Original Article Open Access

The Effect of Supportive Clinical Environment in internship period on Clinical Competence of Nursing Students

Akram Mashmoul Aman Mohammad¹, Seyed Reza Mazloum^{2*}, Fateme Hajiabadi², Hosein Karimi Mooneghi²

¹ Alavi Hospital, Mashhad University of Medical Sciences, Mashhad, Iran.
² School of Nursing and Midwifery, Mashhad University of Medical Sciences, Mashhad, Iran.

Article Info



Article history: Received 10 Dec 2018 Accepted 8 Dec 2020 Published 02 Jan 2021 Keywords:

Clinical Education Support, Nursing Process Clinical competence Nursing Student

*Corresponding author:

Seyed Reza Mazloum, School of Nursing and Midwifery, Mashhad University of Medical Sciences, Mashhad, Iran. Email: Mazlomr@mums.ac.ir

Abstract

Background & Objective: Clinical education accounts for about 50% of nursing education programs and plays an important role in the full achievement of clinical nursing students, so they should change the environment in a way that facilitates students' learning and education. The purpose of this study was to determine the effect of supportive clinical environment in internship period on clinical competence of nursing students

Materials and Methods: This randomized qusi- experimental study was carried out with 60 nursing students who allocated in two groups of intervention and control randomly in educational hospitals of Mashhad. For interventional students was performed the clinical support program, which included three components of knowledge, skills, and learning platform for two weeks. Before and after the intervention, their clinical competency was measured by Meretoja modified clinical competence scale. Data were analyzed by SPSS software version 16 and independent t-test, Mann-Whitney, paired T-test and Chi-square.

Results: The result of independent t-test showed that after the intervention, the mean score of clinical competency of the students in the intervention group (80.8 ± 16.6 of 100) was significantly (68.3 ± 10.9 of 100) more than the control group (P = 0.003). Also the mean score of clinical competency of the intervention group in the dimensions of patient assistance, education, guidance and therapeutic measures was significantly higher than that of the control group (P < 0.05).

Conclusion: Creating a supportive clinical environment will enhance the clinical competence of the students, especially in the areas of patient assistance and further education and guidance, and it is recommended that more attention be paid to planning clinical nursing education.



Copyright © 2020, This is an original open-access article distributed under the terms of the Creative Commons Attribution-noncommercial 4.0 International License which permit copy and redistribution of the material just in noncommercial usages with proper citation

Introduction

Clinical competence is a complex and ambiguous concept that has been surveyed from various aspects and viewpoints over recent years (1). The importance of this issue is so high that the world health organization (WHO) has identified the evaluation and improvement of nurses' competence as two fundamental principles for guaranteeing care quality (2). In this regard, a competent nurse is one who can play their role or perform their professional responsibilities at a suitable level and quality (3). Full achievement of clinical competence leads to the proper implementation of duties by nurses (4, 5). Various factors such as a rapid change in health monitoring systems, the necessity of providing safe

and cost-effective services, raising community members' awareness of health-related issues, and increased expectation of receiving high-quality services along with the desire of healthcare providing organizations to use skilled workforce have led to more focus on the clinical competence of health professionals (4). Different factors affect the acquisition of students' clinical competence from clinical education, one of which is improved clinical education conditions (6, 7). Clinical education is recognized as the basis of nursing education, where students practice the learned concepts in interaction with the instructor and the environment (5). The value of ideal clinical education in professional and

individual development, as well as clinical skills of nurses, is undeniable (9).

Nursing schools are responsible for training nurses who can provide clinical services in line with scientific advances of the day (10) and meet the needs of clients using adequate clinical skills and knowledge (11). Meanwhile, researchers in the field of nursing have reported educational programs' failure to properly prepare students for the clinical setting (5). In this regard, some of the factors include students' interest and motivation, presence of experienced instructors, students' self-confidence (12), how the personnel communicate with students (13), physical limitations in the clinical education environment, and the theory-practice gap (12). In this respect, a reason could be a lack of support and an improper situation of the clinical education environment. Nonetheless, all of these factors have led to students' dissatisfaction (14). In a supportive clinical learning setting, students are encouraged to act independently and are advised to rely on themselves (14).

A supportive clinical learning environment is an important part of nursing training, which occurs in a complex social context and its objective is to develop students' clinical skills, use theory in the clinic, apply problem-solving skills, enhance interpersonal skills, learn official and unofficial norms, protocols, expectations of nursing profession and healthcare system (15, 16). In fact, one of the most important responsibilities of clinical teachers is supporting students in learning in educational clinical settings (17). Nevertheless, there is a scarcity of research on the topic of the formation of a supportive learning setting outside the country. In addition, studies performed in the field have either only pointed out the importance of a supportive learning setting or have assessed the opinions of students in this regard (14-17). For instance, Baraz et al. (2015) reported one of the problems of nursing students in the clinic to be an unsupportive learning setting (18). Kaphagawani et al. (2013) affirmed that a supportive setting provides an opportunity for the use of scientific knowledge of students with good communications, thereby enhancing their learning (19).

Improvement of nursing services' quality requires attaining the necessary skills and knowledge by nursing students in clinical settings. In addition, the main goal of nursing education is creating a suitable level of knowledge, attitude, and skills in nursing students. In this regard, enhancing the clinical education level in nursing is the most important factor for achieving this goal (20). Full achievement of clinical competence is, in fact, the ultimate efficiency and product of an education system. In this regard, Bark expressed that recently graduated nurses have not attained the expected clinical competencies regarding skills such as teaching the patient and their family, taking a medical history, physical examination, verbal communication skills, and determining care priorities (21). In addition, studies inside and outside conducted the country demonstrated that students' clinical competence obtained during education was inadequate (7, 22), and the clinical competence of nurses and new graduates (19) requires improvement, especially in areas of "quality assurance" and "teaching and guidance" (2). For example, ParsaYekta performed a research on final-year BSc nursing students at Tehran University of Medical Sciences, reporting that not all participants believed in their clinical competence, which was based on the care standards of the profession. On the other hand, most students had the poor and moderate achievement of clinical competences (22). Given the fact that today's students will be tomorrow's nurses, the application of methods to improve their competence is of paramount importance (19, 21).

According to the research conducted in this area inside and outside the country, it could be concluded that nursing knowledge requires development in the area of providing a suitable supportive program for clinical training and its impact on students' clinical competence. With regard to the importance and position of clinical training and clinical experience of

researchers, which was indicative of lack of a suitable learning process in the clinical setting, and given the descriptive or qualitative nature of studies conducted in the area of the formation of a supportive learning setting, the present study aimed to determine the effect of a supportive clinical setting during internship on nursing students' clinical competence.

Materials and Methods

This quasi-experimental randomized study with two groups (intervention and control) and a pretestposttest design, conducted at the thoracic ward of Ghaem Hospital and orthopedics ward of Imam Reza Hospital in Mashhad, Iran. The research community included BSc nursing students of the school of nursing and midwifery of Mashhad. In total, 60 third and fourth-semester nursing students, who were passing their internship at thoracic and orthopedics wards, were selected. The inclusion criteria were no work experience (student work or employment) independently, and participation in the education program on the first day of the internship. On the other hand, the exclusion criteria were lack of completing the internship due to issues such as displacement, withdrawal, more than one day of absence, absence from the first internship day, and displacement of the internship group during the internship in the intervention and control groups. After receiving permission from the ethics committee of the university (IR.MUMS.NURSE.REC.1397.040), coordination was made with the related education department and consent was obtained from the clinical instructors, followed by sampling. In this regard, the internship groups were randomly divided into intervention and control groups by a random sequence generated by SPSS. Accordingly, half of the internship groups (each encompassing seven-eight students) of each ward were allocated to each of the research groups (intervention and control) and each intervention and control group included 30 students. The minimum sample size was calculated from the equation of "comparison of the mean of two independent communities". A pilot study was performed on 20 students (10 in each group) at a 95% confidence interval and 80% test power to achieve the mean clinical competence score. In total, the sample size was estimated at 26 students per group. However, considering attrition, 30 individuals were allocated to each research group.

The research tools included a demographic and educational characteristics questionnaire (including seven items about age, gender, marital status, GPA, internship score, interest in nursing, nursing work experience) and Meretoja modified competence scale. The latter included 47 items in five clinical competence areas, including roles and responsibilities of assistance (seven skills), training and guidance (12 skills), diagnostic measures (eight skills), therapeutic measures (five skills), and occupational and work responsibilities (15 skills). The level of use of each skill was determined based on a four-point Likert scale, where zero scores were indicative of a lack of use of skills, whereas a three score was interpreted as the repetitive use of skills. While the score range was 0-470, the scores obtained from this tool were calculated from 100 scores for easier interpretation. Different stages of the psychometrics of the tool included translation, back translation, as well as determining the validity and reliability, which was previously reported by Dehghani et al (23). The reliability of the tools was determined using a test-retest method and a Cronbach's alpha, which was estimated in the range of 0.76-0.88 for the five dimensions. The intervention stage was initiated by distributing the individual characteristics questionnaire among students on the first day of internship and during a meeting in the presence of related instructors at the conference hall of the hospital. Afterwards, the clinical competence of students was assessed in both groups using the Meretoja modified nursing competence scale through self-report. In the next stage, a two-hour training program was set up by the research team and the clinical instructor for the students of both study groups (intervention and control) concerning the goals and importance of the internship and the expectations of the students during the course. Internship lesson plans were also provided to students of both groups.

In the intervention group: the supportive clinical setting program included the components of knowledge, skill, and learning context, which were extracted from studies by Baraz *et al.* (2015) (knowledge) (18), Dinmohammadi *et al.* (2014)

(learning and knowledge context) (15), Kaphagawani (2014) (skill and knowledge) (19), and Rahmani et al. (2011) (knowledge) (16).

The coverage of these components in the present study by the clinical instructor, the responsible nurse, and the research team was simultaneous, which was also considered based on the results of the abovementioned studies (15-18). Each of the mentioned individuals had a task description for achieving this setting, which is presented in Table 1 in detail.

Table 1: Description of the duties of clinical instructor, responsible nurse and research team during the research period

	. a.z.c z czc. iption or the duties o	ab. actor, responsible har	se and research team during the research period
Number	Clinical Instructor	Responsible Nurse	Research Team
1	Assistance in compiling the training booklet in coordination with the relevant head nurse	Helping students with clinical work	Familiarity with the head nurse and knowledge of the regulations in the ward
2	Make the necessary arrangements with the educational supervisor to start the internship	Supporting students in nursing care, especially in cases of patient or accompanying resistance	Compilation of an educational booklet through coordination with the head nurse and clinical instructor
3	Coordinating with the head nurse to review the existing regulations of the ward before starting the internship	Prevent inappropriate interference in the duties of the student or humiliation of students by other medical staff	Supervise the necessary coordination for student amenities (such as lockers and conference rooms)
4	Coordinate with supervisor and supervisor equipment for comfort (such as low, rest area, conference room)	Getting patients' consent to work with students in care and clinical skills	Provide relevant forms (including research unit selection form, demographic information and clinical competence) to be completed by students
5	Reading the internship lesson plan on the first day for students	Provide necessary explanations under the supervision of a clinical instructor for nursing care in need of explanation	Holding a 2-hour supplementary session (in addition to the joint session) on the expected content and skills (introduction of drugs, tests, routine ward techniques and introduction of different parts of the ward for referral) for the intervention group
6	Provide a description of the student's daily tasks on the first day orally or in writing	-	Presenting the educational booklet of the content of paragraph 5 with the cooperation of the clinical instructor and the head nurse
7	Arrange a program to introduce the students, the head nurse and the nurse in charge of the patient	-	Supervise the process of introducing students to the head nurse and the nurse or nurses responsible for starting the internship
8	Get a student performance report at the end of each internship day	-	Control the performance report of nursing students at the end of each day
9	Performing nursing techniques under the supervision of a responsible nurse and under the supervision of a clinical instructor	-	Supervise the process of proper implementation of the internship

Moreover, the educational booklet with the content of introducing the ward, common diseases, diagnostic tests, treatments, and common nursing care (specific to each of the thoracic and orthopedic wards) was provided to the students of this group on the first day of internship. During the internship (two weeks), the clinical instructor was available to students every day to monitor their training by the responsible nurse in addition to teaching them.

In the control group: students entered the ward after a two-hour session and their internship was conducted by the relevant instructor for two weeks according to the usual procedure (patient examination and development of care plan based on the nursing process). In this group, the research team supervised the internship process similar to the intervention group.

In the next stage and on the final internship day, the clinical competence scale was completed by students in both groups one more time. In addition, educational booklets were provided to students in the control groups as well. The most important ethical considerations included gaining permission from the ethics committee of Mashhad University of Medical Sciences and written informed consent from the participants. After collection and coding, data were entered into the control, and after ensuring the accuracy of the information, data analysis was performed in SPSS version 16 using descriptive statistics, independent t-test (to compare the groups in terms of normal quantitative variables), Mann-Whitney U (to compare the groups in terms of abnormal quantitative variables), paired t-test (for ingroup comparison of normal quantitative variables), and Chi-square (for intragroup comparison of qualitative variables).

Results

Individual characteristics of the participants and the result of their homogeneity in the two groups are presented in Table 2.

Table 2:Comparison of demographic characteristics of nursing students studied in two groups of intervention and control

Variable		Intervention	Control	P value
Sex	Female	14 (46.7)	14 (46.7)	X2= 0/0
	Male	16 (53.3)	16 (53.3)	* <i>P</i> =1/000
Marriage Status	Single	21 (70.0)	26 (86.7)	X2= 2/4
	Marriage	9 (30.0)	4 (13.3)	* <i>P</i> =0/117
Educational term	3	20 (66.7)	18 (60.0)	X2=0/3
	4	10 (33.3)	12 (40.0)	* <i>P</i> =0/592
Internship mean score	mean ±St. deviation	17.7± 1.2	17.9±0.9	t= 0/4 ** <i>P</i> =0/678
Total mean score	mean ±St. deviation	16.7± 1.1	16.1±0.7	Z=2/1 *** <i>P</i> =0/179
Interest in nursing (of 10)	mean ±St. deviation	7.5± 1.9	7.1±2.3	Z=2/0 *** <i>P</i> =0/855
Age (year)	mean ±St. deviation	20.5±0.8	20.3±1.1	Z= 1/1 *** <i>P</i> =0/232

^{*:} Chi square, **: T independent samples test, ***: Mann Whitney

According to the independent t-test, significant difference was observed between the control and intervention groups in terms of the mean and standard deviation of the total score and the score of all dimensions of clinical competence (assisting patients, teaching and guidance, diagnostic measures, therapeutic measures, and occupational and organizational responsibilities) before the intervention (*P*>0.05). After the intervention, however, we detected a significantly higher total score of clinical competence in students of the intervention group, compared to the control group (P=0.003). In addition, paired t-test results were indicative of a significant difference in the intervention groups regarding the total clinical competence after the intervention, compared to before the intervention (P=0.041). Nevertheless, this difference was not significant in the control group (P=0.770). In the intervention group, the highest

score of dimensions of clinical competence was related to assisting patients (14.7±6.80) and teaching and guidance (16.9±1.80), whereas the lowest score was related to the dimension of diagnostic measures (21.2±0.68). In the control group, the highest score of the dimensions of clinical competence was related to occupational responsibilities (7.6±6.76) while the lowest score was related to diagnostic measures (15.1±1.65). After the intervention, the independent t-test results showed that the mean score of clinical competence significantly increased the intervention group regarding the dimensions of assisting patients, teaching, and guidance, and therapeutic measures, compared to the control group (P<0.05). However, the increase in the dimensions of diagnostic measures and occupational responsibilities was not significant (*P*>0.05) (Table 3).

Table 3. Comparison of the mean and standard deviation of total scores of five dimensions of nursing students' clinical competence in the intervention and control groups before and after the intervention

Competence	fore After	Sig*					
Competence		Jig	Before	After	Sig*	(between)	(between)
mea	n ±St. mean ±St.	(within)	mean ±St.	mean±St.	(within)	Before	After
devi	ation deviation		deviation	deviation			
Assisting Patients 76.1	± 15.4 80.6±14.7	t=3.5	75.5± 9.9	74.5±11.8	t=1.7	t=0.4	t=4.1
		<i>P</i> =0.002			<i>P</i> =0.082	P=0.641	<i>P</i> <0.001
Teaching and 68.6	±19.1 80.1±16.9	t=2.0	66.9±16.3	67.8±11.1	t=0.1	t=0.5	t=4.1
guidance		<i>P</i> =0.047			P=0.314	P=0.640	<i>P</i> <0.001
Diagnostic 66.9	±18.2 68.0±21.2	t=1.6	64.9±11.5	65.1±15.1	t=0.1	t=1.8	t=1.8
measures		<i>P</i> =0.118			P=0.314	P=0.098	<i>P</i> =0.065
Therapeutic 69.8	±19.7 77.1±18.5	t=3.7	66.2±17.1	70.7±17.1	t=1.9	t=1.6	t=2.0
measures		<i>P</i> =0.001			P=0.056	P=0.104	P=0.046
Occupational 77.3	3±4.6 79.6±4.9	t=1.4	75.7±11.3	76.6±7.6	t=1.2	t=1.1	t=1.8
responsibilities		<i>P</i> =0.157			P=0.246	P=0.248	<i>P</i> =0.068
Total score 72.4	±15.4 80.8±16.6	t=1.9	67.1±11.5	66.3±10.9	t=0.3	t=1.1	t=3.1
		P=0.041			P=0.770	<i>P</i> =0.291	P=0.001

^{*:} Paired t-test, **: independent t-test

Discussion

According to the results of the present research, the mean total score of students' clinical competence, who were provided with a supportive clinical setting, was significantly higher, compared to normal conditions. Since a review of the literature revealed no similar research, our findings were compared to studies that were almost similar to the current research. A factor for the low clinical competence score of students before the intervention could be the defects in the nursing education system. Overall, nursing education should emphasize students' access to a high level of competence in nursing care. In the education system of our country, the final exams of BSc are considered as the criterion for nursing competence, and this exam has been eliminated in the past few years as well. In fact, in a conventional education system, students are allocated some scores and are compared with each other based on the scores. Standards and expectations of performance are based on what is traditionally learned and students are expected to act on a wide range of abilities (12). Meanwhile, experts believe that an effective clinical education system is one of the major factors for correction and improvement of clinical competence, which drew our attention in the present study.

While no similar research was found in terms of the improved mean score of students' clinical competence in the intervention group, it seems obvious that by improving the learning conditions of students in the clinical setting and supporting them in this environment, it is possible to help improve their clinical competence. In this respect, Henderson et al. (2010) demonstrated that supporting students during internship could encourage effective learning (24), which is in line with our findings. One of the reasons for this consistency between the results was the support and helping students by the healthcare team and availability of a skilled and experienced

instructor to teach students, which are among the components of a supportive clinical setting.

Ziaei (2017) conducted a research to evaluate the support of instructor in a clinical setting from the perspective of midwifery students, concluding that increased self-confidence (97%), lack of being blamed (87%), permission to repeat a procedure on a patient reaching success (87%), valuing performance of students (84%), and permission of unsupervised work after one acceptable measure or previous teachings (78%) were examples of an instructor's support from students' point of view (25). Some of the features of a supportive clinical setting include strengthening cooperation between the student and the healthcare team, a sense of responsibility and independence in students' performance, and lack of humiliation of students, all of which can contribute to learning improvement of students' healthcare skills and clinical competence. In a study by Henderson et al. (2006) to determine students' understanding of the psychological-social clinical setting by assessing various models, students were more satisfied with the perceptorship model in various dimensions of individualization (22.4), students' participation (20.0), satisfaction (25.1), innovation (21.6), personalization (22.6), and awareness of work description (26.8) (26). However, there were some differences between the perceptorship model and a supportive clinical setting; in a perceptorship model, experienced clinical nurses take the responsibility of supporting and training students or novice nurses as a role model in a oneon-one relationship and during a specific period (27). While in the present study, in addition to using one of the experienced clinical nurses, the supportive presence of the instructor (for educating students) providing written support information (educational booklet) were used as well.

After the intervention, there was a significant increase in the mean score of clinical competence in the intervention group regarding the dimensions of

assisting patients, teaching and guidance, and therapeutic measures, compared to the control group. Regarding the area of assisting patients and teaching and guidance, the results of Bourgeois et al. (2011) showed that the implementation of a clinical education setting model led students to consider themselves as a team member, have a sense of belonging, gain positive experiences, and improve their clinical skills (28). In the current research, the highest scores were obtained for the dimensions of assisting patients and teaching and guidance, which were significantly higher in the intervention group, compared to the control group. This was mainly due to some features of a supportive clinical setting, including creating critical and creative thinking, spontaneous learning, improvement of psychological and motor skills, time management ability, increased self-esteem, establishing proper communication, and prevention passiveness in students (29).

Strengthening these features in students with a supportive clinical setting can help provide individual care and greater patient adaptation (dimension of assisting patients) and teaching the patient and their family and providing the possibility of self-care (dimension of teaching and guidance). Regarding the dimension of therapeutic measures, the results obtained by Cooper et al. (2010) were indicative of nursing students' incompetence in managing unwell patients (30). In a research by Aghamohammadi (2011), the majority of nurses believed that nursing students lacked a suitable clinical skill and were not fully prepared to take on clinical responsibilities (31). Moreover, Magnussen et al. (2013) showed that one of the stressors in clinical experiences of nursing students in America was a feeling of lack of preparedness for clinical care (32). The results of the foregoing studies are consistent with our findings in terms of the mean score of the dimension of therapeutic measures before the intervention because currently, the clinical education setting is not able to properly strengthen care skills in students (33). Meanwhile, experts believe that students will face

future challenging situations during their professional work that require appropriate decisions and actions. To achieve this goal, students' problemsolving and decision-making skills must be strengthened (34).On the other hand, nursing educators, nurses and all those involved in clinical nursing education should create a suitable learning environment for students to prepare them for effective and safe care (35). In the current research, the clinical setting was designed in a supportive way so that nursing students could have more autonomy in their performance.

However, no significant difference was observed between the groups of the current research regarding the dimensions of diagnostic measures and occupational responsibilities since these dimensions assess the diagnosis and analysis of individual problems of students and continuous professional and occupational improvement (2). Given the low academic semester of the students and the lack of passing most core units, achieving these results was not far from expectation, although the scores of these dimensions were higher in the intervention group.

One of the major drawbacks of the present study was the low academic semester of students. In this regard, only the orthopedics and thoracic internship were continuously being held for two weeks in all academic semesters due to the internal-surgical department's schedule in the school of nursing and midwifery. Another limitation was the lack of similar studies to compare the results. In this regard, we attempted to compare our findings with almost similar studies. The short duration of the intervention was another limitation, and a longer intervention could yield more definite appropriate results. Due to scheduling students' internships for two weeks and the need for conducting other internships in other departments, it was not possible to extend the intervention time in the current research.

Conclusion

The results of the present study were indicative of the positive effect of a supportive clinical setting on nursing students' clinical competence. Therefore, a environment in nursing clinical supportive education can help students for safer patient care and assist them in making more accurate and timely results in various situations. In addition, it can improve their clinical competence, especially in the dimensions of teaching and guidance and assisting patients. However, more research is required to evaluate the advantages and limitations of this path from various aspects. However, more serious use of a supportive clinical setting in education and care will improve clinical competence owing to the nature of this environment.

Acknowledgments

This article was extracted from a master's thesis and was approved by the ethics committee of Mashhad University of Medical Sciences with the code of IR.MUMS.NURSE.REC.1397.049. Hereby, we extend our gratitude to the vice-chancellor for research of the university for the financial support of the study. In addition, we would like to thank all professors and nursing students of Mashhad school of nursing and midwifery and the officials and personnel at the thoracic ward of Ghaem Hospital and orthopedics ward of Imam Reza Hospital in Mashhad for assisting us in performing the research.

Conflicts of Interest: The authors declare that there are no conflicts of interest.

References

1. Sadeghi A, Oshvandi Kh, Moradi Y. Explaining the inhibitory characteristics of clinical instructors in the process of developing clinical competence of nursing students: a qualitative study. *J Family Med Prim Care*. 2019; 8(5): 1664–70.

- 2. Bahraini M, Ahmadi F, Shahamat SH, Behzadi S. The effect of using the professional portfolio on clinical competence. *Stride Dev Med Educ.* 2011; 8(2):107-14.
- Bahreini M, Moattari M, Kaveh M, Ahmadi F. Self assessment of the clinical competence of nurses in a major educational hospital of Shiraz University of Medical Sciences. 2010.
- 4. Dehghany Z. Effective reflection on clinical competency of nursing students. *Payesh J.* 2013; 12:63-70.
- 5. Parsa Yekta Z, Ahmadi F, Tabari R. Factors defined by nurses as influential upon the development of clinical competence. *J Adv Med Biomed Res.* 2015;14(54):9-23.
- Bahreini M, Kaveh MH, Ahmadi F. Self assessment of the clinical competence of nurses in a major educational hospital of Shiraz University of Medical Sciences. J Adv Med Biomed Res. 2010;8(1):28-36.
- 7. Memarian R, Salsali M. Factors affecting the process of obtaining clinical competency. J Adv Med Biomed Res. 2016; 14:9-40.
- 8. Appel AL, Malcolm PA. Specialist education and practice nursing: an Australian perspective. *Nurs Edu.* 2018;18(2):144-52.
- 9. Zamanzadeh V, Parsayekta Z, Fathi A, Valizadeh L. The role of clinical nursing teachers: a Qualitive study. *Iran J Med Educ.* 2012;6:22-37.
- 10. Hendricks-Thomas JM, Crosby DM, Mooney DC. Education in critical care nursing: a new beginning. *Int Criti Care Nurs*. 2015;11(2):93-9.
- 11. Bjørk IT. Neglected conflicts in the discipline of nursing: perceptions of the importance and value of practical skill. *J Adv Nurs*. 2015;22(1):6-12.
- 12. Bagheri H, Bazghaleh M. Clinical education and its related factors in nursing: A qualitative meta-synthesis study. *J Nurs Edu.* 2016;4(4):26-39.
- 13. Heydari A, Yaghoubinia F, Roudsari RL. Supportive relationship: Experiences of Iranian students and teachers concerning student-teacher relationship in

- clinical nursing education. *Iran J Nurs Midwifery.* 2013;18(6):467.
- 14. Jahanpour F, Azodi P, Azodi F, Khansir AA. Barriers to Practical Learning in the Field: A Qualitative Study of Iranian Nursing Students' Experiences. *Nurs Midwifery Stud*. 2016 June; 5(2):e26920.
- Dinmohammadi MR, Peyrovi H, Mehrdad N. Undergraduate Student Nurses' Experiences in Clinical Environment: Vertical Violence. *Iran J Nurs.* 2014; 27(90-91): 83-93.
- Rahmani A, Zamanzadeh V, Abdulozadeh F, Lotfi M, Bani S, Hassanpour S. Clinical learning environment in viewpoints of nursing students in Tabriz University of Medical Sciences. *Iran J Nurs Midwifery*. Res 2011; 16:253-6.
- 17. Andrews M, Roberts D. Supporting student nurses learning in and through clinical practice: the role of the clinical guide. *Nurs Educ Today.* 2016; 23(7): 474-81.
- 18. Baraz S, Memarian R, Vanaki Z. Learning challenges of nursing students in clinical environments: A qualitative study in Iran. *J Edu Health Promot.* 2015; 4:1-9.
- 19. Kaphagawani NC, Useh U. Analysis of nursing students learning experiences in clinical practice: Literature Review. *Ethno Med.* 2013; 7(3):181-5.
- 20. Dehghany Z. Effective reflection on clinical competency of nursing students. *J Iran Health Sci Res.* 2013;12:63-70.
- 21. Khodayarian M, Vanaki Z, Khdayaryan M, Navi H, Vaezi A. The effect of Nursing management development programs on clinical competence of Critical Care Nursing Cardiac. *J Nurs Educ.* 2011;(1):40-50.
- 22. Parsa yekta Z, Ramezani badr F, Khatoni A. Nursing students' viewpoints about their clinical competencies and its achievement level. *Iran Nurs Res.* 2017;1(3):7-14.
- 23. Dehghany Z, Abaszadeh A. Effective Reflection on Clinical Competency of Nursing Students in Shiraz University. *Media*. 2011; (4):12-8.

- 24. Henderson A, Twentyman M, Eaton E, Creedy D, Stapleton P, Lloyd B. Creating supportive clinical learning environments: an intervention study. J Clin Nurs 2010 Jan;19(1-2):177-82.
- 25. Ziaee S. Instructor's Support in Clinical Setting from Midwifery Students' Viewpoints. *J Develop Stra Med Educ*. 2017;4(1):75-89.
- 26. Henderson A, Twentyman M, Heel A, Lloyd B. Students' perception of the psycho-social clinical learning environment: an evaluation of placement models. *Nurs Educ Today*. 2016;26(7):564-71.
- 27. Jaffari Golestan N. The effect of organizing nursing mentors committee on the clinical competency of novice nurses [dissertation]. Tehran: Tarbiat Modarres University; 2014.
- 28. Bourgeois S, Drayton N, Brown AM. An innovative model of supportive clinical teaching and learning for undergraduate nursing students: The cluster model. *Nurse Edu Pract.* 2011; 11:114-8.
- 29. Hosoda Y. Development and testing of a Clinical Learning Environment Diagnostic Inventory for baccalaureate nursing students. *J Adv Nurs.* 2016; 56(5):480-490.
- 30. Cooper S, Kinsman L, Buykx P, McConnell-Henry T, Endacott R, Scholes J. Managing the deteriorating patient in a simulated environment: nursing students' knowledge, skill and situation awareness. *J Clin Nurs.* 2010;19(15-16):2309-18.
- 31. Aghamohammadi-Kalkhoran M, Karimollahi M, Abdi R. Iranian staff nurses' attitudes toward nursing students. *Nurs Educ Today.* 2011;31(5):477-81.
- 32. Magnussen L, Amundson M. Undergraduate nursing student experience. *Nurs Health Sci* .2013;5(4):261-7.
- 33. Mardani Hamuleh M, Heydari H, Changiz T. Evaluation of Clinical Education Status from the Viewpoints of Nursing Students. *Iran J Med Educ.* 2011;10(4):500-11.
- 34. Margaretha Jerlock K, Severinsson E. Academic nursing education guidelines: Tool for bridging the gap between

theory, research and practice. *Nurs & Health Sci.* 2013;5:219-28.

35. Dunn S. Undergraduate nursing students' perceptions

of their clinical learning environment. J Adv Nurs. 2017;25(6):1299-306.

Appendix-The Questionnaire

2 Teachers should encourage learners to learn 3 In Upper-intermediate level, English can be taught through films & songs 5 In Upper-intermediate level, the teacher should make learners utilize advanced vocabulary 6 Teachers should give translation tasks 7 In Upper-intermediate level, Teachers should give appropriate amount of homework 8 Teachers should assign lectures 9 In Upper-intermediate level, teachers should assign writing tasks 10 Teachers should give appropriate practice inside the class 11 Teachers should do more classroom questioning 12 In Upper-intermediate level, reading & vocabulary have become more difficult 13 In Upper-intermediate level, some grammar is only repeated 14 In Upper-intermediate level, the books have become more difficult 15 In Upper-intermediate level, lessons should be more interesting 16 In Upper-intermediate level, students should become more independent in learning 17 In Upper-intermediate level, students should know how to learn (learning strategy) 18 Students should have active participation in class 19 Students should think why their marks are decreasing 21 Students should think why their marks are decreasing 22 Students should use new words in role plays 23 Students should use new words in role plays 24 Students should use new words in speaking and	1	Teachers should be more strict	Strongly Disagree	Disagree	Agree	Strongly Disagree
In Upper-intermediate level, English can be taught through films & songs In Upper-intermediate level, the teacher should make learners utilize advanced vocabulary Teachers should give translation tasks In Upper-intermediate level, Teachers should give appropriate amount of homework Teachers should assign lectures In Upper-intermediate level, teachers should assign writing tasks Teachers should give appropriate practice inside the class Teachers should give appropriate practice inside the class In Upper-intermediate level, reading & vocabulary have become more difficult In Upper-intermediate level, some grammar is only repeated In Upper-intermediate level, the books have become more difficult In Upper-intermediate level, lessons should be more interesting In Upper-intermediate level, students should become more independent in learning In Upper-intermediate level, students should know how to learn (learning strategy) students should have active participation in class Students should have learning goals Students should have learning goals Students should have plans for learning Students should have plans for learning Students should use new words in role plays	2.	Teachers should encourage learners to learn	Disagree			Disagree
taught through films & songs In Upper-intermediate level, the teacher should make learners utilize advanced vocabulary Teachers should give translation tasks In Upper-intermediate level, Teachers should give appropriate amount of homework Teachers should assign lectures In Upper-intermediate level, teachers should assign writing tasks Teachers should give appropriate practice inside the class Teachers should give appropriate practice inside the class In Upper-intermediate level, reading & vocabulary have become more difficult In Upper-intermediate level, some grammar is only repeated In Upper-intermediate level, some grammar is only repeated In Upper-intermediate level, lessons should be more interesting In Upper-intermediate level, lessons should be more interesting In Upper-intermediate level, students should become more independent in learning In Upper-intermediate level, students should know how to learn (learning strategy) students should have learning goals Students should have learning goals Students should hink why their marks are decreasing Students should use new words in role plays						
make learners utilize advanced vocabulary Teachers should give translation tasks In Upper-intermediate level, Teachers should give appropriate amount of homework Teachers should assign lectures In Upper-intermediate level, teachers should assign writing tasks Teachers should give appropriate practice inside the class Teachers should do more classroom questioning In Upper-intermediate level, reading & vocabulary have become more difficult In Upper-intermediate level, some grammar is only repeated In Upper-intermediate level, the books have become more difficult In Upper-intermediate level, lessons should be more interesting In Upper-intermediate level, students should become more independent in learning In Upper-intermediate level, students should know how to learn (learning strategy) students should have active participation in class Students should think why their marks are decreasing Students should have plans for learning Students should use new words in role plays		• • • • • • • • • • • • • • • • • • • •				
In Upper-intermediate level, Teachers should give appropriate amount of homework Teachers should assign lectures In Upper-intermediate level, teachers should assign writing tasks Teachers should give appropriate practice inside the class Teachers should do more classroom questioning In Upper-intermediate level, reading & vocabulary have become more difficult In Upper-intermediate level, some grammar is only repeated In Upper-intermediate level, the books have become more difficult In Upper-intermediate level, lessons should be more interesting In Upper-intermediate level, students should become more independent in learning In Upper-intermediate level, students should know how to learn (learning strategy) students should have active participation in class Students should have learning goals Students should think why their marks are decreasing Students should have plans for learning Students should use new words in role plays	5					
give appropriate amount of homework 8 Teachers should assign lectures 9 In Upper-intermediate level, teachers should assign writing tasks 10 Teachers should give appropriate practice inside the class 11 Teachers should do more classroom questioning 12 In Upper-intermediate level, reading & vocabulary have become more difficult 13 In Upper-intermediate level, some grammar is only repeated 14 In Upper-intermediate level, the books have become more difficult 15 In Upper-intermediate level, lessons should be more interesting 16 In Upper-intermediate level, students should become more independent in learning 17 In Upper-intermediate level, students should know how to learn (learning strategy) 18 students should have active participation in class 19 Students should have learning goals 20 Students should think why their marks are decreasing 22 Students should have plans for learning 23 Students should use new words in role plays	6	Teachers should give translation tasks				
8 Teachers should assign lectures 9 In Upper-intermediate level, teachers should assign writing tasks 10 Teachers should give appropriate practice inside the class 11 Teachers should do more classroom questioning 12 In Upper-intermediate level, reading & vocabulary have become more difficult 13 In Upper-intermediate level, some grammar is only repeated 14 In Upper-intermediate level, the books have become more difficult 15 In Upper-intermediate level, lessons should be more interesting 16 In Upper-intermediate level, students should become more independent in learning 17 In Upper-intermediate level, students should know how to learn (learning strategy) 18 students should have active participation in class 19 Students should have learning goals 20 Students should think why their marks are decreasing 21 Students should have plans for learning	7					
assign writing tasks Teachers should give appropriate practice inside the class Teachers should do more classroom questioning In Upper-intermediate level, reading & vocabulary have become more difficult In Upper-intermediate level, some grammar is only repeated In Upper-intermediate level, the books have become more difficult In Upper-intermediate level, lessons should be more interesting In Upper-intermediate level, students should become more independent in learning In Upper-intermediate level, students should know how to learn (learning strategy) students should have active participation in class Students should have learning goals Students should think why their marks are decreasing Students should have plans for learning Students should use new words in role plays	8	<u> </u>				
Teachers should give appropriate practice inside the class Teachers should do more classroom questioning In Upper-intermediate level, reading & vocabulary have become more difficult In Upper-intermediate level, some grammar is only repeated In Upper-intermediate level, the books have become more difficult In Upper-intermediate level, the books have become more difficult In Upper-intermediate level, lessons should be more interesting In Upper-intermediate level, students should become more independent in learning In Upper-intermediate level, students should know how to learn (learning strategy) students should have active participation in class Students should have learning goals Students should think why their marks are decreasing Students should have plans for learning Students should use new words in role plays	9					
11 questioning 12 In Upper-intermediate level, reading & vocabulary have become more difficult 13 In Upper-intermediate level, some grammar is only repeated 14 In Upper-intermediate level, the books have become more difficult 15 In Upper-intermediate level, lessons should be more interesting 16 In Upper-intermediate level, students should become more independent in learning 17 In Upper-intermediate level, students should know how to learn (learning strategy) 18 students should have active participation in class 19 Students should have learning goals 20 Students' mistakes should decrease 21 Students should think why their marks are decreasing 22 Students should have plans for learning 23 Students should use new words in role plays	10	Teachers should give appropriate practice				
In Upper-intermediate level, reading & vocabulary have become more difficult In Upper-intermediate level, some grammar is only repeated In Upper-intermediate level, the books have become more difficult In Upper-intermediate level, lessons should be more interesting In Upper-intermediate level, students should become more independent in learning In Upper-intermediate level, students should know how to learn (learning strategy) students should have active participation in class Students should have learning goals Students' mistakes should decrease Students should think why their marks are decreasing Students should have plans for learning Students should use new words in role plays	11					
In Upper-intermediate level, some grammar is only repeated In Upper-intermediate level, the books have become more difficult In Upper-intermediate level, lessons should be more interesting In Upper-intermediate level, students should become more independent in learning In Upper-intermediate level, students should know how to learn (learning strategy) Is students should have active participation in class Students should have learning goals Students should think why their marks are decreasing Students should have plans for learning Students should use new words in role plays	12	In Upper-intermediate level, reading &				
In Upper-intermediate level, the books have become more difficult In Upper-intermediate level, lessons should be more interesting In Upper-intermediate level, students should become more independent in learning In Upper-intermediate level, students should know how to learn (learning strategy) students should have active participation in class Students should have learning goals Students whould have learning goals Students should think why their marks are decreasing Students should have plans for learning Students should use new words in role plays	13	In Upper-intermediate level, some grammar is				
In Upper-intermediate level, lessons should be more interesting In Upper-intermediate level, students should become more independent in learning In Upper-intermediate level, students should know how to learn (learning strategy) students should have active participation in class Students should have learning goals Students' mistakes should decrease Students should think why their marks are decreasing Students should have plans for learning Students should use new words in role plays	14	In Upper-intermediate level, the books have				
In Upper-intermediate level, students should become more independent in learning In Upper-intermediate level, students should know how to learn (learning strategy) students should have active participation in class Students should have learning goals Students' mistakes should decrease Students should think why their marks are decreasing Students should have plans for learning Students should use new words in role plays	15	In Upper-intermediate level, lessons should be				
In Upper-intermediate level, students should know how to learn (learning strategy) students should have active participation in class Students should have learning goals Students' mistakes should decrease Students should think why their marks are decreasing Students should have plans for learning Students should use new words in role plays	16	In Upper-intermediate level, students should				
students should have active participation in class 19 Students should have learning goals 20 Students' mistakes should decrease 21 Students should think why their marks are decreasing 22 Students should have plans for learning 23 Students should use new words in role plays	17	In Upper-intermediate level, students should				
20 Students' mistakes should decrease 21 Students should think why their marks are decreasing 22 Students should have plans for learning 23 Students should use new words in role plays	18					
Students should think why their marks are decreasing 22 Students should have plans for learning 23 Students should use new words in role plays	19	Students should have learning goals				
decreasing 22 Students should have plans for learning 23 Students should use new words in role plays	20	Students' mistakes should decrease				
23 Students should use new words in role plays	21	•				
	22	Students should have plans for learning				
24 Students should use new words in speaking and	23	Students should use new words in role plays				
	24	Students should use new words in speaking and				

	writing
25	Students should use flashcards
25	Students should use hashcards
26	Students should have regular review of lessons
27	Students should talk with a native speaker
28	Students should learn about culture
29	Students repeat the same mistakes again and again
30	mistakes should be corrected immediately
31	Students need to self-correct their mistake
32	Some Students should go back to the elementary levels
33	Students should have motivation for learning
34	Students should feel the need to learn English
35	Students should have perseverance in learning
36	Students do not have enough time to study
37	Students should speak fast
38	Students should speak without much thinking
39	Students should remember the correct words and structures quickly
40	In Upper-intermediate level, I cannot learn speaking and grammar anymore
41	In Upper-intermediate level, I am moving forward very slowly
42	In Upper-intermediate level, my marks keep decreasing
43	In Upper-intermediate level, I can get by with my present knowledge of English
44	In Upper-intermediate level, teachers should give translation from L1 to L2
45	In Upper-intermediate level, we speak slowly like elementary levels
	inc cicincital y ievels