

Effective Clinical Learning Environment as Perceived by Nursing Students at AL Dawadmi, Applied Medical Sciences college: Actual versus Preferred Characteristics

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Abstract: It is widely accepted that clinical placements are a vital part of the education of undergraduate nursing students. A supportive clinical learning environment is very important for the transfer of learning in a clinical context. This study aimed to describe and compare the actual and preferred characteristics of effective clinical learning environment as perceived by undergraduate nursing students. A convenience sample of 75 nursing students affiliated to the nursing department in ALDawadmi Faculty of Applied Medical Sciences, female branch, Shaqra University, Saudi Arabia, was included. Data were collected by using the Clinical Learning Environment Inventory (CLEI). The results of the present study revealed that satisfaction subscale was perceived by undergraduate nursing students as the most important actual and preferred characteristic of effective clinical learning environment. Also individualization subscale was perceived by nursing students as the least important domain in both the actual and preferred form. The study recommended that work based assessment plays an important role in the education process, so it is necessary to assess the learning environment from different perceptions and collaboration between the nursing education institutions and health care agencies is essential to ensure the availability of effective clinical learning environment, which meet the needs of undergraduate nursing students.

Key words: Clinical Learning Environment, Nursing students actual versus preferred characteristics

INTRODUCTION

Nursing service is a vital component of the health care delivery system that reaffirms its purpose as a practical discipline in assisting patients to achieve positive health outcomes (Huber, 2000 & Thorsteinson, 2002). Nurses constitute an important element of the medical team; they are the key to quality in health care delivery system. A poorly trained nurse may not only hamper the team's effectiveness but also lead to low quality health care. So effective clinical learning is vital for quality nursing practices. Clinical education is an essential part of undergraduate nursing curriculum. The success of the nursing program is largely dependent on the effectiveness of the clinical experience (Eta, et al., 2011; Papp, et al, 2003; and Pearcey & Elliott, 2004). A supportive clinical learning environment is very important for the transfer of learning in a clinical context (Henderson, et al., 2006).

Clinical learning environment includes everything that surrounds the nursing students, including the clinical setting, the staff and the patients. It has been described as a complex social context of interactive forces within a practice setting that influences student' clinical and professional learning outcomes while being closely monitored by educator (Brown, et al. 2010). It plays a crucial role, especially during the clinical training of student nurses, as they come into contact with the realities of their function and form opinions on their professional careers and the clinical area prospects (Egan, and Jaye, 2009). Quality placements provide students with opportunities for skill development,

socialization into the profession, and a bridge between academic and workplace learning (Newton et al 2010; Rodger et al 2011). Additionally, the challenges confronting nurses in today's rapidly changing health care environments have highlighted the necessity for graduating students to feel both competent and prepared for practice. This necessity has in turn highlighted the increasing significance of the nature and quality of student clinical learning experiences (Adams, 2002., Cope, et al. 2000., Dunn, et al., 2000). In addition, education in a traditional classroom environment is a different experience for students than the real life context of practical education during clinical placements (Williams, et al., 2012).

Students on clinical placements are exposed to unplanned learning experiences and activities where they engage directly with patients and other health care disciplines (Dunn, et al., 2000; Chan, 2003 and Chan, 2004). The CLE Can have a profound impact in the development of the attitude, knowledge, psychomotor abilities, and problem solving skills of students who venture into this context (Dunn & Hansford, 1997). Sites for nursing students' clinical placements are established through mutual agreements between university colleges and health care institutions (Ministry of Education and Research 2008). Each student has the right to receive expert advice, supervision and support to facilitate learning. How this is arranged may vary between the different university colleges and clinical sites. (Irby and Brown 2004). It is the responsibility of practice staff to create and develop an environment conducive to learning. So, the environment should be continually

monitored to ensure that it provides appropriate supports experience for learners and responds to the changes that take place (Hand, 2006). There are a variety of influences in the clinical learning environment that can significantly limit or hinder the development of the learner.

A major influence on the quality of a clinical placement is the professional nurses encountered by students both individually and as a team. The relationship between the staff and the nursing students is the single crucial factor in creating a positive learning environment (Chan, 2007). Good interpersonal relations, support and feedback create and maintain a positive clinical learning environment for nursing students (Lewin, 2007). Students preferred hospital environments that recognized their individuality, provided them with adequate support and allowed them some degree of flexibility within sensible limits. In addition, students level of satisfaction was high when they were treated with respect especially when they were included as part of the working team (Chan, 2002).

Significant of the study;

Finally, practical hands-on learning opportunities are viewed as a vital component of the education of health science students, but there is a critical shortage of fieldwork placement experiences. It is therefore important that these clinical learning environments are well suited to students' perceptions and expectations. Various studies have indicated that not all practice settings are able to provide student nurses with a positive learning environment. As the time allocation for the clinical component of nurse education is limited so the clinical time needs to be used effectively. The outcomes of clinical field placement may be improved through matching between students' preferences and the actual environment. So this study aimed to describe and compare the actual and preferred characteristics of effective clinical learning environment as perceived by undergraduate nursing students.

METHODOLOGY

Aim of the study; this study aimed to

- a. Describe the actual and preferred characteristics of effective clinical learning environment as perceived by nursing students.
- b. Compare between actual and preferred characteristics of effective clinical learning environment as perceived by nursing students.

Research questions:

- a. What are the actual characteristics of effective clinical learning environment as perceived by nursing students?
- b. What are the preferred characteristics of effective clinical learning environment as perceived by nursing students?
- c. Is there a difference between the actual and the preferred characteristics of effective clinical learning environment as perceived by nursing students?

Subjects:

A convenience sample of 75 students affiliated to the nursing department in ALDawadmi Faculty of Applied Medical Sciences, female branch, Shaqra University, Saudi Arabia, was included. Students were selected from three different levels, 22.7% from 4th level, and 40% from 6th

level, and 37.3% from 8th level. Student's number in each level represents the majority of students enrolled in this level. Inclusion criteria include nursing students affiliated to the nursing department, had hospital clinical training experience and willing to participate. The first three academic levels excluded because they don't have hospital training experience.

Design:

A cross sectional research design was used.

Tool of data collection:

Clinical Learning Environment Inventory (CLEI) was used (Chan, 2002). It is a self-report instrument consisting of 38 positively and negatively worded items. It was developed to examine nursing students' perceptions of their clinical learning environment. The items were classified into six subscales: Personalization subscale (7 items); Student involvement subscale (7 items); Task orientation subscale (6 items); Innovation subscale (7 items); Satisfaction subscale (7 items); and Individualization subscale (4 items). The CLEI consists of two versions- the actual and preferred forms. Both forms are similar in terms of item wording. The reported internal consistency reliability of the total scale score and of the five subscales are all acceptable by published standards (Newton et al., 2010).

Description of the Clinical Learning Environment Subscales:

- a. **Personalization;** Emphasis on opportunities for individual student to interact with clinical teacher and on concern for student's personal welfare.
- b. **Student Involvement;** Extent to which students participate actively and attentively in hospital ward activities.
- c. **Task Orientation;** Extent to which ward activities are clear and well organized.
- d. **Innovation;** Extent to which clinical teacher plans new, interesting, and productive ward experiences, teaching techniques, learning activities, and patient allocations.
- e. **Satisfaction;** Extent of enjoyment of clinical placement.
- f. **Individualization;** Extent to which students are allowed to make decisions and are treated differently according to ability and interest.

The scoring system:

Each CLEI item is rated on Five- point Likert- type scale with the response options (5-strongly agree, 4-agree, 3-uncertain, 4-disagree and 5-strongly disagree). The total score of each form (actual or preferred) ranged from 38 to 190.

Content validity of the Arabic version of the tools:

The tools were modified and translated into Arabic by the researchers then were handed to panel of experts in nursing field to assess the coverage, relevancy and clarity of items. Based on their recommendations, some changes were done.

Ethical considerations:

An official permission was obtained from the vice dean of the faculty, the students were informed that their participation is voluntary and assured that their responses

will be confidential and will not affect them and used only for the research purpose.

Pilot study:

Once the questionnaires were modified and constructed, a pilot study was carried out to test applicability and clarity of the questionnaires and to estimate the time needed to fill them. The questionnaire was handed to 10 nursing students and collected at the same time. Based on the findings of the pilot study, minor changes were done by rewording some items. Time consumed for filling the questionnaire was ranged between 10 – 15 minutes. Students participated in the pilot study not included in the study sample.

a. The study questionnaire was distributed late at the end of the second semester of the academic year 2012-2013. All nursing students from the participating academic levels were invited by the researchers to participate during the time of a scheduled class after explanation of the aim of the study.

Data Analysis:

Data was entered and analyzed using the Statistical Package for the Social Sciences (SPSS) version 15. Data were analyzed using frequency and percentage, measures of mean and standard deviations. In addition independent t test was used to investigate the difference between the actual and preferred perceived characteristics of effective clinical learning environment.

RESULTS

Table (1) Demographic Characteristics of Study Participants (n= 75)

Variable	Descriptor	Number	Percentage
1-Age	(17-19)	33	44%
	(<19-22)	42	56%
2- Level	4 th level	17	22.7%
	6 th level	30	40%
	8 th level	28	37.3%
3. Clinical area	Dawadmi General Hospital	75	100%

Demographic data relating to the study participants presented in table 1 showed that more than half of participants were aged <19 to 22 years (56%). 40% of them were enrolled in the 6th level of their academic course. Student numbers in each level represent the majority of students enrolled in this level. All participant students were clinically trained in AL Dawadmi General Hospital.

Table (2) Difference between Actual and Preferred Characteristics of Effective Clinical Learning Environment as Perceived by Study Participants (n= 75)

CLEI Subscales	Mean and SD		t	P
	Actual	Preferred		
1- Personalization subscale.(7 items)	28.2±3.5	29.6±3.8	-2.6	.009
2- Student Involvement subscale.(7 items)	26.8±3.7	28.3±4.8	-2.4	.020
3- Satisfaction subscale.(7 items)	29.6±5.7	29.7±3.2	-1	.308
4- Innovation Subscale.(7 items)	26.7±4.4	28.5±3.9	-2.6	.010
5- Individualization subscale.(4 items)	14.8±2.8	16.4±2.3	-3.7	.000
6- Task Orientation subscale.(6 items)	24.1±3.5	25.5±3.2	-2.7	.007

In reference to table 2, on the both actual and preferred form, satisfaction subscale was found to be the most

important domain having a mean score of (29.6±5.7) and (29.7±3.2) respectively. Individualization subscale was found to be the least important domain in both the actual and preferred form, with mean scores of (14.8±2.8) and (16.4±2.3). Also there was a significant difference between actual and preferred characteristics of clinical learning environment in relation to personalization, student involvement, innovation, individualization and task orientation subscales.

Table (3) Difference between Actual and Preferred Characteristics of Effective Clinical Learning Environment Ranking as Perceived by Study Participants(n= 75)

CLEI Subscales	Actual		Preferred	
	Mean	Percentage *	Mean	Percentage*
1- Personalization subscale.	28.2	80.6	29.6	84.3
2- Student Involvement subscale.	26.8	76.6	28.3	80.9
3- Satisfaction subscale.	29.6	84.6	29.7	84.9
4- Innovation Subscale.	26.7	76.3	28.5	81.4
5- Individualization subscale.	14.8	74	16.4	82
6- Task Orientation subscale.	24.1	80.3	25.5	85

* Percentages are calculated relative to maximum score.

This table shows that the highest percentage (84.6%) of nursing students reported that satisfaction subscale was the most important actual characteristics of effective clinical learning environment. While they revealed that task orientation subscale was the most important (85%) preferred characteristics of effective clinical learning environment. The lowest percentage (74%) was given to the individualization subscale as an actual characteristic of effective clinical learning environment. While the student involvement subscale has the lowest percentage (80.9%) as a preferred characteristic of effective clinical learning environment.

Table (4) Top Five Actual Characteristics of Effective Clinical Learning Environment as Perceived by Study Participants (n= 75)

Characteristics of effective clinical learning environment	NO	%
1- The clinical teacher helps the students who is having trouble with work	70	93.4
2- The clinical teacher goes out of his/her way to help students	69	92
3- The clinical teacher consider students feelings	68	90.7
4- Students look forward to coming to clinical placement	68	90.7
5- Work load allocation in this ward is carefully planned	67	89.3

Table 4 represents the top five actual characteristics of effective clinical learning environment as perceived by study participants. They perceived the above characteristics as the most important actual characteristics of effective clinical learning environment. Nursing students responses ranged from 93.4% to 89.3%. The clinical teacher helps the students who is having trouble with work (93.4%), the clinical teacher goes out of his/her way to help students (92%), the clinical teacher consider students feelings (90.7%), students look forward to coming to clinical placement (90.7%) and work load allocation in this ward is carefully planned (89.3%) as revealed from the table.

Table (5) Top Five Preferred Characteristics of Effective Clinical Learning Environment as Perceived by Study Participants (n= 75)

Characteristics of effective clinical learning environment	NO	%
1- The clinical teacher goes out of his/her way to help students	74	98.6
2- Work load allocation in this ward is carefully planned	73	97.4
3- Students look forward to coming to clinical placement	73	97.4
4- This clinical placement is not a waste of time	73	97.4
5- The clinical teacher talks individually with students	73	97.4

Table 5; represents the top five preferred characteristics of effective clinical learning environment as perceived by study participants. They perceived the following characteristics as the most important preferred characteristics of effective clinical learning environment. Their responses ranged from 98.6% to 97.4%. The clinical teacher goes out of his/her way to help students (98.6%), work load allocation in this ward is carefully planned (97.4%), students look forward to coming to clinical placement (97.4%), this clinical placement is not a waste of time (97.4%) and the clinical teacher talks individually with students (97.4%) as revealed by the table.

DISCUSSION

Nursing as a practice discipline, requires students to develop clinical skills that are essential in caring. Clinical training as the core of nursing education is vital for the preparation of professional nurses (Madhavanprabhakaran, et al., 2013). The clinical learning environment constitutes an initial area of professional practice for nurses and student opinion contributes to its improvement (PapathanasiouI, et al., 2014). Quality clinical placement is one that successfully achieves the aims of clinical education in the practice environment. These aims include but are not limited to: (1) the quantity and quality of learning that is experienced by students, (2) the degree to which the experience is individualized to meet student needs (Rodger et al 2011), (3) adequate preparation for professional practice, and (4) efficient use of resources to achieve this (Newberry 2007). The clinical learning environment constitutes an initial area of professional practice for nurses and student opinion contributes to its improvement. So our aim was to describe and compare the actual and preferred characteristics of effective clinical learning environment as perceived by undergraduates nursing students.

Williams, et al., (2012) investigated how undergraduate students enrolled in health-related education programs view their clinical learning environments and specifically to compare students' perception of their 'actual' clinical learning environment to that of their 'preferred/ideal' clinical learning environment. They found that Satisfaction of the students enrolled in the health-related disciplines was closely linked with the five constructs measured by the CLEI: Personalization, Student Involvement, Task Orientation, Innovation, and Individualization. Significant differences were found between the student's perception of their 'actual' clinical learning environment and their 'ideal' clinical learning environment. This support the findings of the present study revealed that there were significant

differences between the actual and preferred clinical learning environment characteristics as perceived by nursing students.

These findings provide a baseline data that are essential for educators and clinical instructors to have an understanding of the perceptions of nursing students and how these perceptions differ from the current clinical learning that they are receiving. These findings are also necessary for clinical instructors to be aware of the perceptions of nursing students regarding the actual clinical learning environment characteristics and how they differ from their perceptions regarding the preferred one. The study findings also revealed that on the Clinical Learning Environment Inventory, satisfaction domain was the most important domain as perceived by undergraduate nursing students in both the actual and preferred form. This indicated that undergraduate nursing students perceived that the satisfaction domain of their actual clinical learning environment is good and is an integral domain of their preferred clinical learning environment. The same findings were reported by Williams, et al., (2012) who indicated that paramedic students sensed that the satisfaction aspect of clinical placement work is good and is an integral aspect of their clinical learning environment.

On the other hand individualization domain of the CLEI, was found to be the least important domain as perceived by undergraduate nursing students in both the actual and preferred form. This indicated that nursing students perceived that the individualization domain of their actual clinical learning environment is bad and they are not allowed to make their decisions and they are not treated differently according to their interest. This may be caused by the large number of students in relation to the number of staff in the most clinical areas in the hospital as a result of staff shortage. These findings are also confirmed by Williams, et al., (2012) who indicated that individualization aspect scored the lowest. This indicating that health care in general place emphasis on the physical ability of students to perform their roles.

In relation to the ranking of effective CLE characteristics as perceived by participant students, the highest percentage of them reported that satisfaction subscale was the most important actual characteristic of effective CLE and they revealed that task orientation subscale was the most important preferred characteristic. This means that nursing students preferred their clinical activities clear and organized. These findings confirmed by Chan (2002) who stressed that clear and detail instructions facilitate active involvement of students in the ward activities and have a direct impact on clients' welfare.

An exploratory study about Italian nursing students' perceptions of their learning environment was carried out using CLEI. The CLEI is administered to 232 students from three levels of the nursing program in Trento hospital. The tool was administered after they finished the clinical placements. The students overall perceived their clinical learning environment as good. Third year's students were extremely satisfied (94%) with activities done on the ward, while second year's students reported less satisfaction

(88%). All the students (99%) agreed that practical work experience was useful and not a waste of time (Serena and Anna, 2009).

Those findings are in agreement with and support our study findings which revealed that undergraduate nursing students perceived the following items as the top five actual characteristics of effective clinical learning environment. These items include, the clinical teacher helps the students who are having trouble with work; the clinical teacher goes out of his/her way to help students; the clinical teacher considers students' feelings; students look forward to coming to clinical placement; and work load allocation in this ward is carefully planned. In relation to the top five preferred characteristics of effective CLE, it includes clinical teacher goes out of his/her way to help students; work load allocation in this ward is carefully planned; students look forward to coming to clinical placement; this clinical placement is not a waste of time; and the clinical teacher talks individually with students.

CONCLUSION

The study highlights the importance of a supportive clinical learning environment that places emphasis on effective two-way communication. A thorough understanding of students' perceptions of their clinical learning environments is essential for securing the required teaching and learning process. The findings of this study help to describe the actual and preferred characteristics of clinical learning environment as perceived by AL Dawadmi nursing students. It was found that on the CLEI, both the actual and preferred form, satisfaction domain was the most important domain as perceived by undergraduate nursing students and individualization subscale was the least domain.

Limitations:

One of the major limitations of this study is that the subjects were female nursing students from just nursing department in one faculty of applied medical sciences affiliated to Shaqraa University in Saudi Arabia, and thus the findings may not be representative of nursing students in general with respect to their clinical placement. The second limitation is related to the convenient small sample size so generalization of the findings is limited. The third is related to absence of the perceptions of clinical teachers.

Recommendations: Based on the findings, the study recommended the following:

- a. Work based assessment plays an important role in the education process, so it is necessary to assess the learning environment from different perceptions.
- b. Teachers should be encouraged to seek feedback on their clinical learning, so the results of the present study can be used to provide them with this feedback.
- c. There is a gap between the actual and preferred characteristics of learning environment, staff development programs are needed to close this gap.
- d. Collaboration between the nursing institutions and health care agencies is essential to meet the preferred characteristics of effective clinical learning environment as perceived by undergraduate nursing students.
- e. Further research is required to compare between the actual and preferred characteristics of clinical learning environment by nursing students on a large scale.

- f. Conducting a longitudinal study to follow the students in their subsequent years in order to explore the pattern of changes in their perception of the social climate of the clinical learning environment

Conflicts of interest:

The authors declared no conflict of interest

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