

## Brief Communication

# Assessing Medical and Dentistry Students' Perception of Learning Environment in Kermanshah University of Medical Sciences (2015-2016)

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## Abstract

This study originated from a desire to learn how students perceive the educational environment in medical and dental schools. This descriptive study was done using the standard tool DREEM on 472 students of medicine and dentistry at Kermanshah University of Medical Sciences (KUMS). Reliability and validity of the Persian version of DREEM questionnaire were approved. The questionnaire consists of the student's socio-demographic information and 50 questions in 5 domains of learning. At the end, the results were analyzed using the SPSS 16 software and reported as follows: students' perception of learning mean score  $20.39 \pm 5.92$  from 48; students' perception of teachers  $20.96 \pm 6.05$  from 44, students' academic perception  $14.71 \pm 5.58$  from 22, students' social perception  $13.85 \pm 3.94$  from 28 and students' perception of atmosphere  $22.58 \pm 5.93$  from 48. The students' attitude towards the condition of the educational environment in Medical and Dental Schools of KUMS on the basis of DREEM model is observed as moderately favorable which means there are some problems in this regard.

**Keywords:** Education, Dentistry, Medical, Students, Environment

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## Introduction

Medicine and Dentistry require gaining scientific and professional skills, and high quality of educational services (1). The educational environment is a determining factor to motivate the students. An unfavorable educational environment suppresses learning in students (2). Among different methods of service quality evaluation in higher education, evaluation of students' views plays a very important role in educational decision-making (3). Thus, it is necessary to take dental and medical students views into consideration to bring about appropriate changes in the

curriculum (4). Various patterns have been suggested for environmental measurement and the atmosphere dominating training in medical schools. One of the questionnaires for quantitative measurement of the educational environment in medical and other health institutes is called DREEM (Dundee Ready Education Environment Measure) which was provided in 1997 by Dr. Susan Rough at the University of Dundee on Scotland (4). Assessment and recognition of educational status are necessity in each academic center for improving and upgrading the level of training in different dimensions.

There are currently no studies examining the educational environment of Medical and Dental Schools of Kermanshah University of Medical Sciences (KUMS). The present study helped identify the favorable and unfavorable areas in the learning environment of these schools. Therefore, the aim of this study was to evaluate the educational environment of the Medical and Dental Schools of KUMS to identify the problems and, using the results, to improve the quality of the educational environment of these schools.

## Methods

This descriptive study was conducted in the Schools of Medicine and Dentistry of KUMS in 2015. The sampling method of the study was convenience sampling. Participants were 472 students. DREEM questionnaire was used to estimate the perceptions of dental and medical students of KUMS in terms of their educational environment. Reliability and validity of the Persian version of DREEM questionnaire have been approved by Fallah kheiri Langroudi et al. (5). The DREEM questionnaire has two sections: demographic information and 50 items divided into 5 categories: students' perception of learning, students' perception of teachers, students' academic self-perception, students' perception of atmosphere, and students' social self-perception. Items were scored with Likert scale as follows: 4 = strongly agree, 3 = agree, 2 = unsure, 1 = disagree, and 0 = strongly disagree. The total score of the inventory would

be 0-200. The greatest score of each item based on DREEM is evaluated as follows: students' perception of learning, 12 questions with at most 48; students' perception of teachers, 11 questions with at most 44; students' social perception, 7 questions with at most 28; students' academic perception, 8 questions with at most 32; and the students' perception of atmosphere, 12 questions with at most 48.

We used descriptive statistics measures such as mean and standard deviation and frequency table. The data were analyzed using SPSS-16.

## Results

Among 472 students, 199(42.2%) were male, and 273(57.8%) were female. 265(56.1%) were medical students and 207(43.9%) were dental students. 36(7.6%) students were younger than 20 years old, 419(88.8%) students were 20-30 years old, and 17(3.6%) were more than 30 years old.

The overall mean score was 92.49 out of a maximum of 200, as broken down into: the mean score of students' perception of learning (SPL)  $20.39 \pm 5.92$ , the mean score of students' perception of teachers (SPT)  $20.96 \pm 6.05$ , the mean score of students' academic perception (SAP)  $14.71 \pm 5.08$ , the mean score of students' perception of atmosphere (SPA)  $22.58 \pm 5.93$ , and the mean score of students' social perception (SSP)  $13.85 \pm 3.94$  (Table 1).

**Table 1. Mean (SD) subscales and total DREEM scores according to sex, age and schools of KUMS**

Subscales	SPL	SPT	SAP	SPA	SSP	Overall DREEM	
<b>Max scores</b>	48	44	38	48	28	206	
<b>Sex</b>	<b>Female</b>	19.67(5.95)	20.70(6.27)	14.11(4.96)	22.12(6.11)	13.81(3.99)	90.40(22.4)
	<b>Male</b>	21.30(5.75)	21.32(5.73)	15.14(5.14)	22.21(5.64)	13.90(3.88)	95.35(21.06)
	<b>P-value*</b>	0.002	0.265	0.002	0.049	0.799	0.016
<b>Age</b>	<b>Age ≤20</b>	21.72(5.02)	23.31(5.40)	16.58 (4.50)	25.25 <sup>b</sup> (5.04)	15.00(3.87)	101.86
	<b>Age 20-30</b>	20.14(5.98)	20.76(6.07)	14.50(5.07)	22.30(5.94)	13.78(3.94)	91.48(21.97)
	<b>Age ≥30</b>	23.76(4.92)	20.88(6.24)	16.00(5.89)	23.82(6.38)	13.06(3.86)	97.53(22.62)
	<b>P-value**</b>	0.017	0.053	0.035	0.011	0.143	0.015
<b>School</b>	<b>Medical</b>	20.17(6.18)	21.66(5.90)	14.83(5.11)	22.98(5.91)	14.08(3.79)	93.71(21.74)
	<b>Dental</b>	20.69(5.58)	20.06(6.13)	14.56(5.05)	22.07(5.95)	13.55(4.12)	90.93(22.25)
	<b>P-value*</b>	0.345	0.004	0.555	0.1	0.151	0.173
<b>Total</b>	20.39	20.96	14.71	22.58	13.85	92.49	

Abbreviations: DREEM, Dundee Ready Education Environment Measure; SD, standard deviation; SPL, students' perception of learning; SPT, students' perception of teaching; SAP, students' academic perception; SPA, students' perception of atmosphere; SSP, students' social self-perception

\* Independent samples t-test

\*\* ANOVA/Tukey

## Discussion

This study suggests that students in Medical and Dental Schools at KUMS generally have plenty of problems tow

ard their course environment, which is similar to other studies worldwide (6, 7).

The mean of students' perception of learning represented a negative value; the result was the same as similar studies,

such as the one by Imanipour et al. in Nursing School in Tehran/Iran (8). However, in Kuwait and India medical universities, students' perception of learning was positive (9, 10). Teachers may be advised to plan clinical encounters keeping in mind a specific set of curricular objectives, rather than teaching opportunistically on whatever case comes along (7).

The mean score of students' perception of teachers was negative; it can be explained as the dental school is new and it needs more time to excel. The result was similar to studies done in different medical universities (9, 10). With the current emphasis on self-directed and life-long learning, teachers are no longer simply providers of information, but should facilitate the acquisition of attitudes and skills necessary for learning (8).

The students' academic perception show many negative aspects, the same result as that of Andalib et al. study (6). Our students have limited exposure to clinical teaching, and thus, may not be plagued by the unstructured and chaotic teaching that seems to oppress our students.

There are many issues which need to be changed in the field of students' perception of atmosphere. The result was the same as the study by Imanipour et al. (8). Implementation of contemporary recommendations for improving student learning in these schools is necessary. There were "many negative aspects" in academic self-perception; "many issues that require a change" in the atmosphere. Their social self-perception can be concluded as this was "not a nice place".

## Conclusion

In General, the overall mean score of dental and medical students was 92.49 out of a maximum of 200. That is supposed to indicate a "fairly negative attitude". This study suggests that students have some problems in the field of learning, teaching, educational atmosphere and social and academic environments. More professional attention towards these problems is demanded in order to upgrade the students' learning environment.

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