

Clinical Learning Environment as Perceived by Students of Technical Institutes of Nursing in Assuit City

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Abstract

Introduction: Clinical learning environment can be enhanced by feedbacks provided by students. **Aim:** to explore the important domains which affect students' perception towards the clinical learning environment and determine the differences between students' preferred and the actual experience in the clinical learning environment. **Study design:** A descriptive survey. **Setting:** The study was conducted in two technical institutes of nursing in Assuit city. **Subject :** All second academic year nursing students. (n=449), classified as follow (n=237) from Assuit University technical nursing institute and (n=212) from ministry of health technical nursing institute. **Results:** Personalization domain was the most important domain as preferred and actually perceived by undergraduate nursing students of both settings. There were statistically significant differences between the preferred and actual experience in favor of preferred domains of both setting. **Conclusions:** The majority of Assuit university technical institute nursing students were preferred personalization domain. On the other hand the majority of Ministry of Health Technical Institute Nursing Students prefer task orientation domain **Recommendations:** 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.

Key words: *Clinical learning Environment, Nursing Education, Nursing students & Clinical learning Environment Domains.*

Introduction

The clinical learning environment includes everything surrounding nursing students, including the clinical setting, staff, and patients. It has been described as a complex social context of interactive forces within a practice environment that influences the clinical and professional learning outcomes of students and in the same time tightly monitored by the educator in a practice environment. 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 (Brown et al., 2011).

The clinical learning environment is important not only for the development of clinical skills, but also for the students to know the "rules" of practice, that is, the processes in the delivery of care. Ideally, students join a group of doctors to learn professional practice (Egan and Jaye, 2009). There is a set of consolidated knowledge about how students can effectively integrate into these team environments. Students enhance the sense of belonging. These environments are largely created through open communication channels within the clinical team and direct interactions with students during positioning (Andrews et al., 2006, Levett-Jones et al., 2007).

Good communication between staff and students should include reasoning and explore the possibilities of practice. Critical reasoning can be achieved when behavioral practices inherent in on the job learning encourage discussions and questions about health practices (Kell & Jones, 2007).

Workplace learning behaviors are significant in how they influence and shape learning in the practice setting. Behaviors that facilitate learning about nursing practice and simultaneously encourage questioning in the workplace are of particular importance to eliminate traditional ritualistic approaches to patient care. It is imperative that nursing practice is versatile and can respond to evidence to inform changes to practice rather than focus on a rigid structured delivery of tasks (Henderson et al., 2012).

Clinical learning environment included six domains; **individualization**, assesses the extent to which students are allowed to make decisions and are treated differentially according to ability or interest **innovation**, assesses the extent to which clinical teacher clinician plans new, interesting and productive ward experiences, teaching techniques, learning activities and patient allocations **involvement**, assesses the extent to which students participate actively and attentively in ward activities **personalization**, assesses the opportunities for individual students to interact with clinical teacher

and concern for student's personal welfare **task orientation**, assesses the extents to which ward activities are clear and well organized; and **student satisfaction**, assesses the extent of enjoyment of clinical field placement (Chan, 2002).

Students would like to have a better clinical learning environment than what they had experienced (Brown et al., 2011) which they would like to found their learning environment supportive, provide well organized learning activities, provide extensive learning opportunities, involve student in practice (Chuan & Barnett, 2012).

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. 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).

Significance of the study

Nursing is a practice-based profession so the clinical learning environment (CLE) is a vital and irreplaceable component in preparing the learner for the realities of professional practice, encompassing the acquisition of the knowledge, skills and attributes needed to become a safe competent professional practitioner (McAllister, 2001, Lambert & Glacken 2005, Hosoda 2006).

The study highlights the need for a supportive clinical learning environment (CLE) which is paramount importance in securing the required teaching and learning process for students on clinical practice, it will provide us with information about the important domains which can affect students' perception toward the clinical learning environment and the differences between students' preference and their experience in the clinical learning process.

Aim of the study

The aim of present study is to explore the important domains which affect students' perception toward the clinical learning environment and the differences between students' preferred and actual experience in the clinical learning environment.

Study question

Is there significant difference among nursing students perception regarding the actual and preferred clinical learning environment?

Subject & Method

Technical design

This design involves the research design ,setting ,subject and data collection tools.

Research design

The present study was carried using descriptive survey design.

Study setting.

The present study was conducted at technical institute of nursing. (Assuit University and Ministry of Health).

Technical Institute of Health (Division of Nursing) is affiliated to the Ministry of Health. It is Program involves two years of education after graduation from a secondary school or secondary technical nursing school.

While Assuit university technical nursing institute is affiliated to Assuit University and supervised by Faculty of Nursing Assuit University. Program also involves two years of education after graduation from a secondary school or secondary technical nursing school . It provides preparation of nurses at Associate Diploma level of Nursing, and offers a wide-ranging curriculum which is taken two years after graduation from technical nursing secondary school and is committed to producing quality nurses for the advancement of not only the nursing profession but also for health care services in Egypt. Nursing graduates of the Technical Institutes of Health also have the opportunity to obtain a Baccalaureate Degree. They must have strong scores from their original nursing education program.

Study subjects

The study included all second academic year nursing students. (n=449), classified as follow (n=237) from Assuit University technical nursing institute and (n=212) from Ministry of Health Technical Nursing Institute (General Nursing branch).

Data collection tools.

It consist of two parts"

Part I: The socio-demographic data

It is used to collect data about studied nursing students (gender, age, name of institute and residence).

Part II: Clinical learning environment inventory (CLEI) questionnaire sheet

It is a self-administer sheet adapted by (Chan, 2002) and modified by the researcher. It used to detect the students' perception of actual and preferred clinical learning environment domains .It consisted of (41) items classified into six domains: Personalization (7) items; Student involvement (6) items; Task orientation (7) items; Innovation (7) items; Satisfaction (7) items; and Individualization (7) items. The CLEI consisted of two versions the actual and preferred forms. Both forms are similar in terms

of item wording however instructions for answering them are different. Negatively worded items are scored in the reverse manner (4,6,7,8,9,10,17,18,15,21,23,28,30,33,36).The scoring system of all items of the six domain were based on three points likert scale ranging from (1) disagree , (2) neutral and (3) agree.

Scoring system was calculated as following

Maximum and minimum scores of each domain was summed by number of items and multiplied by answer scores then the output was multiplied by 100 converting it to the percent.

Administrative design

An Official approval to carry out this study was obtained from the Dean of Faculty of Nursing - Assiut University, followed by letters to the managers of(Technical Institute of Nursing –Assiut University and Ministry of Health)in Assuit city, for permission to collect the necessary data of the present study.

Operational design

This design involves preparatory phase, the pilot study and the actual field work.

Preparatory phase

The tool was modified and translated into Arabic by the researcher for validity then were handed to panel of experts in nursing field to assess the coverage, relevancy and clarity of items. Validity of the study tool was done by jury consisted of five experts three from nursing Administration Department and two from Pediatric Department. The necessary modifications and of the study tool were done to become ready for use.

Ethical considerations

The study proposal was approved by ethical committee in the Faculty of Nursing – Assiut University . Oral agreement was taken from the participants. Confidentiality of obtained data was assured, and the purpose, nature, and the aim of the study was explained to all participants before starting of data collection.

Pilot study

A pilot study was carried out to test the accessibility of the study sample and tool clarity ,applicability and to estimate the required time to fill the questionnaire. Moreover, to identify problems that may be encountered during the actual data collection. It applied for 30 students of total subjects before beginning of actual data collection. Data collected from the pilot study was analyzed by using SPSSversion16 (statistical package for social science).

Reliability of the study tool items.

Item of preferred form (CLEI Domains)	Cronbach' s Alpha
Personalization	0.84
Student involvement	0.90

Satisfaction	0.77
Task orientation	0.72
Innovation	0.79
Individualization	0.86
Total scale	0.75

Field work

The researcher started to collect data from 2nd week of October and lasted at third week of November (2015). Questionnaire was collected twice from the study subject phase I :before the students begin clinical training (the preferred form) phase II: was after the students start to training in clinical setting (actual form) after two weeks from the clinical training. data collected by the researcher through self-administered which introduce to student in the class room and clinical training places. The researcher introduced himself to the students and explained the aim, nature of study and complete confidentiality of data. Students were asked for their approval about cooperation, and if they were interested and agreed to participate in the study. Students were encouraged to participate in the study by explained them importance of study and answer all questions. Instructions regarding how to fill up the questionnaire sheet was given .The average time taken for completing each questionnaire was 20 minutes depending on the students response to the question .The questionnaire was completed under supervision of researcher and in cooperation with the director of institutes who organize the suitable time for gathering the data . The researcher checked questionnaire sheet to ensure the sheet completely filled after receiving from the students and begin they leave the place .

Limitations of the study

One of the limitation , I faced during the study is drop of the studied sample size . A total number of the studied sample were (n= 472)classified as follows, nursing Assiut University institute(252) and nursing ministry of health institute (220).A total actual number of studied sample were (n= 449)the dropped number of study subject enrolled in the second year (23) related to absence.

Statistical Design

Statistical Analysis

Data entry was done using compatible personal computer. The statistically analysis was done using statistical (SPSS) software version 20 and Excel for figures. The content of the tool was coded, tabulated and then analyzed. Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables, means and standard deviations for quantitative variables. Variables were compared using chi-square test. Statistical significance was considered at p. value <0.05.

Results

Table (1): Socio demographic characteristics of studied sample (n=449).

	Setting			
	Technical institute of nursing University(n=237)		Technical institute of nursing ministry of health(n=212)	
	N	%	N	%
Age groups				
<20 years	69	29.1	133	62.7
20 and more years	168	70.9	79	37.3
Gender				
Male	78	32.9	21	9.9
Female	159	67.1	191	90.1
Residence				
Urban	76	32.1	83	39.2
Rural	161	67.9	129	60.8

Table (2): Actual and preferred nursing students perception as regards to all clinical learning environment domains at the selected settings (n=449).

Domains	Actual		Preferred		X ²	P. value
	N	%	N	%		
1-Personalization	193	43.0	418	93.1	259.94	0.001**
2-Student involvement	131	29.2	361	80.4	255.03	0.001**
3-Satisfaction	154	34.3	409	91.1	314.22	0.001**
4-Task orientation	156	34.7	408	90.9	314.73	0.001**
5-Innovation	65	14.5	396	88.2	494.60	0.001**
6-Individualization	90	20.0	378	84.2	404.41	0.001**

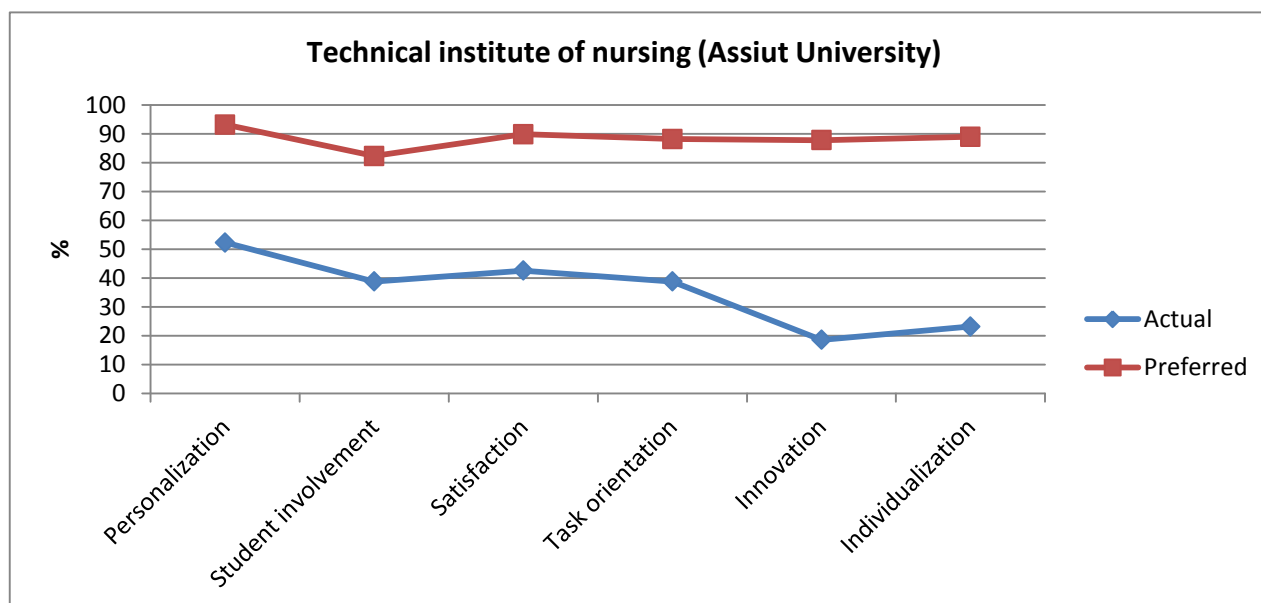


Figure (1): Nursing students perception about all domains of clinical learning environment at technical institute of nursing Assiut University(n=237).

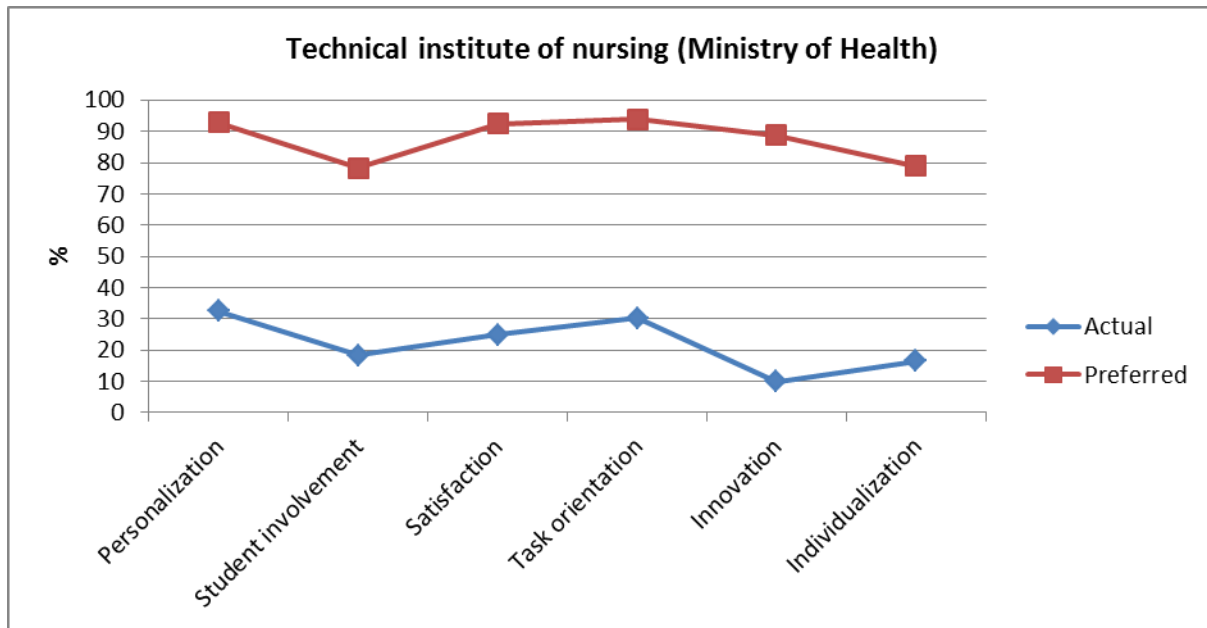


Figure2: Nursing students perception about all domains of clinical learning environment at technical institute of nursing ministry of health (n=212).

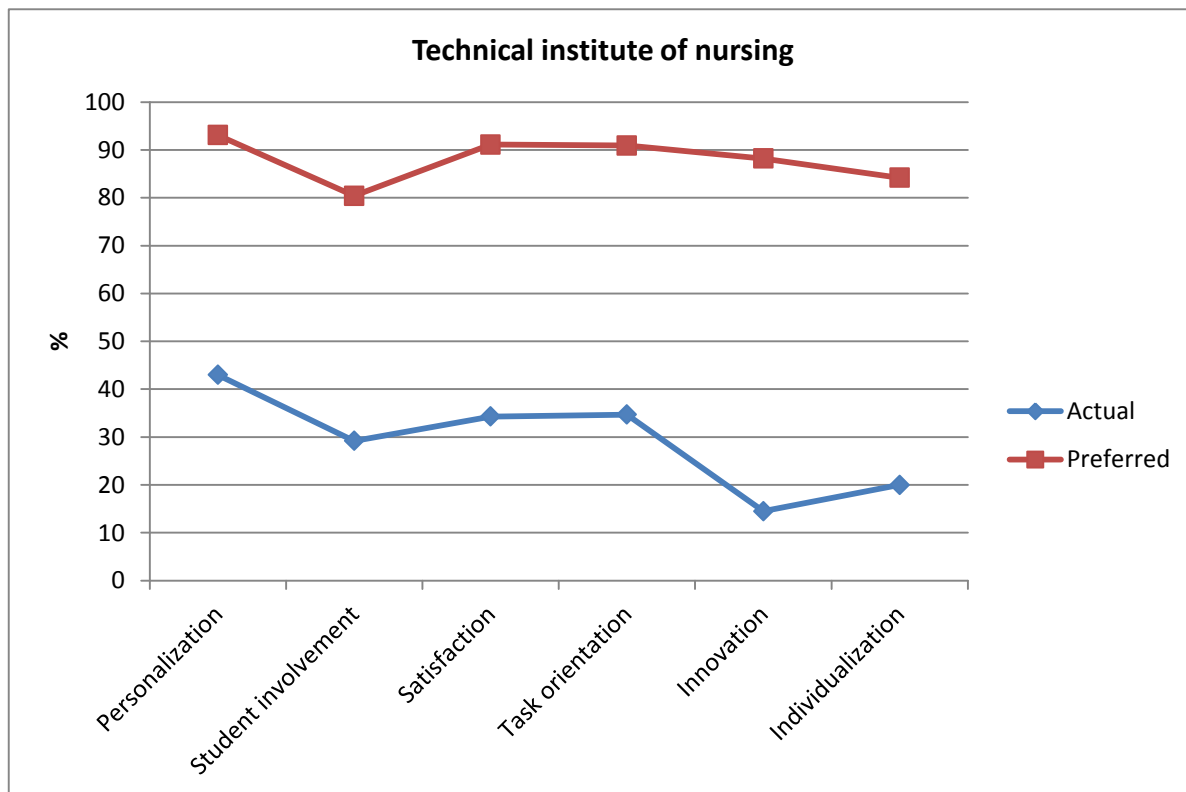


Figure (3): Nursing students perception about all clinical learning environment domains at the selected settings (n=449)

Table (1): Illustrated socio demographic characteristics of the studied nursing students .As regards the Technical Institute of Nursing (University), a high percentage of them was female from rural area and aged 20 and more years. Technical Institute of Nursing (Ministry of Health). most of them was female, from rural area and aged<20 years.

Table (2): showed actual and preferred perception of nursing students regarding to clinical learning environment at the selected settings .

It was found personalization domain was the most important domain in the actual and preferred perception (43.0% &93.1%) followed by satisfaction and task orientation domain .While the least important domain in the actual perception was the Innovation domains (14.5%).

Figure (1): From this figure it was found that personalization domain was the most important domain in actual and preferred perception followed by satisfaction and task orientation domain .While the least important domain was the innovation in the actual perception.

Figure (2): From this figure it was found that personalization domain was the most important domain in the actual perception followed by task orientation and satisfaction. Innovation domain was the least important domain in the actual perception . Regarding to perception of preferred task orientation domain was the most important domain followed by personalization and satisfaction . While the least important domain was the student involvement domain in the preferred perception .

Figure (3): From this figure it was found that personalization domain was the most important domain in the actual and preferred perception followed by satisfaction and task orientation domain .While the least important domain was the Innovation domains in the actual perception.

Discussion

Clinical learning environment 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. So understanding of students' perceptions of their clinical learning environments are essential for securing the required teaching and learning process (Gameel et al., 2015).

Therefore it is critical for academic and clinical fieldwork educators to understand the expectations of students and how these differ from the opportunities are currently receiving. It is important to recognize what their perceptions are and what believe the clinical environment can and should provide (Brown et al., 2011).

Regarding to actual and preferred clinical learning environment in both clinical settings. It was found astatically significant differences between preferred and actual experience, comparing with the actual perception the highest percentage of all items in favor of preferred perception.

Assuit University Technical Nursing institute students found the personalization domain was the most important domain which reflected the support that the students already received especially at Assuit university institute than Ministry of Health Institute. Even though the students felt supported, respected, and recognized in the clinical learning environment, they demanded more attention in this area, which is supported by the higher percentage of personalization domain in the preferred perception. This finding consistent with Bigdeli et al., (2015) who found that instructor- student interaction is the strength of clinical education. In each semester, nursing students should be trained for several weeks in hospitals as a clinical environment during the period of clinical placement, nursing students commonly feel vulnerable.

This finding partially congruent with previous study of Chan & Ip, (2007) personalization scored the highest mean in both actual and preferred surveys. Teaching innovation scored the lowest mean in actual and preferred versions. Students preferred an environment at higher levels that those perceived in the actual experience.

“Student satisfaction of clinical education” was the second domain at Assuit University Institutes while it was the third domain at Ministry of Health institute. This means that it was more considered in clinical education environments of Assuit university institute then ministry of health institute especially due to availability of clinical teacher and relate to the opportunities afforded to students to engage actively in ward activities and work.

In the same line Moattari & Ramezani, (2009) supported this finding and considered student satisfaction as one of the major components of the clinical education atmosphere. Also Chan & Ip, (2007) has considered student satisfaction as education outcome and has attracted the attention of nursing authorities and policy makers to this issue.

While Ministry of Health Technical Institute nursing students was found task orientation most important then personalization domain ,this might be attributed to students allocated to different clinical training places and due to ambiguity of students tasks in clinical settings. So they perceived task orientation as an important domain that influences the outcomes of their clinical placement.

These findings were inconsistent with the study of Bigdeli, (2015) who stated that many students

perceive clinical experience as anxiety-provoking. They often, while becoming less worried in clinical environment after few encounters in ward activities. To facilitate the beginners to enthusiastically cooperate in ward activities that probably affect the clients health directly. This is supported by **Hayajneh, (2011)**, who stated in her study that participant nursing students stated that the clinical instructors should orient the student to the clinical setting and create a relaxing atmosphere to facilitate clinical teaching.

This finding was in agreement with study of **Yazdankhah et al., (2008)** who indicated unclear course objectives and tasks as the most important stress inducing factors. This study showed that students need to be task oriented in clinical educational environments.

In individualization domain, students' independence in clinical decision making was taken into account. This due to independence of students to make clinical decision not realistic so individualization less important.

This finding was in consistent with the study of **Zeighami et al., (2004)** Which indicated that the students' dissatisfaction were due to inability to make decisions for proper planning of clinical care of patients. Also in agreement with **Delaram, (2006)** Who mentioned that the nursing students were unable to make independent decisions about patients' care plan.

Innovation domain was the least important domain in actual perception of Assiut University Technical Nursing Institute and Ministry of Health Technical nursing institute students. This due to the students did not perceive that they have received adequate innovative teaching or interesting learning experiences during clinical practice. In essence, teaching innovation is an area that clinical teachers need to invest more time and attention in facilitating students' learning in the clinical environment. On the other hand, the lowest score in the preferred perception implies that the students did not see the importance of teaching innovation as a factor that influenced their learning in the clinical setting.

This finding was disagreement with study of **Rahimi & Ahmadi, (2006)** who emphasized that innovation has a critical importance in clinical education of nursing students, however lack of innovation and new technologies are the critical difficulties of clinical education in Iran.

However, this finding was disagreement with previous study done by **Brown et al., (2011)** Who found that innovation were found to be significant predictors of health science students' level of self-reported satisfaction with the clinical learning environment.

While student involvement domain was the least important domain in preferred perception at selected settings. This due to students participate actively and attentively in hospital ward activities. Students obviously did not view student involvement as a factor that influenced their learning and place greater importance on other domains of the CLEI which the students have previous experience in the training place.

This finding was in agreement with study of **Chan, (2002)** who stated that students believe that after being involved in clinical activities they experience less anxiety and stress in clinical environments.

Conclusion

In the light of the study results, the following conclusions can be drawn:

* Personalization domain was the most important domain as actually and preferred by nursing students in both settings.

*Innovation domain was the least important domain as actually perceived, while student involvement domain was the least important as preferred by nursing students in both settings.

*The highest percentage of students perceived task orientation domain as actually important domain after personalization but they preferred satisfaction domain in both settings.

*The majority of Assiut university technical institute nursing students were preferred personalization domain. On the other hand the majority of Ministry of health technical institute nursing students preferred task orientation domain.

*There was a statistically significant difference between preferred and the actual perception in the clinical learning environment. In both settings the highest percentage of nursing student perception in favor of preferred clinical learning environment.

Recommendations

The current study suggested recommendations included the following:

- Encouraging clinical teacher to be accessible, listening to students, offering additional support, providing constructive feedback and clear, well-planned assignments, facilitating the meeting of individual learning needs and promoting student voice.
- Modifying clinical teaching strategies to satisfy the needs of nursing students.
- Develop clear goals and objectives that will need to be completed during the clinical placement.
- 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.

- Conduct workshops for clinical teachers and staff nurses about the importance of quality clinical supervision for students .
- Maintaining continual communication and reflection between nursing academics, nurse administrators, staff nurses, and nursing students.

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