Nursing Students' Perception regarding Clinical Training of Community Health Nursing Using Dundee Ready Education Environment Measure Inventory

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Abstract: Background: Clinical locations for undergraduates are important in many respects and characterized as a unique component of nursing education. Therefore it is a significant task to ensure virtuous education environments in all clinical sites used in nursing education. Aim: This study aims to assess Faculty of Nursing and Technical Institute of Nursing students' perception regarding clinical training of community health nursing based on Dundee Ready Education Environment Measure Inventory. Design: A cross sectional comparative design was used to complete this study. Setting: The study was conducted at the Faculty of Nursing and Technical Institute of Nursing, Mansoura University, Egypt at the end of second semester/academic year 2015-2016. Tools: Data was collected using three self administered questionnaires in order to achieve the aim of the study, which were: Socio-demographic characteristics of the students, (DREEM) Dundee Ready Education Environment Measure Inventory, and (SECEE) Student Evaluation of Clinical Education Environment. Results: Means age of faculty of nursing and technical institute of nursing students were 22.12±0.66 and 19.87±0.64 years respectively, and less than three fourths of faculty of nursing students and the majority of technical institute of nursing students were female. There was statistically significant differences between faculty of nursing and technical institute of nursing students in relation to median score of their perception of learning, academic self, atmosphere, and social self P= 0.032, 0.037, 0.000, and 0.002 respectively, with total statistically significant deference between both of them P= 0.020. Finally 75 % of both faculty of nursing and technical institute of nursing students satisfied with the clinical placement of the community health nursing.

Recommendations: Nursing curricula and clinical experiences should be designed and or enhanced to promote student satisfaction with clinical environment.

Key words: Education Environment, Nursing Students' Perception, Clinical Training

INTRODUCTION

Education method in clinical sites is an important point for assisting students’ attainment of the level of nursing practice competence essential for today’s rapidly fluctuating healthcare environment. Kathleen, Gaberson, Marilyn and Oermann 2007(1) and Gecer, 2013(2) stated that the important progresses and changes taking place in science and technology have predisposed the field of education. New paradigms have been formed in learning and teaching methods and strategies as an outcome of these changes.

Clinical practice experience, is an integral component of the educational program. It provides students with: the chance and source of pride of direct contact with patients/clients, families, and community, experience the world of nursing, and redirect on and speak to others about what is experienced, the reference system for the student to judgmentally evaluate training, to predict future actions, and through reflection, reveal the thinking that underpins nursing actions the motivation important to attain the skills critical to the delivery of quality patient/client, families, and community care, the environment to enable them understand the combined nature of practice, and to identify their learning needs prospects to earn responsibility, work independently, and obtain feedback on their practice(1).

Education in clinical situations presents nurse educators with contests that are not the same as those encountered in the classroom. In nursing education, the class room and clinical locations are interrelated because students must apply in clinical training what they have learned in the classroom. However, clinical settings require dissimilar approaches to teaching. The clinical environment is multipart and quickly changing, and a transformed health care delivery system has produced a diversity of new locations and roles in which nurses must be equipped to practice(1).

Clinical education setting should be selected carefully, based on important criteria such as compatibility of institutions and organization philosophy, type of practice model used, availability of opportunities to meet learning objectives, geographical locality, accessibility of role models, and physical resources. Selection of appropriate clinical settings may be complicated by competition among several nursing programs for a limited number of agencies (2). Further more social and physical aspects of an institution’s service area may greatly impact the degree of attraction and the students’ whole gratification. Social factors contain student-faculty relations, student-administration relations and student-student relations. Then, physical elements illustrate the class sizes and the environment, technology used during the lectures, and clinical education, library and computer laboratory, wi-fi connections in the campus, cafeteria and all student related service facilities. Allowing for the fact that all such services may have an effect on the students’ attitude on the way to
the institution and their satisfaction, educators have strained to maximize the services resulting specially from social elements (3).

Accordingly significant education environment for undergraduate nursing students is a clinical setting. On the other hand, the learning that arises in this environment presents challenges that may cause undergraduates to experience stress and anxiety. High stages of anxiety can disturb students’ clinical performance, giving a clear threat to attainment in a clinical rotation. It is essential for clinical nursing faculty to raise a supportive education environment beneficial to student learning (4) & (5).

One of the greatest thoughtful challenges that nursing teachers face these days is improving the level of learner satisfaction with the course and education setting. For the most part the accomplishment of value learning is imperative. It is the obligation of all establishments to offer quality instruction to all students’ understudies. Instruction in associated wellbeing proficient courses is given in both the classroom and clinical setting (6). These challenges reach to the peak point with community health nursing as community health nurse conducts ongoing and comprehensive training that is preventive, curative, and rehabilitative, in which the philosophy of care is constructed on the acceptance that care directed to the individual, the family, and groups contributes to the health care of the population as a whole, with no particular stage of development or diagnostic group.

The study aim: is to assess Faculty of Nursing and Technical Institute of Nursing students' perception regarding clinical training of community health nursing based on DREEM Inventory.

Research question: How is Faculty of Nursing and Technical Institute of Nursing students perceived their clinical training of community health nursing?

SUBJECTS AND METHOD

Research design:
A cross sectional comparative design was utilized to accomplish this study.

Setting:
The study was conducted at the Faculty of Nursing and Technical Institute of Nursing, Mansoura University, Egypt.

Sample:
Purposive sample was used as a sampling technique included (180) out of (207) from fourth year students/Faculty of Nursing, and all (100) second year students/Technical Institute of Nursing studying a community health nursing course at the end of second semester/academic year 2015-2016.

1.1. Tools: Data were collected using three tools in order to achieve the aim of the study.

Tool I: Self-administered questionnaire to assess socio-demographic characteristics of the students: This tool was developed by the researchers to collect socio-demographic data of the undergraduates as age, sex, and residence.

Tool II: DREEM (Dundee Ready Education Environment Measure Inventory)
It would be self-administered, which adopted from Al-Hazimi, Zaini, Al-Hyiani, et al., (2004) (7) & (8) and illustrated as the following:
DREEM is a 50- clause, closed-ended questionnaire that evaluate five fields: undergraduates’ perceptions of learning, 12 clauses, extreme score 48; undergraduates’ perceptions of teachers, 11 clauses, extreme score 44; undergraduates’ academic self-perception, 8 clauses, extreme score 32; undergraduates’ perceptions of atmosphere, 12 clauses, extreme score 48; and undergraduates’ social self-perception, 7 clauses, extreme score 28. Each clause is valued on a 5-point Likert scale from 0 –4 where 0= strongly disagree, 1= disagree, 2= unsure, 3= agree, and 4= strongly agree. Around are nine adverse clauses (clauses 4, 9, 17, 25, 35, 39, 48, and 50), for which modification is made by inverting the marks; thus after modification, greater scores (4) indicate disagreement with that clause. The extreme overall mark for the questionnaire is 200, and the overall mark is explicated as follows: 0–50 = very poor; 51–100 = many problems; 101–150 = more positive than negative; 151–200 = excellent.

Tool III: Self-administered questionnaire to assess students’ perception regarding Clinical Education Environment:
It was adopted from Student Evaluation of Clinical Education Environment (SECEE) Inventory, that measures undergraduate perceptions of their clinical education setting (9). It consisted of thirteen items with 5-point Likert scales beginning 0–4 everywhere 0= strongly disagree, 1= disagree, 2= unsure, 3= agree, and 4= strongly agree. The satisfied student with clinical environment scored (75% and more) while unsatisfied students scored (less than 75%).

Method:
1. An approval was obtained from Community Health Nursing Department Committee, Dean of Faculty of Nursing and Director of Technical Institute of Nursing, Mansoura University to permit for the researches to collect the required data.
2. Literature review: Review of nationwide and universal literatures on the several features of students' perception regarding clinical training of community health nursing using scientific published articles, internet search and texts.
3. Validity analysis was done to the tools by submitting the tools to expertise in the field of “community health nursing, in addition to statisticians ”. To ensure suitability with the current study.
4. A Pilot study was taken for 10% of study sample were chosen randomly from the study locations and omitted from the considered sample to assess the clearness, applicability, and reliability of the study tools and estimate the approximate time needed for data collection.
5. Data collection:
- Data were collected after the lecture of community health
nursing lasted for a month (May) Wednesday for Faculty of Nursing and Monday for Technical Institute of Nursing each week, second semester/academic year 2015-2016.

- The investigator started by presenting themselves to the undergraduates and giving them a brief orientation about the study aim.

- Tools (1st, 2nd, and 3rd) were distributed on nursing students at lectures halls of Faculty of Nursing and Technical Institute of Nursing in the presences of the researches to answer any questions from the nursing students. The required time for fulfilling the tools was 15-20 minutes.

Data analysis:
The collected data were coded and entered using SPSS (Stands for Statistical Product and Service Solutions) version 16. The next statistical processes were used:
1. Descriptive measures comprised: frequencies, percentage, arithmetic mean, standard deviation, and median.
2. Statistical tests containing: a Chi square test was utilized to parallel quantitative data that expressed in frequency and percentage, Mann Whitney test was used parallel quantitative data that explicit in median. \( P \leq 0.05 \) was reflected statistically significant.

Ethical considerations:
Approval was took from the Faculty of Nursing Research Ethics Committee. All questionnaires were anonymous and deemed confidential. All the undergraduates were acquainted about the study in the onset of the course. Students were informed that their participation at this study and their perception about the course would have no effect on their educational assessment. Students also had the right to refusing to complete the questionnaires, and draw at any point of the research.

RESULTS
Table (1) illustrates that the means age of faculty of nursing and technical institute of nursing students were 22.12±0.66 and 19.87±0.64 respectively, 73.3%, and 62.2% of faculty of nursing students female and resident at rural areas, while 87%, and 54% of technical institute of nursing students female and resident at urban areas respectively.

Table (2) states that 58.3%, and 57% respectively of faculty of nursing and technical institute of nursing students had positive perception related to learning, 48.9%, and 61% respectively of faculty of nursing and technical institute of nursing students perceived teachers move in right direction, 42.2%, and 55% respectively of faculty of nursing and technical institute of nursing students had positive perception related to academic self-perception, 46.7%, and 52% respectively of faculty of nursing and technical institute of nursing students had positive attitude regarding their perception of atmosphere, finally 49.4, and 57% respectively of faculty of nursing and technical institute of nursing students reported that social self-perception was not too bad. There was statistically significant differences among the groups in relation to students' perception of atmosphere and total score of Dundee Ready Education Environment Measure Inventory \( P=0.000 \) and 0.018 respectively.

Table (3) reveals that thither was statistically significant differences a faculty of nursing and technical institute of nursing students in relation to median score of their perception of learning, academic self, atmosphere, and social self \( P=0.032, 0.037, 0.000, \) and 0.002 respectively, with total statistically significant deference between both of them \( P=0.020 \).

Table (4) show that 75% of both faculty of nursing and technical institute of nursing students satisfied with the clinical placement with no statistically significant difference between both of them \( P>0.05 \).

### Table (1): Socio demographic characteristics of the study participants

<table>
<thead>
<tr>
<th>Items</th>
<th>Faculty of Nursing Students (n=180) n (%)</th>
<th>Technical Institute of Nursing Students (n=100) n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (Mean ±SD)</td>
<td>22.12±0.66</td>
<td>19.87±0.64</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Male</td>
<td>48 (26.7)</td>
<td>13</td>
</tr>
<tr>
<td>- Female</td>
<td>132 (73.3)</td>
<td>87</td>
</tr>
<tr>
<td>Residence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Rural</td>
<td>112 (62.2)</td>
<td>46</td>
</tr>
<tr>
<td>- Urban</td>
<td>68 (37.8)</td>
<td>54</td>
</tr>
</tbody>
</table>

### Table (2): Study participants' perception regarding clinical training of community health nursing based on Dundee Ready Education Environment Measure Inventory (DREEM)

<table>
<thead>
<tr>
<th>Items</th>
<th>Faculty of Nursing Students (n=180) n (%)</th>
<th>Technical Institute of Nursing Students (n=100) n (%)</th>
<th>Significance test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students' perception of learning (SPOl)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Poor</td>
<td>7 (3.9)</td>
<td>0</td>
<td>( X^2=6.208 )</td>
</tr>
<tr>
<td>- Teaching viewed as negative</td>
<td>24 (13.3)</td>
<td>10</td>
<td>( P=0.102 )</td>
</tr>
<tr>
<td>- Positive perception</td>
<td>105 (58.3)</td>
<td>57</td>
<td></td>
</tr>
<tr>
<td>- Teaching highly regarded</td>
<td>44 (24.4)</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Students' perception of teachers (SPoT)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Poor</td>
<td>4 (2.2)</td>
<td>0</td>
<td>( X^2=6.110 )</td>
</tr>
<tr>
<td>- Needs training</td>
<td>24 (13.3)</td>
<td>11</td>
<td>( P=0.106 )</td>
</tr>
<tr>
<td>- Move in right direction</td>
<td>88 (48.9)</td>
<td>61</td>
<td></td>
</tr>
<tr>
<td>- Model instruction</td>
<td>64 (35.6)</td>
<td>28</td>
<td></td>
</tr>
</tbody>
</table>
Students' academic self-perception (SASP)  
- Feeling of failure 8(4.4)  
- Many negative aspect 21(11.7)  
- Positive perception 76(42.2)  
- Confident 75(41.7)  

Students' perception of atmosphere (SPoA)  
- Poor environment 3(1.7)  
- Many issues need change 25(13.9)  
- Positive attitude 84(46.7)  
- Good overall feeling 68(37.8)  

Students' social self-perception (SSSP)  
- Miserable 3(1.7)  
- Not a nice place 31(17.2)  
- Not too bad 89(49.4)  
- Very good socially 57(31.7)  

Total score of Dundee Ready Education Environment Measure Inventory (DREEM)  
- Poor 3(1.7)  
- Significant problem 20(11.1)  
- Not too positive than negative 90(50)  
- Excellent 67(37.2)  

Table (3): Median score of the study participants' perception regarding clinical training of community health nursing based on Dundee Ready Education Environment Measure Inventory (DREEM)

<table>
<thead>
<tr>
<th>Items</th>
<th>Faculty of Nursing Students Median (Min-Max)</th>
<th>Technical Institute of Nursing Students Median (Min-Max)</th>
<th>Mann-Whitney test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students' perception of learning (SPoL)</td>
<td>33(17-48)</td>
<td>35(18-48)</td>
<td>P=0.032*</td>
</tr>
<tr>
<td>Students' perception of teachers (SPoT)</td>
<td>31(5-44)</td>
<td>30(14-46)</td>
<td>P=0.701</td>
</tr>
<tr>
<td>Students' academic self-perception (SASP)</td>
<td>23(4-32)</td>
<td>22(9-32)</td>
<td>P=0.037*</td>
</tr>
<tr>
<td>Students' perception of atmosphere (SPoA)</td>
<td>34(9-48)</td>
<td>26.5(11-48)</td>
<td>P=0.000*</td>
</tr>
<tr>
<td>Students' social self-perception (SSSP)</td>
<td>20(5-28)</td>
<td>18(6-28)</td>
<td>P=0.002*</td>
</tr>
<tr>
<td>Total</td>
<td>140.5(31-200)</td>
<td>128.5(72-193)</td>
<td>P=0.020*</td>
</tr>
</tbody>
</table>

Table (4): Study participants’ satisfaction with the clinical placement of community health nursing

<table>
<thead>
<tr>
<th>Items</th>
<th>Faculty of Nursing Students (n=180) n (%)</th>
<th>Technical Institute of Nursing Students (n=100) n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical placement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Unsatisfied</td>
<td>45 (25)</td>
<td>25</td>
</tr>
<tr>
<td>- Satisfied</td>
<td>135 (75)</td>
<td>75</td>
</tr>
<tr>
<td>(X^2)</td>
<td>0.0000</td>
<td>0.05</td>
</tr>
<tr>
<td>(P)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DISCUSSION

Clinical areas for undergraduates nursing are essential in many esteemes and considered as an indispensable component of nursing education (9). Therefore it is a fundamental action to make sure good teaching environments in all clinical sites applied in nursing education (10).

Results of the current study revealed that the means age of faculty of nursing and technical institute of nursing students were 22.12±0.66 and 19.87±0.64 years respectively, and less than three fourths of undergraduate faculty of nursing and the majority of technical institute students were female. This was agree with Poon, Wai Sha, (2017) (11) who found that nursing students in Macao aged from 19 to 24 years and 87% of them were female.

As regards to students’ perception of learning in the clinical training of community health nursing; more than half of faculty of nursing and technical institute of nursing students in the current study had positive perception related to learning. This was supported by Dafogianni et al., (2015) (12) who mentioned that ninety-five percent of his study subjects contended that the content of the clinical courses fulfilled the initial objectives.

In relation to students' perception of teachers in the clinical training of community health nursing; less than half of faculty students, and less than two thirds of technical institute of nursing students perceived teachers move in right direction. Happell, (2002) (13) asserted that both educational institutions and the nursing profession share a liability for affecting the manner of nursing students on the way to functioning with the community.

Additionally Papastavrou et al., (2016) (14) illustrated that nursing students were highly satisfied with the e atmosphere, the Ward Supervisor’s leadership style, the structure of Nursing in the ward, the supervisory relationship (tutor) and the role of the Nurse Instructor.

From the researchers point of view the regularity of meetings amongst the undergraduates and the supervisors better the satisfaction of the students with the clinical learning environment. Furthermore emphasizing the significance of crucial parts of nursing care and provided that a high level of clinical supervision as well as it is a key
to make sure that undergraduates are constantly exposed to the knowledge base on which community care practice is initiated.

As for students’ academic self-perception in the clinical training of community health nursing; less than half and more than half of the current study faculty of nursing and technical institute of nursing students had positive perception related to academic self-perception. Vice versa Abou elfettoh and Al Mumtin, (2015 ) (15) mentioned that students were dissatisfied with evaluation process from the clinical instructors. This could be attributed to using different stratifies in clinical training in the present study ranked in order of use to; demonstration, simulation, role play, and case study.

Concerning with students’ perception of atmosphere in the clinical training of community health nursing; less than half and more than half of faculty of nursing students and technical institute of nursing students had positive attitude regarding their perception of atmosphere respectively. This was constant with a review of the literature was undertaken through a search of the following electronic databases: EBSCHO Host, CINAHL, Pro-Quest, Sage Journals Online, and Science Direct. The studies reviewed generally concluded that students chosen a more positive and favorable clinical environment than they perceived as being actually present. Furthermore, significant differences exist between actual and ideal clinical learning environments. In addition, a supportive clinical learning environment is of dominant importance in acquiring positive teaching learning outcomes. Finally, students generally wish for a more positive environment than they have experienced.

In the opposite of the present study Skaalvik, Normann, and Henriksen (2009 (16), they found that the partaking undergraduates nursing with clinical sites in community evaluated their clinical learning environment significantly more negatively than those with hospital posts on close all sub-dimensions.

Related to students’ social self-perception in the clinical training of community health nursing; less than half and more than half of the current study faculty of nursing and technical institute of nursing students showed that social self-perception was not too bad. Lawal et al., (2016) (17) reported that more than seventy percent of students showed that the type of interpersonal relations they had with the clinical faculty and instructor influence their learning experiences.

In the present study three fourths of both faculty of nursing and technical institute of nursing students satisfied with the clinical placement of the community health nursing. This was in agreement with Brynildsen et al., (2014) (18) who stated that most students were satisfied with the learning environment in the nursing homes in an explorative study designed to collect empirical data between the fall of 2008 and summer of 2010.

CONCLUSION

This comparative study concluded that the highest percentage of faculty of nursing and technical institute of nursing students belonged to positive perspective regarding to clinical training of community health nursing based on (DREEM), with statistically significant differences between both of them in relation to median score of their perception of learning, academic self, atmosphere, social self, and total median score. In addition to three fourths of both faculty of nursing and technical institute of nursing students satisfied with the clinical placement of the community health nursing.

RECOMMENDATIONS

- It raised the need for cooperation between the higher education and health care sectors to create the clinical learning environment better to fulfil the requirements of undergraduates nursing.
- Encouraging and backing environment can be generated when administrative aims of the service and educational sectors are combined in a climate that promotes collaborative learning, faith and mutual esteem.
- Nursing curricula and clinical experiences should be designed and or enhanced to promote student satisfaction with clinical environment.
- Finally, future research in nursing education on this topic is encouraged to continue to promote innovative high quality clinical nursing experiences for baccalaureate students.

REFERENCES


