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## Interactive cards, students of nursing and psychiatric ward studying the effect of interactive card on the learning of nursing students in the psychiatric ward

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### ABSTRACT

Among caring behaviors of nursing students, communication with patients and the failure in executing the nursing process are the main problems. Therefore, it is essential to use appropriate clinical educational methods that involve the students more in communicating with the patients and encourage them to undertake the nursing process. The aim of this study was to determine the impact of using interactive cards on the learning of psychiatric nursing students. This double-blind interventional study was conducted on 43 psychiatric nursing students that were selected through census sampling and divided randomly into intervention and the control groups. Pre-test was taken from both groups before the study. Then, the students in the intervention group used interactive cards and the participants in the control group received the traditional education. Post-test was taken from both groups at the end of the study. Finally, No statistical difference was found between in the pre-test mean score between the two groups. The post-test scores of the intervention group were significantly higher in comparison with the control group. The use of interactive cards enhances learning and improves the communication skills and nursing process of nursing students in the psychiatric ward.

**Keywords:** interactive card, learning, communication skills, nursing process, clinical nursing training, psychiatric ward.

### INTRODUCTION

The quality of nursing care, including communication with the patients, is one of the main concerns of managers in nursing education. During the training course, the students are prepared to learn and execute the responsibilities of a competent nurse. However, according to various studies, among caring behaviors of the nursing students, the question of ethics and communication with the patients is a challenging issue which can cause dissatisfaction among patients. The results of various studies conducted in this area have shown that nurses are not successful in communicating with the patients and their families [1].

Evaluating the communication skills of the nursing students in different parts of a hospital has shown that the students lack sufficient expertise in this regard and only communicate with the patients during services. Hence, there has been an emphasis on more effective teaching methods [2].

According to a study by Mohammadi *et al.*, the patients believe that the students do not have the desired level of ethics and communication skills [1].

In nursing profession, communication and communication skills play a crucial role in solving patients' problems and nurses have great difficulty communicating with mental patients because of their abnormalities in visual, cognitive, and emotional processes. The difficulty in communicating with the patients leads to their decreased cooperation in treatment programs and provision of information [3].

Studies have shown that communicating with mental patients is very scary from the students' perspective. In addition, communication barriers such as fear and anxiety will affect various aspects of the patients' care and treatment [4, 5]. The duration and the quality of communication are essential in the development of hope and a positive attitude towards the treatment staff [6].

Educating nurses on interpersonal skills has been recognized as the main way to improve the quality of care, because make change in behavior and attitude toward the usefulness of these skills, improving their job satisfaction and identify needs, to create positive change in clinical condition and the patient satisfaction [7, 8, 9, 10, 11]. Given the importance of the issue, patient-oriented communication skills require special and prompt attention. Hence, coordination between educational programs and clinical trainings is essential and they should be in line with the clinical practice. An effective model of communication skill was developed by Wilkinson and Schimizu. The model proposes initial theoretical group training, initial practical group training, group training of students with group feedback, and finally individual training of students to teach communication skills [12, 13].

Another problem for the nursing students is their high dependence on the instructors and the lack of nursing process. Therefore, the use of appropriate methods in clinical training that involve the students more in the patients' problems and encourage them to communicate and interact effectively with patients to apply the nursing process seems necessary. The nursing process is considered the standard practice for nurses [14, 15]. This process helps the nurses to change the nursing care practice from the traditional method toward patient-oriented and scientific methods [16]. A literature review shows that the nursing process in practice is neither implemented nor implemented completely [17]. Awareness and education are the cornerstones of the nursing process and implementation of the process is achieved in light of education, changes in the attitude, and gaining skills. Lack of awareness results from improper education in the schools of nursing and also the lack of adequate training in the practical application of the nursing process in patient care [16].

A study by AtashZadeh *et al.*, which aimed at determining the factors affecting the nursing process, showed that proper education was one of the factors affecting the implementation of this process [16].

Almost 50% of the time in nursing schools is devoted to clinical training, which is the center of the professional training of nurses and plays a fundamental role in the formation of nursing professional identity. The nursing clinical education system is now more focused on data retention and the main role is played by instructors, while the main purpose of nursing education is applying the lessons learned in theoretical classes in the clinical setting to increase the students' decision-making ability in real and acute conditions [18]. In universities around the world, clinical education is known as training with a loose program and improper implementation and evaluation. Not only students from developing countries, but also those from developed countries become doctors or nurses without evaluating how they interview a patient and how they perform clinical examination. Newbell states that clinical education is the most forgotten part of education and has many defects [19]. Many researchers believe that nursing students, despite having a good theoretical basis, do not perform skillfully in the clinical setting, which leads to an ever-increasing weakness in the health care system [20] Also, 88.9% of the nursing students believe that their clinical education has many difficulties and more attention should be paid to overcoming the obstacles and meeting the challenges [21].

Nursing students have difficulty in the effective medical communication and nursing process, which reduces the care quality and patient satisfaction. On the other hand, in practice, students are too dependent on their instructors and one reason for this problem is the deficiencies in the clinical education. Thus, creating an effective learning

environment by focusing on new methods is one of the most important tasks of the instructors and teachers. The aim of this study was to determine the impact of using interactive cards on the learning of psychiatric nursing students.

### MATERIALS AND METHODS

This was a double-blind interventional study, in which the participants and the statistical consultant were blind to control and intervention groups. The study population included all the nursing students of the fifth semester (first educational semester of 1394) at Dezful University of Medical Sciences who were taking a training course of psychiatry. Forty-three nursing students who were randomly divided into 4 groups by the head of the psychiatric department to pass their training course on psychiatry were selected through census sampling and randomly divided into intervention ( $n = 23$ ) and two control ( $n = 20$ ) groups. Both groups took a pretest on mental diseases, nursing hints on psychiatric patients, psychiatric medicines, and nursing hints related to drugs, and nursing process. A training course includes 10 sessions in the ward.

During the training and for the control group, training was offered in the traditional way which included daily conferences on diseases, psychiatric drugs, nursing care of the patients, interviews with patients by the instructor and the students, clinical activities such as monitoring the vital signs, medication, taking test samples from the patient, etc. under the supervision of an instructor.

In addition to the traditional teaching method, interactive cards were used in the intervention group in the 10-day training course. The interactive cards were designed by the researchers and included two parts: A) interview and communicating with the patient, B) writing down the nursing diagnosis and undertaking the nursing process. Part A included four columns: 1. the student's question for the patient, 2. analysis of the student's question (the reason why the student asked the question; for example, the aim was asked to diagnose hallucination, delusion, sleep disturbance, etc.), 3. the patient's response to the student's question, 4. analysis of the patient's response by the student (for example, the patient's response indicates hallucination, delusion, sleep disturbance, impaired social interactions, elevated mood, etc.)

In order to teach communication skills, the communication skills model of Wilkinson and Schimizu including initial theoretical group training, initial practical group training, group training of the students with group feedback, and finally individual training of the students [12,13] was employed. Hence, during the first day of training, mental patients interview techniques and an overview of medical communication methods in theory and in group were presented followed by an interview with a mental patient, which was conducted by the instructor at the students' attendance. Then, on the first day, the students interviewed a patient in group which was monitored by the instructor. At the end of the first day, one patient was selected for each student for interview, communication, and execution of the nursing process.

The students' daily interviews with the patients were written on the interactive cards. All the students completed the interviews on the second and the third days. Mental disorders were identified according to the DSM IV-TR criteria by the instructor help and the use of patient's with the assistance of the instructor and the use of the patient's case history.

The nursing process was conducted based on the medical diagnosis and nursing diagnosis for each patient by the students from the 3<sup>rd</sup> or 4<sup>th</sup> day to the 10<sup>th</sup> day. On the 10<sup>th</sup> day, the nursing process was evaluated. All the phases of the nursing process (nursing diagnosis, intervention, implementation, and evaluation) were written on the interactive cards and given to the instructor. Every day, in addition to tracking the interactive cards by the students, group discussions were conducted in class on selected patients and the questions of the students were answered. At the end of the training session, post-test was conducted and the scores of both groups were recorded.

Finally, chi-square, paired t-test, and covariance analysis with pre-test control were used for data analysis in SPSS software (version 11).

## RESULTS

In the control group, the number of female students (13 cases - 65%) was more than male students (7 cases -35%). Similarly, there were more female students in the intervention group (17 cases - 73.9%) than male students (6 cases - 26.1%). Chi-square showed no statistically significant difference in gender between the two groups ( $p=0.52$ ).

The pre-test mean score was 3.97 and 3.95 in the control and intervention group, respectively. The covariance analysis by controlling pre-test showed no significant difference between the two groups in the pre-test scores ( $p>0.05$ ) (Table 1).

**Table 1: Comparison of the pre-test mean scores of test in the two groups**

Group	n	Pre-test		p>0.05
		Mean	SD	
Control group	20	3.97	1.1	
Test group	23	3.95	1.0	

The results of pair t-test (11.70) showed a significant difference between the pre-test and post-test learning scores of the nursing students in the psychiatric ward in the control group ( $P=0.001$ ). The results of pair t-test (18.67) also showed a significant difference between the pre-test and post-test learning scores of nursing students in the psychiatric ward in the intervention group ( $P=0.001$ ). (Table 2)

**Table 2: The results of the paired t-test for comparing the pre-test and post-test mean scores of the test in the control and intervention groups**

Group		n	Mean	SD	t-test	P-value
Control	Pre-test	20	3.97	1.2	11.70	0.001
	Post-test	20	7.25	1.5		
Intervention	Pre-test	23	3.95	1.03	18.76	0.001
	Post-test	23	9.76	1.6		

There was no significant difference in the post-test mean score between the control (7.25) and intervention (9.76) groups. The difference was in favor of the intervention group in increasing the learning score of the nursing students in the psychiatric ward with the use of the interactive cards as compared to the control group ( $p=0.001$ ) (Table 3).

**Table 3: Comparison of the post-test mean scores of between the two groups**

Group	n	Pre-test		P=0.001
		Mean	SD	
Control	20	7.25	1.5	
Intervention	23	9.76	1.6	

## DISCUSSION

The study results showed that the use of interactive cards that included communication skills training using the Wilkinson and Schimizu model and nursing process enhanced learning in the nursing students. There was a statistically significant difference between pre-test and post-test scores in both groups and there was a significant difference in post-test scores between the intervention and control groups, which was in favor of a further increase in the intervention group.

On communication with mental patients, the results of a study by Lezzoni et al. in 2006 showed that the students believed one of the main causes of the fear associated with communication with mental patients was the lack of skill in communicating with them [4]. The students often consider mental patients potentially dangerous and because they only attend two training and training in the psychiatry field courses, they have fewer encounters with these patients and therefore have less information and knowledge on how to manage and take care of these patients, which can cause fear. It may be due to lack of sufficient knowledge on these patients and their needs, which requires case training according to the type of disease with careful description of the problem by the teacher [6,22]. Available evidence suggests that the most important point in teaching communication skills is giving feedback to the learners after each communication exercise [23]. Knowles, for example, in his study showed that communication skills training was only effective by giving feedback to effective communication skills [24]. It is also specified that

receiving feedback alone is more effective than other methods, such as role-playing, group discussion, and watching movies, and improves the learning [25]. A study by Wilkinson and Schimizu showed that the effect of both communication skills training using patterns consisting of the use of feedback was positive in improving the communication skills of the nurses [23, 26]. We used the Wilkinson and Schimizu model, which is based on individual and group feedback and repeated practice on real patients, and as stated in the third step of the Method, the use of feedback is quite evident. Our data showed that students who used this method achieved higher learning scores, which could be due to better and closer communication with the patients and the implementation of the nursing process in a better and easier way. The findings of our study are consistent with the results of other studies and show that the model is good for teaching communication skills.

In a study by Ghafurifard *et al.*, the most important obstacle of an individual to execute the nursing process was inadequate knowledge about it from the student's point of view. An interesting thing in the above study was the interest of the students in executing the nursing process [22]. One of the most important problems in the nursing process education is the inability of students to use it in real situations and professional tasks. Thus, the training practices should be used for the training of the nursing process which enables the students to apply the skills learned in real conditions [27]. In this study, the training of the nursing process for mental diseases and its application on real patients led to a significant increase in the learning score of the students in the intervention group compared to the control group. This finding is in line with the results of previous studies.

The findings of the present study are also consistent with the results of a study conducted by Adib *et al.* that showed clinical education based on the nursing process and group discussion improved the learning post-test scores when compared with the traditional method [28]. However, the results of this study and another study by Spence and Ellingson *et al.* showed that learning in the clinical internship for students guided to the traditional methods was higher than those guided by new training methods [29, 30]. The difference in results may be due to the teachers' practices and skills in the application of the methods, and differences in the content and clinical conditions, characteristics, and number and attitude of the learners.

One limitation of the study was the use of a 20-question scale; the small number of the questions could reduce the generalizability of the results. It is suggested to conduct further researches with larger sample sizes and more questions. Furthermore, due to the curriculum planning, both theoretical and practical training courses were presented simultaneously and the students participating in the study had not still passed the corresponding theoretical lessons. The study was designed as pre-test and post-test to help further clarify the results.

## CONCLUSION

The results of the study showed that the use of interactive cards enhanced learning and improved the communication skills and nursing process of the nursing students in the psychiatric ward.

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