

*Short Communication*

## Clinical learning environment in viewpoints of nursing students in Tabriz University of Medical Sciences

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**Abstract**

**BACKGROUND:** Clinical learning environment (CLE) is an important factor in clinical education of nursing students. The CLE of nursing students has been less studied in Iran. Therefore, the aim of the present study was to investigate the viewpoints of nursing students in Tabriz Nursing Faculty with regard to CLE.

**METHODS:** In this descriptive study, 133 nursing students participated. For data collection the CLE inventory was used that assesses six aspects including personalization, cooperation, task orientation, innovation, satisfaction with clinical education, and satisfaction with clinical instructors. The score ranged from 46 to 184 and scores below 115 were considered as a negative.

**RESULTS:** The average score (standard deviation) of viewpoint regarding CLE was 108.4 (12.7) so that 93.2% of students had a negative viewpoint about CLE.

**CONCLUSIONS:** Educational authorities should pay special attention to the quality of CLE of nursing students.

**KEY WORDS:** Nursing students, education, teaching, clinical learning environment.

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Clinical education is a fundamental part of nursing education<sup>1</sup> and form more than half part of nursing curriculum.<sup>2</sup> In clinical education, opportunities are given to students to prepare themselves for their future clinical work.<sup>3,4</sup> CLE is defined as complex network of forces that are effective on clinical learning outcomes.<sup>5</sup> In spite of classroom education, clinical education occurs in complex environment.<sup>6</sup>

Complexity of learning in clinical environment has caused researchers to investigate the impact of various factors on clinical learning. For example, Windsor believed that factors such as quality of students' preparation for clinical

experience, characters of clinical instructors, and learning opportunities provided for nursing students are effective on clinical learning of students.<sup>7</sup> Campbell et al. believed that the quality of clinical education provided by nursing instructors and supports that students receive from clinical personnel is the most influential factors in clinical learning of nursing students.<sup>8</sup>

The quality of CLE is a valid indicator to show the quality of nursing curriculum.<sup>9</sup> Therefore, assessment of CLE is a duty of nursing education administrators. But, there are some problems in this assessment. Complex nature of CLE and lack of appropriate tools to measure

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the quality of this environment are two of these problems. In recent years, few tools were developed for assessment of the quality of CLE. One of them is clinical learning environment inventory. This tool assesses the CLE in six areas. Chan and IP conducted a study in Hong Kong and showed that nursing students in this country were not satisfied with their CLE.<sup>10</sup> However; Midgley reported that British nursing students had a good viewpoint about their CLE.<sup>11</sup>

In extensive review of literature, we found many researches that assessed the clinical education of nursing students.<sup>12-14</sup> In these researches, many different aspects of CLE were assessed.<sup>15,16</sup> These studies showed that Iranian nursing students were not satisfied with their CLE. It should be noted that in these studies the different aspects of CLE were assessed separately and in no study all of CLE aspects were assessed. In the other hand, until now the CLE of nursing students in Tabriz nursing and midwifery faculty is not assessed.

Therefore, the aims of present study were included:

1. To assess the viewpoints of nursing students regarding CLE in educational hospitals related to Tabriz University of Medical Sciences.
2. To assess the relationship of this viewpoint with some characters of nursing students.

## Methods

This descriptive study conducted in 2008. The study sample consisted of all undergraduate nursing students in nursing and midwifery faculty related to Tabriz University of Medical Sciences. An inclusion criterion for students was having at least two semesters of clinical education experience and an exclusion criterion was transition from other faculties. All students (147 students) were participated in the study with census sampling and finally, data were collected from 133 students.

For data collection the clinical learning environment inventory was used (10). This inventory assess six aspect of CLE including personalization (6 items), cooperation (10 items), task orientation (6 items), innovation (7 items), satisfaction with clinical education (9 items), and satisfaction with clinical instructors (8 items).

This inventory contains 46 items that computed on a 4-point Likert scale: from completely disagree (1) to completely agree (4). The validity of questionnaire was assessed by content validity and changes were done according to suggestions. The reliability of questionnaire was established by Cronbach's alpha coefficient (0.96).

To collect the data, first the list of nursing students obtained from the faculty education unit. Then, the researchers visited the classrooms and clinical settings and gave the study questionnaire to students. Researchers wanted students to return their questionnaire after completion. It should be mentioned that at the end of autumn semester, the questionnaires were given to students and students were asked about their viewpoints regarding quality of their CLE in this semester.

In this study, statistical analysis was performed by SPSS statistical software (version 13). For analysis of the viewpoints of nursing students about each item, grade 1 to 4 was awarded to completely disagree to completely agree items. Then, the students scoring in each domain and in entire questionnaire were calculated. Each student's total score ranged from 46 to 184. Then, scores of 115 and less were considered as a negative viewpoint. To describe the students' characters and their viewpoints, descriptive statistics including frequency, percentage, mean and standard deviation were used. Also, for assessing the relationship between students' viewpoints and their characters, inferential statistics including independent t-test, one way ANOVA, and Pearson correlation test were used.

## Results

The average age of students was 22.2 (2.6) years and 53 students (39.8%) were male. Forty six students (34.6%) were second year nursing students, 38 students (28.6%) were third year nursing students, 27 students (20.3%) were fourth year nursing students, and 22 students (16.5%) were in discontinuous bachelor program.

Students' viewpoints about CLE were calculated and reported in table 1. As can be seen, in all aspects of CLE, except task orientation, most of students had negative viewpoints.

**Table 1.** The viewpoints of nursing students regarding clinical learning environment

Category	Mean	Standard deviation	Positive attitude		Negative attitude	
			Number	Percent	Number	Percent
Personalization	13.9	4.3	38	28.6	95	71.4
Cooperation	22.4	4.3	27	20.3	106	79.7
Task orientation	16.0	2.1	80	60.2	53	39.8
Innovation	14.6	2.6	16	12	117	88
Satisfaction with clinical education	22.5	2.4	3	2.3	130	97.7
Satisfaction with clinical instructors	19.2	2.9	5	3.8	128	96.2
Total viewpoint about CLE	108.4	12.7	9	6.8	124	93.2

Relationship of some characters of students with their viewpoints was determined. Comparing the viewpoints of female and male students with independent t-test showed that there was not meaningful difference between their viewpoints ( $p= 0.18$ ). But, in personalization ( $p= 0.03$ ) and cooperation ( $p= 0.02$ ), the boys had better viewpoints than girls. Assessing the viewpoints of nursing students in different terms with ANOVA showed that there was not statistical differences between their viewpoints ( $p= 0.06$ ). In addition, Pearson test showed no statistical meaningful correlation between students' viewpoints about their CLE with their diploma and university scores ( $p > 0.05$ ).

## Discussion

Nursing students believed that their CLE were not suitable. Results of studies regarding the quality of CLE of nursing students are different. For example, one study conducted in Hong Kong cleared that nursing students were not satisfied with their CLE.<sup>6</sup> But, other studies conducted in England<sup>11</sup> and Australia<sup>4</sup> showed that nursing students had positive attitudes about their CLE. This difference may be related to dissimilarity in human resource and educational technologies between developed and under developing countries.

Regarding assessment of the CLE of nursing students, few studies were conducted in Iran. For example, Shahbazi and Salami showed that nursing students were not satisfied with their CLE.<sup>12</sup> Also, Zaighami et al. reported that many of Iranian nursing students viewed their CLE as inappropriate.<sup>17</sup> On the other hand, Salmani

and Amirian showed that 77% of nursing students believed that the quality of their CLE was moderate.<sup>15</sup>

Most negative viewpoint of nursing students regarding CLE was in relation to the clinical personnel. The results of Ghodsbini and Shafakhah showed that in viewpoint of nursing students, non-cooperation of nursing staff was the main preventing factor in clinical education.<sup>18</sup> All of these findings reflected the importance of support from clinical personnel in clinical education.

Another problem of nursing students in CLE was regarding clinical education innovation. On the other hand, nursing students believed that their instructors didn't use innovate clinical education methods in their education. Today, many clinical teaching methods are innovated and nursing instructors can use them. The study of Toulabi showed that in viewpoints of nurses, the educational methods used by nursing instructors are a main important factor in quality of clinical learning.<sup>19</sup>

Other problem of nursing student was that their task was not clear in clinical settings. In this field, some studies have been done in Iran. For example, the study of Khorsandi and Khosravi showed that nursing students believed that their duties in the clinical settings are largely clear.<sup>20</sup> On the other hand, Zaighami et al. reported that the main problem of nursing students in clinical setting was unspecified task orientation.<sup>17</sup>

Other problem of nursing students in clinical teaching was lack of attention to students' individualization. In this regard, the results of Hassan-Zahraei et al. revealed that from the perspective of nursing students and instructors, in-

dividualization is one of the most important characteristics of effective clinical instructors.<sup>21</sup>

Other problems in this study were that nursing students were not satisfied with their clinical instructors. Ghodsbin and Shafakhah reported in their study that in viewpoints of nursing students, the most important facilitating factor in clinical education is effectiveness of clinical instructors.<sup>18</sup>

This study had some limitations. The study conducted by self-reporting of nursing students and only nursing students from Tabriz nursing

and midwifery faculty participated in the study. So, we suggest that in other studies, the viewpoint of nursing instructors regarding quality of CLE to be assessed.

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