need communication skills regardless of the educational level (Xie, Ding, Wang, & Liu, 2013). On the other hand, learning communicative skills informally in a clinical environment from classmates, staff, and others reduces the probability of receiving feedback and development in communication skills (Bramhall, 2014).

Considering what was mentioned above, and given that good communication between nurses and patients is the main factor of patient care, it is necessary to review the educational program and improve the teaching methods in order to improve the communication skills of nursing students (Heidari & Mardani Hamooleh, 2015). To this end, several educational interventions are recommended. One of the educational strategies being increasingly used to enhance clinical nursing skills and professional behaviors is group reflection or the encouragement of reflection on clinical experiences (Gabrielsson, Engström, & Gustafsson, 2019). At reflection meetings, an opportunity is provided for individuals to engage in interactive discussions, to explore their experiences, thoughts, and feelings, to encourage them to search, explore, and find ways to improve their performance and learn from their mistakes (Miraglia & Asselin, 2015). In fact, group reflection, through the reinforcement of the thinking process, helps to integrate knowledge and practice in the real world and to foster meaningful learning (Lutz, Roling, Berger, Edelhäuser, & Scheffer, 2016). Practicing communication skills through reflection sessions allows learners to re-examine the situation in a safe environment. It also facilitates the provision of feedback to learners (Burns, 2015). Studies have shown positive effects of reflection sessions on training clinical
situations (Karimi, 2017; Ribeiro et al., 2018). Therefore, using this active learning method in clinical education is recommended.

Numerous reflective models have been proposed in nursing. One of these reflective models is the Borton's three-step framework. The Borton's three-step framework that includes descriptions and self-awareness, analysis and evaluation and the integration step to guide the reflection activities was proposed in the 1970s (Rolfe, 2014). Jasper (2003) believes that this framework is the first step on the ladder of reflective thinking and has recommended the use of this model for students and beginners so that they communicate with the conscious reflection on real experiences between knowledge and practice and improve their ability in the analysis of the clinical activities (Jasper, 2003).

Although communication skills are one of the main components in the development of the nursing profession, training of the communication skills in a clinical learning environment is complex and requires an appropriate training design. In this regard, in spite of the emphasis on the implementation of reflective thinking processes for professional development, limited studies have been carried out on the development of communication skills through group reflection sessions. Therefore, the present study aims to apply group reflection sessions for the development of students’ communication skills in nursing clinical education at Fasa University of Medical Sciences in the south-west of Iran.

Methods

The present research is a pre-test-post-test quasi-experimental study of two groups that have been conducted after obtaining approval from the assistant director of Research and after providing coordination with the Nursing Faculty. The study was approved by the research ethics committee of Fasa University of Medical Sciences (Number of ethics code: IR.FUMS.REC.1397.041). The written consent was obtained from all the participants. All of students that was studying in the second semester of the academic year 2017-18 (48 nursing students) participated in this study. These students were registered in clinical fundamental of nursing course in February 2018.

c. This internship was held in 14 sessions of 5 hours, in 14 weeks. Then, these students were divided into 6 groups each of which consisted of eight students based on educational program of school of nursing. After expressing the goal of the study and obtaining informed consent, the student groups were assigned to three control groups and three intervention groups by simple random sampling. Students could leave the study at any time and continue their internship according to the usual method. This study was performed in the general surgery wards of Vali Asr Hospital in Fasa.

The communication skills of all students were evaluated using a questionnaire of Ebadi et al. (Ebadi, 2014). The questionnaire used in this study included two sections: student demographic characteristics and communication skills questions. The questionnaire contains 28 items that include 5 domains of “conscious initiation” (3 items), “verbal and non-verbal communication skills” (9 items), “external and internal coordination” (6 items), “respect for the client” (5 items), and “unconditional admission of the client” (5 items). In this questionnaire, a 5-point Likert scale (always, frequently, sometimes, rarely, never)
is used, which is assigned range scores of 5 to 1, respectively. It should be noted that some items of the instrument are reversely scored, in which case the scoring procedure is done in reverse. The range of scores of the questionnaire varies from 28 to 140. Then, the student's communication skills are ranked according to the scores obtained. Students whose scores were less than 70 are poor students, and those whose scores were between 70 and 105 were average students and those whose scores ranged from 105 to 140 were considered good students in communication skills. It should be noted that the questionnaire has validity according to the previous studies. Its reliability was also calculated through Cronbach's alpha as 0.89 (Ebadi, 2014). In this study, the reliability of the questionnaire was estimated to be 0.85 using Cronbach's alpha coefficient.

Other measures taken were that 3 training 2-hour sessions were held for the clinical instructors about reflection, concepts, and methods so that they can effectively conduct group reflection sessions. Besides, the way the trained instructor conducted group reflection sessions was evaluated. Moreover, the students in the intervention group were taught about the ways of conducting group reflection sessions.

Group reflection was conducted for the intervention groups for one hour at the time of ward conference in every 6 training sessions. During the sessions, a three-step framework of Borton was used to reflect on the relationship between students and patients. In each session of group reflection, students were asked to talk about their experiences about the interactions they had with the patients, in the clinical setting and in the presence of other students, and to participate in group discussions in the form of group reflection. For example, a student spoke about the problem of interpersonal communication with the nursing staff of his or her experience during that day. After describing their experiences, they were asked to analyze their way of interactions with one another and to indicate that what was good in their experiences and what should be improved; or in similar cases, what they would do. Moreover, the instructors have a facilitator role and they provide appropriate feedback and try to determine which points need to be improved, strengthened and to encourage the positive points, and to resolve the weak points of students' interaction with the patients. In the control group, the training of communication skills was conducted without using group reflection method. In the control group, common methods of teaching clinical skills such as demonstration, group discussion and bedside teaching based on educational curriculum were used. However, after completing the research for students in the control group, communication skills training was provided group reflection method in one clinical session.

The questionnaires on the communication skills were again completed by the students in both the control and intervention groups, after the completion of the training course. Data were collected and entered into SPSS 22. Data were analyzed regarding the normal distribution of scores (a significance level of greater than 0.05 based on Shapiro-Wilk, Kolmogorov-Smirnov normal distribution analysis) using descriptive statistics (mean, variance, standard deviation) and inferential statistics (paired-samples t-test and independent-samples t-test). In this research, the significance level was considered (P < 0.05).

**Results**
In this study, 41.66% female students and 58.33% male students participated and the mean age of students was in the range of 19.31 ± 1.02 and the mean scores of the previous semester total average were 16.00 ± 0.17 in the control group and were 15.98 ± 0.98 in the intervention group (Table 1). To match the demographic information of the two groups were used Chi-square test in classified variables and independent t-test in quantitative variables.

Table 1: Demographic Information of the Specimens

<table>
<thead>
<tr>
<th>Group</th>
<th>Gender</th>
<th>Age</th>
<th>Marital status</th>
<th>Mean academic score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case 24 individuals</td>
<td>10 female</td>
<td>19.33 ± 0.96</td>
<td>22 single</td>
<td>15.98 ± 0.98</td>
</tr>
<tr>
<td>Control 24 individuals</td>
<td>10 female</td>
<td>19.29 ± 1.04</td>
<td>20 single</td>
<td>16.00 ± 0.17</td>
</tr>
</tbody>
</table>

According to statistical tests and data analysis, group reflection had a significant effect on students’ communication skills learning, so that the mean score of the communication skills for the students in the intervention group increased from (87.36 ± 4.38) to (110.16 ± 7.08). Moreover, the paired-samples t-test showed a significant statistical difference (P < 0.001) in the case group (Table 2). Besides, in the control group, the mean score of the communication skills increased from (86.23 ± 3.93) to (88.68 ± 5.24). However, it was not statistically significant.

The comparison of the mean scores of students’ communication skills through the independent t-test after the intervention in both control and case groups was statistically significant (P < 0.001) (Table 2). This indicates the positive impact of reflection on students’ communication skills learning.

Table 2: The Comparison of the Mean Score of Communication Skills in Both Groups, Before and After Intervention
Statistical test: Paired T-Test and Independent T-Test

The evaluation of the students’ communication skills in each domain revealed that in the case group before the intervention, the students obtained scores in different domains in the following descending order: respect for the client, verbal and non-verbal skills, conscious initiation, unconditional admission, and external-internal coordination, while after the intervention, the highest scores were related to the domains of conscious initiation, respect for the patient, unconditional admission of the patient, verbal and non-verbal skills, external and external coordination, respectively. Besides, comparing the mean of each domain in case and control groups through paired t-test, it was determined that in all domains, the difference in scores was significant (Table 3).

Table 3: the mean score of the student’s communication skills in each domain

<table>
<thead>
<tr>
<th>Communication skill domains</th>
<th>Case group (Mean ± SD)</th>
<th>Control group (Mean ± SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Before intervention</td>
<td>After intervention</td>
</tr>
<tr>
<td>Conscious initiation</td>
<td>3.01±0.58</td>
<td>4.02±0.43</td>
</tr>
<tr>
<td>Verbal &amp; non-verbal communication</td>
<td>3.28±0.51</td>
<td>3.94±0.32</td>
</tr>
<tr>
<td>External &amp; internal coordination</td>
<td>2.95±0.54</td>
<td>3.79±0.28</td>
</tr>
<tr>
<td>Respect for the client</td>
<td>3.36±0.43</td>
<td>4.01±0.34</td>
</tr>
<tr>
<td>Unconditional admission of the client</td>
<td>2.83±0.49</td>
<td>3.95±0.31</td>
</tr>
</tbody>
</table>

Statistical test: paired t-test

Discussion

This study examined the impact of group intervention on communication skills of nursing students in clinical training in the second semester. Group reflection helped students share their experiences and thus reflect on their performances (Manning, Cronin, Monaghan, & Rawlings-Anderson, 2009). In this study, we attempted to facilitate the conduction of group reflection through the Borton’s Development Framework. As this framework helped the students in group discussion through Borton’s marked questions, it helped to reflect more structurally on their thoughts, experiences, and emotions and to think more deeply under
the support of the clinical instructor who acts as a facilitator. The use of structural approaches helps learners to have deep and meaningful reflections(Aronson, 2011).

The results of the present study indicated that group reflection sessions had an impact on the improvement of student communication skills, which is consistent with the results of the study by Nwokorie et al. (2012). They showed that in clinical education sessions that were held with the expression of experiences, the student communication skills improved(Nwokorie, Svoboda, Rovito, & Krugman, 2012). Moreover, in the study by Smith and Hunt (2019), it was suggested that the use of reflection enhance student communication skills, and the reflection process helped students to think confidently and to provide a clear and accurate reflection on what they say(Smith & Hunt, 2019). Constructivists consider learning as an active process that can be carried out with the participation of learners, and in this regard acquisition of communication skills occurs not only through practical skills but also by reflective thinking(Duffy & Jonassen, 2013).

In this study, the difference between mean scores of the domains including conscious initiation, external and internal coordination, unconditional admission of the patient before and after the intervention in both groups was significant. However, before and after the intervention, the domains of respect for the client and verbal and non-verbal skills in the case group showed significant changes, which was not significant in the control group in terms of these two domains. In this regard, the aspects to be considered are the goals and motivations that can provide an appropriate orientation for the students(Durgahee, 1997). In this study, the significance of respect for the client and verbal and non-verbal communication skill domains in the intervention group are likely to be influenced by the clarification of the goals in order to discuss communication skills in these sessions, as the study by Hulsman et al. (2009) showed studying the goal-oriented aspects of communication behaviors by the students can influence their performance in this regard(Hulsman, Harmsen, & Fabriek, 2009).

The main limitations of this study are the small sample size and the focus on sample collection from a student training course and a university center, therefore, the results of this study cannot be generalized. However, the results emphasize the positive impact of group reflection sessions on communication skills, and longitudinal studies using larger sample size in multiple centers and the comparison of the results with the present study and the investigation of the causes of the possible differences are recommended.

**Conclusion**

Communication skills are special elements in clinical nursing education that can affect students’ interactions with the patient, staff, and colleagues. In this regard, it is worthwhile to apply procedures that can enhance these skills in undergraduate nursing students via clinical training units. The integration of communication skills in clinical training units is considered as one of the goals of clinical education in the Iranian nursing curriculum. Therefore, the present study suggests that conduction of group reflection sessions may be considered as a way to improve the communication skills of nursing students.
List Of Abbreviations
Not applicable

Declarations

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Authors’ contributions
FA: data collection, analysis, interpretation and manuscript revision, drafting of manuscript; MB: drafting of manuscript and manuscript revision; FA: data collection and analysis; AM: manuscript revision. SHK: concept design, study design, and analysis, interpretation and drafting of manuscript and manuscript revision. All authors have read and approved the final manuscript.

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Availability of data and materials
All the data is presented as a part of tables. Additional data can be requested from the corresponding author.

Declarations
Ethics approval and consent to participate Informed consent was obtained from all participants; all participants completed and signed the consent form to participate in the study. Participants’ cooperation was voluntary. The research objectives were explained to the participants and they were informed that their information would remain confidential ethical consent was obtained from fasa University of medical sciences (IRB Number of ethics code: IR.FUMS.REC.1397.041). All methods were performed in accordance with the relevant guidelines and regulations.

Consent for publication
Not applicable

Availability of data and materials
The identified datasets analyzed during the current study are available from the corresponding author on reasonable request.
Competing interests

The authors declare that they have no competing interests.

References


