Health Science Monitor
2023; 2(2): 110-120
Published online (http://hsm.umsu.ac.ir)

Original Article

Attitude of students towards their field of study and future career at the Urmia University of Medical Sciences in 2021

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Abstract

***Background & Aims*:** Considering the importance of academic fields, especially healthcare fields, knowing students' attitude towards their field of study and future careers is highly important. Therefore, the purpose of the present study was to determine the attitude of Urmia University of Medical Sciences students towards their field of study and future career.

***Materials & Methods*:** In the present cross-sectional study, 200 students of Urmia University of Medical Sciences (Urmia, Iran) were participated by convenience sampling method. The data collection tool was a researcher-made questionnaire that included two parts. The first part entailed the demographic information and second part some questions to measure the attitude towards the field of study and future career. Data analysis was performed using SPSS 16 software.

***Results*:** The mean score of attitude of 80 students towards their field of study and future career was 52.01 ± 7.63, while that of 70 cases was 49.65 ± 10.47. The majority of the students had an average attitude towards their field of study (72.5%) and future career (54.0%). Students of some fields, such as medicine, pharmacy, nursing, operating room, and emergency medicine, had a more positive attitude towards their field of study and future career than other fields. Only 5.5% and 29.5% of students had a good/positive attitude towards their field of study and future career, respectively.

***Conclusion*:** The weak attitude of students of some fields, including public health, environmental health, radiology, anesthesia, and laboratory sciences, towards their field of study and future career shows the need for an appropriate planning to improve and strengthen educational programs and increase the career capacities of the mentioned fields.

***Keywords*:** Attitude, Field of study, Future career, Students, Urmia

Received 19 November 2022; accepted for publication 16 January 2023

Introduction

An important factor of dynamism and growth countries are scientific and academic centers. Universities are one of the most precious resources that societies considering for progress and development. Owing to their expertise and technical knowledge, universities have a lot of credit and regarded as the major factors of social transformation. Since universities are the source of society's transformations in various fields and students as the main pillars of universities will form the main bodies of different organizations and organs of society in the future, it is important to know students attitude towards their field of study and future careers (1).

Integration of cognition, feelings, and preparedness to act towards a problem is called the individual's attitude towards a problem (2). This behavior alters at various periods of life as a function of changes in the environment (3). Attitudes toward job are related to social factors such as organization discipline, job environment conditions, and so forth, affecting educational and professional satisfaction (3, 4). Success in any work needs a positive attitude to it and its future (2). Positive attitude toward career future creates educational impetus, which often leads to occupational improvement and success in future (5). Student's attitude toward their field of study is an individual factor that affects the academic achievement of this group (3). It is feasible that the lack of job security in students of medical sciences influences the attitudes toward their branch of study and future of the career (6). Reported statistics have shown that nearly 20% of unemployment rate in Iran is linked to the graduated students. Therefore, unemployment and job incertitude in health fields in which employing the experts is of major importance can lead to the waste of the economic and spiritual capital (7).

Findings of a previous study displayed that most of the medical students believed that their attitude towards the field of study and attitude future career was greatly changed, and this change was mostly in a negative direction. (8). Therefore, it is essential to identify factors affecting the attitude of medical sciences students as it can help adjust educational rules and plans, provide proper possibilities and train efficient students in medical sciences (1, 3). It is also helpful to learn the attitude type both for forecasting student's efficiency in theoretical and practical courses within the course and for their behaviors. Studies have also shown that the clear and secure career future is the most significant educational motive in the field of study (3, 9).

Nowadays, the study of attitude as the most distinguished concept of social psychology has a specific place in research. Consciousness of the attitude can be effective for predicting social behaviors and interpreting these behaviors after its incidence (2). Sajadi et al. studied the attitude of Kerman Dental School students toward their field of study and career future (3). Arab-Zozani et al. investigated the attitude of Health Technology Assessment students to their field of study and future career in Iran (7).

Due to the significance of medical sciences in health promotion and people's life quality and given that the career success and useful and efficient employment of medical students are influenced by their career motivation and attitude towards the future career, knowledge about motivation and attitudes toward health care professions seems essential. As universities play an effective role in the growth and development of countries, and students are a key element in the universities, attitude of students toward their job prospects as an important factor in creating career motivation and career success should be examined (2). Regarding the importance of students' attitude toward job expections, this study aimed to evaluate the attitude of students at Urmia University of Medical Sciences (UMSU) towards their field of study and future career in 2021.

Materials & Methods

This descriptive-analytical cross-sectional study was conducted in Urmia in 2021. The statistical population of the study was UMSU students from different majors, including environmental health, occupational health, public health, radiology, operating

room, dentistry, medicine, pharmacy, nursing, midwifery, health information technology, anesthesia, emergency care, and laboratory sciences. The inclusion criterion was consent to participate in the study, and the exclusion criterion was incomplete response to the questionnaire. According to the previous similar studies and the prevalence of 87% for positive attitude towards future career in college students (P=0.87) (10), 95% confidence interval, and margin of error 0.05 (d=0.05), and the use of the sample size formula for estimating a population proportion, the minimum sample size required was determined to be 174 people. Ultimately, to increase the power of study, we considered the sample size as 200 people. In this study, convenience sampling method was used.

The data collection tool was a researcher-made questionnaire that included two parts. The first part entailed the demographic information of the students of research unit, such as age, gender, educational level, field of study, academic semester, marital status, etc. The second part included questions to measure the attitude towards the field of study and future career. The initial questions of the researcher-made questionnaire were designed based on the literature review (10, 11). Then its validity and reliability were measured and approved. To determine validity, we used two methods of face validity (qualitative type) and content validity (qualitative type). In face validity, using a qualitative method, we interviewed face-to-face with 10 people from the target group. They were asked about the appropriateness, relationship of the items with the main purpose, dimensions of the questionnaire, the existence of ambiguity and misconceptions of phrases and words included in the questionnaire, and the difficulty in understanding the phrases and words in the questionnaire. Their opinions were obtained and applied in the questionnaire (12). A panel of experts (10 faculty members of UMSU) was selected to qualitatively assess the validity of the content. For thid purpose, all the experts were asked to provide their written feedback and recommendations to modify each item in terms of their content, Persian grammar, use of appropriate words, and sequence/placement of item in a proper place, as well as the overall structure of the questionnaire and the time needed for its completion. Finally, their corrective comments were collected and included in the questionnaire (12). Cronbach's alpha coefficient was used to check the internal consistency of the questionnaire. Regarding the reliability analysis, the Cronbach's alpha of 0.82 and 0.89 were obtained for attitude towards the field and attitude towards the future career, respectively. All values were above 0.7 and acceptable (12). The final questionnaire consisted of 16 questions to measure the attitude towards the field of study (obtainable score ranged 16-80) and 14 questions to measure the attitude towards the future career (obtainable score ranged 14-70). The questions were scored based on a five-point Likert scale from completely disagree (score of 1) to completely agree (score of 5). A higher score in each section indicates a good/positive attitude of the subject. An example of the question of attitude towards the field of stud was “I am interested in my field of study”, and that of the question of attitude towards the future career was “In my opinion, this field has a good market and I am hopeful for my future career”. In order to complete the questionnaires, the research team visited in person the faculties of public health, allied medical sciences, pharmacy, medicine, dentistry, nursing, and midwifery, and questionnaires were finally completed by the students themselves using self-report method. In the current study, Bloom's cut-off point was used to classify attitudes into three levels: negative, neutral, and positive. This classification system is currently used in most attitude measurement studies (13, 14). Based on the Bloom's cut-off point, if a participant scores less than 60%, this situation indicates a negative attitude, 60-79% shows a neutral attitude and 80-100% implies a positive attitude (13, 14).

All the methods used in this study were carried out in accordance with the Helsinki declaration. Informed consents were obtained from all individual participants included in the study. The final data were analyzed in SPSS software version 16 using descriptive statistics (mean, standard deviation, frequency, percentage,

minimum, and maximum) and analysis (Chi-Square, Fisher's exact test, independent T-test, and One-way ANOVA). The results were considered statistically significant at p-value <0.05.

Results

As shown in Table 1, the average age of the university students who participated in the research was 21.9±2.2 years. The grade point average of high school was 17.86±1.49, and that of university degree was 16.29±1.3. The majority of people under investigation were male (50.5%), single (90.5%), unemployed (98.5%), and non-native (72.0%) and had bachelor's degree (71%). The average scores of attitude towards the field of study and future career among the students were 52.01±7.63 and 49.65±10.47, respectively. The majority of the students of research unit had an average attitude towards their field of study (72.5%) and career prospects (54.0%). Only 5.5% and 29.5% of students had a good/positive attitude towards their field of study and future career, respectively (Table 2).

Table 1. Distribution of absolute and relative frequency of demographic information of students

Variable	Groups	Number (%)	Variable	Class	Number (%)
Gender	Male	101 (50.5)	Marital status	Single	181(90.5)
	Female	99 (49.5)		Married	19 (9.5)
Age	18-22	141 (70.5)	Employment status	Employed	3 (1.5)
	23-27	56 (28.0)			
	28-32	2 (1.0)		Unemployed	197 (98.5)
	33-37	1 (0.5)			
Educational level	Bachelor (BA)	142 (71.0)	Housing	Native	56 (28.0)
	Master (MA)	1 (0.5)		Non- native	144 (72.0)
	Doctorate (Dr)	57 (28.5)			
Semester	1	20 (10.0)	Field of study	Environmental health	27 (13.5)
	2	13 (6.5)		Occupational health	8 (4.0)
	3	22 (11.5)		Public health	19 (9.5)
	4	45 (22.5)		Radiology	11 (5.5)
	5	19 (9.5)		Operating room	11 (5.5)
	6	28 (14.0)		Laboratory Sciences	10 (5.0)
	7	20 (10.0)		Anesthesia	14 (7.0)
	8	14 (7.0)		Health information technology	10 (5.0)
	9	5 (2.5)		Medicine	36 (18.0)
	10	1 (0.5)		Dentistry	8 (4.0)
	11	1 (0.5)		Pharmacy	11 (5.5)
				Nursing	9 (4.5)
	12	7 (3.5)		Midwifery	20 (10.0)
	13	4 (2.0)		Emergency care	6 (3.0)
	14	1 (0.5)			
Participation in scientific activities	Yes	35 (17.5)	Participation in cultural activities	Yes	38 (19.0)
	No	165 (82.5)		No	162 (81.0)
Participation in sports activities	Yes	70 (35.0)	Participation in sports activities	Yes	24 (12.0)
				No	176 (88.0)

Variable	Groups	Number (%)	Variable	Class	Number (%)
	No	130 (65.0)	Participation in a dedicated scientific center	Yes	10 (5.0)
				No	190 (95.0)
Quantitative variable			Mean		Standard deviation
Age (year)			21.90		2.20
Grade point average of high school degree			17.86		1.49
Grade point average of university degree			16.29		1.30

Table 2. The attitude status of students towards their field of study and future career

Variable	Mean ± Standard deviation	Range of obtainable score	Range of obtained score	Number (%) of obtained score from 100	Weak/negative Number (%)	Average/neutral Number (%)	Good/positive Number (%)
Attitude towards the field of study	52.01 ± 7.63	16-80	29-76	65.01	44 (22.0)	145 (72.5)	11 (5.5)
Attitude towards future career	49.65±10a.47	14-70	16-70	70.93	33(16.5)	108 (54.0)	59 (29.5)

Based on the results of the one-way ANOVA (Table 3), a statistically significant relationship was found between the educational level, the attitude towards the field of study (p-value=0.008) and the future career (p-value=0.010). The results of the Post hoc test and pairwise comparison of means between different levels of education showed that the average score of attitude towards the field of study among bachelor's students was significantly lower than of master's and doctorate students, among master's students was significantly lower than of bachelor's and doctorate students. Also, the average score of the attitude towards the future career among bachelor's students was significantly lower than of doctorate students. Similarly, a statistically significant relationship was found between the field of study and the attitude towards the field of study (p-value<0.001). The results of the Post hoc test and pairwise comparison of the average score of the attitude towards the field of study between different fields showed that the average score of attitude towards the field of study among the students of environmental health, public health, radiology and anesthesia compared to the students of operating room, medicine, pharmacy, nursing and emergency care was significantly low. Also, the same result was observed for the students of laboratory sciences and midwifery compared to students of pharmacy and emergency care. Similarly, a statistically significant relationship was found between the field of study and the attitude towards the career future (p-value=0.017). Based on the results of the Post Hoc test and pairwise comparison of the average score of the attitude towards the future career between different fields, the average score of the attitude towards future career among the students of public health, radiology and anesthesia compared to those of operating room, medicine, pharmacy, nursing and emergency care and among the students of laboratory sciences and environmental health compared to those of operating room was significantly low. The results of

the chi-square test demonstrated a statistically significant relationship between the attitude towards the field of study and participation in scientific (p-value=0.043) and sports (p-value= 0.026) activities, and students who participated in these two activities had a more positive attitude towards their field of study. There was also a statistically significant relationship of the attitude towards the future career with participation in artistic activities (p-value=0.031) and in a dedicated scientific center (p-value=0.038). Students who participated in the mentioned activities and centers had a more neutral attitude towards their future career (Table 3). The results of the Pearson correlation test showed a significant negative correlation between the attitude towards the future career and age (p-value=0.009; r=-0.183) so that the attitude towards the future career decreases with increasing age; in other words, it becomes more negative.

Table 3. The relationship between demographic information and attitude towards the field of study and future career

Variable	Class	Attitude towards the field of study				Attitude towards career future			
		Negative N (%)	Neutral N (%)	Positive N (%)	Mean±SD	Negative N (%)	Neutral N (%)	Positive N (%)	Mean±SD
Gender	Male	22(21.8)	71(70.3)	8 (7.9)	52.54±8.36	15(14.9)	49(48.5)	37(36.6)	50.83±10.12
	Female	22(22.2)	74(74.7)	3 (3.0)	51.47±6.79	18(18.2)	59(59.6)	22(22.22)	48.46±10.74
	p-value		[a]0.314		[C]0.323		[a]0.082		[C]0.109
Age	18-22	34 (24.1)	101 (71.6)	6 (4.2)	51.58±7.97	21 (14.9)	76 (53.9)	44(31.2)	50.12±10.02
	23-27	10(17.9)	41(73.2)	5(8.9)	53.07 ±6.86	10(17.9)	31(55.4)	15(26.8)	49.30±10.86
	28-32	0(0.0)	2(100.0)	0(0.0)	52.50±0.70	1(50.01)	1(50.01)	0(0.0)	33.00±22.62
	33-37	0(0.0)	1(100.0)	0(0.0)	53.00±0.00	1(100.0)	0(0.0)	0(0.0)	36.00±0.00
	p-value		[b]0.627		[d]0.673		[b]0.341		[d]0.0687
Marital status	Single	39(21.5)	132(72.9)	10(5.5)	51.97 ±7.61	28(15.5)	97(53.6)	56(30.9)	49.97±10.58
	Married	5(26. 3)	13(61.4)	1(5.2)	52.42±8.00	5(26.3)	11(57.9)	3(15.8)	46.57±9.10
	p-value		[b]0.831		[c]0.808		[a]0.269		[c]0.179
Educational level	Bachelor(BA)	38(26.8)	96(67.6)	8(5.6)	50.95±7.79	29(20.4)	74(52.1)	39(27.5)	48.45±10.99
	Master (MA)	0(0.0)	1(100.0)	0(0.0)	53.00±0.00	1(100.0)	0(0.0)	0(0.0)	36.00±0.00
	Doctorate (Dr)	6(10.5)	48(84.2)	3(5.3)	54.63±6.63	3(0.01)	34(59.6)	20(35.1)	52.90±8.24
	p-value		[b]0.072		[d]0.008		[b]0.01		[d]0.01
Employment status	Employed	0(0.0)	2(66.7)	1(33.3)	56.66±6.35	2(66.7)	1(33.3)	0(0.0)	36.00±19.00
	Unemployed	4(22.3)	143(72.6)	10(5.1)	51.94 ±7.64	31(15.7)	107(54.3)	59(29.9)	49.86±10.24
	p-value		[b]0.167		[c]0.289		[b]0.139		[c]0.023
Housing	Native	27(30.14)	36(64.3)	3(5.4)	50.94±8.01	11(19.6)	31(55.4)	14(25.0)	48.69±10.21
	Non-native	27(18.8)	109(75.7)	8(5.6)	52.43±7.46	22(15.3)	77(53.5)	45(31.2)	50.02±10.59
	p-value		[a]0.202		[c]0.218		[a]0.599		[c]0.42
Semester	1-4	20(20.0)	74(74.0)	6(6.0)	52/09±8.10	20(20.0)	47(47.0)	33(33.0)	49.62±10.97
	5-8	22(27.2)	55(67.9)	4(4.9)	51.40±7.29	10(12.3)	48(59.3)	23(28.4)	49.85±10.12
	9-12	2(14.3)	12(85.7)	0(0.0)	53.21±5.71	2(14.3)	10(71.4)	2(14.3)	48.71 ± 8.73
	13 and above	0(0.0)	4(80.0)	1(20.0)	57.00±7.81	1(20.0)	3(60.0)	1(20.0)	49.80±13.44
	p-value		[b]0.445		[d]0.394				[d]0.986
Field of study	Environmental health	12(44.4)	15(55.6)	0(0.0)	48.88±6.55	6(22.2)	14(51.9)	7(25.9)	47.62±10.39
	Occupational health	1(12.5)	7(87.5)	0(0.0)	52.87±4.51	1(12.5)	4(50.0)	3(37.5)	52.75 ± 7.64
	Public health	8(42.1)	10(52.6)	1(5.3)	48.15±8.64	5(26.3)	12(63.26)	2(10.5)	44.47±12.53

Variable	Class	Attitude towards the field of study				Attitude towards career future			
		Negative N (%)	Neutral N (%)	Positive N (%)	Mean±SD	Negative N (%)	Neutral N (%)	Positive N (%)	Mean±SD
	Radiology	4(36.4)	7(63.6)	0(0.0)	47.54±7.52	50(45.5)	4(36.4)	2(18.2)	44.36±13.46
	Operating room	2(18.2)	8(72.7)	1(9.1)	54.54±9.77	0(0.0)	5(45.5)	6(54.5)	55.27 ± 7.44
	Laboratory Sciences	1(10.0)	9(90.0)	0(0.0)	50.40±5.12	2(20.0)	7(70.0)	1(10.0)	46.20±8.76
	Anesthesia	4(28.6)	10(71.4)	0(0.0)	48.78±7.84	2(14.3)	10(71.4)	2(14.3)	45.28±10.73
	Health information technology	3(30.0)	6(60.0)	1(10.0)	52.50±10.69	4(40.0)	2(20.0)	4(40.0)	47.20±16.15
	Medicine	4(11.1)	30(83.3)	2(5.6)	54.52±6.41	2(5.6)	23(63.9)	11(30.6)	52.66 ± 9.15
	Dentistry	2(25.0)	6(75.0)	0(0.0)	52.62±8.39	1(12.0)	4(50.0)	3(37.5)	52.66 ± 9.15
	Pharmacy	0(0.0)	10(90.9)	1(9.9)	57.72±6.54	0(0.0)	6(54.5)	5(45.5)	53.75±5.90
	Nursing	0(0.0)	7(77.8)	2(22.2)	55.77±6.55	1(11.1)	3(33.3)	5(55.6)	54.11±5.86
	Midwifery	3(15.0)	77(85.0)	0(0.0)	51.20±3.98	3(15.0)	13(65.0)	4(20.0)	49.40 ± 9.23
	Emergency care	0(0.0)	3(50.0)	3(50.0)	60.83±5.98	1(16.7)	1(16.7)	4(66.7)	56.00±10.77
	p-value		[b]0.001		[d]0.001		[b]0.039		[d]0.017
Participation in scientific activities	No	37(22.4)	122(73.9)	6(3.6)	51.58±7.2	27(16.4)	93(56.4)	45(27.3)	49.11±3.98
	Yes	7(20.0)	23(65.7)	5(14.3)	54.02±9.14	6(17.1)	15(42.9)	14(40.0)	52.20±10.91
	p-value		[a]0.043		[c]0.113		[a]0.276		[c]0.113
Participation in cultural activities	No	34(21.0)	120(74.1)	8(4.9)	51.85±7.40	29(17.9)	87(53.7)	46(28.4)	49.33±10.72
	Yes	10(26.3)	25(65.8)	3(7.9)	52.71±8.59	4(10.5)	21(55.3)	13(3.2)	51±9.38
	p-value		[a]0.555		[c]0.534		[a]0.501		[c]0.378
Participation in sports activities	No	29(22.3)	98(75.54)	3(2.3)	51.50±6.34	25(19.2)	70(53.8)	35(26.9)	49.04±10.5
	Yes	15(2.4)	47(67.1)	8(11.4)	52.95±9.56	8(11.4)	38(54.3)	24(34.3)	50.8±11.20
	p-value		[a]0.026		[c]0.201		[a]0.284		[c]0.259
Participation in artistic activities	No	39(22.2)	128(72.7)	9(5.1)	51.90±7.53	31(17.6)	89(50.6)	56(31.8)	49.72±10.62
	Yes	5(20.8)	17(70.8)	2(8.3)	52.83±8.42	2(8.3)	19(79.2)	3 (12.5)	49.16±9.56
	p-value		[a]0.808		[c]0.577		[a]0.031		[c]0.808
Participation in a dedicated scientific center	No	43(22.6)	137(72.1)	10(5.3)	51.84±7.46	32(16.8)	99(52.1)	59(31.1)	49.78±10.49
	Yes	1(10.0)	8(80.0)	1(10.0)	55.30±10.28	1(10)	9(90.0)	0(0.0)	47.30±10.53
	p-value		[b]0.470		[c]0.163		[b]0.038		[c]0.467

A: Chi-square b: Fisher's exact test c: Independent T-test d: One-way ANOVA

According to the findings of the present study, male students of environmental health had a significant higher score of attitude towards the field of study than female students studying in this field. Also, the average score of attitude towards the field of study among female students of medicine and pharmacy was significantly higher than male students studying in this field. Our findings revealed that the average score of the attitude towards the future career among male students in the field of operating room and health information technology was significantly higher than female counterparts (Table 4).

Table 4. The mean and standard deviation score of attitudes of the UMSU students toward their field of study and future career between men and women

Field of study	Gender	Attitude towards the field of study		Attitude towards career future	
		Mean ± SD	p[a]	Mean± SD	p-value [a]
Environmental Health	Male	51.46 ±6.88	0.047	51.23±8.49	0.082
	Female	46.5±5.43		44.28±11.15	
Occupational health	Male	53.00±6.05	0.945	54.25±10.68	0.618
	Female	52.75±3.30		51.25±4.03	
Public health	Male	46.83±13.43	0.663	45.66±9.24	0.787
	Female	48.76±5.96		43.92±14.10	
Radiology	Male	48.5±8.12	0.521	45.12±15.77	0.777
	Female	45.00±6.24		42.33±5.13	
Operating room	Male	58.28±8.55	0.093	58.57±5.99	0.044
	Female	48.00±9.05		49.50±6.55	
Laboratory Sciences	Male	49.75±5.57	0.455	46.37±9.92	0.908
	Female	53.00±1.41		45.5±0.7	
Anesthesia	Male	48.00±9.27	0.635	42.44±12.17	0.195
	Female	50.20±4.91		50.40±5.17	
Health information technology	Male	55.75±12.57	0.465	58.5±5.56	0.041
	Female	50.23±9.81		39.66±16.75	
Medicine	Male	52.33±6.58	0.038	51.77±9.13	0.568
	Female	56.72±5.58		53.55±9.35	
Dentistry	Male	53.66±13.57	0.809	53.66±3.05	0.653
	Female	52.00±5.47		51.00±9.21	
Pharmacy	Male	54.85±3.53	0.047	53.00±5.83	0.602
	Female	62.75±8.05		55.07±6.68	
Nursing	Male	56.71±7.20	0.220	53.28±6.49	0.467
	Female	52.5±2.12		57.00±0.00	
Midwifery	Male	47.00±0.00	0.291	46.00±0.00	0.716
	Female	51.42±3.96		49.57±9.44	

a, Independent T-test

Discussion

The essence of attitude toward the field of study and future of the career is a personal factor that affects the academic improvement of the students, scientific promotion, and future career success. Therefore, this study aimed to define the attitude of UMSU students toward the field of study and future career. Herein, 22% of students had negative attitude toward their field of study, 72.5% had average attitude, and 5.5% had positive attitude. In a study conducted by Nazari et al. in Ahvaz University of Medical Sciences (Ahvaz, Iran), most of the students had positive attitude towards their field of study (6). Since positive attitude is the greatest human asset and the most important secret of human success is in positive attitude, it is necessary to work on students' attitude towards their field of study (15).

In this study, nearly three quarters of the students (145 students) had average attitude towards their field of study. In this regard, to improve their attitude, revision of educational curricula of medical sciences and increasing their capacities career are

recommended. Glass and Knott have suggested three essential strategies for changing the attitudes: (1) discussion with peers, (2) direct experience with attitude objects, and (3) increase of information or knowledge (16). In another study investigating the factors affect the positive attitude in the future career, Vahabi and Khateri have found that personal interest, service to the community, and the position of the field are important factors influencing the positive attitude towards the field of study among the students (17). Arab-Zozani et al.'s study has also shown that more than half of health information technology students are worried about the future career. These authors implied that the admission of a large number of students in this field is a threat to their future employment (7). Therefore, it is recommended that manpower should be provided according to the needs of the society. Moreover, standard evaluations and proper planning should be carried out based on the future vision for the acceptance of students of these fields in universities. A previous study has shown with increasing the awareness of students, their attitude toward their major will also grow more positive and their interest will increase consequently (18). Also, in our research, 22% of students had a negative attitude towards their field of study. It is clear that changing negative to positive attitude will be very complicated and challenging compared to converting average to positive attitude.

The results of the present study displayed that 33 (16.5%), 108 (54%), and 59 (29.5%) of participants had a low, medium, and high level of attitude toward their future career, respectively. Hedayati et al. investigated the attitude of dental students toward their field of study and future career in Shiraz University of Medical Sciences (Shiraz, Ira) (9). Their results showed that 32.4% of students were worried about their future career in this field. Also, 89.9% believed that the increase in the acceptance of students in this field jeopardizes their future career, and 77% of students believed that the legal benefits of employment in this field was good and appropriate (9).

The most important causes of students' dissatisfaction with a field of study are lack of positive view of the society and other students to the field of study and inappropriateness of the offered courses with individual needs and expectations of individuals (11). Therefore, creating a team of advisors, educational supervisor, educational expert of the relevant group in college, in order to solve the problems of the students, can decrease the problems related to the educational topics, thus reducing the negative attitude towards the field. It is recommended that universities and educational groups revise the relationship of the title and the content of the courses offered so that the skills learned according to the needs of society. The internship program for students should be designed in such a way that this group acquire the skills needed to serve the society.

One of the limitations of current study was the cross-sectional nature of the study. This research limited to the data collected by a self-report method. In any case, to generalize the findings of this study for all students of this fields, it is necessary to conduct similar research in other universities of the country. In this case, we can rely on with more confidence on the findings of this study and provide the possibility of comparing the attitudes among the students. The main strength of the current study was that in UMSU, we could identify students who had a low attitude towards their field of study and future career, including students of environmental health and public health. Therefore, policy makers should prioritize students who had a low attitude in the programs that carry out to improve students' attitudes towards their field of study and future career.

Conclusion

The weak attitude towards the field of study and future career among the students of some fields, including public health, environmental health, radiology, anesthesia, and laboratory sciences, shows the need for planning to improve and strengthen educational programs and increase the capacities career of the mentioned fields. Strengthening educational programs, revising the headlines of lessons and lessons offered, improving the internship of students and

accepting students according to the needs of the society, and providing employment conditions are effective factors in increasing the level of satisfaction with the field of study and future career.

Acknowledgments

Authors would like to thank all the Urmia University of Medical Sciences students who participated in this study.

Conflict of interest

The authors have no any conflicts of interest.

Funding/support

None declared.

Data availability

The raw data supporting the conclusions of this article are available from the authors upon reasonable request.

References

1. Sharifi M R, Taheri Nassaj H. Medical Students' Attitude Towards Studying Medicine. Iranian Journal of Medical Education. 2001; 1(4) :36-43.
2. Taherpour M, Rahimi J, Jafari Y, Hakkak HR. Attitude of the students of north khorasan university of medical sciences towards their job prospects in 2013. Journal of Human Health. 2015 Sep 1;1(3):81-4.
3. Sajadi FS, Borna R, Borna A, Ahmadipour H. Attitude of Kerman dental school students toward their field of study and career future. International Journal of Dental Science and Research. 2015;3:60-3.
4. Bigdeli Z, Abam Z. The effective factors in choose discipline and change the attitude of librarian and clinical psychology at the University of shahid chamran Ahvaze. Library and Information Science. 2003;6(2):47-66.
5. Gallagher JE, Patel R, Donaldson N, Wilson NH. The emerging dental workforce: why dentistry? A quantitative study of final year dental students' views on their professional career. BMC Oral Health. 2007;7(1):1-16.
6. Nazari A, Torabi Pur A, Javani A, Mousavi H, Nazari H. Survey on students' attitude in Ahvaz Jundishapur University of Medical Sciences regarding to educational principle and future career. Educational Development of Judishapur. 2014 Jan 21;4(4):18-25.
7. Arab-Zozani M, Majdzadeh R, Sarbakhsh P, Naseri Sis R. The attitude of health technology assessment students to their field of study and future career in Iran. International Journal of Epidemiologic Research. 2017 Aug 1;4(3):227-31.
8. Mahmoudi Pour A. Evaluation of medical student's attitude toward future job in Babol University of Medical Sciences, 2003. Journal of Babol University of Medical Sciences. 2006; 8 (1) :86-95.
9. Hedayati Z, Seifi N, Hekmatfar S, Badakhsh S. Attitudes of Shiraz dental students toward their discipline and future career. Iranian Journal of Medical Education. 2012 Jun 10;12(3):176-83.
10. Rejali M, Mostajeran M, Lotfi M. Health student attitude towards their filed of stuy and futur career in health faculty of Isfahan university of medical science -2008. Health system research. 2010;6(1): 106-15.
11. Mokhtari Kia A, Asadi Piri Z, Ghasempour S, Alaei R, Nouraei Motlagh S, Bakhtiar K. Attitude of public health students towards their field of study and future professions in Lorestan University of Medical Sciences. Iranian Journal of Medical Education. 2019; 19(56) :519-29.
12. Vakili MM, Jahangiri N. Content validity and reliability of the measurement tools in educational, behavioral, and health sciences research. Journal of Medical Education Development. 2018 Mar 10;10(28):106-18.
13. Ali A, Angelene P. Self-reported association and determinants of KAP on food safety and hygiene among Private University Students in Kedah state, Malaysia. MOJ Bioequiv Availab. 2018;5(5):256-62.
14. Yimer M, Abera B, Mulu W, Bezabih B. Knowledge, attitude and practices of high risk populations on louse-borne relapsing fever in Bahir Dar city, north-west Ethiopia. Science Journal of Public Health. 2014 Jan 2;2(1):15-22.
15. Keshavarz G, Baghban I, Fatehizadeh ME. Investigating the effectiveness of cognitive group study in changing attitudes towards education. Journal of Psychology. 2005; 9(1):51-66.

16. Glass Jr JC, Knott ES. Efectiveness of a workshop on aging in changing middel-aged adults toward the aged. Educational Gerontology: An International Quarterly. 1982 Jul 1;8(4):359-72.
17. Vahabi A, Khateri A. The perspective of public health students of Kurdistan University of Medical Sciences regarding field of study and future career and its related factors in 2014. Scientific Journal of Nursing, Midwifery and Paramedical Faculty. 2016 Feb 10;1(3):33-45.
18. Moghadam FA, Azad SA, Sahebalzamani M, Farahani H, Jamaran M. An investigation on the level of awareness, attitude, and interest among medicine, dentistry, and pharmacy students toward their majors on entering university: the case of Islamic Azad University, Tehran medical sciences branch. Journal of Family Medicine and Primary Care. 2017 Oct-Dec;6(4):784-790.