Original Article

The effect of context- based learning in psychiatric nursing internship on empathy skills with the patient of nursing students

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Abstract

Introduction: Apprenticeship in mental health can cause feelings of stress and anxiety of nursing students before the onset of apprenticeship and serves as an obstacle to empathy and to establish a therapeutic relationship with the patient. The present study aimed to determine the effect of context-based learning (CBL) in psychiatric nursing training on empathy with the patient of nursing students.

Materials and Methods: This clinical trial was conducted involving 97 nursing students. Students were assigned randomly to intervention and control groups. For students in intervention group, was conducted CBL (1. position test, 2. self-learning, 3. acquiring new information and 4. thinking and contemplation) during two weeks of internship. The students' empathy skills were measured with Jefferson's empathy questionnaire, and Spielberger anxiety questionnaire before the internship and the last day of the internship. Data using SPSS software 16 and independent t-test, paired t-test, and exact chi-square were analyzed.

Results: The mean age of students was 21.6 ± 1.8 years in intervention group and 21.7±2.4 in control group. After the intervention, the result of independent t-test showed the mean score of empathy skills in the intervention group was statistically significantly higher than the control group (*P*<0.001).

Conclusion: The results of this study indicate the positive effect of context-based learning on improving the empathy with patients of nursing students in psychiatric unit. Therefore, it is recommended that this method be used in nursing student nursing internship.

Keywords: Education, Empathy, Learning, Psychiatric nursing

Introduction

Students of the medical group also face with their specific problems including the mental and emotional pressures of the environment like the hospital, the problems and issues of patients and lack of a clear future career, which is why more than other students are at risk of losing mental health (1).

Meanwhile, the probability of experiencing stress and anxiety is higher among students attending psychiatric nursing ward internship; because, of obstacles and problems in hospitals and psychiatric wards, the labels of psychiatric disorders that cause feelings of unpreparedness, stress and anxiety in nursing students before the onset of internship, and act as an obstacle to empathy and to establish a therapeutic relationship with the patient (2,3).

Empathy with the patient means the ability to understand the patient's conditions, his feelings and perception in order to perform effective and quality care of him (4). Empathy has a very effective and accelerating role in communicating with patients

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and, in fact, provides a shortcut to communicate with them and increases the quality of the relationship (5). Empathy with the patient is effective on the quality of care and treatment outcome (6), and is used by nurses and other healthcare personnel as a tool that pledges patients to treatment. Patients with psychiatric disorders need more empathic support and, given the importance of interviewing skills and proximity to the patient, students need to be more empathic in working with the patient (7). However, in a study by Ward et al. there was a significant reduction in the empathy of nursing students from the beginning to the end of the training course, and this was more noticeable among students who more than others had exposure to patients in the clinical environment (6). The results of other studies related to the empathy changes during the years of study, also show that the level of empathy decreases with the increase of the educational years in medical and dental students (7).

Burnero et al. in a review study, by studying and analyzing studies, have shown that improvement of nurses' empathy skills through education has attracted the attention of researchers, and there is a possibility to increase it both in students and in graduates. In examining the effect of empathy training on nursing students, it has been reported that, among 17 studies, 11 studies are reported to have changes in the empathy score, which indicate the possibility of empathy enhancement. But, in spite of attempts to promote empathy among students of health field, in many cases, reduction of empathy in students is observed (8).

Perhaps, by changing the way of teaching from traditional ways to new and student-oriented ways, we can prevent the reduction and even increase the empathy among students during their academic years. In this study, of one of the areas of education, clinical education has been considered by the researchers due to its special importance and challenges such as mental anxiety in working with mentally patients, which has a negative impact on students' empathy (9). Among the new methods of the student-oriented methods, context based learning method (CBL) has been selected for its use in clinical education considering its proper features.

Context-based learning is one of the educational methods of learning-based approach that uses real and clinical experiences in educational environments to teach learners through real-life experiences and not just theoretical experimentation of a subject. In this method, the combination of several actual nursing situations is used as a learning

base, and the permission is given to learners to analyze the situation in which they are located and to search and seek the concepts and frameworks needed for nursing performance in that position (10). This approach is one of the strategies that helps nurses to achieve critical thinking and participation in continuous learning. The performance ability in a rapidly changing environment, enhances the health system, and helps the learner in the overall development of the skills and abilities that nurses need in that particular position. In addition to the application of this method, it will make the learners to acquire the necessary nursing knowledge and skills when facing professional practical situations, and since internship is also a subject of social, cultural, economic and political contexts of every society (11), it seems that the use of this methodology is more in line with the recommended approaches for solving this problem (the problem of empathy with mentally patients) (10,11).

This issue along with the information that they gain during this student-oriented approach, can lead to better interaction, more empathy and of course more constructive communication with the patient. In case of being the effective change in the method of teaching from the traditional method to the CBL on empathy with patients, it may be possible to change the teaching method, so that we can prevent the reduction of empathy of students with mentally patients, and overcome some of the clinical education problems. Therefore the present study aimed to determine the effect of context-based education in psychiatric nursing internship on empathy skills with patients of the nursing students.

Materials and Methods
This clinical trial consisted of two groups (intervention and control) with pre and post intervention design which was performed in 2017. The research population includes all undergraduate nursing students studying at Faculty of Nursing and Midwifery of Mashhad University of Medical Sciences. The research sample consisted of 97 nursing students in the fourth and fifth semesters who were attending internship of mental health unit and had inclusion criteria in the study. After taking written informed consent form, they were entered into the research. Students' predetermined training was divided into intervention and control group. In this way, students from the first group of internship (first half of the internship) were trained in the regular education group (control group), and the subsequent groups trained using a context-based

learning method. With this method, information transference between students in the two groups was partially prevented. The minimum sample size was calculated from the formula "comparison of the mean of two independent societies". To obtain the mean scores of empathy with the patient, a preliminary study was conducted on 20 nursing students (10 in each group). Thus, the sample size with 95% confidence level and 80% test power was estimated 45 persons in each group. According to the arranged program of internships, 51 students in the intervention group and 46 in the control group were studied.

The intervention was carried out in a context-based training group in this way that the researcher, after introducing himself and providing explanations on the goals and manner of implementing the plan, proceeded to complete the consent form of participation in the study. Then, demographic information questionnaire, Jefferson's empathy with patient and Spielberg's anxiety questionnaire were provided for students. In accordance with the coordination with respectable mentors of each internship in the fourth and fifth semesters and based on the goals of each course, which in the "Mental Health Nursing" internship they include the use of communication techniques, the identification of psychiatric symptoms, nursing diagnosis, and in "mental health nursing" internship include familiarization with psychiatric disorders, common treatments, nursing process in psychiatric patients, context-based education in groups according to the steps of this methodology includes 1. position test, 2. self-learning, 3. acquiring new information and 4. thinking and contemplation (12) were arranged and implemented as follows.

In each of the internship of the 4th and 5th semester, in accordance with the steps of the context-based educational method, and in order to achieve the educational goals of each course, the management and execution of the course was such that during the consecutive days and in accordance with the schedule set by the researcher in coordination with the relevant professor, after each interview with the patient, questions about symptoms, communication techniques, nursing diagnosis (in the fourth semester), psychiatric diagnosis, ongoing and common treatments and the nursing process (in the fifth semester) were discussed in mentally patients (Position test). After the students' feedback, the given answers were summarized by respectful professors and the researcher took notes. Then, the students were directed to the library of Ibn-e-Sina hospital and

Faculty of Nursing Midwifery for self-study. It should be noted that previously the researcher had done the necessary coordination with library authorities to make available the necessary resources.

According to the previous arranged schedule, students gathered in the hospital's classroom on a daily basis and began to present resources from obtained and new sources of information. At the end of each session, a summary of the mentioned issues was made and depending on the clinical situation, the proper functioning of nursing was also considered and explained. Eventually, the students reviewed the mentioned contents in the sources and the educational processes through discussion (contemplation and thinking) with their counterparts, researcher and mentor of the ward. This training process continued during 10 days of internship and Jefferson's empathy with patient questionnaire and Spielberger anxiety questionnaire were completed again by students on the final day.

In the control group, the internship was carried out in accordance with the usual method and based on the educational objectives of each course. The researcher, while attending the internship on the first and last day, proceeded to complete the research questionnaires.

The criteria for entering the study include acquiring a passing grade from the theory course of mental health, lack of experience in nursing work in the psychiatric ward, lack of psychiatric disorders or history of psychiatric medications use, lack of major stress (death of relatives and divorce) in the last 6 months, and exit criteria include absences for more than two days during the internship period, having a physical or mental illness requiring hospitalization and treatment during an internship and experiencing major stress (death of relatives and divorce) during the internship period. The instruments for this study included personal information questionnaire and Jefferson's empathy with patient questionnaire.

Research instrument

- *The demographic information questionnaire:* It consisted of 8 filling in and multi-choice questions about age, sex, marital status, total score, theory score of mental health course I, the degree of interest in nursing field and the degree of interest in psychiatric nursing lessons.

- *Jefferson's empathy with patient questionnaire:* It consisted of 20 questions which is measured with a 7-degree Likert scale (1=very disagree to 7=very agreeable). The items of 20 and 11 are scored in reverse order. The total score range in this questionnaire is 20 to 140. Obtaining a higher score

indicates that the students were more empathic towards the patients. The validity of both tools was determined by content validity method. The reliability of the empathy questionnaire with the patient was confirmed in Karimi et al. study with Cronbach's alpha coefficient of 0.63 (13). Of course, also in the present study its reliability was evaluated by internal consistency method. In the preliminary study, a questionnaire was completed for 10 volunteer students in one turn. Then using the Cronbach's alpha coefficient, the reliability of the questionnaire with (r=0.79) was confirmed.

Before the beginning of intervention and after obtaining informed consent from the students of both groups who had the criteria for entering the study, firstly the questionnaire of individual information and then the empathy with patient questionnaire were provided for the students to complete.

The most important ethical considerations of this study included obtaining permission from the Ethics Committee of Mashhad University of Medical Sciences, and obtaining written and informed consent form from the participants. In order to analyze gathered data, SPSS software version 16 and descriptive statistics and Mann-Whitney independent t-test, paired t-test, Chi-square, exact fisher and exact chi-square were used.

Results

The result of the Mann-Whitney test showed that there is no significant statistical difference between the mean age of the students in the intervention group (21.6±1.8 years) and control group (21.7±2.4 years) (P=0.560). Other demographic characteristics of the participants and the result of their homogeneity in the two groups are listed in Table 1.

Table 1. Comparison of demographic characteristics of studied nursing students in two groups of intervention and control

Variable		Intervention	Control	Test
Sex	Boy	30 (58.8)	18 (31.9)	*P=0.053
	Girl	21 (41.2)	28 (60.1)	P=0.053
Marital Status	Married	13 (25.5)	8 (17.14)	*P=0.334
	Single	38 (74.5)	38 (82.6)	P=0.334
Total Score	Standard deviation Mean	16.4 ± 1.4	16.2 ± 1.2	**P=0.682
Theory Score of mental	Standard deviation Mean	14/9 ± 2/0	14. 9 ± 2.5	**P=0.824 health course I
The Degree Of Interest In Nursing field	Very low	1 (2.0)	3(6.5)	
	Low	15(30.0)	14(30.4)	*** P=0.416
	Much	25(58.0)	21(45.7)	
	Very much	5 (10.0)	8 (17.14)	
The Degree Of interest in Psychiatric Nursing Subject	Very low	4(8.7)	4(7.8)	
	Low	23(45.1)	18(39.1)	*** P=0.950
	Much	20(39.2)	20(43.5)	
	Very much	4(8.7)	4(7.8)	

*: Chi-square   **: Independent t test   ***: Exact Chi-square

Independent t-test showed that in the pre-intervention stage, the mean scores of empathy with nursing students' patients in both intervention and control groups did not show a significant difference (P=0.241). However, the result of independent t-test in the post-intervention stage showed a significant difference between the mean score of empathy with nursing students' patients in both groups (P<0.001).

Also, the results of paired t-test for intra-group comparison showed that there was a significant difference in the mean score of empathy with the patient of nursing students after intervention in comparison to pre-intervention (P<0.001); but in the control group this difference was not statistically significant (P=0.654) (Table 2).

Table 2. Comparison of mean and standard deviation of empathy score with the patient of nursing students in two groups of intervention and control

Mean of Empathy Score with patients	Intervention	Control	Test

	Standard deviation± mean	Standard deviation± mean	
Before intervention	9.6 ± 99.2	11.3 ± 105.2	*P=0.241
After intervention	8.5 ± 128.4	11.8 ± 105.6	*P<0.001
Test result	**P<0.001	**P=0.645	

*Independent t test   **Paired t test

Discussion

The results of the present study indicate a significant improvement and the positive effect of context-based learning on the degree of empathy with the patient in the intervention group compared with the control group. Also, intra-group comparisons show the positive effect of context-based learning on the mean score of empathy with the students' patient after the intervention in comparison to pre-intervention, but did not differ significantly in the control group.

The present study is the first study in Iran and other parts of the world that studies the effect of context-based learning on empathy skills of nursing students in psychiatric nursing internship. Context-based learning is also used in very limited studies in Iran. Also, in the study of past studies, it was found that all researches in the field of empathy skills were mainly descriptive. Therefore, the findings of this study were compared and discussed with other studies in Iran and elsewhere in the world that were used alone on independent or dependent variables of the present study or other independent variables.

Vaghee et al. conducted a study entitled "The effect of mental health internship on empathy toward psychiatric disorders in nursing students". The results of this study showed that mental internship improves empathy toward psychiatric disorders in nursing students (14). Nursing students are exposed to demands, complicated care and patients during their mental internship where they face their emotions and evaluate their adaptive skills, so that the initial preconceptions of nursing students and their negative attitudes toward psychiatric disorders are gradually changed, social distance is reduced and empathy toward patients is promoted (15-17). Because the clinical experience of direct contact and familiarity with psychiatric disorders in a clinical setting by combining new information and challenging negative beliefs reduce the anxiety associated with exposure to these patients which can help to improve empathy in students (2,18) because empathy is teachable. In this regard, the results of the study by Burnero et al. entitled "An overview on empathy training in nursing" showed that empathy can be learned using educational methods (8).

In a context-based learning approach, learners will be familiar and feel intimate with the subject of teaching, and they have more motivation to learn because the themes and fields of learning are taken from their daily lives. Learners engage in the process of learning in practice and apply scientific subjects in this regard (19). This method of applying and presenting sciences, subjects and scientific concepts in familiar and appropriate places for learners makes learning meaningful and tangible for them. The context-based approach emphasizes the fact that learning is related to the personality and feelings of the audience (learners) that they show. In this process, learning experiences come from a comprehensive engagement with the learning environment, and the personal construction of knowledge occurs when the interaction between the current knowledge of the individual and the experiences takes place with the environment. In other words, the context and the environment affect learning (18-21).

In this regard, Manzari and colleagues conducted a study entitled "comparison of the effect of two methods of context-based learning and lecture on knowledge, attitude and performance of nurses regarding the role of nurse in organ donation process". The results of this study showed that the knowledge, attitude and performance of nurses in the context-based training group have increased more significantly (22). The results of this study are in agreement with the results of the present study, because in both studies a context-based learning approach has been used, and one of the features of context-based learning is its internal cohesion; that is, educational content is integrated with educational goals. In this approach, attitude, skill and knowledge goals are integrated into a social and creative environment and in a common educational context (12,20). By increasing the knowledge of students or nurses, their skills including empathy skills with the patient are expected to improve which the results of this study indicate.

The results of Beverley et al. study entitled "The comparative study of the effect of the context-based learning curriculum and common program on the knowledge and attitude of undergraduate nursing students in relation to aging" showed that there was a positive change in the knowledge of participating students in the context-based learning group regarding age-related changes and their attitudes toward aging at the social level (20). The results of

this study are also consistent with the results of the present study. One of the benefits of context-based learning is the ability to deepen, in other words, instead of expanding a subject in an educational context it focuses on its depth, so that in learning practice, it becomes helpful and effective. A major feature of the context-based approach is to link and integrate many of the curriculum areas. In this approach, the learning subjects are not scattered and they have internal cohesion. Another feature of context-based learning is that it provides a good basis for gradual academic progress and increased skills of students, and it makes learning more enjoyable, flattering and useful (12).

Of course, because there was no significant difference between the two groups in the study of Beverly et al. the results of this study are not consistent with the results of the present study (cited as 21). The reasons for the lack of consistency can be explained by the difference in the research environment and the cultural context, because these factors have a significant impact on students' attitudes and can affect the outcomes of the study.

Of the limitations of this study, were the individual and personality differences of the participants in the study that could affect the given answers to the questionnaire. Also, considering the fact that the dependent variable in this study was empathy with the patient, the mental and psychological status of the research units could affect the given answers to the questionnaire, which we tried to complete the

questionnaire in the time and place where students feel most comfortable.

Conclusion
Regarding the positive effect of the context-based learning method on improving the empathy skills with the Nursing students' patients in psychiatric nursing internship unit, this methodology can help nursing students to have more empathy with mentally sick patients by overcoming their training and management problems. Therefore, it is recommended that the relevant authorities and educators use this methodology in their teaching and teaching planning.

Acknowledgment

References
1. Adarvishi S, Asadi M, Mahmoodi M, Khodadadi A, Ghasemi Deh Cheshmeh M, Farsani F. [Effect of problem-solving skill training on anxiety of operation room students]. Journal of health and care 2015; 17(3): 207-17. (Persian)
2. Ashe J. The effects of personal contact on attitudes toward mental illness in Baccalaureate nursing students. Ohio: University of Akron; 2015.
3. Lebowitz MS, Ahn WK. Effects of biological explanations for mental disorders on clinicians' empathy. Cross Mark 2014; 111(50): 17786-90.
4. Williams B, Boyle M, Brightwell R, Devenish S, Hartley P, McCall M, et al. An assessment of undergraduate paramedic students' empathy levels. Int J Med Educ 2012; 3: 98-102.
5. Rasoulian M, Salehian R. [Empathy, the most effective]. Tehran: Ghatre; 2011. (Persian)
6. Ward J, Cody J, Schaal M, Hojat M. The empathy enigma: an empirical study of decline in empathy among undergraduate nursing students. J Prof Nurs 2012; 28(1): 34-40.
7. Hojat M, Vergare MJ, Maxwell K, Brainard G, Herrine SK, Isenberg GA, et al. The devil is in the third year: a longitudinal study of erosion of empathy in medical school. Acad Med 2009; 84(9): 1182-91.
8. Brunero S, Lamont S, Coates M. A review of empathy education in nursing. Nurs Inq 2010; 17(1): 65-74.
9. Abd M, Mousa A. Empathy toward patients with mental illness among Baccalaureate nursing students: Impact of a psychiatric nursing and mental health educational experience. J Educ Pract 2015; 6(24): 98-108.
10. Black J, Hawks J. Medical-surgical nursing: management for positive outcomes. 8th ed. New York: Saunders; 2005.
11. Bassampour Sh. The effect of preoperative education on anxiety of patients undergoing open heart surgery, Tehran 2004. Journal of health sciences 2006; 3: 10-15. (Persian)
12. Karimi Moonaghi H. [New teaching approaches in higher education focusing on medical sciences education]. Mashhad: Mashhad University of Medical Sciences; 2014: 239-49. (Persian)
13. Karimi FZ, Zarifnejad G, Abdolahi M, Taghipour A. [Surveying the factor structure and reliability of the Persian version of the Jefferson Scale of Physician Empathy-Health Care Provider Student Version (JSE-HPS)]. Faculty of Nursing and Midwifery, Tehran University of Medical Sciences (life) 2015; 21(3): 5-14. (Persian)

14. Vaghee S, Salarhaji A, Kashani Lotfabadi M, Vaghei N, Zarvandi R. [The effect of psychology clerkship on empathy toward mental disorders in nursing students]. Journal of medical education and development 2017; 12(1-2): 40-50. (Persian)

15. Hojat M, Louis DZ, Markham FW, Wender R, Rabinowitz C, Gonnella JS. Physicians' empathy and clinical outcomes for diabetic patients. Acad Med 2011; 86(3): 359-64.

16. Koskinen L, Mikkonen I, Jokinen P. Learning from the world of mental health care: Nursing students' narratives. J Psychiatr Ment Health Nurs 2011; 18(7): 622-8.

17. Thornicroft G, Mehta N, Clement S, Evans-Lacko S, Doherty M, Rose D, et al. Evidence for effective interventions to reduce mental health related stigma and discrimination. Lancet 2015; 207(5): 377-84.

18. Byrne L, Happell B, Welch T, Moxham L. Things you can't learn from books: Teaching recovery from a lived experience perspective. Int J Ment Health Nurs 2013; 22(3): 195-204.

19. Williams B, Spiers J, Fisk A, Richards L, Gibson B, Kabotoff W, et al. The influence of an undergraduate problem/context based learning program on evolving professional nursing graduate practice. Nurs Educ Today 2012; 32: 417-21.

20. Saif AA. [Modern educational physiology of learning and instruction]. 6th ed. Tehran: Doran; 2011. (Persian)

21. Manzari ZS, Masoumian ST, Karimi Moonaghi H, Behnam Vashani HR, Khaleghi E, Modaberi Azizi MJ. [The comparative study of effect of two educational methods (Workshop and context based learning) on nurses knowledge, attitude and practice about nurses roller in organ donation process]. Journal of nursing and midwifery of Orumieh University of Medical Sciences 2015; 13(9): 771-58. (Persian)