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Perception of medical students toward their learning environment, field of study, and career prospects

Background: Providing a proper learning environment promotes motivation, satisfaction, and an overall positive perception in students; therefore it is essential for training skillful proficient doctors. Hence, the present study aims to assess the viewpoints of medical students on learning environment, field of study, career prospects, and the correlation between them.

Methods: This study is a descriptive cross-sectional correlational study with a sample size of 165. Data was collected through standard questionnaires of DREEM to assess the learning environment as well as the Hasanloo et al. questionnaire to assess attitudes toward the field of study and career prospects. Data normality was measured using Kolmogorov Smirnov test. Correlation between attitude toward learning environment, field of study, and career prospect was evaluated by Pearson test.

Results: The mean total score of 97.83 obtained in DREEM test, indicated a semi-optimal environment and did not show a significant difference in preclinical, and clinical students. Scores regarding the perception of the field of study and career prospects were 31.60 and 21.20, respectively, which indicates the students' optimal perception of the field of study and career prospects. Career prospect' score in preclinical students was higher than clinical students ($p < 0.05$). Pearson test showed a positive correlation among attitude toward learning environment, field of study, and career prospect.

Conclusions The results of this study showed that students' perception of the learning environment is semi-desirable and needs planning for improvement that can be effective in the development of attitudes toward field of study and career prospects too.

Keywords: learning environment, career prospect, field of study, Medical student, DREEM questionnaire

تصور طلاب الطب تجاه بيئتهم التعليمية ومجال الدراسة وآفاقهم المهنية

الخلفية: إن توفير بيئة تعليمية مناسبة يعزز الحافز والرضا والتصور الإيجابي العام لدى الطلاب، وبالتالي فهو ضروري لتدريب الأطباء الماهرين والمتمرسين. ومن ثم تهدف الدراسة الحالية إلى تقييم وجهات نظر طلاب الطب في بيئة التعلم، ومجال الدراسة، والآفاق الوظيفية، والارتباط بينهم.

المنهج: الدراسة الحالية عبارة عن دراسة ارتباطية وصفية مقطعية. تم اختيار ١٦٥ طالباً من طلاب الطب في العلوم الأساسية والسريرية بشكل عشوائي من بين ٧٧٢ عضواً في جامعة شهركرد للعلوم الطبية بناء على حجم عينة من مجموعة سكانية محدودة. تم استخدام استبيان قياسي (DREEM) لتقييم بيئة التعلم وتم استخدام الاستبيان الذي أعده حسنلو وآخرون في جامعة زنجان لتقييم المواقف تجاه مجال الدراسة وآفاق العمل. تم استخدام اختبار Kolmogorov-Smirnov لتقييم الحالة الطبيعية للبيانات واستخدم اختبار Pearson لتقييم العلاقة بين المواقف تجاه بيئة التعلم ومجال الدراسة والتوقعات المهنية.

النتائج: أشارت النتيجة الإجمالية المتوسطة البالغة ٩٧,٨٣ التي تم الحصول عليها في اختبار DREEM إلى بيئة شبه مثالية ولم تظهر فرقاً معنوياً في مواقف الطلاب السريري وغير السريري تجاه بيئة التعلم. كانت الدرجات المتعلقة بتصور مجال الدراسة والآفاق المهنية ٣١,٦٠ و ٢١,٢٠ على التوالي، مما يشير إلى تصور الطلاب الأمثل لمجال الدراسة وآفاق العمل. كان الموقف تجاه الآفاق الوظيفية بشكل ملحوظ في طلاب العلوم الأساسية أعلى من الطلاب السريريين و قبل السريري ($p < 0.05$). كما تشير نتائج اختبار بيرسون إلى وجود علاقة إيجابية بين المواقف تجاه بيئة التعلم، مجال الدراسة والآفاق الوظيفية.

الخلاصة: إن تصور الطلاب للبيئة التعليمية هو شبه مثالي و يحتاج إلى التخطيط الذي يمكن أن يكون فعالاً في تحسين المواقف تجاه مجال الدراسة والوظيفة المستقبلية.

الكلمات المفتاحية: بيئة التعلم، المستقبل الوظيفي، مجال الدراسة، طالب الطب، استبيان DREEM

درک دانشجویان پزشکی نسبت به محیط یادگیری، رشته تحصیلی و آینده شغلی

زمینه و هدف: فراهم کردن یک محیط یادگیری مناسب باعث ایجاد انگیزه، رضایت و درک کلی مثبت در دانشجویان می‌شود و برای تربیت پزشکان ماهر و حرفه‌ای ضروری است. هدف از این مطالعه بررسی نگرش دانشجویان پزشکی نسبت به محیط یادگیری، رشته تحصیلی و آینده شغلی و ارتباط بین آن‌ها می‌باشد.

روش: مطالعه‌ی حاضر یک مطالعه‌ی توصیفی-همبستگی به روش مقطعی می‌باشد. ١٦٥ نفر از دانشجویان پزشکی مقاطع علوم پایه و بالینی بر اساس فرمول حجم نمونه جامعه محدود از بین جامعه ٧٧٢ نفری دانشکده پزشکی دانشگاه علوم پزشکی شهرکرد به طور تصادفی انتخاب و وارد مطالعه شدند. از ابزار سنجش پرسش‌نامه استاندارد دریم (DREEM) جهت ارزیابی محیط یادگیری و پرسش‌نامه‌ی تهیه شده توسط حسنلو و همکاران در دانشگاه زنجان جهت ارزیابی نگرش به رشته تحصیلی و آینده شغلی استفاده شد. از آزمون کولموگوروف اسمیرنوف جهت نرمالیتی داده‌ها و از آزمون پیرسون جهت ارزیابی ارتباط همبستگی بین نگرش به محیط یادگیری، رشته تحصیلی و آینده شغلی استفاده شد. **یافته‌ها:** نمره کلی کسب شده در آزمون دریم، ٩٧/٨٣ بود که نشانگر محیط نیمه-مطلوب است. نمره نگرش دانشجویان به محیط یادگیری در مقاطع تحصیلی غیربالینی و بالینی تفاوت معناداری نشان نداد. نمره کل نگرش به رشته تحصیلی و آینده شغلی به ترتیب ٣١/٦٠ و ٢١/٢٠ بود که نشانگر نگرش مطلوب دانشجویان به رشته تحصیلی و آینده شغلی است. نمره نگرش به آینده شغلی در دانشجویان علوم پایه نسبت به دانشجویان کارآموز و کارورز بالاتر بود ($p < 0.05$). نتایج آزمون پیرسون بیانگر ارتباط مثبت بین نگرش به محیط یادگیری، رشته تحصیلی و آینده شغلی می‌باشد.

نتیجه‌گیری: ادراک دانشجویان از محیط آموزشی نیمه مطلوب است و نیاز به برنامه‌ریزی جهت بهبود دارد که می‌تواند در بهبود نگرش به رشته تحصیلی و آینده شغلی نیز مؤثر باشد.

واژه‌های کلیدی: محیط یادگیری، آینده شغلی، رشته تحصیلی، دانشجوی پزشکی، پرسشنامه دریم

میڈیکل کے طلباء کا ان کے سیکھنے کے ماحول، مطالعہ کے میدان اور کیریئر کے امکانات کی طرف تائر

بیگ گراوند: مناسب تعلیمی ماحول فراہم کرنا طلباء میں حوصلہ افزائی، اطمینان اور مجموعی طور پر مثبت تائر کو فروغ دیتا ہے۔ اس لیے ماہر ماہر ڈاکٹروں کی تربیت کے لیے یہ ضروری ہے۔ لہذا، موجودہ مطالعہ کا مقصد میڈیکل طلباء کے سیکھنے کے ماحول، مطالعہ کے میدان، کیریئر کے امکانات اور ان کے مابین باہمی روابط کا جائزہ لینا ہے۔

طریقے: یہ مطالعہ ١٦٥ کے نمونے کے سائز کے ساتھ ایک وضاحتی کراس سیکشنل باہمی تعلق ہے۔ مطالعہ اور کیریئر کے امکانات کے بارے میں رویوں کا جائزہ لینے کے لیے سوالنامہ کولموگوروف سمرونوف ٹیسٹ کے ذریعے ڈیٹا کی معمول کی پیمائش کی گئی۔ سیکھنے کے ماحول، مطالعہ کے میدان، اور کیریئر کے امکان کے بارے میں رویہ کے درمیان ارتباط کا جائزہ پیرسن ٹیسٹ نے لیا۔

نتیجے: DREEM ٹیسٹ میں حاصل کردہ اوسط مجموعی اسکور ٩٧,٨٣ نے نیم بہتر ماحول کی نشاندہی کی اور پری کلینیکل اور کلینیکل طلباء میں کوئی خاص فرق نہیں دکھایا۔ مطالعہ کے میدان کے تصور اور کیریئر کے امکانات کے حوالے سے اسکور بالترتیب ٣١,٦٠ اور ٢١,٢٠ تھے، جو طلباء کے مطالعے کے میدان اور کیریئر کے امکانات کے بارے میں بہترین تائر کی نشاندہی کرتے ہیں۔ پری کلینیکل طلباء میں کیریئر کے امکانات کا اسکور کلینیکل طلباء سے زیادہ تھا ($p > 0.05$)۔ پیرسن ٹیسٹ نے سیکھنے کے ماحول، مطالعہ کے میدان، اور کیریئر کے امکان کے بارے میں رویہ کے درمیان مثبت ارتباط ظاہر کیا۔

سفارش: اس مطالعے کے نتائج سے پتہ چلتا ہے کہ طالب علموں کے سیکھنے کے ماحول کے بارے میں تائر نیم مطلوب ہے اور اس میں بہتری کے لیے منصوبہ بندی کی ضرورت ہے جو مطالعے کے میدان اور کیریئر کے امکانات کی طرف رویوں کی نشوونما میں بھی کارگر ثابت ہو سکتی ہے۔

کلیدی الفاظ: سیکھنے کا ماحول، کیریئر کا امکان، مطالعہ کا میدان، میڈیکل کا طالب علم، DREEM سوالنامہ

INTRODUCTION

The medical education curriculum aims to train skillful proficient graduates with the ability to perform complex scientific tasks as well as to cultivate socio-emotional competencies to interact with patients (1).

Physicians play a pivotal role in providing health care to the community, and their proficiency is directly proportional to their training program. The quality of the learning environment correlates with academic success and educational satisfaction and is a principal factor in the progress, and motivation of students. Thus, achieving these goals requires effort in enhancing the medical educational environment (2, 3).

The learning environment encompasses everything that happens in the place of education, including teaching, the physical environment, and the cultural context in which students learn. The quality of the learning process correlates with providing an optimal training environment aligned with global standards (4). Additionally, psychological, physical, social, motivational, economic, and political components are among the factors affecting the learning environment. These components are influential in students' perception of the learning environment with social, motivational, and emotional factors affecting students' cognitive abilities, critical, and diagnostic thinking, communication, and research abilities, as well as physical factors such as sound, ventilation, light, and safety affecting students' interactions, performance, and satisfaction (5).

Perception of the learning environment and motivation leads to student's involvement in the learning process, which is an important factor affecting learning. So students' perception of this environment affects education outcomes and can be the basis for amending and improving the quality of education (6).

Moreover, understanding the learning environment can directly affect motivation and satisfaction toward education; on the other hand, motivation and success are results of a positive attitude towards the job and promote physical and mental health in society, while a lack of motivation and interest makes it difficult or even impossible to sustain proper performance (6, 7).

Awareness of students' attitudes toward future careers and fields of study can be used to make effective changes to encourage learning. In other words, since students are the main elements of a university and play fundamental roles in the community in future, any problems affecting their motivation, competence, and performance should be discovered and resolved. Research on the learning environment helps design a better teaching strategy and a high-quality student-centered curriculum by carefully reviewing everything that happens in a medical school (3, 8-10).

Concerning the undeniable role of students' perception of education in shaping their motivation and efforts, the learning environment's influence on education efficiency, and the need to discover and eliminate existing system inefficiencies; this study was conducted to evaluate the perception and attitude of preclinical and clinical medical

students toward learning environment, their field of study, and career prospects and correlation between them and identifies in Shahrekord University of Medical Sciences in the academic year of 2018-2019. Results of the study can be used in determining strengths and weakness of learning environment improving student's motivation and training proficient skillful doctors.

METHODS

Selection and Description of Participants:

The current study is a descriptive cross-sectional correlational study. The study population consisted of 320 preclinical students and 452 clinical science students in physiopathology, externship, and internship levels. The sample random sampling was conducted based on the sample size formula for finite population and consisted of 65 preclinical students and 100 clinical students. Including criteria were 1. Being a medical student in Shahrekord University of Medical Sciences and 2. Satisfaction to participate in the study; however, the excluding criteria were 1. Dissatisfaction to participate in study and 2. Inappropriate completion of the questionnaire.

Technical Information

Dundee Ready Educational Environment Measure (DREEM) questionnaire was first developed and certified by involving a range of approximately 100 medical and health education professionals worldwide and was first implemented at the Dundee Center in Scotland (4). This questionnaire consists of 50 items reviewing the five areas of perception of learning (12 questions, highest score of 48), perception of teachers (11 questions, highest score of 44), academic self-perceptions (8 questions, highest score of 32), perceptions of the atmosphere (12 questions, highest score of 48) and social self-perceptions (7 questions, highest score of 28) in students. Each question is scored on a 5 point Likert scale ranging from 0 to 4 (4: strongly agree, 3: agree, 2: disagree, 1: disagree, 0: strongly disagree). The subscale scores are then summed to obtain the mean score (maximum of 200). The mean score of 0-50 indicates a very poor learning environment, 50-100, an environment with issues, 150-200, a more positive perception towards the environment, and 200-150, an optimal environment (4). In this study, a standard validated and reliable Persian version of this questionnaire with Cronbach's alpha of 0.88 was used (11).

Hasanloo et al. questionnaire (12) consisting of 15 questions (9 questions regarding the field of study and 6 regarding career prospects) was used to evaluate the perception of the field of study and career prospects. The scoring scale of Likert was applied with five options of I strongly agree: 5 points, I agree: 4 points, I have no opinion: 3 points, I disagree: 2 points, I strongly disagree: 1 point. The minimum and maximum scores were 9 and 45 regarding the perception of the field of study, which indicates undesirable (9-21), semi-desirable (21-33), and desirable perception (33-45). With the minimum and maximum scores of 6 and 30 regarding the perception of career prospects, the range of 6-14 was interpreted as unfavorable, 14-22 as semi-desirable, and 22-30 as desirable. The face validity and content validity of this

questionnaire were ratified, and the reliability was confirmed with Cronbach's alpha coefficient of $\alpha = 0.73$. Specific numbers of different educational levels were randomly selected after providing an explanation about the purpose of the study and ensuring the confidentiality of information to individuals, the Persian version of already validated and reliable DREEM and Hasanloo et al. questionnaire was provided to the students, and data were collected to assess students demographic information like gender, place of residence, marital status, educational level, the presence of other medical students or medical doctors in the family and their attitude toward learning environment, the field of study, and career prospects. Pearson test was used to evaluate the correlation between attitude toward learning environment, the field of study, and career prospects as well. Data normality was measured using Kolmogorov Smirnov test with $P\text{-value} > 0.05 (p=0.97)$, so normal statistical tests were used to analyze the data. Data were analyzed by applying descriptive statistics, ANOVA, independent t-test, Pearson correlation coefficient, and calculating frequency, range, mean, variance, and standard deviation with a p-value of

$P \leq 0.5$ using SPSS18.

RESULTS

The sample size was 165 including 65 preclinical and 100 clinical students, with the majority being single and living in dormitories. The details of demographic information sorted by gender, place of residence, marital status, educational level, and the presence of other medical students and medical doctors in the family are reported in Table 1 in terms of frequency and percentage.

The overall average score obtained in the DREEM questionnaire was 97.83 that was in the range of 50-100 which indicates an undesirable estimate of the learning environment(4). The lowest and highest scores obtained in this test were 50 and 162 respectively. Among the five topics of DREEM, the lowest score belonged to concerning social self-perceptions with an average of 13.62, and the highest score dealt with concerning perceptions of the atmosphere with a score of 23.19. Topics of perceptions of teachers and academic self-perceptions scored an average of more than half, and the other three scored less than half (Table 2).

Perception of the field of study and career prospects:

The average score obtained in the perception of the field of study was 31.60, which indicates a semi-desirable perception being in the range of 21-33. The minimum and maximum scores were 11 and 45, respectively.

An average score of 21.20 regarding the perception of career prospects proved to be semi-desirable, being in the range of 14-22. The perception of career prospects scored the minimum and maximum of 12 and 30 (Table 2).

According to the result of T-test gender, marital status, place of residence, and presence of a doctor or medical student in the family did not have a significant effect on the perception of the learning environment, the field of study, and career prospects ($p > 0.05$).

Items that scored the lowest and the highest in different topics were the key points of weakness and strength from the students' viewpoint and are presented in Table 3 (Table 3).

The results of ANOVA test showed no difference regarding different educational levels in the perception of the learning environment and perception of the field of study subscales, but the perception of career prospects presented to be

Variable	Subgroup	Frequency (Percentage%)
Level of education	preclinical	61(40.1)
	Physiopathology	19(12.5)
	Externs	47(30.9)
	Interns	24(15.8)
Gender	Male	54(35.5)
	Female	95(62.5)
Marital status	Single	126(82.9)
	Married	21(13.8)
Place of residence	Dormitory	85(55.9)
	Off-campus	56(36.8)
Is there any other medical student/doctor in the family?	Yes	65(42.8)
	No	83(54.6)

Variable	Minimum	Maximum	Mean (Standard deviation)	P-Value	Status
score DREEM	50	162	97.83(20.165)	0.513	Undesirable
Students' perception of learning	0	40	21.81(7.242)	0.498	Undesirable
Students' perceptions of teachers	11	34	22.71(4.406)	0.609	Desirable
Students' academic self-perceptions	4	28	16.23(4.026)	0.188	Desirable
Students' perceptions of atmosphere	7	40	23.19(6.150)	0.253	Undesirable
Students' social self-perceptions	5	24	13.62(3.419)	0.532	Undesirable
Perception of the field of study	11	45	31.60(4.907)	0.979	Semi-desirable
Perception of career prospects	12	30	21.20(3.581)	0.173	Semi-desirable

Table 3. Maximum and Minimum (SD) DREEM total& subscales, field of study, and career prospects items.

	Minimum score	SD	Item	Maximum score	SD	Item
Perception of the learning environment (DREEM)	1.21	1.147	I rarely get bored in class.	2.83	1.118	I have good friends at the university.
Students' perception of learning	1.39	1.039	Teaching is often student-centered.	2.36	1.015	Teaching is often teacher-centered.
Students' perceptions of teachers	1.60	1.017	Teachers make constructive criticisms.	2.39	0.924	My teachers have good knowledge.
Students' academic self-perceptions	1.79	1.037	I feel I am well prepared for my future career.	2.49	0.919	I am sure of my acceptance this year.
Students' perceptions of atmosphere	1.38	1.036	This university is on a good schedule.	2.43	1.037	I feel socially comfortable in class.
Students' social self-perceptions	1.15	1.035	There is a good support system for students who are stressed.	2.83	1.118	I have good friends at this university.
Perception of the field of study	2.66	2.323	I chose this field because others suggested it to me.	4.27	1.106	In my opinion, my field is more valuable at higher degrees.
Perception of career prospects	2.67	1.106	In my opinion, the employment situation for a GP degree is better than specialized degrees.	4.27	0.854	I like working in my field of study.

Table 4. Correlation between perceptions of the learning environment, the field of study, and career prospects (Pearson test)

		Perception of the learning environment	Perception of the field of study	Perception of career prospects
Perception of the learning environment	Pearson Correlation	1	0.398**	0.218*
	Sig.		0.000	0.008
Perception of the field of study	Pearson correlation	0.398**	1	0.511**
	Sig.	0.000		0.000

*: correlation is significant at the 0.05 level
 **: correlation is significant at the 0.01 level

significantly more positive in preclinical students than in externs and interns ($p=0.001$ and $p = 0.048$, $F=5.094$, $df=3$), and significantly greater in physiopathology students than in externs ($P=0.021$, $F=5.094$ $df=3$). It seems that the preclinical students perceive their career prospects to be more desirable than the clinical group. In terms of the perception of the field of study, questions (I chose this field because others suggested it to me) and (I think my academic field is of more value in higher degrees) scored the lowest and highest, respectively. In terms of career prospects, the highest scores belonged to the questions (I like my career path to match my academic field) and (increasing student admission in this field jeopardizes career prospects), respectively. Perception of the learning environment had a modest significant positive correlation with the perception of the field of study with a coefficient of 0.398. A coefficient of 0.218 showed a weak positive correlation concerning the perception of the learning environment with the perception of career prospects. Perception of the field of study correlated positively with all subscales regarding the learning environment. This correlation was mainly with the perception of learning with a correlation coefficient of 0.405.

A coefficient of 0.511 indicated moderate positive correlations between the perception of the field of study and the perception of career prospects. Accordingly, all three variables positively influenced each other. The topics of perception of learning, perception of teachers, and social self-perceptions also showed a positive correlation with the perception of career prospects.

DISCUSSION

The aim of this study was to determine how medical students at Shahrekord University of Medical Sciences perceive their learning environment, academic field, and career prospects in the academic year of 2018-2019.

In this study, the average overall score obtained regarding the perception of the learning environment was 97.83, indicating an undesirable environment. These obtained scores were less compared to the results of similar foreign studies, including Dunne's at the School of Medicine in the United Kingdom(125), Demiroren's in Ankara(117.63), Sharifi's in Shahid Beheshti University (143.08), Vatankeh's study in Kerman(159.18), and some others(1, 13-18) and more compared to the result of Al Aayed's study at a college in

Saudi Arabia(89.9) and Hassanabadi's study in Rafsanjan(89.01)(4, 19).

This difference is due to the traditional teacher-centered educational policies, lack of a support system for students, and unappealing classrooms as opposed to more advanced universities with better facilities and an up-to-date educational system.

There was no significant difference in terms of gender in the perception of the learning environment in this study like studies in Rafsanjan and Hormozgan(18, 19) despite some other studies(1, 20). Results from the DREEM exhibited no significant difference regarding the general attitude students hold towards the learning environment in terms of the level of education in both genders despite other studies (1, 13, 20). This may be due to the same conditions that male and female students have caused similar opinions and demands. In this study, the place of residence did not significantly influence the perception of the learning environment, unlike Hassanabadi's study at Rafsanjan University (19), in which individuals living off-campus scored higher. High-scoring positive items such as (I have good friends at the university) and (My social life is good) are likely to counterbalance the impact of negative factors such as distance from family, feeling homesick, and problems with living in a dormitory.

The results revealed the main problem facing the learning environment to be the out of date, teacher-centered methods that make for tedious and dull classes since students are reluctant to participate and rather solely listen than engage in discussions. In contrast, the enticing social atmosphere of the school made one of the main strengths of the learning environment.

The results regarding the perception of learning indicated dissatisfaction with the teaching method among students. The lowest score in learning perception was related to items "the teaching is often stimulating" and "the teaching helps to develop my confidence" and the highest score was related to "the teaching is too teacher-centered. On this basis, the main problem is an unattractive teaching method that prevents the participation of students in teaching and leads to passivity in the classroom, and reduces student's self-confidence. No factors of educational level, gender, presence of other doctors in the family, and place of residence influenced the perception of learning in the current study.

The results of this study regarding the perception of teachers indicated that students believe there is no constructive student-teacher relationship to improve and resolve problems despite the extensive knowledge of teachers. The score in this area was lower than of the studies conducted in two foreign colleges in India (16, 20) and higher than the study of Al Ayed in Saudi Arabia and Hormozgan University (4, 18).

The results of academic self-perceptions indicated that students do not consider their education to be adequate in preparing them for their future profession despite not being worried about passing courses and proceeding to higher levels. This result, while showing the lack of proper education, also shows the incompetence of exams in assessing students. Shahrekord students scored lower in this

area compared to the score obtained at the University of Malaysia (20) and the University of Navi in India (16), but higher than the study at the University of Saudi Arabia (4).

The score of perception of the educational atmosphere was less than those of similar foreign studies in universities of India (25.54) (20), and Malaysia (28.1) (21), and more than the study in Saudi Arabia (21.3) (4). Being dissatisfied with the university schedule leading to academic failure and stress, students were satisfied with the social atmosphere and they were comfortable in the classroom.

The results regarding social self-perceptions indicated the university to be insufficient in providing adequate support to reduce stress. Nevertheless, the area of establishing friendly and practical communication in the university has yielded satisfactory results. The score on this topic proved to be less than those of the studies conducted at Hormozgan university (14.4) (18), two schools in India (14.32 and 14.32) (16, 20), and in Malaysia (15.8) (21) and it was not affected by analyzed variables.

Perception of the field of study with a score of 31.6/45 indicated semi-desirable perception which is relatively in line with the studies in Isfahan and Neishabour(7, 9), them choosing this academic field was not brought on by others, and they were most likely to continue their education in higher degrees. In this study the level of education and marital status did not significantly influence perceptions despite Qazvin University study (22).

While students at the universities of Qazvin (22) and Isfahan (9) and clinical students at Jahrom University (23) perceived their career prospects to fall short, these perceptions were more optimistic among students in Neishabour (7). The results regarding this area showed interest in the medical field to be parallel with stress towards the future job market in students.

This study showed a more positive perception of career prospects in preclinical students compared to externs and interns and in physiopathology students compared to interns such as the study conducted at Neishabour University (7). The less positive perception in clinical students was probably due to more experience in the clinical setting and further interactions with clinical professors and therefore obtaining a more reliable estimate of the future and challenges of a physician's career.

The positive correlation among the three variables of learning environment, field of study and career prospects indicated that enhancing the learning environment and resolving the existing problems improves the perception of the field of study, and career prospects. Positive perceptions towards the field of study and the future career further promoted positive viewpoints toward the learning environment.

Ethical considerations

Ethical issues including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc. have been completely observed by the authors. The ethics committee of Shahrekord University of Medical Sciences approved this research, ethics code IR.SKUMSREC1398.015.

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