



# The Attitude of Health Technology Assessment Students to Their Field of Study and Future Career in Iran

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## Abstract

**Background and aims:** Positive attitudes toward future career lead to job motivation and consequently to career success. Health technology assessment (HTA) students are worried about their future career due to lack of defined vacancies. The aim of this study was to determine the attitudes of HTA students toward the field of study and future career.

**Methods:** This cross-sectional study was conducted in 2015. The samples (n = 40) were selected by census and the questionnaire was sent by email to each participant. The data collection period was 6 months. The questionnaire reliability was evaluated using Cronbach alpha ( $\alpha = 0.85$ ). Questions were measured by 5-point Likert scale (absolutely agree to absolutely disagree). The data were analyzed by relevant statistical tests using SPSS version 20.0. At the beginning of the study, informed consent forms along with questionnaire were sent to participants and the participants were enrolled if they were volunteered.

**Results:** Response rate was 95%. The mean score of students' attitudes toward the field of study and future career was 62.48 (11.15) and 62.63 (8.61) respectively. Participants' attitudes were generally positive. There was a significant positive correlation between the 2 main areas of attitude ( $r = 0.43$ ,  $P = 0.006$ ).

**Conclusion:** In general, the results of this study showed that the attitudes of HTA students toward the field of study and future career are positive. Proper planning in the admission process, addressing the needs of students, professor's paying attention to motivate the students and responding to student questions, and anticipated job categories in the relevant organizations, can lead to job satisfaction and optimism about the future career.

**Keywords:** Attitude, Technology assessment, Field of study, Future career, Iran

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## Introduction

The main purpose of health professionals' training program is improving the quality and quantity of health care.<sup>1</sup> Hence, the students are trained to acquire the best abilities and skills for the job they have to do after graduation.<sup>2</sup> Since about 20% of unemployment rate in Iran is related to the graduated, disillusionment and job insecurity in health fields in which employing the experts is of great importance can lead to waste of the economic and spiritual capital.<sup>3</sup>

Cost increase is a major concern for governments and health care providers throughout the world. Countries have applied different approaches in order to conform to the latest technology along with accessibility to affordable health care for the patients.<sup>4</sup> One of the most common approaches in this field is

the use of health technology assessment (HTA) in health care resource allocation.<sup>5</sup> Given the importance of this field in health system, admission of master students in HTA has been started in Iran since 2010, and has considerably increased each year.<sup>6,7</sup> However, the main concern of the students of this field is their future job due to poor policy making.

Job motivation is necessary for useful and efficient employment. If a person is not interested in his career, he will find the working depressing and impossible.<sup>8</sup> Therefore, a mutual relationship can be considered between job motivation and success. Positive attitude toward future career leads to job motivation and consequently to career success.<sup>9</sup> Many studies conducted in various countries indicated that students and graduates are concerned about their future

career.<sup>3,10,11</sup>

Student admission with no planning and the job opportunities will cause frustration and lack of motivation in graduates.<sup>12-14</sup> Conducting national and regional studies on attitude of students toward their future job and field is useful, and can provide the authorities with more information, for predicting social behavior and planning to create job motivation through revision in educational and recruitment programs. Since, to the best of our knowledge, no similar study is done due to the novelty of the field, conducting further studies is necessary. Thus, the aim of this study was to determine the attitude of HTA students toward the field of study and future career.

## Methods

This cross-sectional study determines the attitude of HTA students on the field of study and future career conducted in 2015. The population of the study was HTA students from different universities consisting of Tehran, Iran, Yazd and Kerman Universities of Medical Sciences. In this study, because of the limited number of population, we have considered the whole population as sample (sample = 40). The questionnaire was sent by email to each participant. Minnesota satisfaction questionnaire which was translated and approved by Samadi et Al was used for data collection.<sup>12</sup> The face and content validity of the questionnaire were examined and approved by 10 experts in the field of HTA. The reliability was evaluated using Cronbach alpha ( $\alpha = 0.85$ ). The questionnaire consisted of 2 parts, first part included the demographic information and the second part included some questions about the attitude of students toward their future career and field of study (6 and 9 respectively). Questions were measured with 5-point Likert scale range from completely disagree to completely agree (1 to 5 respectively), totally agree to totally disagree. 20% (15 scores) represents the lowest and 100% (75 scores) the highest positive attitude to the field of study and future job. The data were analyzed with relevant statistical test (one-sample Kolmogorov-Smirnov test, *t* test, analysis of variance [ANOVA] and Tukey test) using SPSS 20. An informed consent form was sent by email to all participants before filling the questionnaire. Those who completed the form entered in the study. The participants filled out the questionnaires consciously and the researchers assured them that the information would be kept confidential.

## Results

Thirty-eight out of 40 questionnaires were completed and returned (response rate was 95%). Table 1 presents

the demographic information of participant. The mean score of students' attitudes toward the field of study and future career was 62.48 (11.15) and 62.63 (8.61) respectively. Frequency distribution of mean and standard deviation of students' attitudes toward the field of study and future career are shown in Table 2.

One-sample Kolmogorov-Smirnov test was used to investigate the status of variables. The results of this test indicated the normal distribution of research variables. Accordingly, *t* test and ANOVA were used for analyzing the data. The results obtained from preliminary analysis are shown in Table 3. There were not any significant differences between sex, education status, employment status and semester number with field of study and future career. The result was significant only for entrance year in field of study ( $P = 0.044$ , CI: -3.50, 0.97). Further analysis with Tukey test revealed that there were significant differences between the years of 2010 and 2013 ( $P = 0.044$ , CI: 0.6754, 30.15).

The correlation between field of study and future career was tested using Pearson correlation coefficient. There was a significant positive correlation between the 2 main areas of attitudes ( $r = 0.43$ ,  $P = 0.006$ ).

## Discussion

Interest in field of study can lead to student progress or on the contrary to their disappointment, frustration and boredom to continue their study.<sup>15</sup> This study, therefore, aimed to determine the attitude of HTA students toward the field of study and future career in Iran. Due to the lack of similar studies in the field of HTA, there is no direct comparison with other similar

**Table 1.** Demographic Characteristics of Participants in the Study

Variable	Type	No. (%)
Sex	Male	18 (47.4)
	Female	20 (52.6)
Entrance year	2010	2 (5.3)
	2011	5 (13.2)
	2012	11 (28.9)
	2013	16 (42.1)
Education status	Graduated	6 (15.8)
	Student	32 (84.2)
Employment status	Employed	15 (39.5)
	Unemployed	23 (60.5)
Semester	2	4 (10.5)
	4	19 (50)
	6	9 (24.4)

**Table 2.** Frequency Distribution, Mean and Standard Deviation of the Questions Regarding HTA Attitudes Toward the Field of Study and Future Career

Question No.	Questions	Completely agree (%)	Agree (%)	No idea (%)	Disagree (%)	Completely disagree (%)	Mean (SD)
<b>Field of Study</b>							
1	I chose this field because someone recommended it to me	8 (21.1)	3 (7.9)	4 (10.5)	16 (42.1)	7 (18.4)	54.21 (28.62)
2	I am satisfied with choosing this field	10 (26.3)	13 (34.2)	7 (18.4)	7 (18.4)	1 (2.6)	72.63 (22.97)
3	The goals of presented subject fit with individual needs and expectations of student	2 (5.3)	7 (18.4)	5 (13.2)	21 (55.3)	2 (5.3)	52.43 (20.73)
4	I've got more interest towards this field after studying this course	11 (28.9)	12 (31.6)	7 (18.4)	8 (21.1)	0 (0)	73.68 (22.35)
5	I think, my field will be more valuable in higher education level	10 (26.3)	14 (36.8)	8 (21.1)	5 (13.2)	1 (2.6)	74.21 (21.76)
6	I think other student have proper view toward my field	1 (2.6)	17 (44.7)	11 (28.9)	3 (7.9)	6 (15.8)	62.10 (22.67)
7	I think the community in which I lived in have positive view toward this field	5 (13.2)	7 (18.4)	12 (31.6)	10 (26.3)	4 (10.5)	59.47 (23.93)
8	I just chose this field because of the interest in it	7 (18.4)	9 (23.7)	7 (18.4)	12 (31.6)	3 (7.9)	62.63 (25.54)
9	I chose this field because its future income is higher than in other fields	1 (2.6)	10 (26.3)	5 (13.2)	14 (36.8)	8 (21.1)	50.52 (23.58)
<b>Future Career</b>							
10	Tutors encourage students to find the appropriate future field	3 (7.9)	7 (18.4)	8 (21.1)	12 (31.6)	8 (21.1)	52.10 (24.84)
11	I think the monetary benefits of employment in this field is appropriate	2 (5.3)	9 (23.7)	11 (28.9)	10 (26.3)	6 (15.8)	55.26 (22.98)
12	I do not concerned about the job market in this field	4 (10.5)	4 (10.5)	4 (10.5)	11 (28.9)	15 (39.5)	44.73 (27.28)
13	I think employment status for Ph.D. levels is better than the specialized level	8 (21.1)	9 (23.7)	10 (26.3)	6 (15.8)	5 (13.2)	64.73 (26.48)
14	I like working in the field of health technology assessment	17 (44.7)	13 (34.2)	4 (10.5)	4 (10.5)	0 (0)	82.63 (19.82)
15	Increasing admission of students in this field is future career-threatening	15 (39.5)	7 (18.4)	11 (28.9)	4 (10.5)	1 (2.6)	76.31 (23.18)

studies. The main limitation of this study was the small sample size. However, this was unavoidable due to the limited population. The results of this study are not generalizable to other disciplines. Carrying out further research in this area is recommended.

Samadi et al conducted a study with the aim of evaluating environmental health students' attitudes toward their discipline and future career in Hamedan University of Medical Sciences used the same questionnaire. The results of this study indicated that the attitudes to field of study were positive and similar to our study, but the attitudes toward future career were negative and were inconsistent with our study.<sup>12</sup> Kazemi Haki and Ghorbanian in another study investigated the knowledge and the interests of anesthesiology students toward their field of study and future career in Tabriz University of Medical Sciences.<sup>16</sup> Our finding was not compatible with Kazemi Haki and Ghorbanian study in the part that most students were concerned about future career.

However, it was consistent with our study results in the positive attitudes and interest in the field of study. There were similarities between the participant in our study and Gebremedhin study that investigated the pharmacy students' attitudes toward their field of study.<sup>17</sup> More than half of them were satisfied with their course selection which was consistent with our results.

In general, the results of this study showed that the attitudes of HTA students in the field of study and future career were positive. However, the most negative attitude was expressed in response to question (number 12) that is about the future career ( $44.73 \pm 27.28$ ). The findings of this study verified the results of the previous studies in this field.

### Conclusion

The present study was designed to determine the attitudes of Iranian HTA students toward the field of study and future career. This study showed that

**Table 3.** ANOVA and *t* test Results for 2 Main Areas of Attitude

		Field of Study				Future Career			
		Mean ± SD	P Value	95% CI		Mean± SD	P Value	95% CI	
				Lower	Upper			Lower	Upper
Sex <sup>a</sup>	Male	60.80±9.69	0.259	-8.85	2.45	62.40±9.55	0.908	-7.87	7.02
	Female	64.00±7.44				62.83±12.67			
Education status <sup>a</sup>	Graduated	64.44±9.83	0.551	-5.51	10.17	57.77±16.82	0.251	-15.77	4.25
	Student	62.11±8.49				63.54±9.87			
Employment status <sup>a</sup>	Employed	62.14±8.81	0.849	-6.43	5.32	61.55±12.52	0.638	-9.36	5.80
	Unemployed	62.70±8.68				63.33±10.39			
Entrance year <sup>b</sup>	2010	75.55±3.14	0.044	-3.50	0.97	66.66±9.42	0.710	-3.87	7.23
	2011	60.00±5.66				56.66±18.10			
	2012	61.91±7.79				63.33±10.95			
	2013	60.13±8.56				62.50±10.43			
	2014	70.00±8.41				66.66±5.44			
Semester number <sup>b</sup>	2	70.00±8.41	0.475	-4.52	7.10	66.66±5.44	0.198	-5.26	7.95
	4	59.76±8.50				61.57±10.37			
	6	62.77±6.58				67.50±9.04			

<sup>a</sup> *t* test.<sup>b</sup> ANOVA.

generally students participating in this study had a positive attitude toward their field of study and future career. The majority of students were satisfied with their course selection and stated that they became more interested in the field after they started studying. Likewise, most of them expressed their interest in working in the field of HTA. On the other hand, more than half of the students showed their concern about the job market in this field, and they considered the acceptance of high number of students in this field as a threat to future employment. This study can be used as a base for the future planning in this field. The results of this study suggest that if the admission process is properly planned, the needs of students would be addressed, the students would be motivated by the faculty members and student questions would be answered, proper jobs in the relevant organizations would be anticipated, and job satisfaction and optimism about the future career would be achieved.

### Ethical Approval

This study protocol was approved by Medical Sciences Research Ethics Committee of Tabriz University of Medical Sciences.

### Conflict of Interest Disclosures

The authors declare that they have no competing interests.

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### References

- Legare F, Politi MC, Drolet R, Desroches S, Stacey D, Bekker H. Training health professionals in shared decision-making: an international environmental scan. *Patient Educ Couns*. 2012;88(2):159-69. doi: 10.1016/j.pec.2012.01.002.
- Haidet P, Dains JE, Paterniti DA, Hechtel L, Chang T, Tseng E, et al. Medical student attitudes toward the doctor-patient relationship. *Med Educ*. 2002;36(6):568-74.
- Fallah M, Houshmand B, Joneidi Jafari A, Shamsai F, Bashirian S. Knowledge, Attitude and Research Ability of General Physicians and Dentists Graduated from Hamadan University of Medical Sciences. *Iranian Journal of Medical Education*. 2005;5(2):129-38.
- Anderson GF, Frogner BK, Johns RA, Reinhardt UE. Health care spending and use of information technology in OECD countries. *Health Aff (Millwood)*. 2006;25(3):819-31. doi: 10.1377/hlthaff.25.3.819.
- Arab Zozani M, Bagheri Faradonbeh S, Jaafari Pooyan E. The Role of health technology assessment in improving healthcare quality. *Payavard*. 2015;9(4):400-14. [Persian].
- Majdzadeh R, Nedjat S, Fotouhi A, Malekafzali H. Iran's approach to knowledge translation. *Iran J Public Health*. 2009;38(1):58-62.
- Arab Zozani M, Vafaei Nasab MR, Amery H, Jafari A. The role of health technology assessment in evidence-based decision making and health policy: a review study. *Journal of Health Administration*. 2014;17(57):99-112. [Persian].
- Lin HF. Effects of extrinsic and intrinsic motivation on employee knowledge sharing intentions. *J Inf Sci*. 2007;33(2):135-49. doi: 10.1177/0165551506068174.
- Alonso P, Lewis GB. Public service motivation and job performance. *Am Rev Public Adm*. 2001;31(4):363-80. doi: 10.1177/02750740122064992.
- Wang CK, Wong P-K. Entrepreneurial interest of university students in Singapore. *Technovation*. 2004;24(2):163-72. doi: 10.1108/09596110110365599.

11. Kevin Jenkins A. Making a career of it? Hospitality students' future perspectives: an Anglo-Dutch study. *International Journal of Contemporary Hospitality Management*. 2001;13(1):13-20. doi: 10.1108/09596110110365599.
12. Samadi MT, Taghizadeh J, Kashitarash Esfahani Z, Mohammadi M. Evaluating environmental health students' attitudes toward their discipline and future career in Hamedan university of medical sciences in 2008. *Iranian Journal of Medical Education*. 2010;9(4):331-6. [Persian].
13. Christou N, Dinov ID. A Study of students' learning styles, discipline attitudes and knowledge acquisition in technology-Enhanced Probability and Statistics Education. *J Online Learn Teach*. 2010;6(3).
14. Saari LM, Judge TA. Employee attitudes and job satisfaction. *Hum Resour Manage*. 2004;43(4):395-407. doi: 10.1002/hrm.20032.
15. ASCA mindsets & behaviors for student success: K-12 college- and career-readiness standards for every student. Alexandria, VA: ASCA; 2014.
16. Kazemi Haki B, Ghorbaniyan N. Anesthesia students' awareness and interest to their field of study and future career in Tabriz University of Medical Sciences. *The Journal of Medical Education and Development*. 2015;9(4):20-7.
17. Beedemariam G, Ebro M, Ageze H, Weldegerima B, Legesse B, Tilahun G. Pharmacy students' attitude and future career choices: a survey of four public schools of pharmacy in Ethiopia. *Ethiopian Pharm J*. 2014;30(1):57-63.

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