

Students' perceptions of the educational environment of the nursing program in Faculty of Applied Medical Sciences at Umm Al Qura University, KSA.

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Abstract: Learning environment in any medical school is found to be important in determining students' academic success. It is essential to assess the educational environment to determine the contribution to learning outcomes of students. **The aim of this study** was to identify the perceptions of students undertaking the curriculum of Nursing Program in order to compare students' perception of the educational environment by the second year and baccalaureate students so that remedial measures could be taken to enhance students' learning experiences. **Materials and Methods,** the research design was carried out on 100 students enrolled in the nursing program, 20 of them are fourth year (final year of the program) and 80 students from second year, (beginning of the program). The study was conducted at the nursing department, faculty of applied medical sciences, Umm Al- Qura University, Makkah, KSA. Data of the current study were collected in second semester of the academic year 1430-1431 H. The Dundee Ready Education Environment Measure (DREEM) inventory was used. **Results,** the findings of the present study indicated that the DREEM mean score of students was (143.9/200) which mean that students have positive perception of the educational environment. However, fourth year students found to be more satisfied with the learning environment (146.6/200) compared to the second year students (141.3), with no significant difference in both students' perception. **Conclusion,** The present study revealed that both groups of students (second and fourth year) nursing students perceived the learning environment high positively. Nevertheless, the study also revealed problematic areas of learning environment in atmosphere in the faculty which enabled staff members to adopt some remedial measures. **Recommendation** These data can serve as a baseline for a longitudinal quality assessment of students' perceptions of the changes planned for the nursing school at Umm Al Qura University, Saudi Arabia. Further studies are needed to analyze educational environment down to the year levels, These data provide a starting point for further study of some of the influences on students' perceptions of atmosphere as they proceed through the course

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1. Introduction

In the modern medical education, more emphasis has been put towards assessing the educational environment on which the students learn to know how it had affected the learning in those particular student populations. It is evident from recent researches that, the educational environment plays a significant role in relation to a student's behavior, academic development as well as in their feeling of wellbeing while undergoing the learning program (Genn, 2001). According to Miles and Leinster, 2007) the Educational Environment is the "environment experienced or perceived by the students and by the teachers".

Education is a learning process that increases people's knowledge and awareness about the environment and associated challenges, develops the necessary skills and expertise to address the challenges, and fosters attitudes, motivations, and commitments to

make informed decisions and take responsible action According to the **International Union for the Conservation of Nature (IUCN),2000.**

Environmental education draws from the tools and resources of a wide range of disciplines in order to demonstrate the root of current problems and suggest ways in which learners could either prevent or remedy (Hutchinson. 2003). It is stressed important to measure the students' perception because affects the performance and quality of learning (Primparyon et,al 2000). The educational environment includes all the academic influences to which students are exposed. Its assessment, therefore, is essential to understand observed learning outcomes and plan program improvements (Jamaiah, 2008) & David, and Doris 2009). The environment which impact student learning include the physical classroom, the curriculum, the teachers and the other students. All play an important role in how students learn(Primparyon et, al 2000).

David & Doris (2009) mentioned that, a supportive learning climate is a critical element of human resource development. They asserted that there was a need for both direct and indirect facilitation of development of the individuals through improving the educative quality of their environments. Moreover, they recommended that institutions of higher education should measure their service quality in order to function efficiently and effectively in a highly competitive environment.

The educational package is essential to attract prospects and to bolster the satisfaction of current students. Unsatisfied students may transfer to other institutions and impart negative comments. Therefore, universities must generate a strategy that address student needs. An institution that delivers better quality education is more likely to acquire a competitive advantage (Miles and , Leinster, 2007).

Health educational environment is now considered as one of the most important factors determining engagement of medical students (Bassaw et, al 2003 and Jiffry et,al. ,2005). The educational environment is also considered to be the most significant manifestation and conceptualization of a curriculum. (Genn, 2001).

Jiffry, etal. (2005) illustrated that the major domains that comprise the educational environment of health school are self-perceptions of learning, self-perceptions of teachers, academic self-perceptions, self-perceptions of atmosphere, and social self-perceptions are currently considered as major domains that comprise the educational environment of medical schools. Competitive, authoritarian, stressful, or intimidating environments may de-motivate students and weaken their engagement for learning process. Environments that are collaborative, collegial, and supportive may enhance greater engagement of nursing students and the greater engagement may lead to improved preparedness for clinical training. (Roff, and McAleer 2001)..

Although the educational environment is a subtle and intangible concept, considerable progress has been made over the last quarter of the twentieth century in its conceptualization. The development of assessment inventories enable students' perceptions of their educational environment to be quantified and compared, either longitudinally within single health professions institutions, or between institutions. (Demirören et, al 2008) & (Roff, and McAleer 2001).

Many methods have been tried to obtain such a reading and these include questionnaire tools, focus group studies, student feedback...etc. Among them, the DREEM (Dundee Ready Educational Environment Measure) questionnaire is said to be one of the widely used and more specific tools in relation to assessing

educational environment, especially in relation to medical education (Roff, , et al. 2001).). DREEM was originally developed at Dundee and has been validated as a universal diagnostic inventory for assessing the quality of educational environment. (DREEM) is useful in identifying the strengths and limitations of the educational environment (Roff. 2005).).

Aim of the study

The present study was carried to identify the perceptions of students undertaking the curriculum of nursing program in Faculty of Applied Medical Science at Umm Al- Qura University to find out:

1. How students perceive the educational environment
2. Whether there is any difference between the perceptions of second year students (at the beginning of the program) and fourth year students (at the end of it).
3. What are the perceived strengths and weaknesses of the curriculum?
4. modify the perceived weakness.

2. Methods

Design

A descriptive study was used to assess student perception of educational environment of nursing program

Setting

The study was conducted at the nursing department, faculty of applied medical sciences, Umm Al- Qura University Makkah, KAS.

Subjects

The subjects for the study included 100 students. Twenty of them are fourth year (final year of the program) and eighty students from second year, (beginning of the program). The duration of collecting data was during the second semester in the academic year 1430- 1431 H, to be sure that the second year students are aware about educational environment.

Tool

The Dundee Ready Educational Environment Measure (DREEM) questionnaire is a generic, highly reliable and diagnostic inventory. It is a 50-item inventory where each item is scored using a five-point Likert scale with 0=strongly disagree, 1=disagree, 2=unsure, 3=agree and 4=strongly agree. Seven negative items are scored in reverse order. The 50 items have been categorized into five domains a) Students' Perceptions of Learning (SPL)-12 items; maximum score is 48; b) Students' Perceptions of Teachers (SPT)-11 items; maximum score is 44; c) Students' Academic Self-Perceptions (SASP)-8 items; maximum score is 32; d) Students' Perceptions of Atmosphere (SPA)-12 items; maximum score is 48; e) Students' Social Self-Perceptions (SSSP)-7 items; maximum score is 28. The total score for all subscales is 200

Ethical considerations

Before any attempt to collect data, a formal letter was issued from the Faculty of Applied Medical Sciences /Nursing Department- Umm Al Qura University, to obtain an official approval from the administrators of the faculty where the data were collected to conduct the study. The letter identified the researchers, the title and aim of the study. Code number for each student were be maintained and participation is voluntary.

Procedure

The questionnaire was administered at the end of year to both the student groups after a lecture class. In advance to administration of the questionnaire, the class was addressed regarding the purpose and process of collecting data. It was also explained that the data would be used for quality assurance as well as for research purpose and their co-operation was requested.

Statistical Analysis

The statistical package for social sciences (SPSS version11) was used to analyze data of present study. Descriptive statistics were applied to present the frequency distribution, percentages of socio demographic data of the students. The resulting scores for domains were interpreted using the guide proposed by **Roff, 1997** . For statistical analysis of the data for the whole 50 item inventory, scores for categorized domains and each item were both expressed as Mean \pm Standard Deviation (SD) and percent value. Independent samples t-test were used to identify the significance between subgroups. A significant level value was set at ≤ 0.05 .

3. Results

The objective of the present study was to identify the perceptions of students undertaking the restructured curriculum of nursing program in applied medical science in Umm Al- Qura University

Results are presented as follow:

- 1- Demographic data of the study sample (figure 1).
- 2- Students mean score and standard deviation to the educational environment dimensions (table1).
- 3- The difference between the students' perception of the educational environment dimensions as regard their level of education (table 2).

Figure (1) illustrated that the majority(80%) of students were second year and the rest (20 %) of them were fourth year . Table (1) showed that (98.7% & 100%) of students in second and fourth year were agree as regards their perception of learning respectively, conversely none of them were disagree as regards their perception of atmosphere In table (2) indicated that total highest total mean score of second & fourth years were perception of

learning(SPL)(37.45 \pm 4.9) followed by their perception of atmosphere SPA (32.9 \pm 3.7).

Table (3) showed that there was ($p = 0.1$) and ($p = .00$) statistically significant difference between second and fourth year students as regards their SASP and SSSP respectively, while there was no statistically significant difference between second and fourth year student in relation to SPL, SPT and SPA ($p = .23$, $.19$ and $.82$) respectively.

Table (4) illustrated that students perceptions as regards some items in DRRM in dimensions of SPL, SPT, SAP and SSP were scored greater than 3.0 as their teachers as being more knowledgeable. They are more encouraged to participate in their learning and had more confidence that the teaching was sufficiently concerned to develop their competence and The teaching strategies encouraged them to be an active learners.

They felt that their teachers were more patient, had better communication skills with patients and provided them with clearer learning objectives and they felt that their teachers provided feedback to them. Also, they perceived that much of what they have to learn seems relevant to a career in nursing, in addition students were markedly more pleased with their social life and felt more socially comfortable in class. They were also satisfied with their accommodation. Table (5) showed that students perceptions as regards some items in DRRM in dimensions of, SPT and SAP were scored less than 2.0 as, lecture, seminar and on the ward—took place in a less relaxed environment. Students agreed that their teachers were less ridiculed them. Also, they perceived that there is no cheating problem in their college

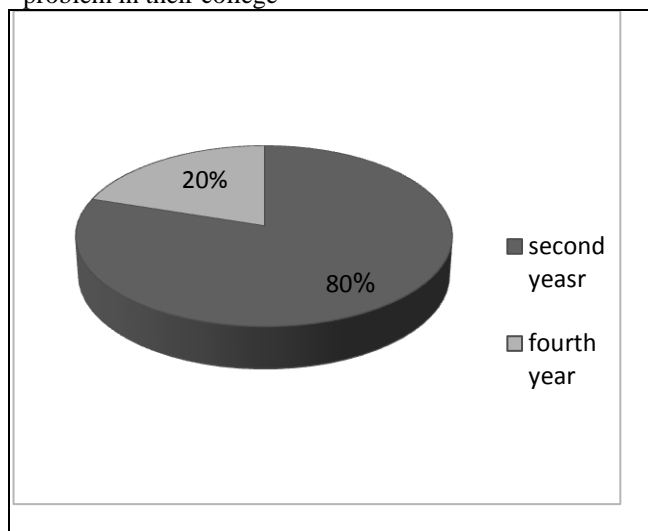


Figure (1): Frequency Distribution of students regarding to academic year data

Table (1): Frequency distribution of the students educational environment dimensions by the academic year (n=100)

Dimensions	Second year students n=(80)						Fourth year students n = (20)					
	Agree		Unsure		Disagree		Agree		Unsure		Disagree	
	N	%	N	%	N	%	N	%	N	%	N	%
Student Perceptions of Learning (SPL)	79	98.7	1	1.3	0	0	20	100	0	0	0	0
Student Perceptions of Teachers (SPT)	39	48.8	39	48.7	2	2.5	9	45	11	55	0	0
Student Academic Self-Perceptions (SASP)	28	35	50	62.5	2	2.5	12	60	8	40	0	0
Student Perceptions of Atmosphere (SPA)	19	23.8	61	76.3	0	0	3	15	17	85	0	0
Student Social Self-Perceptions (SSSP)	29	36.3	49	61.3	2	2.5	6	30	14	70	0	0

*agree = agree + strongly agree

*disagree = disagree + strongly disagree

*SPL: Students' Perception of Learning; SPT: Students' Perception of Teachers; SAP: Students' Academic Self –Perception; SPA: Students' Perception of Atmosphere; SSP: Students' Social Self –Perception.

Table (2): Total Mean Score of Two Groups for the Five Dimensions of DREEM

Dimensions	Max Score	Second year (n=80)		Fourth year (n=20)		Total (100)		T	P
		X	SD	X	SD	X	SD		
(SPL)	48	36.7	5.1	38.2	4.7	37.45	4.9	.17	.23
(SPT)	44	30.3	4.1	32.0	3.6	31.15	3.85	.12	.19
(SASP)	32	22.1	3.0	23.8	2.6	22.95	2.8	2.2	.01*
(SPA)	48	32.8	3.6	33.0	3.8	32.9	3.7	.21	.82
(SSSP)	28	18.7	3.1	19.4	1.9	19.05	2.5	1.1	.00*
Total	200	141.3	18.9	146.6	16.6	143.9	17.75	.24	.152

* = significant ($P \leq 0.05$)**Table (3): The difference between the students' perception to the mean score of educational environment dimensions.**

Dimensions	Second year (n=80)		Fourth year (n=20)		T	P
	X	SD	X	SD		
(SPL)	36.7	5.1	38.3	4.7	.17	.23
(SPT)	30.8	4.1	32.0	3.6	.12	.19
(SASP)	22.1	3.0	23.8	2.6	2.2	.01*
(SPA)	32.8	3.6	33.1	3.8	.21	.82
(SSSP)	18.7	3.1	19.4	1.9	1.1	.00*
Total	141.1	18.9	146.6	16.6	.24	.152

* = significant ($P \leq 0.05$)**Table (4): DREEM items with mean score greater than 3.0 (n=100)**

Item No.	Dimensions	χ	SD
5	The teaching is well focused (SPL)	3.2	.70
6	The teaching is sufficiently concerned to develop my Confidence (SPL)	3.1	.82
8	The teaching over-emphasizes factual learning (SPL)	3.2	.72
9	I am clear about the learning objectives of the course (SPL)	3.3	.73
10	The teaching encourages me to be an active learner (SPL)	3.1	.82
11	Long-term learning is emphasized over short-term (SPL)	3.1	.87
13	The teachers are knowledgeable (SPT)	3.5	.59
18	The teachers are good at providing feedback to students (SPT)	3.3	.68
20	The teachers give clear examples (SPT)	3.2	.75
24	Learning strategies which worked for me before continue to work for me now (SAP)	3.2	.75
25	I am confident about my passing this year (SAP)	3.2	.74
26	I feel I am being well prepared for my profession (SAP)	3.2	.77

31	Much of what I have to learn seems relevant to a career in nursing (SAP)	3.2	.70
33	This school is well time-tabled (SPA)	3.2	.70
36	There are opportunities for me to develop inter-personal Skills (SPA)	3.1	.80
47	I have good friends in this school (SSP)	3.2	.76
48	My social life is good (SSP)	3.1	.82

Table (5): DREEM items with mean score less than 2.0 (n=100)

Item No.	Dimensions	X	SD
15	The teachers ridicule the students (SPT)	1.8	1.08
32	The atmosphere is relaxed during the ward teaching (SPA)	1.9	.99
34	Cheating is a problem in this school (SPA)	1.1	1.3
39	I find the experience disappointing (SPA)	1.2	1.7

4. Discussion

Nursing program is an environment in which students are expected to experience various learning activities. It is very well known that curriculum is the most important determinant of the learning environment and learning environment is the most important determinant of the behavior of all the parties of education. Thus, it is expected that any curriculum change should involve changes in educational environment, management and organization to result in the predicted behavioral changes (Roff, 1997 and Demirören, et al, 2008).

The curriculum change was expected to build up a better educational environment, perceived as good by students. A continuous improvement in the educational environment of a curriculum is only possible by defining its weaknesses and strengths, thus, monitoring the perceptions of students at different stages about the educational environment is critical. To that end, the DREEM, a questionnaire used to assess the educational climate of health professional/medical schools, was used to identify how students perceived their educational environment (Till, 2004).

Students were interested in completing the inventory as evidenced by the good response rate. The overall mean DREEM score for our nursing program was found to be 143.9/200 (n = 100), indicating that, students' perceptions were more positive.

The finding of the study indicated that The DREEM global scores for students (143.9/200) is higher than the scores found by schools in Srilanka, Nepal, Nigeria and UK were reported as 108/200 (Demirören, et al, 2008), 130/200, 118/200 Roff, et al 2001, and 139/200 Abraham, 2008) respectively. The mean DREEM score for a medical school in India was reported as 107.44/200 (Mayya and, Roff 2004). Also, Miles, Leinster 2007) (113/200), (Varma, 2005) (102/200, Demirören, et al, 2008 (108/200), Nigerian students (118/200), and the scores of (Jiffry et al 2005) was (130/200). On the other hand, the scores of

students of this study are nearly to those of (Mayya and Roff : 2004) was (143/200) for British students.

The results of the present study showed that fourth year students have a more positive perception of the educational environment than second year students. Although (Roff, and McAleer (2001), have found the lowest DREEM score for year5 students, this results are comparable with the results of (Demirören, et al, 2008 and Roff. 2005). from Nepalese students showing the highest scores for year 3 students.

That is because of an inevitable adaptation period for year 2 students, just graduated from 11 years of a traditional education system to a completely different learning and teaching environment, should not be disregarded as a factor for the lower scores of year2students as well. To better define the weaknesses and strengths, the five essential domains and corresponding items of DREEM were comparatively interpreted. When the guide of (Roff, et al. (2001). was used to interpret the mean scores, all students perceive "a more positive approach" (37.45/48) for their learning; in the same way "high positive approach" (31.15/44) for their teachers; "feeling more on the positive side" (22.95/32) for their academic self-perception; "a more positive atmosphere" (32.9/48) for the atmosphere and "very good" (16.50/28) for their social self-perception. These results should be stimulating for the curriculum planners to transform students' perceptions about their educational environment to a higher level.

Conclusion

The present study revealed that both groups of students (second and fourth year) nursing students perceived the learning environment high positively. Nevertheless, the study also revealed problematic areas of learning environment in atmosphere in the faculty

which enabled staff members to adopt some remedial measures.

Recommendation

These data can serve as a baseline for a longitudinal quality assessment of students' perceptions of the changes planned for the nursing school at Umm Al Qura University, Saudi Arabia.

Further studies are needed to analyze educational environment down to the year levels

These data provide a starting point for further study of some of the influences on students' perceptions of atmosphere as they proceed through the course.

As the learning environment affects student motivation and achievement, it is important to get feedback from the students on how they are experiencing their learning environment.

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