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**STUDENTS' PERCEPTION OF LEARNING ENVIRONMENT WITH DREEM
QUESTIONER AT MEDICAL STAFF STUDENT**

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ABSTRACT

The educational environment is crucial in determining the success of graduate medical education for medical staff. The Dundee Ready Education Measure (DREEM) is a validated tool to assess the educational environment created in medical schools. There is evidence that the educational environment encountered by students has an impact on satisfaction with the course of study, perceived well-being, aspirations and academic achievement. The European Higher Education Area (EHEA) has arisen as a result of new circumstances in the field of education, economy and politics on the verge of the millennium. The aim of our investigation was to access the satisfaction of education from students by our way of application of Bologna process and the quality of educators. **Material and method:**

All students (n=140) in series of senior UCFM medical undergraduates adequately of nurses and physiotherapist from second year of study was included. After explaining the study and the DREEM questionnaire and obtaining their consent, it was administered to the study population on 18.12.2012. Anonymity was maintained. The t-test was used to analyze data based on DREEM guidelines. DREEM consists of 24 questions in 6 categories. **Results:** The score in 5 of six group of questions was in level 3, and the percentage of it was significant. The lowest score was for 3.2, for students perceptions of teachers. **Discussion:** DREEM is usual questionnaire for educational environment in medical schools. It has many possibilities to analyze different factors who can increase or decrease educational process. It was used in many countries worldwide, in economic development and un development. **Conclusion:** We have many mechanisms to control the educational process with internal and external projects from Ministry of education. Teachers is good to assess this questioner, time by time, or once yearly in our faculty to have reflective information for quality of their lectures and skills of education.

Key words: medical staff, DREEM, quality of teachers skills

1.1 Introduction

There is evidence that the educational environment encountered by students has an impact on satisfaction with the course of study, perceived well-being, aspirations and academic achievement. In addition to being measurable, the educational environment can also be changed; thus enhancing the quality of the environment and the medical education process itself.^{3,4} Innovations in medical curricula and increasing diversity of the student population on medical courses have lead to increasing recognition of both a desire and a need to evaluate the educational environment of medical schools.¹⁴

The European Higher Education Area (EHEA) has arisen as a result of new circumstances in the field of education, economy and politics on the verge of the millennium. Across the world economies and societies have now agreed that knowledge is one of the main resources for social and economic development. In this context, universities take a central role in the competitiveness of any country. Although most of the West Balkan universities have been a part of Bologna process for a number of years, they still have outdated and highly repetitive curricula, outdated teaching methodology and highly structured mono-disciplinary programs that cannot respond to the market needs. Focus is placed on the theory, with practical skills and knowledge being neglected. Moreover, there is a lack of relevant government and institutional strategies and legislation for cooperation between high education, economy and society as a whole⁴. Although Republic of Macedonia is member of the Bologna process, it is still in the beginning phase of the process of setting up an education and training system able to support their economic and social development³. From the point of view of the curriculum, the EHEA emphasizes the fact that students are in the centre of the teaching-learning process and, consequently focusing on learning⁴.

Therefore, universities are faced with a situation in which they have to plan teaching by formulating the competences that each degree course at the project partner universities will need to offer to students. In this academic context, students should develop certain competences through certain learning activities.

The Dundee Ready Education Environment Measure(DREEM) was designed to measure the educational environment specifically for medical schools and other health professions. It was developed over 10 years agousing a Delphi panel of faculty members from international medical schools/health professions and then tested on students in several countries for validation purposes.

High Medical School of Bitola is member of University St. Clement Ohridski of Bitola. The university is established 33 years ago. In the High Medical School they are making,

education for few medical staffs: nurse, physiotherapists, midways, radiologists and labor technicians. We are working by the program from Bologna process and it is evaluating from the Ministry of education.

The aim of our investigation was to access the satisfaction of education from students by our way of application of Bologna process and the quality of educators.

1.2 Material and method

All students (n=140) in series of seniorUCFM medical undergraduates adequately of nurses and physiotherapist from second year of study was included. The gender distribution of the population was almost equal. Ethical clearance was obtained from the UCFM ethics committee. After explaining the study and the DREEM questionnaire and obtaining their consent, it was administered to the study population on 18.12.2012. Anonymity was maintained. The t-test was used to analyze data based on DREEM guidelines. DREEM consists of 24 questions in 6 categories. Each positive statement scores 1-4 on a 4-point scale was used. Items with a mean score of 3 and above are considered positive and items with a mean score of 2 and below are considered as problem areas and were identified in the study population. Items with a mean score between 2 and 3 are considered as aspects of the educational environment that require enhancement. DREEM has five subscales and a maximum score of 3360 points and minimum of 840 point. The subscales comprise: 1. Students' perception of all education (SPE); 2. Students' perception of learning (SPL), 3. Students' perception of teachers (SPT), 4. Students' academic self-perception (SAS), 5. Students' perception of atmosphere (SPA), and 6. Students' social self-perception (SSS). The scores for each subscale were interpreted on a four-tiered scale, the top tier representing the highest score.

The questioner is follow:

1. Students' perception of all education (SPE)
 1. Very poor
 2. Plenty of problems
 3. More positive than negative
 4. Excellent
2. Students' perception of learning (SPL)
 1. Very poor
 2. Teaching is viewed negatively
 3. A more positive perception
 4. Teaching highly thought of
3. Students' perception of teachers (SPT)
 1. Abysmal
 2. In need of some retraining

3. Moving in the right direction
4. Model teachers
4. Students' academic self-perception(SAS)
 1. Feeling of total failure
 2. Many negative aspects
 3. Feeling more on the positive side
 4. A good feeling overall
5. Students' perception of atmosphere(SPA)
 1. A terrible environment
 2. There are many issues which need Changing
 3. A more positive atmosphere
 4. A good feeling overall
6. Students' social self-perception(SSS)
 1. Miserable
 2. Not a nice place
 3. Not too bad
 4. Very good socially

1.3 Results

The distribution of female is higher than male, because in our population, female are more interested in studying for medical staff professions.

There were more positively than negatively 2462 (73%) point for all 6 questions from total maximum positive score of 3360 points. The answer from all six questions and answer, with score points is showing in table 1. From this table we can analyze all questions one by one. In question 1, the most points are 1.3, (63%) of answer, and that mean they are looking for the all aspects in the learning process it is more positive than negative. In question 2, students perception of learning, the highly score is in 2.4 (58%), and students have positive perception for learning process. In question 3, were the students scoring the teachers, the most percent's of answers we have in 3.3, (49%) is moving in right direction. Student academic self-perception is too high 4.4 (49%). The most of them had an academic self-perception that was more on the positive side. Faculty atmosphere was perceived as 5.2(60%), and there are many issues which need changing. More than half 6.3 (75%) thought that the society they live in is not too bad. The maximum scores of answers were tested with differences of proportions and there are all significant. The total score by four scores compared with total maximum score is shoving in table 2.

Tab.1 Results from DREEM questionnaire

No of question	Answer	Frequentation	Score	Percentage	significant
1	1.1	2	2	0.47	
	1.2	18	36	8.41	
	1.3	90	270	63	T=3.3,p<0.01
	1.4	30	120	28.12	
Total score max 560			428	100	
%			76		
2	2.1	6	6	1.3	
	2.2	16	32	7	
	2.3	52	156	34	
	2.4	66	264	57.7	T=8, p<0.01
Total score max 560			458	100	
%			82		
3	3.1	6	6	1.4	
	3.2	28	56	13	
	3.3	68	204	49	T=11.3,p<0.01
	3.4	38	152	36.6	
Total score max 560			418	100	
%			75		
4	4.1	0	0	0	
	4.2	30	60	14	
	4.3	70	210	49	T=11.4,p<0.01
	4.4	40	160	37	
Total score max 560			430	100	
%			77		
5	5.1	22	22	7.5	
	5.2	88	176	60	T=10.8,p<0.01

	5.3	24	72	24.5	
	5.4	6	24	8	
Total score max 560			294	100	
%			53		
6	6.1	2	2	0.5	
	6.2	6	12	2.8	
	6.3	108	324	75	T=4.5,p<0.01
	6.4	24	96	21.7	
Total score max 560			434	100	
%			78		

Tab.2 Percentage of scores by total maximum score

Score max.3360 points	Total points in 6 questions	%	Significant
Score 1	44	1.3	
Score 2	372	11	
Score 3	1236	37	T=31.5, p<0.01
Score 4	816	24	
Total	2462	73	

The most percentage have score 3, and that mean we have moderate middle population of students who have overall satisfaction of educational environment.

1.4 Discussion

The Dundee Ready Education Environment Measure (DREEM) was published in 1997 as a tool to evaluate educational environments of medical schools and other health training settings and a recent review concluded that it was the most suitable such instrument.⁷

It give us many possibilities for analyzing, like gender compare of answers, compare of answers of different age groups of students, to assess the two or more medical different schools.¹

DREEM can be used for identification certain problem areas and areas that require enhancement in the medical staffschools.⁶The majority of authors report the means of

individual items, subscales and the total score. Where the aim is to diagnose problem areas, several authors have adopted it for their aim of investigation and medical problems.¹³

In many of them is used T-test, or Mann–Whitney U test for statistical analyze⁵. Chi-squared test is used for analyze between groups. We used t-test, to access the significant of level of score answers.

Examination of the published literature suggests that the DREEM has not been used, as yet, for profiling students. In the future when investigating, for example, predictors of success at medical school medical educators may find it useful to include the perception of educational environment as a possible predictor, utilizing DREEM scores. Recently, following a review of the available instruments, Soemantriet al.¹⁵ concluded that DREEM was likely to be the most suitable instrument for measuring the educational environment in undergraduate medical institutions. Such a review may lead to a further increase in the frequency with which the DREEM is used and its data are reported. This reinforces the need for consistent analysis and reporting, where possible, to enable the DREEM to be used more effectively and consistently across institutions. The lack of uniformity and clarity about the best way to analyze and report DREEM, the fact that those who undertake the course evaluation are not usually people who work with statistics. The need for some clear, evidence-based recommendations on how DREEM should be processed by evaluators, both for routine evaluation and for publication.

The DREEM is used at the Norwich Medical School, University of East Anglia (UEA), as part of the annual evaluation process so that we can compare our own data over time and across cohorts, and to enable comparisons to be drawn with other medical schools using the DREEM. However, whilst using the DREEM we have become aware that there is considerable inconsistency in the way the DREEM is reported and analyzed, which makes comparison between institutions difficult.¹⁶

Our school is with 25 years experiences, but the new models of education must be control in two directions, how it is accepted from the students and to evaluate the effect of education. In past five year we have published some studies. The purpose of our research in those was to evaluate the effect of educational model for theoretical and practical education.⁸⁻¹²

The quality of education is controlling by government and ministry of education with projects for internal and external evaluation.^{17,18}

1.5 Conclusion

The educational environment defined as everything that happens within the classroom, department, faculty or university is crucial in determining the success of undergraduate medical education.

From our investigation we can conclude as follows:

1. Students have more positive than negative perceptions for the whole educational process at the faculty and university.
2. Students have more positive than negative perceptions for themselves like students, academic persons and future citizens with university level education.
3. We must make some changes in teaching models to increase the effects of education, especially practical education.
4. At the moment, the government is giving many educational possibilities and the atmosphere for education is more positive.
5. In times of global economic crisis, they expressed a social self-perception that is not too bad.

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