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

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ABSTRACT

Introduction: Having awareness, interest, and positive attitude toward one's fields of study leads to the development of a compatibility between demands and expectations on the one hand and future career on the other hand. This study was carried out to determine the level of awareness, attitude, and interest of medicine, dentistry, and pharmacy students of Islamic Azad University, Tehran Medical Sciences Branch toward their own field of study on entering university. Materials and Methods: This research is a basic descriptive study conducted on 273 students who had just entered university. This study was performed using census. Data collection instrument was a four-part questionnaire which included demographic information, and questions measuring students' awareness, attitude, and interest. Results: With regard to their field of study, there was no statistically significant difference in the average of students' awareness (P = 0.731). The attitude of medicine students was significantly more positive than pharmacy and dentistry students (P < 0.001), and the attitude of dentistry students was significantly more positive than that of pharmacy students (P = 0.460). Medical students' interest level was significantly higher than that of pharmacy and dentistry students (P < 0.05), and the interest level of dentistry students was significantly greater than the interest level of pharmacy students (P = 0.024/0). There was a statistically significant positive relationship between awareness and attitude and between awareness and interest in all of the study subjects (P < 0.001). Conclusion: The study results indicated that having a high level of awareness toward one's major led students studying in medicine, dentistry, and pharmacy to experience a more positive attitude and a higher level of interest. Thus, before entering the university, academic counseling will be beneficial for acquiring a better understanding of most majors, a goal which could be provided through school, social media, and family.

Keywords: Attitude, awareness, field of study, interest, students

Introduction

Providing and maintaining health of the society members can play an important role in the economic and social development of communities, and promoting the quality of health and treatment services is one of the crucial factors in the prosperity of every country.[1] Thus, quantitatively and qualitatively adequate health-care providers have to be trained according to the real demands of a society in such a way that after graduation they would be able to resolve social problems and provide appropriate health and treatment services.[2]

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Intense competition for university admissions in pursuit of higher education has led individuals from various social strata to choose different majors about which they do not have enough knowledge, awareness, and interest. Lack of attention toward this issue has caused some students to change their major despite the effort, time, and expense that they have treated with choosing their previous major.\(^5\) Due to the lack of enough knowledge about a chosen major can bring about disinterest and frustration, it can lead to academic failure.\(^6\) In the future, having a profession not chosen based on the awareness and interest of individuals causes tension, anxiety, physical and mental illnesses, and social nonconformity, and is ultimately a waste of spiritual and material investment.\(^7\) Hence, to perform their future duties effectively, students should choose their majors with more awareness so that it would lead to an increase in their interest.\(^8\)

It is important to notice that success in any profession and achieving any intended goal usually require a positive attitude toward those professions or goals, and one has to know that individuals’ attitudes will differ in various stages of life according to changes happening in their environment. Most research conducted in this regard suggests that attitudes are most likely to change during student life. Different studies indicate that medical colleges are considered as stressful environments which usually have a negative impact on the academic performance, physical and mental health of students.\(^9\) Furthermore, various studies propose that students should not have anxiety, and they need a positive attitude to be able to concentrate and process information properly.\(^10\) As a major subset of the treatment sector responsible for supplying, maintaining, and promoting society’s health in the future, students of medicine should be carefully monitored so that they would be able to play their roles effectively as specialists, managers, or at least as a therapist. Lack of attention to their problems undoubtedly will result in the accumulation of their problems, and it will cause a variety of mental disorders and educational problems for students.\(^11\)

In addition to positive attitude, motivation, and interest are also among the most important influential factors in educational systems and students’ success.\(^12\) Studies reveal that even as compatibility increases between individuals’ motivation, interests, and professional character, the chance of achieving positive results such as job satisfaction and success in education and work boosts.\(^13\)

Interest in a job and in a specific field of study depends on various factors. Some of the most important factors which stimulate interest and motivation in students toward their academic field of study and make them satisfied about their jobs are the level of satisfaction about a chosen major and its respective job, social status, income, and difficulty level of that major.\(^14\) Some of the factors which can promote interest in medical students include the social status of graduated students, their relatively sufficient income, giving Direct PhD degrees to the graduates and their generally rewarding future career.

The results of different studies propose that students of medicine choose this major with enough knowledge and interest,\(^15\) because almost more than half of students believe that this major can bring financial success to their lives. However, due to the growth of mental maturity and the occurrence of social realities, this belief usually changes during the last years of the educational course.\(^16\)

In this regard, presenting effective solutions for increasing students’ interest in their majors not only enhances educational systems but results in a higher efficiency of those staffs working in hospitals and treatment centers; besides, it paves the way to providing patients with more effective health services. A well-informed search for information related to intended academic majors before choosing one’s field of study can improve satisfaction and success levels of individuals involved.\(^17\) Students can gain this kind of awareness from different sources such as family, related professionals, media, etc.\(^18\) In case of having knowledge about and interest in a major, responsibility will increase, leading in turn to the growth of individuals in terms of providing health-care services.\(^19\) Therefore, given the importance of awareness, attitude, and interest of Sc. D. students toward their field of study and the important effects that choosing a major has on the future career, this study was conducted to determine and compare the level of awareness, attitude, and interest of students toward their majors. The questionnaire consisted of 28 questions. The first 9 questions (yes/no) were related to the level of awareness. The scoring process was such that the value “1” was given to “yes” answers and the value “0” was given to “no” answers. The next 10 questions, which were related to attitude, were regulated based on the five-point Likert scale with the scores being: completely agree,\(^1\) almost agree,\(^2\) indifferent,\(^3\) almost disagree,\(^4\) and completely disagree.\(^5\) The last 9 questions were related to the level of interest. The first 6 questions were likewise designed based on the five-point Likert scale the scores being: completely agree,\(^6\) almost agree,\(^7\) indifferent,\(^8\) almost disagree,\(^9\) and completely disagree.\(^10\) The other 3 questions had yes/no options. Each “yes” answer was given a score of 5 and each “no” answer was accorded a score of “1.”

To determine the scientific validity of the questionnaire, content validity was employed, such that the questionnaire was modified and verified by ten faculty members of Islamic Azad University,
Tehran Medical Branch. The internal consistency of questions concerning awareness, attitude, and interest, obtained using Cronbach’s alpha, was, respectively, 0.76, 0.79, and 0.7. Hence, this consistency was confirmed. At the end, after entering the data into SPSS 19 (IBM, New York), the authors used descriptive statistics to describe the gathered data, and inferential statistics (one-sample t-test, one-way ANOVA test, Pearson correlation coefficient, and Scheffe’s post hoc test) was employed to analyze the data.

Results

Among 273 students, 209 (76.6%) individuals were men and 64 individuals (23.4%) were women. The average age of students was 19.21 ± 2.24. The minimum age was 17 and the maximum age was 35. Among the participants, 140 individuals (51.3%) were medicine students, 68 individuals (28.6%) were pharmacy students, and 55 individuals (20.1%) were students of dentistry. The highest number of study subjects were, respectively, 266 (97.4%) single individuals, 261 (95.6%) unemployed individuals and 155 (59.4%) individuals who had a family monthly income of more than 1.5 million tomans. In 265 individuals (97.1%), father was the head of households, 88 individuals (32.7%) had employed fathers, 143 individuals (52.4%) had housewife mothers, father of 93 individuals (32.2%) had M. A or higher degrees and mother of 93 individuals (34.2%) had mothers with B. A degrees. In case of re-choosing a major, 50.7% of the subjects who composed more than half of all subjects would have had medicine, 28.7% would have chosen dentistry and 16.5% would have gone for pharmacy. All of medicine students, 72.7% of dentistry students and 83.3% of pharmacy students were content to continue their studies after graduation. In medicine, 69.3% of students chose surgical disciplines such as eye surgery, general surgery, otorhinolaryngology and urology; and 30% of students chose nonsurgical disciplines such as pediatrics, internal medicine, radiology, and cardiology. Nearly 45.5% of dentistry students chose surgical specialties such as periodontics, orthodontics, restorative dentistry, oral and maxillofacial surgery, and dental prosthetics; 18.2% of students chose nonsurgical specialties such as oral and maxillofacial radiology, oral medicine, oral and maxillofacial pathology and oral health. In pharmacy, 78.2% of students selected specialties such as pharmacology, toxicology, pharmacognosy and industrial pharmaceutics; and 5.1% of students chose basic sciences such as microbiology, physiology, biochemistry, and parasitology.

The results indicated that students’ awareness average differs according to their sexuality, such that the awareness of male students is significantly higher than the awareness of female students (P < 0.001). The awareness average of students also differs depending on their family’s monthly income (P < 0.001). The findings suggest that the awareness of students does not have a statistically significant relationship with marital status (P = 0.401), employment status (P = 0.87), status of the head of household (P = 0.56), father’s employment status (P = 0.523), mother’s employment status (P = 0.362), father’s education (P = 0.365), mother’s education (P = 0.274), and the second would be chosen major (P = 0.194).

The results proved that the average of students’ attitude differs according to their sexuality, such that the attitude of male students is significantly more positive than female students (P < 0.01). The average of students’ attitude varies depending on their family’s monthly income (P < 0.001). In this regard, Scheffe’s post hoc test demonstrates that the attitude level of those students whose families have a monthly income of <500 thousand tomans is significantly more negative than those students whose family’s monthly income is between 1 and 1.5 million tomans (P < 0.001) and more than 1.5 million tomans (P < 0.001). The attitude level of those students whose families have a monthly income between 500 thousand tomans and 1 million tomans is significantly more negative than those students whose family’s monthly income is between 1 and 1.5 million tomans (P < 0.001) and more than 1.5 million tomans (P < 0.001). The average of students’ attitude differs with respect to their father’s education (P = 0.031). In this way, Scheffe’s post hoc test indicated that the attitude of those students whose fathers have diploma is more negative than those students whose fathers have B. A degrees (P = 0.045). The findings suggest that the attitude of students does not have a statistically significant relationship with marital status (P = 0.227), employment status (P = 0.95), status of the head of household (P = 0.167), father’s employment status (P = 0.941), mother’s employment status (P = 0.525), father’s education (P = 0.365), mother’s education (P = 0.448), and the second would be chosen major (P = 0.528).

The findings revealed that the interest level of students differs based on their family’s monthly income (P < 0.001). In this regard, Scheffe’s post hoc test indicates that the interest of those students whose families have a monthly income between 500 thousand tomans and 1 million tomans is significantly lower than those students whose family’s monthly income is between 1 and 1.5 million tomans (P < 0.001) and more than 1.5 million tomans (P < 0.001). The average of interest in students also varies with respect to their mother’s education (P = 0.029). To specify the difference among various educational groups, the authors deployed Scheffe’s post hoc test, and it was made clear that the interest level of those students whose mothers have only completed elementary school is less than those students whose mothers have M. A degrees (P = 0.048).

Furthermore, the results illustrated that the awareness level of students does not have a statistically significant relationship with sexuality (P = 0.362), marital status (P = 0.745), employment status (P = 0.374), status of the head of household (P = 0.167), father’s employment status (P = 0.179), mother’s employment status (P = 0.448).
The results of Table 1 propose that respectively 100 (36.6%), 62 (22.7%) and 111 (40.7%) individuals had a low, medium, and high level of awareness. 57 (40.7%), 39 (27.9%), and 44 (31.4%) students had a low, medium, and high level of awareness of medicine respectively. Moreover, 28 (35.9%), 9 (11.5%), and 41 (52.6%) individuals showed respectively a low, medium, and high level of awareness of dentistry. Regarding students’ fields of study, this table also shows that there is no statistically significant difference between the average of students’ awareness (P = 0.731).

The results of Table 2 suggest that the attitude level of 80 individuals (29.3%) was low, 101 individuals (37%) had a medium level of attitude and 92 individuals (33.7%) had a high level of attitude. Respectively, 21 (15%), 53 (37.9%), and 66 (47.1%) individuals had a low, medium, and high level of attitude toward medicine. Besides, 40 (51.3%), 24 (43.6%), and 12 (21.8%) individuals had respectively a low, medium, and high level of attitude toward dentistry. Moreover finally, 19 (34.5%), 24 (43.6%), and 12 (21.8%) individuals had a low, medium, and high level of attitude toward pharmacy. Apropos of students’ fields of study, this table also displays that there is no statistically significant difference among the average of students’ attitude (P = 0.731). Due to the unequal number of students in different academic majors, Scheffe’s post hoc test was conducted to determine the difference between the attitude levels of students based on their majors. The results of Scheffe’s test showed that the awareness of medicine students is significantly more positive than pharmacy and dentistry students (P < 0.001). Similarly, the awareness of medicine students is significantly more positive than dentistry students (P = 0.046).

The results of Table 3 indicate that the level of interest of 68 (24.9%), 111 (40.7%), and 94 (34.4%) individuals was respectively low, medium, and high. Furthermore, 18 (12.9%), 55 (39.3%), and 67 (47.9%) individuals had respectively a low, medium, and high level of interest in medicine. Respectively, 34 (43.6%), 30 (38.5%), and 14 (17.9%) individuals had a low, medium, and high level of interest in pharmacy. As well, 16 (29.1%), 26 (47.3%), and 13 (23.6%) individuals had a low, medium, and high level of interest in dentistry respectively. With regard to students’ majors, the results suggested a statistically significant difference among the average of students’ level of interest (P < 0.001). To determine the difference among interest levels of students concerning their majors, the authors employed Scheffe’s post hoc test, given the unequal number of students in the respective academic majors. The results of Scheffe’s test showed that interest of medical students was significantly more than that of pharmacy and dentistry students (P < 0.05).

### Table 1: Absolute and relative frequency of awareness level, and a comparison among participant’s awareness average according to their field of study using one-way ANOVA test

| The level of awareness | Medicine, n (%) | Pharmacy, n (%) | Dentistry, n (%) | Total, n (%) | F-statistics | P       |
|------------------------|----------------|----------------|-----------------|-------------|-------------|---------|
| Low                    | 57 (40.7)      | 28 (35.9)      | 15 (27.3)       | 100 (36.6)  | 0.313       | 0.731   |
| Average                | 39 (27.9)      | 9 (11.5)       | 14 (25.5)       | 62 (22.7)   |             |         |
| High                   | 44 (31.4)      | 41 (52.6)      | 26 (47.3)       | 111 (40.7)  |             |         |
| Total                  | 140 (100)      | 78 (100)       | 55 (100)        | 273 (100)   |             |         |

### Table 2: Absolute and relative frequency of the level of attitude, and the average of attitude of participants according to their field of study using one-way ANOVA test

| The level of attitude | Medicine, n (%) | Pharmacy, n (%) | Dentistry, n (%) | Total, n (%) | F-statistics | P       | The result of scheffe’s post hoc |
|-----------------------|-----------------|-----------------|-----------------|-------------|-------------|--------|----------------------------------|
| Low                   | 21 (15)         | 40 (51.3)       | 19 (34.5)       | 80 (29.3)   | 24.1        | <0.001 | Medicine > dentistry and pharmacy |
| Average               | 53 (37.9)       | 24 (30.8)       | 24 (43.6)       | 101 (37)    |             |        | Dentistry > pharmacy             |
| High                  | 66 (47.1)       | 14 (17.9)       | 12 (21.8)       | 92 (33.7)   |             |        |                                  |
| Total                 | 140 (100)       | 78 (100)        | 55 (100)        | 273 (100)   |             |        |                                  |

### Table 3: The level of interest of 68 (24.9%), 111 (40.7%) and 94 (34.4%) individuals was respectively low, medium and high

| The level of interest | Medicine, n (%) | Pharmacy, n (%) | Dentistry, n (%) | Total, n (%) | F-statistics | P       | The result of scheffe’s post hoc |
|-----------------------|-----------------|-----------------|-----------------|-------------|-------------|--------|----------------------------------|
| Low                   | 18 (12.9)       | 34 (43.6)       | 16 (29.1)       | 68 (24.9)   | 18.97       | <0.001 | Medicine > dentistry and pharmacy |
| Average               | 55 (39.3)       | 30 (38.5)       | 26 (47.3)       | 111 (40.7)  |             |        | Dentistry > pharmacy             |
| High                  | 67 (47.9)       | 14 (17.9)       | 13 (23.6)       | 94 (34.4)   |             |        |                                  |
| Total                 | 140 (100)       | 78 (100)        | 55 (100)        | 273 (100)   |             |        |                                  |
Table 4 displays a statistically significant positive relationship between awareness and attitude in all study subjects \((P < 0.001)\), meaning that an increase in awareness leads to a consequent improvement in attitude.

Table 5 demonstrates that a statistically significant positive relationship exists between awareness and interest in all students participating in the current research \((P < 0.001)\), implying that a rise in awareness helps increase one’s interest. Among medical students, there is a positive statistical relationship between awareness and interest, but statistically, it is not significant \((P = 0.075)\).

Table 6 points to a statistically significant positive relationship between attitude and interest in all of study subjects \((P < 0.001)\), suggesting that whenever attitude becomes more positive, interest rises as well.

**Discussion**

Choosing a field of study from medical sciences, because of its direct relationship to human health, requires a greater amount of attention and interest. In fact, having interest in a profession is one of the preconditions of providing good quality services to clients.\(^{[6]}\)

The present study was conducted to determine and compare the level of awareness, attitude and interest of medicine, pharmacy, and dentistry students of Islamic Azad University, Tehran Medical Branch with respect to their majors on entering university in the academic year 2014–2015. The results suggest that respectively 100 (36.6%), 62 (22.7%), and 111 (40.7%) individuals had a low, medium, and high level of awareness in general. As for students’ fields of study, there was not a statistically significant difference among the average awareness of students.

The results of each distinct major showed that in the majority of medical students \((n = 57; 40.7\%)\), the level of awareness was low. However, most of students in pharmacy \((n = 41; 52.6\%)\) and dentistry \((n = 26; 47.3\%)\) had a high level of awareness.

The results of the study by Adhamimoghadam et al.,\(^{[1]}\) seeking to determine the level of awareness of students studying in different majors about their field of study in Islamic Azad University, Tehran Medical Branch, suggested that an increase in educational degrees is correlated with the level of awareness, and hence that the increase in academic degrees directly enhances the level of awareness of study subjects; thus, the highest level of awareness of the subjects could be found in Sc. D. students. Amini et al., (2003)\(^{[10]}\) examining the attitude of junior medical students toward their major and its future, observed that 64.7% of students had made a well-informed choice regarding their academic field of study.

The results of the present research also imply that 80 (29.3%), 101 (37%), and 92 (33.7%) participants had respectively a low, medium, and high level of attitude toward their majors. With regards to subjects’ fields of study, the results indicated that there was a statistically significant difference in the average of students’ attitude, such that the level of awareness of medical students was significantly more positive than pharmacy and dentistry students, and the level of attitude of dentistry students was significantly more positive than that of pharmacy students.

In a study aiming to investigate the future career attitude of medical students of Babol University of Medical Sciences who were taking their traineeship and internship programs, Hahian and Nasiri\(^{[9]}\) concluded that the majority of study subjects believed that their attitude toward their major has changed a lot (38.5% much, 21% too much), and 57.5% of students asserted their attitude had been changed in a negative way.

The reason for this lack of conformity may be that although medical students choose their major with enough awareness and interest, but an increase in school years and progress in academic degrees might turn their attitude negative and decrease their interest in studying medicine. Almost more than half of all students believe that this major can bring financial success to their life. However, thanks to the upcoming mental maturity and the occurrence of social realities, this belief usually changes during the last years of students’ educational period.\(^{[13]}\)

The results of the present study suggested that, collectively, the level of interest of 68 (24.9%), 111 (40.7%) and 94 (34.4%) individuals were respectively low, medium, and high. With regard to students’ majors, the results indicated that there is a statistically significant difference in the average of students’...
The results of the present study demonstrate that if the awareness of medical and pharmacy students increases, their attitude toward their major will also grow more positive and their interest will increase consequently. There was a statistically positive relationship between awareness and interest in dentistry students, although this relationship was not statistically significant. However, other studies imply that although medical students might have chosen their major with enough awareness and interest, increasing years of education and achieving academic degrees might turn students’ attitude negative and decrease their interest in studying medicine. The results of the study conducted by Iravani et al., comparing the attitude of students toward the future career of basic sciences and clinical sciences, implied that the general attitude toward medicine and its future career has an inverse relationship with academic degrees.

Other results of this study suggested that if possible, more than half of study subjects would have chosen medicine, 28.7% would have chosen dentistry and 16.5% would have chosen pharmacy. In this regard, Fatahi et al., determining the level of satisfaction of dentistry students of Kerman University of Medical Sciences toward their current major and its relative factors, reported that most of participants (54.3%), if possible, would have chosen this major again and would have recommended it to their acquaintances. Hajiian and Nasiri also showed that approximately 63.5% of individuals believe that they would still choose medicine in university entrance examination. Nouhi et al. concluded that 76.0% of the study subjects had the utmost interest in their current major. Whereas Iravani et al., comparing the attitude of medical students of Jahrom University of Medical Sciences in both basic sciences and clinical sciences toward medicine and their future career, found out that most of participants (54.1%) were willing to choose a major other than medicine, declaring their tendency toward other majors such as dentistry, pharmacy, engineering, art, etc., Other results of this study indicated that all medical students and 72.7% of dentistry students are willing to continue their education. This might be pointing to the fact that general dentists have a better career in Iran compared with general practitioners. In terms of continuing education, most of study subjects were inclined to continue studying in specialties related to their majors; among these, medical and dentistry students wanted to pursue their education in surgical specialties. This might be due to more income and better social status that surgical specialties provide in comparison to other medical and dental specialties. Iravani et al. noted that more than half of students (51.3%) were willing after graduation to either continue their education in a particular specialty or begin their medical profession.

The results of the study by Habibian and Nasiri suggested that the majority of medical students believe their success to be in continuing their education (35% strongly; 50% very strongly); similarly, most of them are interested in pursuing their studies in certain specialties. Meanwhile, they think that admission in specialty entrance examination can help solve their problems (47% strongly; 29% very strongly).

Conclusion

Given the findings of the present study, the vital roles of medicine, dentistry, and pharmacy in ensuring and promoting health of the society, the rare change made in one’s field of study in these disciplines, and finally regarding the fact that even though students choose medical sciences knowingly and with interest, increasing the years of education can stimulate their attitude to be changed and their interest to weaken, the authors propose that both before entering the university and during the educational period, students be enlightened with regard to the difficulties involved in studying medical sciences, in addition to the usual attention to the desirable high social position and income accompanying such majors. At the end, it is recommended that universities provide students with appropriate opportunities to experience constructive and positive changes in their attitude to and interest in their major.

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Conflicts of interest

There are no conflicts of interest.

References

1. Fatahi Z, Javadi Y, Nakhaie N. A survey on dentistry students’ satisfaction with their discipline and some of related factors in 2004. J Strides Dev Med Educ 2004;1:32-40.
2. Rajali M, Mostajeran M, Memarzadeh Z, Azizi N. The cultural and educational activities among students of the school of health in Isfahan university of medical sciences in 2010. J Health Syst Res 2010;1:106-15.
3. Mostafavi A, Ramezanloo P, Asgari N. Pharmacy students reason for choosing pharmacy as a career and changes in their motivation during the course in 2013. J Med Educ Dev 2013;5:33-41.
4. Habibzadeh SH, Poorfakhri F, Ghasemi A, Aminimalek T. Rate
and etiology reasons of educational failure among student of Ardabil university of medical science in 2006-2007. PhD Thesis. Ardabil University of Medical Sciences; 2008.
5. Arfaie K, Amiraliakbari S, Alavimajd H. Interest in studying midwifery and related factors in students of Tehran universities of medical science in 2008. J Knowl Health Shahrood Univ Med Sci 2008;3:1-5.
6. Nasr AR, Alamatsaz MH. Study selection criteria string applicants to public universities and to compare them based on fathers education, field of study and number of matriculating in 2007. J Psychol Univ Tabriz 2007;5:109-38.
7. Ghaderi R, Dastjerdi R, Soroush Z, Mohebati M. Influential factors in medical students attitudes towards studying medicine in 2002. Iran J Med Educ 2002;10:47-55.
8. Weinstein CE, Palmar DA. User's Manual Learning and Study Strategies Inventory. 2nd ed. Florida: H & H Publishing Company Co.; 2002.
9. Bahrani M, Hassanzadeh A. The level of readiness for learning and learning from the viewpoint of bachelor students of Isfahan University of medical sciences in year 1380. Iran J Med Educ 2001;8:18.
10. Endaleb B, Ahmadi GR. A study of the amount of applying teaching effectiveness criteria in Khorasan Islamic Azad University from the view point of students in 2006-2007. Res Curriculum Plann Q J Sci Res Islam Azad Univ Khorasan (Isfahan) Branch 2007;3:67-82.
11. Asadzadeh F, Mostafazadeh F, Sadeghi S. A survey of the motivation of nursing students toward their field of study selection in 2012. J Health Care 2012;2:9-15.
12. Borjian Borujeni A, Reisi S, Borjian Borujeni S. The survey of satisfaction of nursing educated about their field of study, Borujen. Scientific Journal of Hamadan Nursing & Midwifery.
13. Hahiian K, Nasiri A. Evaluation the attitudes of medical students of the career at the Babol University of Medical sciences in 2005. J Babol Univ Med Sci 2005;1:86-95.
14. Amani F, Akharbin K, Saeedi S, Fatehi Z, Ghahremani R. The knowledge and interest of anesthesia students to own field of study in Ardabil medical university. J Caduceus 2010;2:37-40.
15. Abbaszadeh A, Borhani F, Mohsenpoor M. Assessment of career choice trend among entrance 2007 to 2009 Kerman university of medical science nursing students by job personality Holland’s theory. J Qual Res Health Sci 2011;10:34-41.
16. Abediyan K, Shahhosseini Z. Factors affecting students’ motivation in choosing their field of study (a qualitative study). J Fam Health Tehran Univ Med Sci Islami Azad Univ Sari 2012;1:26-32.
17. A d h a m i m o g h a d a m F, S a h e b a l z a m a n i M, Tabatabaeemaramani M, Farahi H, Aghababagoli N. The knowledge of Islamic Azad university Tehran medical branch students to their educational major at the time of entrance to the university. J Islam Azad Univ Tehran Med Branch 2015;2:151-6.
18. Amini M, Rezaeie R, Saber M. Freshmen attitude towards this field in the future, Shiraz University of medical sciences in 2001. Iran J Med Educ 2003;2:18.
19. Nouhi S, Hoseini M, Rokhsarizadeh H, Saburi A, Alishiri G. Progress motivation among Baqiyatallah university of medical sciences students and its relationship with academic achievement. J Mil Med 2012;14:200-4.
20. Iravani K, Amini M, Doostkam A. A survey of medical students’ attitude toward medicine and it’s future in Jahrom Medical University (basic and clinical stages). Iran J Med Educ 2002;2:21.