IOSR Journal of Nursing and Health Science (IOSR-JNHS)
e-ISSN: 2320–1959.p- ISSN: 2320–1940 Volume 8, Issue 1 Ver. II. (Jan. - Feb .2019), PP 20-26
www.iosrjournals.org

Nursing Students' Self Assessmenttoward Educational Environment: A Comparative Study

Ghada Mohamed Hamouda 1,2, Sally Mohammed FargallyAbd El-Aliem1
1 Nursing Administration Department, Faculty of Nursing, Alexandria University, Alexandria, Egypt
2 College of Nursing, King AdulAziz University, Jeddah, KSA
Corresponding Author: Ghada Mohamed Hamouda

Abstract: ***Background:****The learning environment surrounding students is one of the factors determining academic success. Students and teachers have become familiar with the "learning environment" of their organization.Nursing science courses in AlexandriaUniversity andKing Abd El Aziz Universityemploy a mix of classical classroom and clinical learning methods. However, there is little empirical evidence that assesses this balance or the way nursing students view their delivery.* ***Aim:****Therefore, this study aims to investigatenursing students'self assessment toward the overall educational environment within nursing courses in nursing faculties that use a balance between teaching based on classical classroom and clinical work.****Method:****A short demographic questionnaire and the 50-items DREEM questionnairewas administered during teaching sessions to collect information on the students' assessment of the environment in their nursing faculty.****Results:****The studyrecorded high total Educational Environmnent scores across the two different nursing faculties with a total DREEM mean score of 148.68 at Faculty of Nursig – King Abd El Aziz University and 149.32at Faculty of Nursig – Alexandria University and also identified problem areas which centered on Social Self Perceptions, Academic Self-Perception, and Perception of Course Organizer.The structure of student assessment, schedule attention, improved management, and systems for identifying stressful students are the core recommendations.*

Key Words: *Educattional environment, Self assessment, Nursing student.*

Date of Submission: 21-12-2018 Date of acceptance: 05-01-2019

I. Introduction

The educational environment surrounding students is one of the factors determining academic success [(1)]. Although it is difficult to define the climate or educational environment by many authors as consisting of an objective external environment, everything that occurs within the classroom, department, college or university and internal self-awareness by students[(1-4)].

In addition to documented curricula, students and teachers become familiar with the educational environment of the institution and their self-perceptions for the climate [(3, 5)]. Intensive investigations were conducted in the learning environment for nursing students to identify strengths and weaknesses, monitor changes in curricular reform times, compare learning environments across teaching sites, and compare students' perception[(6)]. These students' awareness of the environment in which they study has shown a significant impact on their behaviors, academic development and sense of comfort. [(2, 7)]. As such, in the context of health science education as with medicine (Genn, 2001:1)[(8)], in recent decades, it has moved to adopt a more student-centered approach[(9)].

Various methodologies have been used to investigate the educational climate, and recent studies have included the use of qualitative approaches or questionnaires[(10-13)]. The DREEM (Dundee Ready Educational Environment Measure) questionnaire [(11)] is specific to the special environment experienced by students on medical and healthcare-related courses [(11, 14)].

The learning environment can be a learning environment that focuses on the student or focuses on the teachert. Student-centered environment encourages students to be active participant, using two ways of transmission of information through discussion for clarifying ideas, expressions, contents and exchanging experience to sustain student's improvement and creativity[(15)]. While, teacher-centered learning environment is focused on enhancing teacher's skills which in turn improve teaching process. Teacher is acting with the students unidirectional, giving them information with no or little chance for student's participation[(16)].

Teacher is the one who is responsible for maintaining educational system, his main role is to manage and transferring changes using new technologies and advanced methods of teaching. So, teacher in need to acquire new competencies either scientifically or socially[(17)]. Scientific competence requires teacher to be knowledgeable, creative, innovative, consultant and expert in setting learning plan to achieve the institution's

goals. 0n the other hand, socially-situated competencies consider providing proper guidance to students that shape the student learning environment[18].

The student learning environment is concerned with an appropriate number of individuals and resources in order to maintain a continuous learning process. Universities are caring for their students' perception to achieve academic success and productive educational environment[19]. They supports involving students in assessment of learning for improving their achievement, reinforce active participation as well as ensure motivating learning environment. In addition, it acts as a cornerstone to direct the educational climate to be more effective and decrease students' barriers and dissatisfaction in their learning environment[20].Learning environment barriers constitute three levels, one for the whole organization as strategic plan and administrative policies and decisions. The second refers to technical and administrative support, guidance, motivation, positive work environment and the third level refers to communication barriers and psychological and social barriers [21].

Aim of the Study

Theaim of the study is to investigatenursing students' self assessmenttoward educational environment at Nursing Faculties of both Alexandria University and King Abd El Aziz University.

Research Question

What is the thenursing students' self assessmenttoward educational environment at Nursing Facultiesof bothAlexandriaUniversity and King Abd El Aziz University?

II. Materials And Method

Design

A describtivecomparitiveresearch design was used in this study.

Setting:

The study was conducted at Faculty of Nursing of both Alexandria University-Eygpt and King Abd El Aziz University-Saudi Arabia.

Subjects:

The subjects of the study comprised of a convenience sample of 4th year nursing students (n=188) who agreed to participate in the study. Two groups were included: The first group represented4th year Faculty of Nursing students - AlexandriaUniversity- Egypt (n=101). The second group composed of 4th year Faculty of Nursing students - King Abd El Aziz University-Saudi Arabia(n=87).

Tool:

Data for this study was collected using the following tool:

Dundee Ready Education Environment Measure (DREEM)

The Dundee Ready Education Environment Measure (DREEM) was developed by Roff et al., 2005[11]to assess the nature of nursing educational environment as perceived by nursing students. It included five main dimensions and 50 items of educational environmentas follows:1.perception of learning (12 subitems), 2.perception of course teachers (11 subitems), 3. academic self-perception (8 subitems), 4. perception of atmosphere (12subitems), and 5. social self-perception (7 subitems). The score was based on a 5-point Likert-type scale ranging from strongly agree (4) to strongly disagree (0)and specific response patterns can reflect strengths and barrires in the educational climate of both Nursing Faculties. Descriptive and analytical tests were performed to calculate the mean scores, standard deviations, and P-values.Regarding the scoring system of DREEM,the 50-itemshave a maximum score of 200 indicating the ideal educational environment as perceived by the registrar.A score ranged from 0-50 = (Very Poor), 51-100 = (Plenty of Problems), 101-150 = (More Positive than Negative), and from 151-200 means (Excellent) educational environment.

In addition, a demographic characteristics questions developed by researchers related to (age, gender, marital status, and clinical speciality of study).

Data Collection

A written approval was obtained from the administrators of the identified settings to collect study data. Also, a pilot study was done on 10% (20 students) that were excluded from the study subjects to; check and ensure clarity and applicability of the tool; identify obstacles and problems that may be encountered during data collection. In addition, the questionnaire were tested for reliability using Cronbach's alpha coefficient test, to measure the internal consistency of the items composing each dimension of the tool, the DREEM questionnaire was proved strongly reliable where $\alpha = 0.970$ at $p \leq 0.05$.Data collection for this study was collected by the

researchers using self-administered questionnaire with all subjects at study setting. It took a time period from February to April2018.

Data were analyzed, coded and entered the statistical package of social science (SPSS), version 20. Frequency and percentages were used for describing demographics characteristics. Arithmetic mean and standard deviation (SD) were used as measures of central tendency and dispersion respectively, for quantifying variables under the study. Chi-square/ Monte Carlo test wasused to compare between two different groups, Pearson correlation coefficient analysis (r) was used to test the nature of the relationship between the study variables. All statistical analysis were performed using an alpha error ofp value ≤ 0.05 which considered significant.

Ethical considerations

Approval was obtained from the Ethical Committee of the Faculty of Nursing, Alexandria University and King Addul Aziz University. The privacy and confidentiality of data were maintained and assured by getting students' consent to participate in the research before data collection. Anonymity of students was granted.

III. Results

Table 1. Demographic characteristics of all students at Nursing Faculty- Alexandria University and Nursing Faculty – King Abd El Aziz University. (N =188)

Demographic charactrestics	Alexandria University (n = 101)		King Abdul Aziz University (n = 87)		Total (n = 188)		χ^2	p
	No.	%	No.	%	No.	%		
Age								
20 - >25 years old	101	100.0	87	100.0	188	100	–	–
Gender								
Male	51	50.5	0	0.0	51	27.1		
Female	50	49.5	87	100.0	137	72.9	60.284*	<0.001*
Marital status								
Single	101	100.0	80	92.0	181	96.3		
Married	0	0.0	6	6.9	6	3.2	8.411*	^{MC}p= 0.005*
Divorced	0	0.0	1	1.1	1	0.5		
In which of the following clinical specialty you are studying now								
Nursing Administration.	45	44.6	43	49.4	88	46.9		
Nursing Critical.	20	19.8	44	50.6	64	34		
Nursing Psychiatric	16	15.8	0	0.0	16	8.5	44.248*	<0.001*
Nursing Community	20	19.8	0	0.0	20	10.6		

Table 2. Mean distribution of nursing students'self assessmenttoward educational environment at Nursing Faculty – King Abd El Aziz University and Nursing Faculty – Alexandria University

Elements of Educational Environment	Nursing Faculty - Alexandria University (Mean ± SD)	Nursing Faculty - King Abdul Aziz University (Mean ± SD)	^{MC}p
- Students' Perception of Learning	34.97 ± 3.93	34.93 ± 4.11	0.947
- Students' Perception of Course organizers	33.03 ± 3.62	32.86 ± 3.70	0.755
- Students' Academic Self-perception	25.68 ± 3.09	25.49 ± 3.26	0.684
- Students' Perceptions of Atmosphere	34.26 ± 4.46	34.22 ± 4.72	0.954
- Students' Social Self Perceptions	21.38 ± 3.14	21.17 ± 3.31	0.666
Overall mean score of DREEM	**149.32 ± 14.31***	**148.68 ± 15.20***	**0.767**

Notes. SD: Standard Deviation

* More positive than negative educational environment near to excellent: - (101-150)
Excellent educational environment :- (151-200)

Table 3. Correlation between Overall Educational Environment and its elements at Nursing FacultiesAlexandria University and King Abd El Aziz University.

Educational Environment Elements		Alexandria University (n = 101)					King Abdul Aziz University (n = 87)				
		Perception of learning	Perception of course organizers	Academic self-perception	Perceptions of atmosphere	Social self-perceptions	Perception of learning	Perception of course organizers	Academic self-perception	Perceptions of atmosphere	Social self-perceptions
Perception of Course organizers	r	0.248*					0.277*				
	p	0.012*					0.009*				
Academic self-perception	r	0.619*	0.449*				0.633*	0.448*			
	p	<0.001*	<0.001*				<0.001*	<0.001*			
Perceptions of atmosphere	r	0.672*	0.357*	0.590*			0.707*	0.396*	0.609*		
	p	<0.001*	<0.001*	<0.001*			<0.001*	<0.001*	<0.001*		
Social self-perceptions	r	0.490*	0.510*	0.616*	0.631*		0.513*	0.530*	0.623*	0.643*	
	p	<0.001*	<0.001*	<0.001*	<0.001*		<0.001*	<0.001*	<0.001*	<0.001*	
Overall Educational Environment	r	0.788*	0.642*	0.819*	0.853*	0.813*	0.805*	0.653*	0.819*	0.869*	0.818*
	p	<0.001*	<0.001*	<0.001*	<0.001*	<0.001*	<0.001*	<0.001*	<0.001*	<0.001*	<0.001*

r: Pearson coefficient *: Statistically significant at $p \leq 0.05$

Participants demographic characteristics reveals that 100% of the study subjects were were in the age group of 20 - >25 years old. The highest percentage of study subjects (72.9%) were females, most of them were nursing students at Faculty of Nursing- King Abd El Aziz University; and the least percentage of study subjects (27.1%) were males, all of them were nursing students at Faculty of Nursing- Alexandria University with highly statistical significant difference between both study groups (P<0.001). For marital ststus, (96.3%) were single, while (0.5%) were divorced with a highly statistical significant difference between both study groups (P=0.005). Regarding clinical speciality of study at time of data collection, about half of study subjects (46.9%) studying a clinical speciality of Nursing Administration, represented as 49.4% among nursing students at Nursing Faculty – King Abd El Aziz University and 44.6% of nursing students at Nursing Faculty – Alexandria University. While 8.5% of nursing students studying a clinical speciality ofNursing Psychiatric, as all of them were nursing students at Nursing Faculty – Alexandria University.

There was no statistical significant difference betweennursing students' self assessment of their educational environment at Nursing Faculties – King Abd El Aziz University and Alexandria University. The mean score of nursing students' self assessment toward their educational environment was (148.68 ± 15.20) at Nursing Faculty – King Abd El Aziz University and (149.32 ± 14.31) at Nursing Faculty- Alexandria University which indicates that the educational environment at both faculties were more positive than negative and near to excellent . The highest mean score of positive educational environment was related to Students' Perception of Learning at both Nursing Faculties- King Abd El Aziz Universityand - Alexandria University, respectively(34.93 ± 4.11, 34.97 ± 3.93). While the lowest mean score was related to Students' Social Self Perceptions at both Nursing Faculties- King Abd El Aziz Universityand Alexandria University, respectively (21.17 ± 3.31, 21.38 ± 3.14).

Also, there was a significant positive correlation between overall Educational Environment and its elements (Perception of Learning,Perception of Course organizers,Academic Self-perception,Perceptions of Atmosphere, and Social Self Perceptions, respectively (r=0.805,0.653,0.819,0.869, and, 0.818, p<0.001 for all elements) atNursing Faculty – King Abd El Aziz University . Also, there was a statistical significant positive correlation between overall Educational Environment and its elements (Perception of Learning, Perception of Course organizers, Academic Self-perception, Perceptions of Atmosphere, and Social Self Perceptions, respectively (r=0.788, 0.642, 0.819, 0.853, and, 0.813, p<0.001 for all elements) at Nursing Faculty – Alexandria University.

IV. Discussion

Total Educational Environment scores were high across the study, indicating that students' perceptions of learning environment were quite positive across the two Faculties of Nursing at bothKing Abd El Aziz university and Alexandria University. The total Educational Environment score of (148.68 ± 15.20) at Nursing Faculty – King Abd El Aziz University and (149.32 ± 14.31) at Nursing Faculty- Alexandria University falls inside the range that indicates a "more positive thannegative" perception of the environment. It has been recommended that Nursing Faculties offering traditional curricula generally tend to report lower total Educational Environment scores [(13)]. This suggestion does not support the concept of the present study. Although the Educational Environment inventory has been extensively applied in medical schools, data on its

application in a nursing academic environment are scarce [22]. A few studies done in other nursing schools have yielded lower total Educational Environment scores than the present study [15, 23-25]. This may show that those nursing faculties, though using a traditional approach, is fairly innovative in its methods. The curriculum alone may therefore not be the sole determinant of students' perception of learning environment. The elements of faculty support and students' motivation to learn are considered as factors that also influence the positive outcomes despite the traditional approach used in those nursing faculties.The positive perception of the learning environment was shared by students of both nursing faculties[10].

Several elements of educational environment were identified as an improvement areas based on mean scores for the elements across the two Faculties of Nursing. Elements of Social Self Perceptions, Academic Self-perception, and Perception of Course Organizers related to attitudes of teachers. The reason for low score will probably be that students have limited contact with patients , academic staff and colleges, they would not be able to give practical opinions about these elements. This is similar to results of two other studies [15, 24]. Avalos (2007)[26]suggested that the low grades of this item could be a reflection of the stressful situations that were observed with lectures and a narrow clinical schedule especially for clinical students. It may also be a reflection of administrative resources or a lack of coordination among staff within the faculty office and academic staff. Similar perceptions were also noted in the final year students in an Indian school [24]. This may not be unrelated to the congested lecture schedule and clinical requirements of supervised patients needed by the students to qualify to sit for the final examination in the faculty.

Sofola and Jeboda (2006)[27]concluded that in a study among Nigerian students select the lack of time to relax. The amount of work assigned; received criticism from supervisors, respectively as three higher sources of stress as also shown in a previous study [28].In teacher competency studies, lecturing and learning are two learning tasks that surface repeatedly. Many researchers argue that the lecturer organizes larger sets of thought in each understandable, employing skills and cognitive expression to make the complex clear to students[29-32]. Siemens &Tittenberger (2009)[33] observed that lecturing and instructing is the very critical competency of theorizing and demonstrating.

The demonstrator uses some equipment, models, simulations, or films, to use appropriate teaching and learning methods to support changing students' behavior, while the theory"leads students develop world views, find the underlying cause or meaning of things, create order out of what appears to be chaos, and help them remember things by giving a single instructions[34]. "Teachers need to get accustomed to and trained on their new role as partners and facilitators in learning processes, rather than lecturers to cope with the new advances in the educational environment , as well as the different types of students ". Minocha et al. (2011)[31]added that, one of the changing roles of this new educational phenomenon for teachers is the role of facilitator, which helps learners adapt their learning environment, learn gradually, and manage content before it becomes more complex [35]. Attwell (2009)[36] stresses that in learning environment processcooperation, communication and connection between teacher and students is important. Peña-López (2010)[37] puts emphasis on teacher's as a coordinator supplies a framework in which learners collaborate, connect, and integrate with each other more flexibly.

Mullen (2010)[38] and McLoughlin& Lee (2010)[39] suggested in their studies that a)the teaching environment provides students with access to a variety of independent learning experiences, b) a concierge, which directs learners to learning opportunities that they are meant to be familiar with, provides a form of c) evaluator, who not only evaluates descriptive knowledge and syntactic capacity, but also the instinct, reaction, content, and habit, and the attitude of students with respect to their learning; and (d) the objective goal, which helps learners In control of their learning and education, scaffolding them to achieve their goals.

V. Conclusion

In summary, the current study highlighted several important findings. Even though the total Educational Environmentscore was in the more positive than negative category, it was still lower than a supposedly 'excellent' educational environment. Use of the DREEM as a regular monitoring tool would permit timely interventions to remediate problematic areas, which translates into improved students' perception of the educational experience. Continuous quality improvement and innovation are essential in the Nursing Faculties. For subjects of study and settings, the areas of problems focus on social cognition, academic perception, and systematic understanding of lessons on real learning, boredom and stress. The results of this study can be used as preliminary data for future comparative studies.

Strengths of the study

The comparison between studenets' perception of their educational environment in two different countries was beneficial in identifying areasof similarities and areas in need for improvement to enhance the quality of educational environment.

VI. Recommendation

The structure of student assessment, schedule attention, improved management, and student identification systems are key recommendations:

1- Administration should focused on the teacher's roles as a whole in higher education beside, applying technological methods to be beneficial in learning process.
2- Allocate adequate human resources, equipment and supplies, budgets and even spaces to improve the program learning outcomes.
3- Enhance the academic mentorship program to increase the capacity for strong teacher–student relationships, providing proper guidance, monitor and assess students' performance to make a useful changes in strategies and educational infrastructure.

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Ghada Mohamed Hamouda" Nursing Students' Self Assessmenttoward Educational Environment: A Comparative Study" IOSR Journal of Nursing and Health Science (IOSR-JNHS), vol. 8, no.01 , 2019, pp. 20-26.