



The Effect of Mentoring Novice Clinical Educators on the Perception of Nursing Students from the Clinical Learning Environment

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Abstract

Introduction: Creating a supportive clinical learning environment (CLE) is one of the characteristics of an effective clinical instructor in nursing. Perhaps empowering novice clinical educators using mentorship method can reduce or resolve this problem. The aim of this study was to determine the impact of the mentorship program for novice clinical educators on the nursing students' actual and preferred understanding of CLE.

Methods: This quasi-experimental study on three groups was conducted as post-intervention with the participation of 139 undergraduate nursing students of Mashhad University of Medical Sciences. Sampling was done via stratified and multi-stage method. Students were placed in three groups: expert clinical educator (n=47), novice clinical educator (n=51), and mentorship (n=41). In the novice and expert clinical educator groups, training was conducted through the conventional method. In the mentorship group, a novice clinical educator (mentee) and an expert clinical educator (mentor) had a mentoring relationship for two weeks. The Chan (2001) CLE inventory was completed at the end of the first and second weeks of externship. Data were analyzed through SPSS v. 16 software using one-way ANOVA and paired t-tests.

Results: The students of the three groups were homogeneous in terms of gender (P=0.101) and level of interest in the field (P=0.278). According to the result of the paired t-test, the difference in the mean score of the actual and preferred CLE at the end of the first week was statistically significant in the novice clinical educators (P=0.008) and the mentorship group (P=0.04); however, after the implementation of mentorship program (at the end of the second week), the difference was significant only in the novice educators group (P=0.001).

Conclusion: The implementation of the mentorship program for novice clinical educators (as with the expert educators group) could lead to a reduction in the mismatch between the actual and preferred views of students about the CLE. Thus, it is recommended that this method should be used under conditions of shortage of expert educators to create a supportive CLE.

Keywords: Mentors; Educators; Learning; Environment; Nursing student

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Introduction

The CLE is a complex social entity that influences the learning behaviour of students and the development of clinical competences in the field of nursing (1). Meanwhile, nursing experts believed that the educational programs implemented in the existing clinical environment could not adequately prepare the students to work in the hospital (2, 3). The reasons for this can be the students' lack of motivation and interest, very few experienced instructors, low self-confidence of students (4), improper interaction of the personnel with students (5), the large number of students, lack of educational resources and equipment in the educational environment, as well as the gap between theory and practice (2).

The CLE incorporates four dimensions which affect the students' learning: physical space, psychosocial variables, organizational culture, as well as educating and learning components (1). Among these, the most important and influential variables in clinical education are clinical instructors (6). This is because they are within the best position to assess the students' needs (7) and are specifically responsible for creating their capacities in clinical decision making, critical thinking, and developing successful interpersonal interactions during clinical training (8). Thus, clinical educators must know how to teach effectively and have the necessary qualifications to play this vital role (9).

However, students lacked suitable clinical supervision because clinical educators were often absent or did not spend adequate time with them in the clinical setting (10). The solution that is intended to compensate for the lack of educators is the use of novice educators who regard clinical education as one of the most challenging and stressful fields (8). Some novice clinical educators feel unprepared for the role of teaching students in a clinical setting. Limited support, lack of self-confidence, and inability to support students are emphasized as barriers to novice clinical educators performing their role with students (11).

Accordingly, supportive CLEs are necessary to improve the development of nursing knowledge and skills, self-confidence, professional socialization, job satisfaction, and student preparation (1, 2). It is reported that a supportive learning environment increases the students' positive emotions and reduces their negative emotions (such as anxiety and hopelessness) (12). The mentorship program has been introduced as a valuable solution to facilitate resolving the phase of problems of novice clinical educators and their development (8). The mentorship program is based on an effective role model in one-to-

one relationships, using self-directed learning, providing a safe environment for critical feedback and practice, advising, counseling, guiding, and providing constructive feedback (13, 14). According to the Canadian Nursing Association, in the mentorship program, mentoring involves a voluntary and long-term professional relationship in which an experienced and informed person (mentor) supports the maturation and growth of a less experienced person (mentee) (13).

If it is possible to approach the actual and preferred understanding of the learners regarding the learning environment, it may be possible to enhance their academic success; in this environment, actual and constructive learning experiences can be provided for students to boost their competence and self-confidence in the future. Meanwhile, the results of the previous studies showed that from the nursing students' view, there was a significant difference between their actual and preferred learning environment (15, 16). Also, it is observed that the actual and preferred learning environment of students do not match each other, and this has led to student dissatisfaction (17, 18). Thus, it may be possible to make the actual environment closer to the preferred environment through mentoring of novice clinical educators as a human resources development strategy (8, 13, 14).

Therefore, given the importance of clinical training, the difference between the actual and preferred learning environment of students, lack of expert educators, and existence of novice clinical instructors, and according to the searches conducted so far, no study was found on the comparison of the mentorship program with the clinical training method of an expert instructor, or comparison and measurement of its impact on the students' views about the CLE. Accordingly, the aim of the present study was to determine the effect of the mentorship program for novice clinical instructors on the mismatch of nursing students' actual and preferred understanding of the CLE.

Methods

Study design, setting, and duration

This quasi-experimental study with three groups was conducted in a nursing faculty and teaching hospitals of the University of Medical Sciences in eastern Iran.

Study sample

The study was carried out with the participation of nursing students of the 1st, 3rd, 5th, 6th, and 8th semesters, who were enrolled in nursing fundamental and skills, medical-surgical

nursing 2, nursing in common problems of Iran, medical-surgical 4, and critical nursing care (CCU and ICU), respectively. After obtaining the consent of the educational directors of the faculty and the director of the group, sampling was done using stratified and multi-stage method.

First, academic semesters in which externships were run by expert and novice educators were selected from the first to the fourth academic year. Then, students in the 1st, 3rd, 5th, 6th, and 8th semesters of the Faculty of Nursing and Midwifery participated in our classes. In these classes, sampling was done using convenience method. In this way, the externship groups, for example, neurology externship, were non-randomly divided into three groups: mentorship, expert instructor, and novice instructor. An equal number of subjects were assigned to these three groups. In the case of students' willingness to participate in the research, after explaining the objectives of the study, written informed consent was obtained.

The sample size was estimated to be 37 students for each group based on the pilot study as well as using the PASS software and the power analysis formula of 78%. Considering the sample loss, we included 51 subjects in each group in the study. Ten students in the mentorship instructors group were excluded due to lack of participation in the post-test (n=2), incomplete questionnaire (n=3), transfer to another university (n=2), and unwillingness to participate in the later stages of study (n=3) along with four students in the group expert educators due to transfer of externship group (n=3) and lack of participation in the post-test (n=1). Finally, 51 students were studied in the novice clinical educators, 47 students in the expert educators group, and 41 students in the mentorship educators group.

Inclusion criteria

The inclusion criteria for students were willingness to participate in the study, undergraduate nursing students who had chosen the externship course of fundamental and skills, neurology, CCU, and ICU. The inclusion criteria for mentors (expert clinical educator) were at least three years of experience in the desired externship, participation in the empowerment course, ability to establish effective interpersonal communication, and willingness to participate in the study; finally, the entry criteria for the mentee (novice clinical educator) were willingness to participate in the study and educational background shorter than one year.

Exclusion criteria

The exclusion criteria were replacement or relocation of clinical educators in the externships,

failure to complete the rounds by an expert clinical educators (less than three rounds), failure to hold face-to-face mentor and mentee meetings, and clinical educators' unwillingness to continue participating in the study.

Intervention

Mentorship group: In this group, the novice clinical instructor was recognized as a mentee, while an expert clinical instructor was recognized as a mentor, and they were in contact with each other during a mentorship interaction for two weeks. This intervention included two stages of preparation - improvement of human resources and the stage of implementation and intervention. In the preparation and improvement phase, first, with the participation of the group manager and the research team, expert and novice educators were selected to participate in the project. All externships were checked for feasibility. Afterwards, expert and novice clinical instructors were selected and introduced to participate in this research. Then, during a 2-hour session, expert and novice instructors were familiarized with the principles, framework, and stages of the mentorship program, as well as the executive checklist of the mentorship plan, which included the time and place of the rounds, the time and place of the face-to-face meetings, and the way to communicate with the mentee and evaluate the course. It was given to the clinical instructors, so that they can act accordingly in the implementation and intervention phase. The implementation phase included three rounds of clinical externship by an expert clinical instructor one week before the start of the training, the middle day of the first week, the second week of training, as well as two face-to-face question and answer sessions of the mentor and mentee at the end of the first week plus the end of the second week of externship (Table 1).

Expert clinical educator group: There was no intervention in this group and according to the instructions of the faculty and the conventional method, the students underwent the relevant externships under the supervision of clinical instructors.

Novice clinical educator group: In this group, as with the expert group, no intervention and externship course were held according to the common instructions of the faculty.

Data collection

The tools used in this research included student, mentor and mentee demographic information form and Chan's (2001) clinical learning environment inventory (CLEI).

Table 1: Checklist for implementation of mentorship program

No.	Round	Time	Content	Yes	No
1	The first round of the department with a mentee for 1 hour (the first day of the externship)	Date:	Welcoming and greeting the novice clinical educator Introducing the list of students Getting to know the physical environment and educational spaces of the ward and hospital Introducing clinical experts and colleagues as well as stating important points about interacting with them and important people in the clinical environment (head nurse, staff, etc.) Examining the stress of a novice clinical educator and providing appropriate solutions as well as feedback Identifying the training needs of the novice clinical educator by examining her training performance through interviews and observation at the bedside (reviewing the mentor lesson plan) Assessing clinical teaching skills and providing feedback to the novice instructor Introducing the important procedures of the department based on the resource heading Examining the work methods and goals of the novice coach Determining and defining difficult clinical situations a mentee may face and providing appropriate solutions (contradiction between what is learned in theory and practice and informal relationships, etc.) Determining and defining the difficult situations a mentee may face in dealing with students and providing appropriate solutions (expressing points related to professionalism in dealing with students such as self-confidence, possessing verbal and non-verbal skills, etc.) Expressing important ethical points in relation to patients		
Round 2			Time	Content	Always Often Sometimes Never
2	second round mentor of externship for 1 hour	The middle day of the first week of externship (date...)	Examining the externship process Evaluation of mentee problems in externship Providing a suitable solution		
Round 3			Time	Content	Yes No
3	First face-to-face counseling session for 0.5 hours (Nursing Faculty)	Last day of the first week of externship (date...)	Question and answer		
4	3rd round of mentoring from externship for 1 hour	The middle day of the second week of externship (Monday) (date...)	How is the examination of the clinical evaluation of students by the mentee? Is it based on a checklist? Is there a pre-test and post-test? Is it based on student performance and clinical observation? Is it based on the student's observed motivation in learning at the bedside? Is it a combination of the above? If necessary, modify the method of clinical evaluation of mentee.		
5	Second face-to-face counseling session for 0.5 hours (Nursing Faculty)	The last day of the second week of externship (date...)	Examining the students' evaluation method by the mentee and expressing the strengths as well as weaknesses of the mentee. A general summary of the mentee's strengths plus weaknesses and how to improve it in the next externship.		

Demographic information form included seven short-answer and multiple-choice questions about age, sex, marital status, clinical experience, level of interest in the field and profession of nursing, level of satisfaction with the profession of nursing, and intention to change fields in the future. CLEI consists of 42 items, 7 of which being assessable on all six subscales: Personalization, Student Involvement, Task Orientation, Innovation, Individualization, and Satisfaction. Each item on the CLEI is scored on a 4-point Likert scale from 'strongly agree' to 'strongly disagree' (strongly disagree=1, disagree=2, agree=3, strongly agree=4). It is made up of two versions, the "actual" and the "preferred" versions. In order to measure the perception of the actual clinical field environment, the 'actual' form was used, whereas the 'preferred' form was designed to measure perceptions of an 'ideal or preferred' clinical field study environment, with focus on goals and values orientation. The wording of the items is identical in both forms although they have different instructions on how to respond. The range of scores in both actual and preferred forms is between 42 and 168. The validity of Chan's (2001) CLEI has been confirmed in the study of Bigdeli et al. (2015) (16). In the present

study, after translating the tool by the researcher and checking the accuracy of the translation, the final tool was presented to 10 experts in the field of medical science education, whereby the accuracy of the translation and content validity were confirmed. In this research, the reliability of this inventory was confirmed via internal consistency, and Cronbach's alpha coefficient was 0.76 for the actual form and 0.80 for the preferred form. The inventory was provided to the students at the end of the first week of externship and the end of the second week (the last day of externship), which were collected after completion.

Statistical analysis

The research data were analyzed using IBM® SPSS® Statistics version 16.0 for Macintosh. In order to check the normal distribution of quantitative data, we used Kolmogorov-Smirnov and Shapiro-Wilk tests. Chi-square, Fisher's exact, and one-way ANOVA tests were employed to check the homogeneity of the qualitative and quantitative variables studied. In order to compare the variables between the groups, one-way ANOVA and LSD post-hoc test were utilized, and for intra-group comparison, paired t-test was used. In all

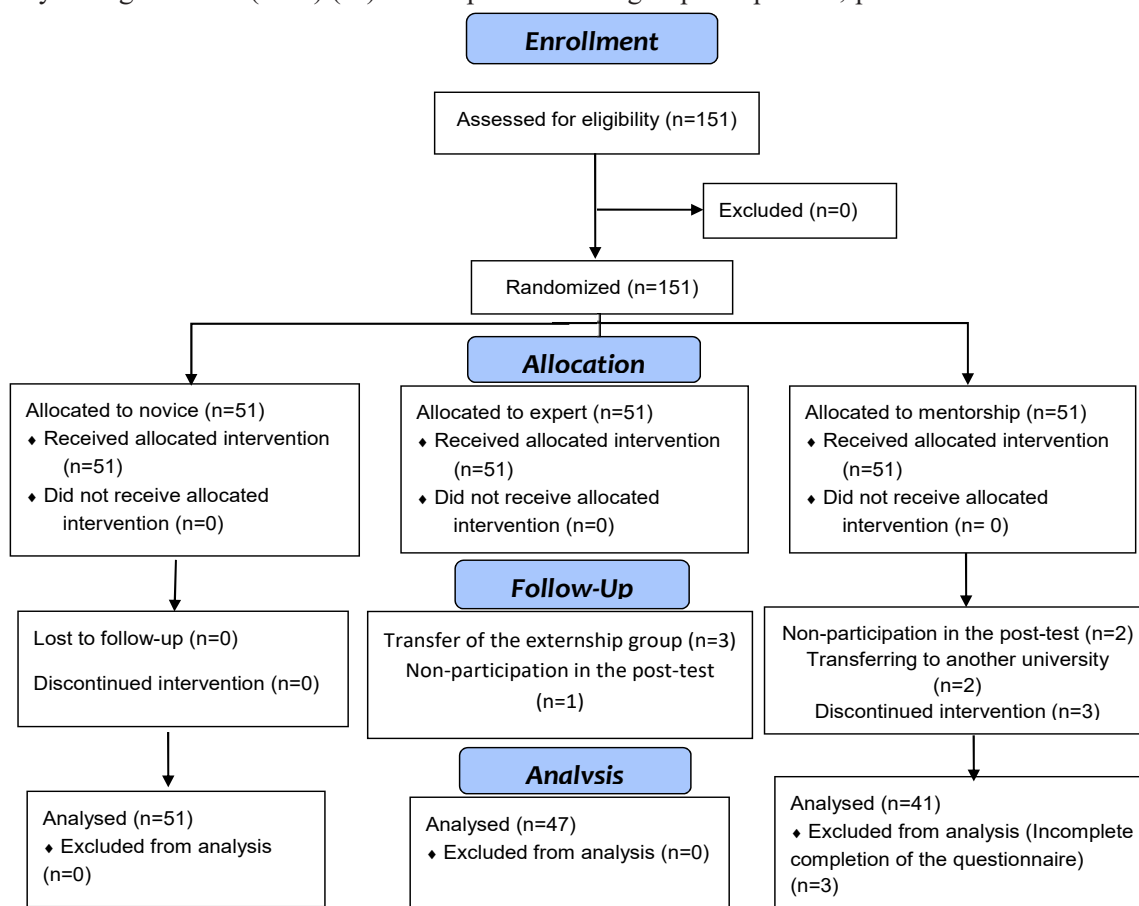


Figure 1: Consort flow diagram of study

conducted tests, the significance level was 0.05.

Ethical Considerations

The study was conducted after receiving ethical approval from the ethics committee of Mashhad University of Medical Sciences (Ref No: IR.MUMS.NURSE.REC.1399.020). In all stages of the research, all ethics principles in the research were approved by the Research Vice-Chancellor of the University of Medical Sciences related to the current study: we obtained a written permission from the ethics committee of the university, a written letter of introduction from the School of Nursing and Midwifery to the educators participating in the project, and written informed consent of the participants (students) in the study. The questionnaires were coded for confidentiality of the participants' information; also, they were assured that they could withdraw from the research at any time in case they did not wish to continue the study. Figure 1 displays the steps of conducting the study based on the consort statement.

Results

The mean age of 139 students included in the analysis was 20.9 ± 1.5 years. As to age, the mean age of the students in the novice clinical

instructors group was 20.9 ± 1.5 years, students in the expert instructors group were 22.3 ± 2.9 years, and those in the mentorship group was 21.9 ± 3.2 years; there was no statistical difference between the three groups ($P=0.131$). Table 2 presents other demographic variables separately in the three groups and their homogeneity results.

According to Table 3, in the between-group comparison, the results of the one-way ANOVA test revealed that at the end of the first and second week, there was no statistically significant difference between the mean score of the actual view of the CLE in the mentorship, novice, and expert clinical instructors groups ($P>0.05$). The results of ANOVA test indicated that only the mean score of the actual view in the task orientation subscale at the end of the first week of externships in the three studied groups had a statistically significant difference ($P=0.017$). The result of the post-hoc LSD test showed that there was a statistically significant difference between the novice and expert groups ($P=0.011$), as well as between the novice and mentorship group ($P=0.020$), but there was no statistically significant difference between the expert and mentorship group ($P=0.922$). There was no statistically significant difference either in other subscales between the three groups ($P<0.05$).

Table 2: Comparison of demographic information of students and educators in the three studied groups

Variable		Novice (N (%))	Expert (N (%))	Mentorship (N (%))	P
Gender	Men	16 (31.3)	14 (29.9)	5 (12.1)	0.101*
	Woman	35 (68.7)	33 (70.1)	36 (87.9)	
Marital status	Single	43 (84.3)	27 (57.4)	30 (73.2)	0.112*
	Married	8 (15.7)	20 (42.6)	11 (26.8)	
Degree of interest in the field (out of 10 scores)	Mean±SD	6.90±2.52	6.74±2.38	6.12±2.28	0.278**
Degree of satisfaction with the course (out of 10 scores)	Mean±SD	6.05±2.49	6.08±2.02	6.17±2.09	0.968**
work experience	Yes	1 (2.0)	4 (8.5)	2 (4.9)	0.333*
	No	50 (98.0)	43 (91.5)	39 (95.1)	
Intention to change field in the future	Yes	2 (3.9)	2 (4.3)	0 (0.0)	0.288*
	No	35 (68.6)	26 (55.3)	20 (52.8)	
	Perhaps	4 (27.5)	17 (36.2)	18 (47.2)	

*Chi-square test; **One way ANOVA

Table 3: Comparison of the mean score of the subscales of the actual CLE in the novice, expert, and mentorship educators groups at the end of the first and second weeks

Subscales	Novice		Expert		Mentorship		P*	
	Week 1	Week 2	Week 1	Week 2	Week 1	Week 2	Week 1	Week 2
Personalization	22.6±3.9	21.8±4.4	21.8±3.0	23.4±3.4	21.8±3.3	20.8±2.7	0.430	0.151
Student Involvement	20.6±2.8	19.9±2.3	19.9±2.5	20.4±3.4	19.9±3.1	19.4±2.1	0.486	0.632
Satisfaction	18.9±4.9	17.8±4.9	19.7±4.2	19.2±4.5	19.9±3.4	19.7±3.3	0.577	0.887
Task Orientation	19.4±2.2	18.9±2.5	20.7±2.3	20.7±2.4	20.6±2.4	20.1±2.1	0.017	0.054
Innovation	17.9±2.8	17.0±2.8	19.1±2.1	18.9±3.5	17.5±3.5	17.0±3.7	0.051	0.142
Individualization	18.8±2.4	18.5±2.8	18.7±2.7	19.7±3.6	18.9±2.8	17.3±2.6	0.979	0.100
Total	118.9±13.1	110.9±15.7	118.8±12.7	122.2±17.2	118.8±13.1	118.1±18.1	0.964	0.129

*One way ANOVA

Table 4: Comparison of the mean score of the subscales of the actual and preferred forms in the novice, expert, and mentorship educators groups at the end of the first and second weeks

Subscales		Novice		Expert		Mentorship	
		Week 1	Week 2	Week 1	Week 2	Week 1	Week 2
Personalization	Actual	22.8±3.8	22.5±3.9	22.1±2.8	23.4±3.4	22.8±3.8	20.6±2.2
	Preferred	22.3±6.5	22.3±7.5	22.1±3.6	23.1±4.1	22.3±9.5	20.3±3.8
	P*	0.556	0.685	0.965	0.721	0.058	0.880
Student Involvement	Actual	20.4±2.9	19.9±2.1	19.8±2.6	20.3±3.1	20.1±2.9	19.4±2.1
	Preferred	21.6±2.9	21.9±2.5	20.6±3.0	19.8±2.6	20.3±3.1	19.9±2.2
	P*	0.024	0.003	0.195	0.581	0.122	0.747
Satisfaction	Actual	19.2±4.8	18.3±4.6	19.3±4.0	19.2±4.5	20.2±3.7	19.6±3.3
	Preferred	21.4±4.0	21.6±3.5	20.4±4.4	19.8±4.7	21.4±3.9	19.6±4.6
	P*	0.003	0.002	0.197	0.642	0.172	1.000
Task Orientation	Actual	19.3±2.3	19.1±2.4	20.7±2.4	20.6±2.5	20.8±2.4	20.1±2.3
	Preferred	20.5±2.9	21.3±3.1	21.1±2.8	20.3±2.9	21.5±2.9	20.5±3.4
	P*	0.016	0.009	0.458	0.753	0.237	0.720
Innovation	Actual	18.3±2.6	17.5±2.5	19.2±2.7	18.8±3.6	17.6±3.0	17.1±3.7
	Preferred	20.2±3.6	20.2±4.1	19.3±3.5	18.7±3.5	19.6±3.1	18.1±3.3
	P*	0.002	0.001	0.792	0.954	0.030	0.393
Individualization	Actual	18.2±2.3	18.7±2.7	18.6±2.6	19.6±3.6	19.1±2.6	17.3±2.6
	Preferred	20.2±3.6	20.5±3.7	20.2±2.7	19.6±2.1	19.9±3.0	18.8±3.1
	P*	0.076	0.113	0.002	0.937	0.187	0.186
Total	Actual	118.0±15.6	110.9±15.7	118.8±12.7	122.2±17.5	118.8±13.1	118.1±11.6
	Preferred	125.3±22.1	125.3±22.1	123.3±22.6	123.3±22.6	125.1±22.4	125.1±22.5
	P*	0.008	0.001	0.726	0.357	0.044	0.283

*Paired t-test

Also, in the inter-group comparison, the results of the paired t-test revealed that there was a statistically significant difference between the mean score of the actual view of the satisfaction subscale of the students at the end of the first and second weeks of externships only in the novice educator group ($P=0.027$). Other subscales of actual perspective at the end of the first and second weeks had no statistically significant difference ($P>0.05$).

According to Table 4, the results of the paired t-test indicated that there was a statistically significant difference between the mean score of the actual and preferred students' viewpoint in the mentorship ($P=0.044$) and novice clinical instructor group ($P=0.008$) at the end of the first week. As to subscales, there was a statistically significant difference between the mean score of preferred and actual CLE in the Student Involvement subscale among the students of the novice clinical educator group at the end of the first ($P=0.024$) and second weeks ($P=0.003$); the Satisfaction subscale in the students of the novice clinical educators group at the end of the first ($P=0.003$) and second weeks ($P=0.002$); the Task Orientation subscale among the students of novice clinical instructors group at the end of the first week ($P=0.016$) and the second week ($P=0.009$); the Innovation subscale among the students of the novice clinical instructors group at the end of the first ($P=0.002$) and the second week ($P=0.001$)

and in the mentorship group at the end of the first week ($P=0.033$); and the Individualization subscale among the students of the expert clinical instructors group at the end of the first week ($P=0.002$). There was no statistically significant difference between the mean preferred and actual score of other subscales in three groups ($P>0.05$).

Discussion

The findings indicated that among students who participated in the training under the expert clinical educators group in the first week of externship, there was no significant difference between the ideal CLE (defined by the preferred form) and the actual learning environment (defined by the actual form), signifying the adaptation of the existing (actual) CLE with the desired CLE from the students' viewpoint. The expert clinical instructors have characteristics that can provide a supportive and favorable learning environment for students. Indeed, since effective clinical instructors have characteristics such as internal motivation, teaching skills and communication skills, and a proper professional appearance (10), honest communication, knowledge and experience (19), interpersonal communication (20), professional competence and teaching skills (21), and student support (9), they can provide a supportive CLE for students.

In the mentorship group, there was a statistically significant difference between the

preferred and actual form in the first week, but there was no statistically significant difference in the second week. The difference in the score of the preferred and actual form in the mentorship group at the end of the first week can indicate that although the mentorship program with this duration has failed to reduce or match the actual and ideal CLE view of the students, at the end of the second week, it was able to achieve this goal and reduce the gap between the desired and existing CLE from the students' viewpoint. Probably, the implementation of the two-week mentorship program with the clinical round, presence in the department and solving the problems of the novice clinical instructor have contributed to bringing the existing conditions closer to the ideal conditions from the students' viewpoint by improving the supportive learning atmosphere. The use of mentorship contributes to the clinical competence and self-confidence of students, a greater understanding of the importance of learning clinical conditions (diseases), and their greater responsibility (22). Also, the mentorship program is a method for empowering clinical instructors or staff development that can probably help novice instructors by strengthening their skills for providing a supportive learning environment for students (8).

Also, in the present study, in the group of students under the training of a novice clinical instructor, there was a statistically significant difference between the preferred and actual viewpoint scores in both first and second weeks. In the novice clinical instructor group, externship students were trained independently with novice instructors, while in the mentorship group, the novice instructor was supported and trained by an expert clinical instructor. As the novice educators were involved in the problems, they had not been able to succeed in providing a supportive CLE for students, and in the second week of externship, there was still a difference between the actual and desired CLE from the viewpoint of the students under the training of these educators. Educational problems in non-supportive clinical environments, such as fear, insufficient student preparation, and non-supportive atmosphere (23) as well as ineffective communication between clinical nurses and nursing students, inappropriate behavior with students, poor training program, and doing routine work can affect the views of nursing students (24). Overcoming these problems requires having sufficient knowledge and self-confidence, enhancing interest in the profession in the eyes of the clinical instructor, and having scientific authority (sufficient knowledge) in the CLE; due to the lack of these characteristics and

problems such as weak clinical competence and low self-confidence, novice clinical instructors have multiple difficulties in providing a supportive CLE for students (25).

Also, the results of the present study indicated that there was a statistically significant difference between the mean score of the preferred and actual views of the CLE in the novice clinical instructors group at the end of the first and second weeks in the Student Involvement subscale. This means that novice clinical instructors have failed to bridge the gap between the preferred or ideal view and the actual view of the CLE in this subscale. From the viewpoint of students, novice clinical instructors have difficulty in providing a supportive atmosphere in the clinic, and this problem creates challenges in involving and participating students in the CLE (26).

Concerning Satisfaction, only in the novice clinical instructors group, there was a statistically significant difference between the preferred and actual views at the end of the first week and second weeks. This means that the students' expectations during the two weeks of externship in the actual CLE did not match compared to the expert and mentorship groups. There has been a difference and the novice clinical educator has not been able to provide the student's satisfaction in the externship period. According to studies, the inability of the clinical instructor to boost the students' self-confidence and converge the actual and preferred CLE leads to students' dissatisfaction (17, 27).

In the innovation and task orientation subscales, the findings of this study showed that statistically significant difference were obtained between the preferred and actual views at the end of the first and second weeks in the novice clinical educator group. This means that there has been a difference between the students' preferred views and expectations for the usage of new teaching methods, creative learning activities in the externship and well-defined activity by novice educators, and the activities done during the two-week externship and expressions of the actual view of the students. In other words, the novice clinical educator has not been able to fulfill the expectations of the students. Given the low experience of novice clinical instructors in using educational methods and tools (26) as well as the theoretical and skill competence of expert clinical instructors (15, 27) in the use of different educational methods for better and greater students' learning (28), the difference in satisfaction is not very surprising.

In the individualization subscale, the findings showed that in the expert clinical educator group,

there was a statistical difference between the preferred and actual views only at the end of the first week. This suggests that expert clinical instructors have not been able to provide the necessary support at the end of the first week of externship for bridging the gap between the expectations and ideals of students regarding their own decision-making in doing things based on their individual interests and the actual view of students in this subscale. Given the lower experience of novice educators in delegating responsibility to students based on their knowledge and skill level as well as the characteristics of expert clinical educators such as recognizing students' abilities and assigning tasks according to their abilities (21), this difference is expected.

Limitations

The limitation of this study was the short duration of the intervention, which was unavoidable due to the planning of the academic course of each department for two weeks.

Conclusion

According to the results of the study, the mentorship program was more effective than the usual method of clinical teaching, especially in the externs managed by novice clinical educators because this program helped them become confident and effective educators. This leads to a better view and greater satisfaction of students from the CLE, and as a result, improvement of the quality of clinical education.

Recommendation

It is recommended that this method should be used to prepare clinical instructors in new environments and accept new roles as well as expand their skills in the field of implementing clinical training and evaluation methods. Based on the findings of the current research, the use of experienced clinical instructors in clinical education is a priority, and in the absence of experienced educators, the use of the mentorship method is recommended to fulfill this role. It is also suggested that further studies should be conducted with a longer intervention period to investigate the consequences of using the mentorship method on novice clinical educators and students at the same time.

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Authors' Contribution

FHN and MRP: conceptualization and development of this study, with SHS carrying out the intervention; FHN and MRP acquisition, data analysis, and FHN interpretation of data for the work. For important intellectual content, each author contributed critically to the development and revision of the manuscript. In order to ensure that questions related to accuracy or integrity of any part of work are properly addressed and solved, each author has read and approved the final manuscript; all authors have committed themselves to being accountable for every aspect of their work.

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