

# A Comparative Study of Motivation for Major Choices between Nursing and Midwifery Students at Bushehr University of Medical Sciences

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## Abstract

**Introduction:** Motivation, especially in the choice of majors in medical sciences, is of particular sensitivity. Considering the fact that the awareness of students' motivation in major choices makes a great contribution to the quality of students' achievement and education in the future, this study aimed at investigating motivational factors in major choices among the nursing and midwifery students of Bushehr University of Medical Sciences in the academic year 2014-2015.

**Materials and Methods:** In this cross-sectional study, 204 nursing and midwifery students of Bushehr University of Medical Sciences in the second semester of 2014-15 were selected by convenience sampling method. The data collection instrument in this study was a researcher-constructed questionnaire that consisted of two parts. The first part of this questionnaire encompassed demographic questions and the second part included 14 questions, which assessed three domains of motivational factors (material, spiritual, and social dimensions). After the approval of the face validity and the content validity of the questionnaire by 10 experts, the internal reliability of the questionnaire was determined via Cronbach's alpha coefficient. For data analysis, SPSS version 18 was used.

**Results:** The mean value of the research units' age was equal to  $21.56 \pm 1.69$  years. In terms of the comparison of motivation, nursing and midwifery students enjoyed a higher level of spiritual motivation ( $75.94 \pm 19.77$ ). A significant difference was reported between nursing and midwifery students in terms of social motivation ( $P = 0.045$ ). There was

a higher level of spiritual motivation in male nursing students than that in female students ( $P = 0.046$ ). In addition, a significant difference was observed between the nursing students in different academic semesters in terms of material motivation ( $P = 0.027$ ). In terms of social motivation, there was a significant difference between married and unmarried midwifery students ( $P = 0.031$ ) and between midwifery students in different academic semesters ( $P = 0.014$ ). Moreover, there was a significant difference between midwifery students of different maternal education levels in terms of spiritual motivation ( $P = 0.036$ ).

**Conclusion:** The presence of high spiritual motivation in nursing and midwifery students compared to other types of motivation is regarded as a strong point in the education of students. On the other hand, the significant difference between midwifery students and nursing students in social motivation for major choices and also the significance of the difference in this motivation between married and unmarried midwifery students have revealed the need for the assignment of midwifery professors and authorities' higher attention to the strengthening of spiritual dimensions and introduction of the actual status of this sacred profession and its critical role in the health system.

**Key words:** motivation, major, students, nursing, midwifery

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## Introduction

Motivation is the factor for doing a wide range of activities, including learning. In fact, motivation energizes learners and directs their activities (1). There are different theories about the origin of motivation. Maslow was the first scholar who gave attention to psychological, social, and physical needs and considered them to be the source of motivation. This means that an unsatisfied need creates such a tension that it causes the organism to embark on doing an action (2). The availability of motivation during the process of learning and education leads to the facilitation of learning, facilitation of communication, decrease of anxiety, and production of creativity in learning (3). People have different types of motivation in performing different activities, including learning and education (2). Undoubtedly, the high level of motivation is one of the basic factors in the success and progress of each task. Studies have shown that most innovations, productions, explorations, and creativities are inspired by high motivation. Educationalists also claim that learning and behavioral change take place when learners are sufficiently and strongly motivated; thus, the ignorance of this important factor results in the waste of a significant percentage of education costs (4). Since training centers are always in contact with learners who apparently lack motivation, the understanding and identification of the factors that motivate learners will help instructors anticipate the complex environments in which motivation is formed. Given that motivation is a multifactorial phenomenon and involves a total and an inclusive learning environment, it is necessary to possibly consider all the domains in evaluating the factors effective in the generation of motivation (5). Major choices and job selection are among the most important individual decisions in life. Research has shown that there is hardly ever the possibility of occupational change in some majors after the completion of education and it takes huge amounts of cost and time. Hence, major choices at college should be followed by higher levels of precision and thought (6). Studies in this area have referred to the following as the effective motivational factors in major choice: family and educational environments, influential people in one's life, social, cultural, and economic factors, interests, values, beliefs, personality traits, and personal skills (7 and 8). Studies have indicated that background factors (gender, race, and socioeconomic status) can also have a direct impact on individuals' motivation for major choices in addition to the presence of motivational factors for students' choice of special academic disciplines (9). A number of studies have shown that students of various medical groups have different types of motivation for choosing their major (10). Abedian et al. (2012) reached the conclusion that the majority of participants referred to their motivation for selecting a nursing major as an opportunity to earn higher degrees. Moreover, the male and female students had referred to the scientific content of nursing and the acquisition of job position as their second priority (6). Ulrich et al. conducted a study on midwifery students and reported interest in this major, friends' encouragement, and even the experience of pregnancy as the factors effective in choosing the discipline (11). Alizadeh et al.'s review on

students of Islamic Azad University of Rasht showed that the main motivation of students for choosing their field of study has been the usefulness of the midwifery profession in personal life (12). Zysberg et al. argued that the main reason for the selection of nursing as the major in women is the match between individual personality and nursing personality as a profession and referred to the satisfaction of financial needs and the possibility of employment and job security as the main reason for the selection of nursing as the major in men (13). Alizadeh et al. investigated the factors related to major choices among the medical students of University of Guilan in the second semester and above in four areas of personal, occupational, economic, and social factors. In that study, the most important factors in the choice of the academic major were personal and economic factors where labor market from the economic factors, and personal interest out of personal factors, were the most relevant aspects (14). Kosgeroglu used three subscales of intrinsic motivation, extrinsic motivation, and negative motivation to determine motivation for learning goals among nursing and midwifery Turkish students. The results suggest the existence of students' intrinsic motivation for choosing these professions (15).

The identification of the factors involved in the choice of academic discipline is essential because if the choice of academic majors is in conflict with one's interest, taste, talent, and ability, it will have adverse long-term psychological, social, and economic effects. This is of particular sensitivity, especially in Medical Science disciplines since these students will be responsible for providing, maintaining, and promoting public health in the future. Therefore, this issue is of great importance and few studies, if any, have investigated nursing and midwifery students' motivation of major choices through census method. In addition, the diversity and difference of the instruments used in related studies and the need for the development of a valid tool that can measure the concept of motivation in a better way inspired the authors to examine the motivational factors in the major choices among the nursing and midwifery students of Bushehr University of Medical Sciences in the academic year 2014-15 by means of a questionnaire whose psychometric assessment had been performed in the current research population (16).

## Methods

This study was a descriptive-analytical study in the category of cross-sectional research that explores the motivational factors in choosing to be nursing and midwifery students of Bushehr University of Medical Sciences in the academic year 2014-2015. The research population consisted of 230 second-semester bachelor students of Nursing and Midwifery majors in the academic year 2014-15. Sampling was conducted via census method and all the second-semester nursing and midwifery students studying in bachelor's program at Bushehr University of Medical Sciences in the academic year 2014-15 participated in the study. From the total of 230 sample units (all nursing and midwifery students studying at the university), 26 students were excluded from the study (due to absenteeism in the

classroom at the time of sampling and their rejection of the questionnaire completion) and the data pertaining to the total of 204 participants were gathered. In this study, the data were collected using a researcher-constructed questionnaire that had been designed by an integration of Waltz method and the present research methodology (16). This questionnaire consisted of two parts. The first part encompassed demographic questions (including age, gender, marital status, parents' occupation and education, and residential address) and the second part included 14 questions, which assessed three domains of material (7 items), spiritual (3 items), and social motivation (4). The measurement scale of motivational factors is scored based on a 5-point Likert scale (very high, high, moderate, low, and very low). The initial version of the questionnaire was designed based on literature review. After the confirmation of the face validity and the content validity of the questionnaire by 10 experts, the content validity index

and the content validity ratio of the scale were obtained equal to 0.92 and 0.97, respectively. Exploratory factor analysis was used to examine the construct validity of the scale and the final version of the questionnaire was obtained with 14 items in three motivational factors, namely material, spiritual, and social dimensions with the predictive power of 0.55. The internal reliability of this scale was confirmed through the conduct of a pilot study on 30 students with a Cronbach's alpha coefficient of 0.82. After obtaining the necessary permission from the faculty and the relevant professors, the researcher attended the desired classes, explained the objectives of the research, mentioned the optionality of participation in the study, and informed participants about the confidentiality of the data. Then, all students interested in participating in the study were invited. The data were analyzed in SPSS version 20 through descriptive statistics, t tests, ANOVA, and Kruskal-Wallis test, and Mann-Whitney U-test.

## Results

The participants of the study were placed in the age range of 18-27 years with the mean and standard deviation of  $21.56 \pm 1.69$ . In terms of gender, the majority of the students participating in the study were female (79%, 160 cases) and more than half of the participants were nursing students (56.9%, 116 cases) (Table 1).

**Table 1: Frequency of nursing and midwifery students in the study in terms of demographic variables**

Demographic variables		(Percentage) Number
Gender	Male	42 (20.8)
	Female	160 (79.2)
Field of Study	Nursing	116 (56.9)
	Midwifery	88 (43.1)
Semester	2	52 (25.5)
	4	52 (25.5)
	6	46 (22.7)
	8	53 (26.1)
Housing	Dormitory	165 (80.9)
	Home	39 (19.1)
Marital status	Unmarried	159 (77.9)
	Married	45 (22.1)

Based on the results of this study, the evaluation of the motivation of nursing and midwifery students in three dimensions of motivation (material, spiritual, and social dimensions) revealed that spiritual motivation had a higher mean value ( $75.94 \pm 19.77$ ) than material and social motivation (Table 2). In terms of gender, there was a significant difference in nursing students regarding spiritual motivation for the choice of nursing discipline in such a way that there was a higher level of spiritual motivation in male students than that in female students ( $P = 0.046$ ). According to the ANOVA results, there was a significant difference between nursing students at different semesters regarding material motivation ( $P = 0.027$ ); however, such a significant difference was not observed in other motivations (Table 3).

**Table 2: Mean and standard deviation of different dimensions and total motivation of students**

Dimension	Mean SD
Material motivation	$63.86 \pm 19.19$
Social motivation	$58.73 \pm 20.67$
Spiritual motivation	$75.94 \pm 19.77$
Total motivation	$64.97 \pm 15.36$



Variable	Frequency (Percentage)	Material motivation		Social motivation		Spiritual motivation		Total	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
						Mean Rank			
Gender	Male	42 (36.5)	65.05±21.39	61.31±22.77	80.16±19.99	65.50	80.16±19.99	80.16±19.99	
	Female	72 (63.5)	61.97±19.01	52.99±21.36	73.03±20.53	52.83	73.03±20.53	73.03±20.53	
	P		0.429	0.054	0.046			0.74	
Academic semester	Semester 2	35 (30.2)	66.63±18.88	56.07±23.11	76.67±19.68	58.93	65.77±16.71	65.77±16.71	
	Semester 4	30 (25.9)	60.84±21.33	56.46±20.40	73.89±24.44	57.73	62.81±18.11	62.81±18.11	
	Semester 6	22 (19)	70.29±16.66	52.98±22.03	78.03±19.84	61.59	68.03±14.77	68.03±14.77	
	Semester 8	28 (24.1)	55.10±19.30	58.71±23.34	75.01±16.82	54.30	60.40±15.94	60.40±15.94	
	P		0.027	0.85	0.887		0.376	0.376	
Marital status	Unmarried	93 (80.2)	63.51±19.70	55.98±21.77	21.96±75.27	59.16	64.21±16.57	64.21±16.57	
	Married	23 (19.8)	59.94±20.74	57.07±23.56	76.45±12.48	55.85	62.66±16.98	62.66±16.98	
	P		0.443	0.833	0.670		0.690	0.690	
Father's education	Illiterate	7 (6)	62.24±25.91	67.71±21.44	82.14±16.27	68.21	71.13±20.18	71.13±20.18	
	Elementary school	20 (17.2)	61.07±23.06	56.25±18.70	72.08±25.69	56.13	62.05±18.83	62.05±18.83	
	Secondary school	16 (13.8)	63.84±14.16	54.30±21.74	75.52±22.87	60.28	63.62±13.64	63.62±13.64	
	High school diploma	42 (36.2)	65.24±20.90	51.04±25.15	17.56±19.41	59.63	63.89±17.66	63.89±17.66	
	Academic education	31 (26.7)	60.25±18.13	61.90±18.42	74.73±18.06	55.39	63.82±14.91	63.82±14.91	
	P		0.861	0.188	0.900		0.850	0.850	
Mother's education	Illiterate	17 (14.7)	63.66±23.33	57.42±25.23	78.43±19.11	62.88	18.66±20.26	18.66±20.26	
	Elementary school	40 (34.5)	63.13±18.57	87.03±19.82	75.21±21.97	59.13	63.97±15.67	63.97±15.67	
	Secondary school	20 (17.2)	59.96±18.73	54.69±22.66	73.33±21.90	55.71	61.94±15.22	61.94±15.22	
	High school diploma	28 (24.1)	60.97±19.97	50.00±22.31	75.89±17.62	56.77	61.03±16.58	61.03±16.58	
	Academic education	11 (9.5)	69.81±22.27	69.89±19.53	75.00±23.27	58.95	70.94±16.9	70.94±16.9	
	P		0.736	0.152	0.971		0.501	0.501	

Table 3: Comparison of the mean scores of motivation dimensions based on demographic features (nursing students)

Variable	Frequency (Percentage)	Material motivation		Social motivation		Spiritual motivation		Total	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Gender									
Male	42 (36.5)	65.05±21.39		61.31±22.77		80.16±19.99		65.50	80.16±19.99
Female	72 (63.5)	61.97±19.01		52.99±21.36		73.03±20.53		52.83	73.03±20.53
P		0.429		0.054		0.046			0.74
Academic semester									
Semester 2	35 (30.2)	66.63±18.88		56.07±23.11		76.67±19.68		58.93	65.77±16.71
Semester 4	30 (25.9)	60.84±21.33		56.46±20.40		73.89±24.44		57.73	62.81±18.11
Semester 6	22 (19)	70.29±16.66		52.98±22.03		78.03±19.84		61.59	68.03±14.77
Semester 8	28 (24.1)	55.10±19.30		58.71±23.34		75.01±16.82		54.30	60.40±15.94
P		0.027		0.85		0.887			0.376
Marital status									
Unmarried	93 (80.2)	63.51±19.70		55.98±21.77		21.96±75.27		59.16	64.21±16.57
Married	23 (19.8)	59.94±20.74		57.07±23.56		76.45±12.48		55.85	62.66±16.98
P		0.443		0.833		0.670			0.690
Father's education									
Illiterate	7 (6)	62.24±25.91		67.71±21.44		82.14±16.27		68.21	71.13±20.18
Elementary school	20 (17.2)	61.07±23.06		56.25±18.70		72.08±25.69		56.13	62.05±18.83
Secondary school	16 (13.8)	63.84±14.16		54.30±21.74		75.52±22.87		60.28	63.62±13.64
High school diploma	42 (36.2)	65.24±20.90		51.04±25.15		17.56±19.41		59.63	63.89±17.66
Academic education	31 (26.7)	60.25±18.13		61.90±18.42		74.73±18.06		55.39	63.82±14.91
P		0.861		0.188		0.900			0.850
Mother's education									
Illiterate	17 (14.7)	63.66±23.33		57.42±25.23		78.43±19.11		62.88	18.66±20.26
Elementary school	40 (34.5)	63.13±18.57		87.03±19.82		75.21±21.97		59.13	63.97±15.67
Secondary school	20 (17.2)	59.96±18.73		54.69±22.66		73.33±21.90		55.71	61.94±15.22
High school diploma	28 (24.1)	60.97±1.97		50.00±22.31		75.89±17.62		56.77	61.03±165.86
Academic education	11 (9.5)	69.81±22.27		69.89±19.53		75.00±23.27		58.95	70.94±16.9
P		0.736		0.152		0.971			0.501

Table 4: Comparison of the mean scores of motivation dimensions and total motivation based on demographic features (midwifery students)



In midwifery students, the mean score of social motivation in married students was reported to be higher than that in unmarried students ( $P = 0.031$ ). In these students, a significant difference was also observed in spiritual motivation between students with different levels of maternal education ( $P = 0.036$ ). The comparison between midwifery students at different academic semesters revealed the existence of a significant difference in the degree of their social motivation ( $P = 0.014$ ) (Table 4).

Based on the results of comparing the mean score of different motivational dimensions between nursing and midwifery students, a significant difference was observed between nursing and midwifery students in terms of social motivation ( $P = 0.45$ ) in such a way that midwifery students enjoyed higher levels of social motivation for the choice of their academic majors than nursing students ( $62.07 \pm 18.38$ ) (Table 5).

**Table 5: Comparison of mean scores of different dimensions of motivation and total motivation of students based on academic disciplines**

Variable	Material motivation	Social motivation	Spiritual motivation	Total
	Mean SD	Mean SD	Mean SD	Mean SD
Nursing	62.80±19.87	56.20±21.99	75.50±20.539	101.79
Midwifery	65.26±18.27	62.07±18.38	76.52±19.502	103.44
P	0.366	0.045	0.842	0.244

## Discussion

Given the role of motivation in the choice of academic majors and the importance of recognizing the factors involved in the choice of academic disciplines, especially in medical sciences, this comparative study was carried out to evaluate the nursing and midwifery students' motivation for choosing nursery and midwifery disciplines at Bushehr University of Medical Sciences. Based on the findings of the current study, out of three types of motivation, namely material, social, and spiritual motivation, spiritual motivation took up the highest mean score in nursing and midwifery students. This finding is consistent with those of the studies carried out by Dalir and Arfaie (8 and 17), but is not consistent with the findings reported by Suarez and Karin (18 and 19). This inconsistency can be attributed to the difference in the attitude and culture of the two populations.

In this study, a significant difference was found in social motivation between midwifery students and nursing students observed. This finding is consistent with the research findings reported by Dalir et al. Alizadeh who argued that the parents and friends opinion about the choice of midwifery and nursing as academic majors had led to a significant difference in social motivation between the choices of these two majors (8 and 13). In contrast, this finding is inconsistent with the studies carried out by Karin and Suarez (18 and 19). This contradiction can be due to the differences in cultural backgrounds of the communities under study since all midwifery students are women and, thereby, women's goal for entering the university may be to experience socialization and social interaction due to the limitations women are faced with. However, the presence of male students in nursing discipline can moderate this effect. On the other hand, negative cultural and social attitudes towards the nursing profession may have caused it to affect people's viewpoint in the lower social status of this profession. In this regard, Law et al. claimed that the

negative attitude toward nursing profession in more than 50 percent of students was due to the low status of this profession in society. In the same way, Karaoz referred to the low status of nursing profession as the main reason for students' negative attitude toward nursing profession (20 and 21). In addition, the possibility of establishing an independent office and, thus, creating less tension compared to teamwork have been referred to as the factors effective in the selection of midwifery as the academic discipline in various studies. This can be due to the influence of parents and the society's perspective of midwifery (22 and 23).

Male nursing students enjoyed higher levels of spiritual motivation than female students, which is inconsistent with the studies conducted in this field because labor market (material motivation), the possibility of employment, and job security in male students have been reported among the main causes of major choices in this field (9, 8, 3.7). According to the above-mentioned studies, the high level of material motivation in male students compared to female students is the main reason for choosing this discipline among boys. It seems that the increased spiritual motivation in male students in this study and its difference with the mentioned studies can be due to the creation of a proper culture in understanding the role of male nurses in the community in accordance with the cultural-religious context of the country, the emphasis of authorities on the implementation of the compliance plan at treatment centers in recent years, and bringing up the male nurses in hospitals with strong motivation. On the other hand, this contradiction can be due to the highlight of the economic role of women in meeting the material needs of families, which has caused men not to choose their jobs with such a strong motivation as that in the past. The fact that people select such professions as nursing with the intention of God's satisfaction and altruistic purposes are regarded as a strong point and success in the education of students since the availability of spiritual motivation is one of the components and the main objectives of the nursing profession.

In the present study, high material motivation in the sixth-semester nursing students and, then, the reduction of this motivation in the eighth-semester students can be due to the attraction of students above semesters 5 to clinical fields as student work. On the other hand, due to the untimely payment of salaries disproportionate with the workload, this motivation is gradually reduced and the reflection of this reduced financial motivation can be observed in motivation for choosing the nursing profession. In this regard, Mahmoudi et al. have referred to low salaries and wages as the least important factors in choosing the nursing profession (23).

Another finding of this study is the presence of high social motivation in married students of midwifery, which is in line with the results of a study conducted by Asadzadeh et al. (3). However, other studies in this area have not reported similar or contradictory results (8, 9, and 15). The advisability of parents and caregivers and proximity to the residential location are among the other dimensions of social motivation in this study while the role of the surrounding individuals and parents in choosing the academic major were the factors that could justify the high social motivation for choosing the academic major among married students in Asadzadeh et al.'s study.

In this study, spiritual motivation in midwifery students with mothers of lower education has witnessed an increase, which is consistent with Asadzade's findings (3). In fact, Asadzadeh found that parents with higher education had higher material attitudes towards the nursing profession. This can be attributed to the higher possibility of employment in this profession from the perspective of these parents. On the other hand, educated parents will have normally higher socio-economic status because of their better and more useful job opportunities and this affects their children's motivation for the choice of future careers.

One of the other findings of this study is the increased level of social motivation in midwifery students with higher academic semesters, which is consistent with the results of some studies in this field (4, 8, and 13). On the other hand, the findings of Arfaie's study on the midwifery students of Azad University of Semnan and Alizadeh's study on the students of Azad University of Rasht are not in line with the results of this study (13 and 17). This difference seems to be due to the type of the research population (Islamic Azad University) since these students have to pay tuition for their education. Therefore, they willingly select their desired academic majors not merely for the sake of proximity to their parents' residential location or due to their friends' opinions.

## Conclusion

The promotion of educational consultation at schools and the invitation of successful nurses and midwives in society in order to acquaint students with these professions and their importance can clarify the real position of these jobs in the public domain.

Given that this study was conducted only on nursing and midwifery students at one university, the obtained results cannot be generalized to all nursing and midwifery students. Therefore, the conduct of research at broader levels across multiple nursing and midwifery schools and their comparison with each other can provide more information in this regard.

Another limitation of this study was that the findings are based on the extraction of students' ideas using quantitative instruments and specific preplanned questions. Thus, for the achievement of deeper and richer findings, it is recommended that future studies be conducted using qualitative research methods through individual and group interviews.

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