Investigation of the Ideas of Clinical Nursing Students on Educational Environment of Poisoning Section in Razi Educational, Therapy and Research Center in 2014-2015 Academic Years

Morteza Rahbar Taremsari[1]., Alireza Badsar*[1]., Elham Fallahkheiri[2]

[1]Department of Forensic Medicine and Ethics, Guilan University of Medical Sciences, Rasht, Iran
[2]Department of Educational Research, Tonekabon Branch, Islamic Azad University, Tonekabon, Iran

ABSTRACT

Introduction: DREEM model is used as a diagnosis method for investigation of curricular problems and also effectiveness of change in education and identification of difference between real environment and desirable environment. This instrument evaluates educational environment space and learning environment. this study aims to investigate the ideas of students in three educational levels (second, third and fourth years) who had had experiences in educational hospitals of their universities.

Methodology: this is a descriptive sectional study which makes use of DREEM standard instrument and contains 50 questions measurable on Likert scale in five dimensions: 1. Understanding of learning, 2. Lecturers' awareness, 3. Academic self-awareness, 4. Level of awareness of the existing space and 5. Social self-awareness. Data were analyzed by means of SPSS.

Results: this study was conducted on 181 nursing students who spent their training time in poisoning section. The results showed that 9.9% of the respondents were male and 90.1% were female. Further, a majority of respondents belonged to 20-22 years age group (44.2%). 18.2% were aged below 20, 34.8% were aged 23-25 years, 2.8% were above 26. Most students were in the fourth year of education (66.3%). 11% were studying in the second year and 227% were studying in the third year. In terms of marital status, 84.5% were single and 13.4% were married. This research showed that mean of sum of acquired scores from five areas of educational space was 123 out of 200.

Conclusion: mean score of learning dimension (91.7%) was more than other areas. Student's understanding of his scientific ability ranked second (62.5%). Student understands of social conditions ranked third (57.4%). Considering the resulted mean values, it can be said that educational atmosphere and lecturers' awareness wee in undesirable status. Other areas were also in semi-desirable status. Furthermore, educational quality was evaluated to be desirable in the five areas.

KEYWORDS: environment, clinical, educational, DREEM model, clinical educational space, nursing training, learning and teaching.

INTRODUCTION

Ranking of universities and validation of educational institutes and programs have recently received a lot of attention. Therefore, educational programs try to approach to pre-defined standards for their learning and teaching activities. Different factors are effective in learning but the vital educational step is engagement of student in educational contents such that it helps them with motivation and proper understanding of curricular subjects. These factors can be affected both by individual former experience and his learning style and educational environment atmosphere. It must be mentioned that in educational theories of adults, educational atmosphere is as important as transfer of knowledge and experiences (Hichson, 2003). Gen defined educational environment as an expression of curricular programs (Gen, 2001, as quoted from Arabshahi et al). Rootman and Aivad (1970) defined learning environment as an expression of the impacts of different sections of curricular plan on students (Rootman and Aivad, 1970; as quoted from Arabshahi et al). Educational environment consists of all factors and events which play an important role in determination of medical students' success (Hichson, 2003). Therefore, understanding of educational environment and its challenges can help effective management of learning process and creation of appropriate changes (Gen, 2001, as quoted from Arabshahi et al). Learning is a complex process in which many different factors play roles. All attempts in education cycle are based on increasing student's learning capabilities. Learning is the interaction between professor and student which results in relatively permanent behavioral changes in students in three areas knowledge, skill and attitude (Gen, 2001, as quoted from Arabshahi et al). Studies have shown that students as receivers of educational services are the

*Corresponding Author: Alireza Badsar, Department of Forensic Medicine and Ethics, Guilan University of Medical Sciences, Rasht, Iran. E-mail; badsar@gums.ac.ir
Razi Hospital, Sardare jangal st, Rasht, Iran

best resources for identification of clinical educational problems because they have continuous relationship with this process (Madsley, 2001, as quoted from Arabshahi et al). Different factors influence educational atmosphere in educational environments and these dimensions can be determining in quality of education in an educational center. Therefore, relationship between educational environment which is understood and experienced by students and their educational satisfaction and success in a medical faculty has made it essential to study and evaluate medical faculty environment. Therefore, global association of medical training (1998) considered educational environment as one of the targets of evaluation of medical education programs. According to above discussion, investigation of environment should be an inseparable part of evaluation of medical faculties curricular plans (Sumentry, 2010, as quoted from Arabshahi et al). In global studies, further, necessity for measurement of educational atmosphere as an important index in learning in educational environments has mentioned and its quantification has been stressed. Considering the importance of educational atmosphere, one of the instruments for evaluation of educational quality can be measurement of educational environment because the atmosphere governing the education can be different in teaching and learning areas such that it is close to or far from standards. Many different models have been proposed for measurement of educational environment in institutes and faculties. First of all, College CUES model (university environment at scale) was proposed in 1963 by pace and the following dimensions were measured by this model (Warma, 2005, as quoted from Arabshahi et al). Facilitation of scientific-mental activities and academic progress include: scholarship, practicality, community, awareness and propriety (Warma, 2005 as quoted from Arabshahi). Indicators of a positive educational environment have been mentioned in different areas including institutional, curricular or social tasks in advices of educational atmosphere board ICCSD in Lowa University. These include equality, security and student's occupation in social services. Studies on atmosphere and environment of education in clinical area have been also reviewed. Hackinson conducted a scientific review and referred to factors affecting educational atmosphere in clinical section. These include motivation, appropriateness, the role of lecturer as an example and environmental factors (Hichson, 2003 as quoted from Arabshahi et al). Pimparyon et al also used adapted DREEM model for measurement of educational atmosphere in which ideas of nursing clinical students on educational atmosphere and its relationship with academic progress was investigated and the results showed that educational atmosphere was desirable (Pimparyon, 2002). Furthermore, Al-Hazimi conducted a research using adapted DREEM model based on folklore in medical university of MalekAbdol-Aziz in Saudi Arabia. He calculated total score of educational atmosphere and emphasized on this model for measurement and evaluation of quality in clinical sections (Alhazimi et al, 2004). Different models have been proposed for evaluation of educational atmosphere in faculties and institutes. One of the most famous instruments for measurement of educational atmosphere is Dundee Ready Educational Environment Measure (DREEM) which was developed by Doctor Suraf in 2001 (Arabshahi et al). Student motivation can be either internal (from student himself or herself) or external (prompted by external factors). Evaluations are usually strongest external factors in this regard. Students' internal motivations can be resulted from former experiences, mental ambitions and appropriateness of educational contents. This instrument also pays attention to lecturer's role. Eagerness for teaching, interest in primary experiences of students and their guidance help attract students' attention and facilitate knolwedge transfer (Hichson, 2003). Although physiologic needs like need for eating, drinking and relaxing seem to be ordinary in a classroom but many teachers have bitter experiences of teaching in warm or cold classrooms with inappropriate number of chairs and maybe most of them had continued teaching without even paying attention to education disrupting factors. It can be said that physical factors disturb teacher and students' attention and make them feel unsatisfied. Assurance of enough relaxation time and creation of an appropriate physical atmosphere is more or less a lecturer's task and is considered as a part of his or her role in education (Hichson, 2003). A lecturer should create an atmosphere in which a student feels safe, mentions his or her worries, feels his or her knowledge shortage and does not have restrictions with achieving knowledge. This safety feeling can be affected adversely by humiliation, nuisance, and threat to disclose private details of individuals. Teachers can create a calm atmosphere instead of humiliation and respect students and use restrictions and gaps in students" knowledge as educational stimulants. Remembering students' names, their involvement in teaching and so on are examples of motivation methods. Further, giving feedback to students regarding their educational performance is a way of respecting and helping (Hichson, 2003). Many factors help students with having a sense of belonging in a group or team. For instance, a respectful member, having one's voice listened, having a helpful role, colleagues with similar background and experiences are examples. Students have motivations with participation and consultancy. Their data in targets and structure of a course should be specified and valuated. In clinical jobs, employees should help medical students with preventing from feeling of ignorance. Instead, employees should be considered as capitals of a clinical team (Hichson, 2003, as quoted from Arabshahi). Admiration, appreciating words and useful sentences are more important than destructive criticisms. This can provide many positive situations for creation of self-esteem while an unwelcoming idea can destroy it. Physicists play their roles well in doctor-patient relationships but some of them are not able to generalize similar behaviors to teacher-student relations. In this regard, their personal

experiences from education, disturbance, temporal pressures and other stresses can be considered as destructive factors (Hichson, 2003). Habits which strengthen internal motivations result in deep learning. However, there may be some people who are not able to respond to education. Teachers should pay attention to appropriateness of lessons (or a particular section of study) for students (hichson, 2003). Learning has a very close relationship with motivation: for instance, relationship for immediate needs, future works, acquisition of license or degree regardless of contents. Main courses in medical level are weakly understandable for students. Teachers should explain need for these courses and allow students to see clinical expressions and experiments firsthand because they can be useful. Similarly, learning basic sciences in clinical cases is based upon problem-oriented learning. A challenging problem takes place when interns work because they need degrees and diplomas. Therefore, there should be a balance established between individual needs and expectations from professional performance (hichson, 2003). A teacher is a very strong (influential) factor in an educational environment. His or her activities, attitude (intonation, ideas), seriousness, and interest in subject influencesstudents indirectly. Subliminal messages have high capacities. Teacher's behavior and speech are very important room temperature, comfort of seats, noise; visual disturbances are environmental factors which influence individuals' motivation and concentration. Some of them are controllable by teachers and some are not. Regarding learners and their needs, encouragement and admiration can result in positive learning experience. Threats are usually harmful to personal situation and self-esteem but these challenges may be interesting (Hichson, 2003). Small educational groups can facilitate individual feedback but layout of chairs has also an important impact on students' participation. If students sit in traditional rows in a classroom, those sitting in corners feel isolated and abandoned but if they are grouped in a circle, their interactions will increase and teachers can sit beside the talkative student. Students can also work on subjects in teams so that they can share their learning (Hichson, 2003). Teaching in clinical sections is different from teaching in classroom and involves more violence as a result of absence of formulated working plans, inadequate familiarity with clinical and group teaching, and interference of therapy-hygienic services with educational services. Therefore, students can observe clinical doctor and take latent notes on clinical teaching. They should not feel threatened because this may harm patient and his/her family. They also need not to be humiliated. They should be pleased and know that their new post can help increase their operational learning power (hichson, 2003).

One of the factors which affectstudents' efficiency is the structure and environment of first learning. Situational or environmental factors constitute learning space (Bigs, 1985; as quoted from Parsa and Saketi, 2007). Learning environment received attention firstin early 1960s when Blum stated that classroom learning environment can be used as a variable for prediction of students' academic progress. At that time, studies on students' academic success focused on efficient learning environments (Anderson and Walberg, 1974; Walberg, 1974 as quoted from Parsa and Saketi, 2007). Interest in research on learning environment increased especially when students' cognitive and emotional learning efficiency and attitudes are largely affected by their understanding of environment (Anderson and Walberg, 1974, as quoted from parsa and Saketi, 2007). Since then, learning environment referred to students and lecturers' common perception of classroom (Freezer, 1986, as quoted from Parsa and Saketi, 2007). Ted Brown et al (2011) conducted a research on students' environmental learning training in Australian Monach University on 548 students in 8 majors. The results of scores were high and showed positive environmental teaching among students. Women had higher scores than men. Students who had registered for their majors immediately after finishing high school had lower DREEM scales than those who had not registered immediately after finishing high school. Dimolatis et al (2010) conducted a sectional study aimed at translating DREEM questionnaire and its normalizations. In his research, translations conducted by three Greek translators were revised by 5 bilingual translators. This study was conducted on 831 students in 6 medical sciences universities in Greece. 487 questionnaires were answered. Samples were selected in terms of gender and not in terms of educational level or the type of medical sciences university. Cronbach's alpha coefficient and retest method were used for investigation of reliability of DREEM questionnaire and analytical factors were used for evaluation of validity of the questionnaire. Alpha coefficients were equal to 0.79, 0.78, 0.69, 0.68, and 0.48 for learning, teachers, university, atmosphere, and social scale respectively. Further, it was specified that in a subset of all samples, test and retest alphas were equal to 0.90 and mean scores of questionnaire items had high correlations (p<0.001). Therefore, correlation between alpha and test-retest showed that Greek translations of DREEM scale are effective instruments for evaluation of medical educational environment and logical differences observed between universities indicate sensitivity of this instrument. University is the most important center for human education and like other organizations; it has its special culture which can be influential on education of capable and entrepreneurial individuals. Thisdepends on an appropriate organizational culture. Universities are valuable centers and cause social transformations and prepare young people for persistent changes in the world. University is not important only for its scientific and technical competencies but it is considered as a cultural center. University has had important impacts on social and political and cultural transformations in critical stages (Ahmadi et al, 2010). Appropriate organizational culture can motivate employees and students. It must be mentioned that valid learning environment makes it possible to do a significant measurement of learning environment and therefore provides better criteria for

development of environment. Therefore, scientific goal of the research is to investigate the ideas of clinical nursing students on the status of educational environment of poisoning section in Razi hospital in 2014-2015 academic years. Research hypotheses are as follows:

1. It seems that women and men have different attitudes towards educational environment.
2. It seems that married and single students have different attitudes towards educational environment.
3. It seems that students' attitude in different academic years to educational environment is different.
4. It seems that there is a relationship between respondents' age and their attitudes towards environment.

RESEARCH METHODOLOGY

This is a sectional descriptive study. Statistical population of the research included all nursing students (second year and above) of Lahijan Azad University. 181 people were selected by means of random sampling according to Morgan Table.

Research instrument
Dundee's Ready environmental education measurement scale (DREEM)

This questionnaire contained 50 questions all based on 5-point Likert scale (from zero to 4) in 5 dimensions (with a score range of zero to 200). Student's perception of learning, students' perception of teachers, students' perception of their scientific capabilities, and students' perception of their social conditions were dimensions of the questionnaire. Considering the number of questions in each dimension, the maximum score of each dimension was calculated as follows: student's perception of learning dimension (12 questions with maximum score 48), perception of teachers (11 questions with maximumscore equal to 44), their perception of scientific abilities (8 questions with maximum score equal to 32), educational environment (12 questions with maximum score equal to 48), and social status (7 questions with maximum score equal to 28). Total score of the questionnaire was classified into four groups (undesirable (0-50), semi-desirable (50-100), desirable (101-150), and very desirable (151-200). In order to prepare Persian version, first we had psychology, statistics, and measurement lecturers of Guilan Medical Sciences University translate the DREEM into Persian. Then, we asked two English language experts (one master degree translator of English language and one lecturer with his PhD in teaching English language) were asked to translate the Persian version again into English. Then we amended gaps in matching the two translations. After that, the obtained questionnaire was used in a trial in order tofinalize and correct the problems. DREEM questionnaire contains 41 positive questions which were scored from zero to 4 and also contained 9 negative questions which were reverse-scored from zero to 4. This questionnaire has a total score and five scores for sub-scales considering students' perceptions of learning, teachers' understanding, academic self-perception, awareness of educational environment and social self-awareness. In all measurements (sections, subscales and total score), high scores indicated good environment (FallahKheiri, 2012).

1. perception of learning, 2. Awareness of teachers, 3.Academic self-awareness, 4.Awareness of existing environment, 5. Social self-awareness

Subscale I: this dimension is students' perception of learning and is measured by questions numbered 20, 16, 26, 22, 3, 24, 13, 29, 41, 7, 12, 38, 30, 44, 32, 1, 46, and 31 with 18 questions.

Subscale II: this dimension measured awareness of existing environment and included questions number 49, 34, 11, 37, 23, 42, with 6 questions.

Subscale III: this dimension was academic self-awareness and included questions number 10, 19, 15, 47, 5, 45, and 36, with 7 questions.

Subscale IV: this dimension referred to lecturers' awareness and included questions number 8, 35, 9, 39, 4, 6, 18, with 7 questions.

Subscale V: this dimension was social self-awareness and included questions number 17, 14, 50, 28, 48, 27, and 25, with 7 questions

Moreover, 9 questions were scored reversely.

Data analysis method
Descriptive and inferential statistics were used for analysis in this research. Pearson correlation coefficient and simultaneous regression test were used for testing the hypotheses. All statistical analyses were conducted by means of SPSS20 software.

Findings
Descriptive results of the research are as follows:

Table 1: a comparison of mean and standard deviation of scores in educational environment areas based on evaluated variables

	mean	SD	percentage
learning	44	11.2	91.7
Educational atmosphere	15	4.07	34.1
Student's perception of his/her scientific ability	20	4.08	62.5
Awareness of teachers	17	4.3	35.4
Student's perception of his/her social conditions	16	3.9	57.4
Sum of dimensions	123	24.3	61.5

As it can be seen in table 1, mean value of the sum of acquired scores from the five dimensions is 123 out of 200 (61.5%). Mean score of learning (91.7%) is greater than other areas. Student's perception of one's scientific ability ranks second (62.5%). Student's perception of social conditions ranks third (57.4%). Considering mean values, it can be said that educational environment and lecturers' awareness are in undesirable conditions and other areas are in semi-desirable conditions. Furthermore, educational quality is in good conditions.

Table 2.investigation of difference between men and women attitudes towards educational environment

df	T value	Significance level	SD	mean	number	
179	0.832	0.4	25.2	130	130	**male**
			24.2	125	125	**female**

Table 2 investigates difference between women and men attitudes towards educational environment. Significance level of the test is equal to 0.4 and greater than 0.05. Therefore, it can be concluded that the hypothesis is rejected.

Table 3.Investigation of difference between married and single students' attitudes towards educational environment

	number	mean	SD	Significance level	T value	df
single	153	122.9	21.8	0.001	4.07	177
married	26	142.8	28.9			

Table 3 investigates difference between married and single students' attitude towards educational environment. Significance level of the test is 0.001 and smaller than 0.05. therefore, it can be concluded that the hypothesis is rejected. A comparison of mean value of scores of educational environment in married and single students shows that married students have better attitudes to educational environment.

Table 4.Investigation of difference in students' attitudes towards educational environment in different academic levels

	number	mean	SD	Significance level	F	df
Second year	20	121.2	26.1	0.3	0.98	0.3
Third year	41	130.2	29.1			
Fourth year	120	125.9	22.1			
sum	181	126.4	24.3			

Table 4 investigates relationship between family health and respondents' age. Significance level of the test is 0.3 and greater than 0.05. Therefore, it can be concluded that there is no difference between attitudes of students in different academic levels towards educational environment. the hypothesis is rejected and there is no relationship between the two variables.

Table 5.investigation of relationshipbetween respondents' age and their attitude towards educational environment

number	Significance level	statistic
181	**0.5**	**0.046**

Table 5 investigates relationship between respondents' age and their attitudes towards educational environment. Significance level of the test is 0.5 and greater than 0.05. Therefore, it can be concluded that the researcher's hypothesis is rejected and there is no relationship between the two variables.

CONCLUSION AND DISCUSSION

This study aimed to investigate clinical nursing students' ideas on status of educational environment of clinical sections of hospitals under control of Lahijan Islamic Azad University during 2014-2015 academic years. The results showed that married and single students' attitudes towards educational environment are different. A comparison of total mean value of educational environment in married and single students shows that married students have more desirable attitudes towards their educational environment. this result is consistent with the results of studies conducted by Dimolatis et al (2010) and Tedbrown et al (2011). According to the studies, one of the main determinants of clinical education effectiveness is teachers and trainers because they transfer their knowledge to students using their characteristics like establishment of effective relationship. It can be said that a trainer is a bridge between theory and clinic. Therefore, one of the main issues in planning for improvement of clinical education is trainer and his/her performance. One of the effective factors in education is educational environment atmosphere which involves personnel treatment and trainers play important role in creation of atmosphere. Students believe that a good environment for learning is one in which students are respected and have adequate opportunity for learning and achieving their targets. In general, planning and implementation of plans regarding clinical education requires revision because an appropriate educational plan can result in increasing care-taking services quality and clinical education quality. An important point regarding educational planning is consistency between targets and existing facilities and the fact of being realistic. This can be different for universities and appropriate planning depends on different conditions of universities (pour Namdar et al, 2015).

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