Attitudes and Interests of Students in Different Disciplines in Islamic Azad University, Tehran, Medical Sciences Branch to Their Field of Study at the Entrance to University

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ABSTRACT

Having interest and a positive attitude towards field of study is one of the requirements in learning and achieving success. Despite the time, cost and effort in choosing the discipline, a number of students change their field or they will experience failure in the future career. So, this study aimed to determine the attitudes and interests of students of Islamic Azad University of Medical sciences, Tehran to their field of study on arrival at the university. This field descriptive study was performed on 501 freshmen students in various medical and non-medical fields in Islamic Azad University of medical sciences, Tehran Branch, who were selected by stratified random sampling. Data collection tool was a questionnaire including three parts: demographic characteristics and questions on evaluation the attitudes and interests. The average attitudes was (14.78 ±5.27) and the average interest (10.71 ± 3.48) in students. 44.1% of students had positive attitude and 55.9% had a negative attitude. Interest rate in 56.7% of students was high and in 43.3% was low. The study showed that increasing education levels is inversely correlated with students' interest rates and attitudes, that is, increasing level of education, the attitude and interest rates will be reduced. The highest rate of attitude and interest based on the educational levels is related to associate degree with a mean rate of 337.36 and 351.83, and the lowest ranking of attitude and interest belonged to professional doctorate (general) with an average rating of 124.95 and 138.10, respectively. Other findings showed that a significant correlation exists between the rate of interest and the attitude. The findings indicated that most students entering college had a positive attitude and interest toward their field of study.

INTRODUCTION

Students as one of the main elements of the Universities form the body of various organizations in society in the future. Their attitude and satisfaction of the field of study is an important factor to motivate and improve the quality of education [1]. Attitudes are mostly the stable feelings that different beliefs usually form them [2]. Studies have shown that the general reaction of people in different areas can be predicted by being aware of the attitudes, or their

attitude can be guided to the desired direction [3]. Therefore, the attitude of students towards the university and their motivation to success has a great impact on the efforts, performance and success in achieving the objectives [4].

Individual attitudes in different periods of life change in harmony with the surrounding environment [5]. Change in attitude occurs mostly during the University studies. [6] Universities as a learning environment can provide necessary tools for positive changes in attitudes to encourage students and make changes for a sustainable learning. To create constructive changes, descriptive information about the current status and information about the students' attitudes toward their field of study is essential. Using the data, universities can bring about the students' satisfaction to the field of study by strengthening the positive factors and modifying negative factors [1].Therefore, students need to have positive attitude and low stress to succeed in the study to concentrate and process the data well [4]

In addition to the positive attitudes, motivation is also one of the most important factors in teaching and student success [7]. Interest is a kind of actual motivation that causes preference of something over something else when deciding and the motivated person persists to achieve greater awareness to identify him ad its environment [8]. Studies show that the more the correspondence among individual motivations, interests, skills, and professional character, he has a greater chance to obtain positive results such as success in education and work and job satisfaction [9].

Interest in job and field of study roots in many factors, one of the main factors that cause the interest and motivation in students in the field of studies well as their job satisfaction is their consent to the field of study and job, social status, income, and level of difficulty of the course [10]. In general we can say that the academic interests are affected by individual, economic, social factors and content appropriate to the abilities and talents of the individuals [11]. Since the education of everyone is to obtain appropriate profession in the future and having an appropriate profession can be a source for supplying individual and social needs, self-respect and healthy adaptation [12]. So obviously charge in professions that is not interested for the person creates stress, anxiety, mental and physical illness, lack of social adaptation and eventually will lead to the loss of material and spiritual wealth, that may sometimes affect all human relationships directly and indirectly [13].

So given the importance of attitude and interest in students o their field of study and the importance of choosing discipline in future job and on the other hand, given that no extensive study has been done in this field, and the previous studies were limited to one discipline, it was decided to perform a study to determine the attitudes and interests in the students of different principles in Islamic Azad University, Medical sciences, Tehran Branch to their discipline on the arrival at the University in academic year 2013-14.

MATERIAL AND METHODS

This research is a field descriptive study that was done on the freshmen in medical science disciplines, including medicine, nursing, midwifery, and non-medicine disciplines including biology, medical engineering ... in Islamic Azad University, Tehran Medical Branch in the academic year 2013-14. The stratified random sampling method was used in this study. The sample size was obtained 495 based on the sample size formula that 520 questionnaires were distributed due to the possible loss of sample, of which 501 have finally completed the questionnaires. The data collection tool was a questionnaire. 12 items were considered for demographic data, 8 items to attitudes and 6 other for assessing students' interest in their field of study. Items regarding the attitudes was set based on 5-points Likert scale with scores strongly agree (5), relatively agree (4), no idea (3), relatively disagree (2), strongly disagree (1). Items on interest was in this form that the first 3 items were designed based on 5-point Likert scale with scores strongly agree (5), relatively agree (4), no idea (3), relatively disagree (2), strongly disagree (1) and 3 other items had Yes, No, and I do not know options, that each Yes receives +1, and each No receives -1 and zero score was given to I do not know. To determine the validity of the inventory, content validity was used, so that the questionnaire was confirmed and modified by 10 faculty members of Islamic Azad University, Tehran Medical Branch. Internal consistency of questions was obtained 0.79 and 0.7 respectively using Cronbach's alpha coefficient for the attitude and interests that was confirmed.

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For sampling, we referred to the relevant departments. Questionnaires were handed to the studied departments and it was collected after getting responses. In the end, after entering data into SPSS version 19, descriptive statistics (for preparing tables, determining relative and absolute frequency, mean and standard deviation and ...) and inferential statistics (one way ANOVA, Pearson correlation, Multiple Regression and Kruskal–Wallis test) were used for data analysis.

RESULTS

From 501 students, 395 were female (78.8%) and 106 (21.2%) were male. The mean age of students was 20.5 ± 21.50 with a minimum of 16 and maximum of 51 years. 47 participants were associate students (9.14%), 359 undergraduate students (7/71%), 31 MA. students (6.2%), and 54 professional doctorate students (10.8%) respectively.   The maximum number of samples were 427 singles (85.4), 398 unemployed (79.4) and 190 with a monthly family income of over a 1500 million Tomans (37.9%) respectively. In majority of them, 430 of them had father as the head of family (85.8%), 204 of them had a businessman father (40.7), 385 of them had a housewife mother (76.8%), 198father had a diploma (39.5%) and in 217 cases, mothers had diploma as well(43.3%). The results showed that no significant relationship exists between the students' attitudes to gender and education of parents and as well as the interest rate in students and father's education (P> 0.05). In the event that a significant relationship exists between the rate of interest with mother's education (P = 0.008). Also a significant relationship exists between attitudes and interests of students with their field of study (P<0/001).

Table 1 shows that in terms of attitude, the mean is (14.78) and SD is (5.27) and based on the interest, the meanis (10.71) and SD is (3.48).

Table 1: Mean and standard deviation of students based on the attitudes and interest rates

Variable	n	Min.	Max.	Mean	SD
Attitude	501	8.00	40.00	14.7823	5.27047
Interest	501	6.00	18.00	10.7105	3.48200

Table 2 indicates that the attitude of students was positive in (44.1%) and (55.9%) negative. Also this table shows that in terms of interest, the majority of students (56.7%) had a high interest and minority had a low interest (43.3%).

Table2:   Distribution   of   frequency and percentage of students based on   the   attitudes   and interest rates

Variable		Frequency	Percent
Attitude	Positive	221	44.1
	Negative	280	55.9
Interest	Low	284	56.7
	High	217	43.3

Table 3 indicates the attitude, given the discipline, the majority of groups (75%) including continuous and discontinuous undergraduate Health students had a positive attitude, (97.1%) including graduate students in clinical psychology had a negative attitude. Also minority of studied groups (2.9%) including graduate students in clinical psychology had a positive attitude and (29.2%) including associates in family health had negative attitudes. The table also shows that due to the course of study, the majority of groups (76.2%) including laboratory sciences bachelor students had a high interest and (85.7%) including midwifery students had low interest. Also the minority of the studied group (14.3%) including midwifery students had high interest and (23.8%) including science Laboratory bachelor students had low interest.

Table 4 Indicate that a significant relationship exists between the rate of interest and attitude of students.

Table 5 indicates that in general a significant relationship exists between the attitude and interest of students based on the field of study.

Table 6 indicates that the only variable among the studied variables significantly predicts the attitude is educational level and slope of B is equal to -0.315 which indicates that increasing the level of education, the attitude of the studied group is reduced.

Table 7 shows that, the only variable that significantly predicts interest is educational level, and the slope of B is equal to -0.279 showing that increasing the educational level decreases the interest. And father's education has a linear gradient of -0.139 and shows that interest is reduced by increasing father education.

Table 3: Frequency and percentage distribution of attitudes and interests of studied students according to the field of study

Field		Attitude		Interest		Total
		Negative	Down	Above	Down	
BS of operating room and anesthesia	Frequency	11	14	9	16	25
	Freq. percent	44	56	36	64	100
Bachelor of operating room	Frequency	7	8	9	6	15
	Freq. percent	46.7	53.3	60	40	100
Bachelor of laboratory sciences	Frequency	10	11	5	16	21
	Freq. percent	47.6	52.4	23.8	76.2	100
Bachelor of Midwifery	Frequency	8	6	12	2	14
	Freq. percent	57.1	42.9	85.7	14.3	100
Bachelor of clinical engineering	Frequency	22	12	26	8	34
	Freq. percent	64.7	35.3	76.5	23.5	100
Associate in family health	Frequency	7	17	7	17	24
	Freq. percent	29.2	70.8	29.2	70.8	100
BS in Public Health	Frequency	13	3	6	10	16
	Freq. percent	81.3	18.8	37.5	62.5	100
BS in Nursing	Frequency	20	11	24	7	31
	Freq. percent	64.5	35.5	77.4	22.6	100
MS in genetics	Frequency	6	1	5	2	7
	Freq. percent	85.7	14.3	71.4	28.6	100
BS in biology - genetic	Frequency	9	11	11	9	20
	Freq. percent	45	55	55	45	100
BS in biology –Biochemistry	Frequency	13	24	15	22	37
	Freq. percent	35.1	64.9	40.5	59.5	100
BS in Biology – Cellular and Molecular	Frequency	15	26	24	17	41
	Freq. percent	36.6	63.4	58.5	41.5	100
BS in biology – microbiology	Frequency	14	27	16	25	41
	Freq. percent	34.1	65.9	39	61	100
Master of Nursing	Frequency	9	5	7	7	14
	Freq. percent	64.3	35.7	50	50	100
Bachelor in Anesthesiology	Frequency	7	5	6	6	12
	Freq. percent	58.3	41.7	50	50	100
Master of Biology - Animal Sciences	Frequency	4	3	3	4	7
	Freq. percent	57.1	42.9	42.9	57.1	100
PhD in General Medicine	Frequency	52	7	48	11	59
	Freq. percent	88.1	11.9	81.4	18.6	100
BS in laboratory sciences	Frequency	6	4	4	6	10
	Freq. percent	60	40	40	60	100
Associate of Health - fighting diseases	Frequency	4	5	5	4	9
	Freq. percent	44.4	55.6	55.6	44.4	100
BS in clinical psychology	Frequency	33	1	28	6	34
	Freq. percent	97.1	2.9	82.4	17.6	100
Continuous and discontinuous BS in Environmental Health	Frequency	5	15	9	11	20
	Freq. percent	25	75	45	55	100
Bachelor of professional health engineering	Frequency	5	5	5	5	10
	Freq. percent	50	50	50	50	100
Total	Frequency	280	221	284	217	501
	Freq. percent	55.9	44.1	56.7	43.3	100

Table 4: Correlation between interest and attitudes in studied students

Variable	Correlation coefficient	Significance level
Interest and attitude	0.642	0.000

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Table 5: Results of one-way analysis of variance to compare interests and attitudes based on field of study

Variable	Sum of squares	Degrees of freedom (df)	Mean square	F	Significance level
Attitude	Between group 3356.783	21	159.847	7.270	0.000
	Withing group 1532.145	479	21.988		
Interest	Between group 1178.306	21	56.538	5.555	0.000
	Withing group 871.4874	479	10.177		

Table 6: standard and non-standard regression coefficients of studied students' attitudes

Model	Un Standardized coefficients		Standardized coefficients	t	Significance level
	B	Error	B		
Constant	19.674	0.725	-	27.123	0.000
Degree	2.224	0.314	-0.315	7.079	0.000

Table 7: Regression standard and non-standard coefficients of the interest rate for subjects

	Model	Un Standardized coefficients		Standardized coefficients	t	Significance level
		B	Error	B		
Step 1	**Constant**	14.020	0.484	-	28.950	0.000
	Degree	1.488	0.210	-0.316	7.094	0.000
Step 2	**Constant**	15.159	0.609	-	24.906	0.000
	Degree	1.318	0.215	-0.279	6.121	0.000
	Father's degree	-0.327	0.107	-0.139	3.044	0.002

Table- 8: The results of ranking attitude and interest of students based on different academic levels

Disciplines	Attitude	Interest	Rank
	Mean of ranks	Mean of ranks	
Associate	337.36	351.83	1
Baccalaureate	286.44	315.70	2
BS	257.58	246.18	3
Master degree	239.77	229.59	4
Professional Doctorate	124.95	138.10	5

Table 8 shows that the highest rate of attitude in the study group based on educational level is related to associate degree with a mean rate of 337.36andthe lowest is in professional doctorate with a mean of 124.95. This table also shows that the highest interest rate in the study group based on education levels is related to the associate degree with an mean of 351.83 and the lowest rank is in the professional doctorate (general) with an mean rate of138.10.

DISCUSSION

Interest is the essential component of everyone's progress in his favorite field of study [14]. Choosing academic courses, especially fields related to medical sciences associated with the health of humans should be carefully done, because the interest in the career is one of the preconditions for providing high quality services to clients [15].

This study was done aiming to determine the attitudes and interests of the students of Islamic Azad University, Tehran Medical Branch in relation to their field of study in the academic year2013-14. The findings of this study showed that the mean attitude of students in different field of study to their discipline in university admission is (14.78) and standard deviation (5.27) and the mean and standard deviation of interest rate is respectively (10.71) and (5.27). Other results indicate that students' attitude was positive in (44.1%) cases and negative in (55.9%). While Banadera khshan et al., (2005) in their study concluded that 52% of nurses and students had a positive attitude, 46.3% had no idea and only 2 nurses had negative attitude [16]. In this study, students' interest in (56.7%) cases was high and in (43.3%) was low. Results of Qaderiet al., (2007) showed that the mean score of students' interest in medicine was 3.2 score and the current interest mean was 3. They also concluded that 81% of students of basic

sciences, 71.9% students of physiopathology, 63.5% of intern students and 64.7% of practitioners have reported their current interest in medicine too high [6]. While the results of Arfaei *et al*., (2008) showed that mean scoring to interest in the field of study (Midwifery) was evaluated poor and as 52 ± 37.5 [13].

One of the most important parts of this study was to answer the questions about the attitude and interest by students. The majority of students of Islamic Azad University, Tehran Medical Branch at the entrance to the university answered the questions of attitudes in this way that imagining performing the duties in my discipline is enjoyable and I am proud to introduce myself in my field of study. My discipline has a high degree of social prestige and it is required by people and even if I could not find a job in this field, it will be yet useful for me. The majority of them said that in the future job solving the client's needs and sense of responsibility is the greatest joy for them. However, the majority of them responded if it was allowed they would change their discipline. In this regard, the results of Banaderakhshan *et al*., (2005) show that, in response to the questions of performing duty in the field of study is enjoyable, 35 (64.8%) of nurses and 34 (62.9%) of student were agreed. About introducing oneself proudly in the society, 21 (37.1%) of nurses and 9 (16.7%) of students were agreed and totally agreed. About the question of the requirements of the discipline in community 53 (98.1%) of nurses and 51 (94.4%) of students had positive responses. About the question which refers to changing jobs, if possible, in both groups of nurses and students 36 (66.6%) had responses as agree and totally agreed [16]. Mostafavi *et al*., (2012) in their results on the question of serving community and meeting the needs of clients showed that 40.1% of pharmacy students were agreed (17).Results of Arfaei *et al*., (2008) showed that social status and prestige, with a mean of 14 ± 47.5 was one of the reasons for reducing the tendency of students to the discipline (2008). Mostafavi *et al*., (2012) showed in their study that pharmacy students were agreed about the social status [13].

The majority of students in different fields of Islamic Azad University, Tehran Medical Branch at the entrance to the university responded to questions on interest in this way that they chose the field of study with interest, and now they like it. They did many researches before course

selection, and the education of relatives and family was effective in choosing the field of study. Most of them said if they sit the entrance examination for the second time, they would choose this field and after graduation they are eager to work in their study field. In this regard, the results of Abbaszadeh *et al*., (2010) showed that from 250 participants in the study, 121 (86.4%) of female and 40 (63.5%) of male are interested in nursing. In addition, other researches by Abbaszadeh et al., suggests that 128 (90.8%) of female and 53 (85.5%) of male are interested in pursuing a career in nursing (18).The results of Qaderi *et al.,* (2007) showed that 81.3% of students in basic sciences, 71.9% of students of physiopathology, 63.5% of the practitioner students and 64.7% of intern students reported their current interest to medical studies high or very high [6]. The results ofAmani *et al.,* (2010) suggests that 23 (23.09%) of students in anesthesia had consulted with the relatives and friends before course selection, 9 (14.51%) with close friends, 2 with instructors and students and 28 (45.16%) select it themselves. In the field of Anesthesia 32 (51.62%) were researched little, 22 (35.48%) average and 8 (12.9%) much. While 9 (14.51%) were interested in Anesthesiology least, 36 (56.45%) moderate, 13 (20.96%) high and 5 (8.06%) too much and 25 (40.32%) stated that if they sat the entrance examination for the second time, they would select the field again and 33 (53.22%) would not select it and4 (6.45%) didn't answer this question [19]. Also Banaderakhshan *et al*., (2005) suggest that about the question on repeating life and reselecting nursing only 11 (20.4%) of nurses and 9 (16.7%) of students had positive opinions [16]. Also in study by Arfaei *et al*., (2008) 65.7% had stated that if retake the entrance exam they would not select Midwifery [13].

The results showed that a significant difference exists between the attitudes and interests of the students on the course. Also the findings of this study indicate that increased education levels are inversely associated with the attitudes and interest rates, meaning that as the level of education increases, attitude and interest in surveyed groups reduces, so that the highest ranking in attitude in students based on education level is related to associate with an average of 337.36 and the lowest ranking in the Professional Doctorate (General) with an average rating 124.95. Also in terms of interest, the highest rate in the studied group based on the education level

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was related to associate's degree, with an average grade of 351.83 and the lowest for professional doctorate (general) with an average ranking of 138.10. Other findings showed that a significant relationship exists between the rate of interest and attitude of the students surveyed. The results of several studies suggest that although medical students with sufficient knowledge chose this field, but by increasing the academic years and education levels, their attitude will be negative and the desire to study medicine will be reduced (6).Also some similar researches on the attitudes of medical students found that the students are concerned about the future of their profession and they often emphasize the employment issues [1].

In general, the results of this study and other similar studies in the field show that students in different field of study especially medicine are currently facing with many stresses including increased graduates, the absent of adequate labor market, and lack of proper financing in future that these concerns can play a great role in reducing the interest, negative attitudes and academic failure. Therefore, according to recent findings, it is suggested that ministries and other organizations seek to resolve problems and job issues in different fields of education, higher and more sustainable employment to provide material and livelihoods needs and by presenting appropriate strategies and approaches clarify the actual position of the academic disciplines in public opinion and provides the popularity and social status by increasing education levels to increase students' motivation and interest to allow students study eagerly and be more engaged in their education. Also to increase student interest in education, the training of students should be before entering the university based on the intrinsic motivation (individual interest, service to society, and the social status of their discipline) and their talent. Also by aligning the interests and abilities of this group with needs and available resources in the community, this goal can be achieved. It is recommended to use interested and optimist instructors after entering the university in their field and they attract students trust by establishing a positive connection and make him interested in the field of study and stimulate his intrinsic interest and motivation.

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