

## Gülhane Askeri Tıp Fakültesi Öğrencilerini Hekimlik Mesleğine Motive Eden Faktörler

### [Factors That Motivate Gulhane Military Medical Faculty Students Towards The Profession of Medicine]

#### ÖZET

AMAÇ: Bu çalışma, Gülhane Askeri Tıp Fakültesi (GATF) öğrencilerini hekimlik mesleğine motive eden faktörlerin belirlenmesi amacıyla yapılmıştır.

YÖNTEM: Araştırmanın evrenini, 2012-2013 eğitim öğretim yılında Gülhane Askeri Tıp Fakültesinde öğrenim gören öğrenciler oluşturmaktadır. Öğrencilere dağıtılan 700 anketten 548'i geri dönmüştür. Verilerin analizinde, Yapısal Eşitlik Modeli (YEM), doğrulayıcı faktör analizi, tanımlayıcı istatistiksel yöntemler, iki ortalama arasındaki farkın önemliliğinin kontrolü testi ve tek yönlü varyans analizi (ANOVA) kullanılmıştır.

BULGULAR: Öğrencileri hekimlik mesleğine motive eden faktörler arasında birincil faktörün "Öğrenme Motivasyonu", ikincil faktörün ise "İçsel Motivasyon" olduğu gözlenmiştir. Öğrencilerin sınıfları ve Gülhane Askeri Tıp Fakültesini tercih durumları ile motivasyon faktörleri arasında istatistiksel olarak anlamlı farklılıklar bulunmuştur. Birinci sınıf öğrencilerinin, "Genel Motivasyon", "Öğrenme Motivasyonu" ve "Olumsuz Motivasyon" ortalamalarının ikinci ve üçüncü sınıf öğrencilerine göre; Gülhane Askeri Tıp Fakültesini kendi tercih eden öğrencilerin "İçsel Motivasyon" ortalamasının ise kendi tercih etmeyenlere göre daha yüksek olduğu anlaşılmıştır.

SONUÇ: Askeri Tıp Fakültesi öğrencilerinin tıp eğitimden beklentileri konusundaki görüşleri alınmalı, eğitimde ilgi çekici materyaller kullanılmalı, farklı sınıflar arasında oluşturulacak çalışma grupları ile tıp eğitimine ve hekimlik mesleğine ilişkin ilgileri ve isteklilikleri artırılmalıdır.

#### SUMMARY

AIM: This study was conducted to determine factors that motivate Gulhane Military Medical Faculty (GATA) students towards the profession of medicine.

METHOD: The population of the study consisted of students studying at the Gulhane Military Medical Faculty in the 2012-2013 academic year. A total of 700 questionnaires were delivered, and 548 were returned. Structural equation modeling (SEM), confirmatory factor analysis, descriptive statistical methods, the significance control test between compared means, and ANOVA test were used for statistical analysis.

RESULTS: It was observed that "Learning Motivation" was the primary factor, followed by "Intrinsic Motivation" as the secondary factor motivating the students. There was a statistically significant difference between the students' years of education and selecting Gulhane Military Medical Faculty (following the Student Selection and Placement Exam administered in Turkey), and the motivational factors. General Motivation, Learning Motivation, and Negative Motivation mean scores of first-year students were higher than the average scores of second- and third-year students. Students who voluntarily chose the Gulhane Military Medical Faculty had higher mean Intrinsic Motivation scores than the others.

CONCLUSION: It should be asked students' expectations from medical education, using appealing materials, increasing their interest and willingness in pursuing a medical education and the profession of medicine by forming study groups among students in different years of education.

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#### INTRODUCTION

Medical education is a dynamic process that deeply concerns all segments of society from medical students to educators, medical doctors to trade bodies, and chairmen of educational institutions to local and national chairmen. The purpose of medical education is to train medical doctors to provide healthy lives to people. One of the essentials to a healthy society is having medical doctors who know the society and can

approach the problems of society sensitively, intelligently, and scientifically (1).

The expected goals of medical education can only be achieved by determining the factors that affect the students' learning behaviors. These factors include age, gender, intelligence and abilities, personality type, ethnic characteristics, socio-economic and biological characteristics, previous experiences, support from educators and families, autonomy, and environmental conditions. As much as behavior, these factors also affect motivation. Therefore, motivation

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#### Anahtar Kelimeler:

Motivasyon, Motivasyon Faktörleri, Tıp Fakültesi Öğrencileri, Gülhane Askeri Tıp Fakültesi.

#### Key Words:

Motivation, Motivational Factors, Medical Students, Gulhane Military Medical Faculty.

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is one of the crucial variables in the process of learning and teaching (2,3).

Motivation is considered an important and effective factor that plays a role in students' creativity, learning styles, and academic success (4). Motivation is the power to spring into and maintain action towards achieving goals (5). Motivation is a crucial psychological factor that affects choices (6), and turns behavior and effort into success (7). In addition, motivation represents a multidimensional structure, rather than a simple and plain one (8). The most emphasized factors that affect motivation include perception capacity, determination, setting concrete goals, concentrating on objectives, self-efficacy, and self-assessment (9). Motivation is one of the key concepts of learning, and therefore, it should not be ignored in educational settings (8). Many scientists investigating the correlation between motivation and success have developed various theories. The theories of Keller, Wlodkowski, Herzberg, Maslow, Mayo, McClelland, McGregor, Likert, Luthans, and Vroom on motivation have shown that motivation has an important effect on student learning. However, even though the efficacy of motivation on learning and behavior has long been known and accepted, it remains unclear, in general, how it can be utilized in instructional design, and what it actually means. This, in turn, leads to overlooking or ignoring motivation when constructing instructional design. In other words, the efficacy of a curriculum depends on the motivation of the students; it is lower when student motivation is low, and vice versa. Disregarding the motivation aspect in learning environments is one of the most important reasons why teaching fails or drops below the desired level (10).

Intrinsic motivation, extrinsic motivation, learning motivation, and negative motivation concepts are crucial in the learning and teaching processes (11). Intrinsic motivation is completing a task simply because it is satisfying and gratifying. It includes actions that one performs for oneself out of interest, curiosity, need, or pleasure. Extrinsic motivation is performing a task for reward or as punishment. It includes beneficial environmental elements, such as high(er) salary, promotions, passing exams, or social pressure. Learning motivation is finding academic assignments significant, valuable, and useful in terms of education, regardless of whether they are interesting or not. Negative motivation simply indicates the lack of or end of motivation (11,12).

Modern medical curricula are based on students having intrinsic desires in becoming medical doctors, and their motivations for the profession of medicine

arising from intrinsic factors rather than extrinsic ones. In this context, students pursue a medical education because they find it interesting and pleasant, and not for monetary awards or status to be gained afterwards (13).

Medical students are known to have greater motivation compared to other students in higher education (14). Naturally, medical students are motivated to become medical doctors. This motivation arises from the need to be respected, self-fulfillment, knowing, and understanding (15).

Why do so many students prefer medical schools every year? What motivates or influences them to pursue a medical education? Despite the high cost and long duration of a medical education, and the various applications involved, the number of students who choose medical schools rises each year. This increase results from the differences in the motivations of students, the structure of their personalities, and their values and attitudes (5).

Although there are numerous studies on student motivation in the literature, little is known regarding the motivation of medical students (16). The purpose of this study was to determine the factors that motivate the students at the Gulhane Military Medical Faculty to pursue the profession of medicine, and investigate whether these factors differ depending on the students' socio-demographic characteristics or not.

## **MATERIAL and METHOD**

The study population consisted of 700 students in the 2012-13 academic year at GATA Military Medical Faculty. No sample group was selected; the maximum potential number of students was included in the study.

The "Sources of Motivation and Motivational Problems for Teaching Questionnaire" by Acat and Yenilmez (2004) was used to gather data (17). The questionnaire was reconstructed to suit medical faculty students, and students were asked to answer the questions on a five-point Likert Scale consisting of options from "1 = Strongly Disagree" to "5 = Strongly Agree". Following the approval of the Ethics Committee, 700 students were given the questionnaire, and 548 were returned (rate of return = 78.3%) and evaluated.

SPSS 18 and AMOS 18 packages were used for the analyses of data obtained in the study, and along with structural equation modeling (SEM), descriptive statistical methods, the significance control test between two compared means, and one-way ANOVA were used. The Bonferroni post-hoc test was also

used in order to determine the source of differences in the case that a statistical difference was found in the analyses. Significance level for the post-hoc test was calculated using the " $\alpha / \text{number of comparisons}$ " (Bonferroni correction) formula. Results were evaluated with a confidence interval of 95% and a significance level of  $p < 0.05$ .

### Validity and Reliability Analyses

Cronbach's Alpha coefficient and Confirmatory Factor Analysis (CFA) were used to test the validity and reliability of the data obtained with the scale used

in the study. The Cronbach's Alpha value was calculated as 0.948 in the reliability analysis of the scale.

As a result of the Confirmatory Factor Analysis (CFA), the motivation scale consisting of 23 items was categorized into four factors. The cohesion criteria of the scale were determined to be within acceptable limits. The arithmetic means and standard deviations determined in the validity analysis, according to the scale in general and the dimensions found, along with the Cronbach's alpha coefficients, are presented in Table 1.

**Table 1:** Reliability values and factor analysis results of the study questionnaire

Dimensions	No. of Items	Cronbach's Alpha	Mean	Standard Deviation
<b>General Motivation</b>	<b>23</b>	<b>.948</b>	3.948	.637
Intrinsic Motivation (IM)	5	.862	4.114	.796
Extrinsic Motivation (EM)	8	.899	3.982	.737
Learning Motivation (LM)	5	.879	4.131	.774
Negative Motivation (NM)	5	.793	3.566	.881

### RESULTS

The socio-demographic characteristics of the Military Medical Faculty students who participated in the study are presented in Table 2. The findings revealed that the majority of the students were male (94.5%), and between 17 and 24 years of age. Approximately one-third (29.9%) of the students were in their second academic year, and out of all

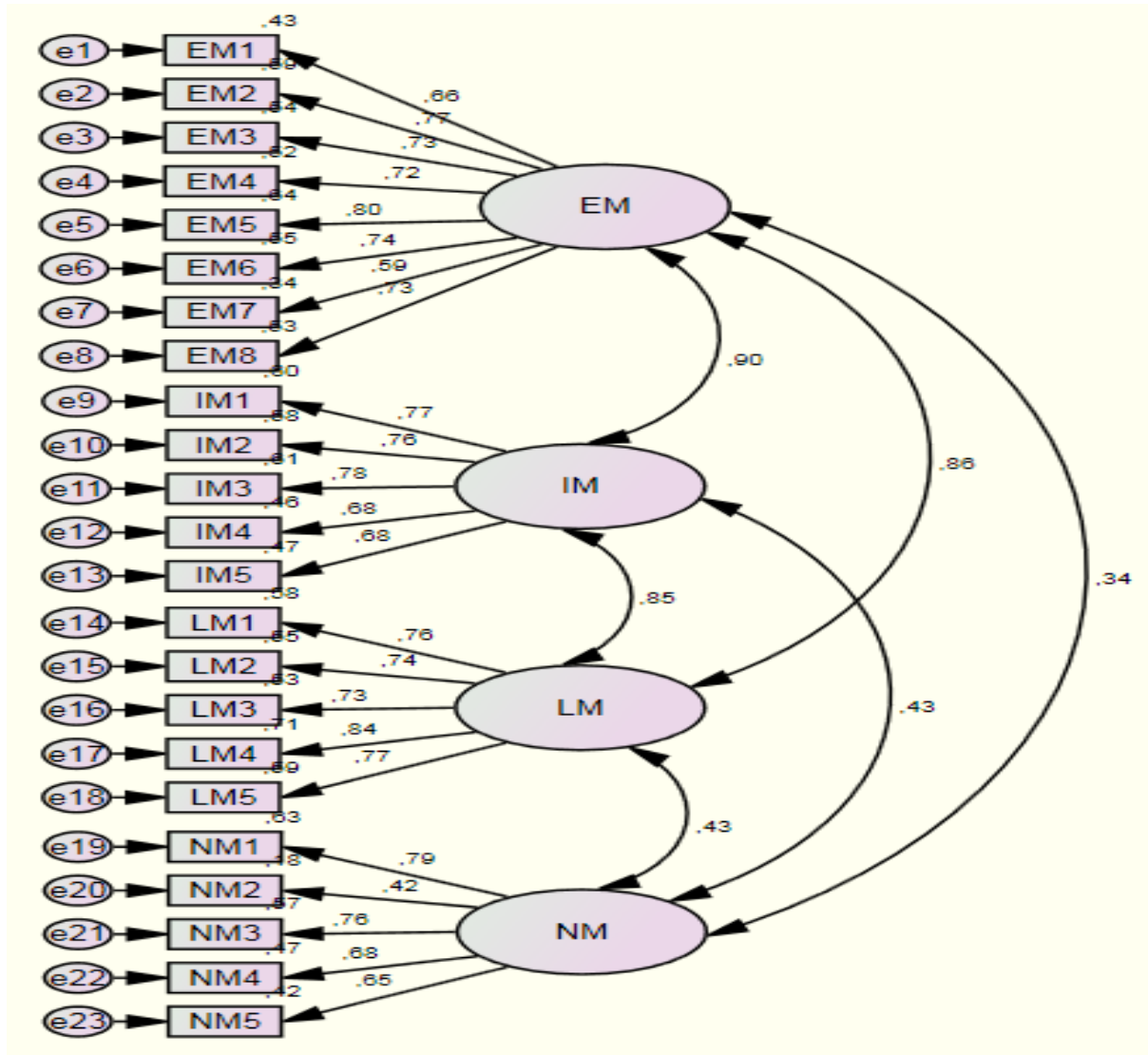
students, 95.1% voluntarily chose Gulhane Military Medical Faculty. In terms of family income levels, 48.9% of the students' families earned 1,000 – 2,000 Turkish Liras (TL) per month at the time of the study. Most of the students' mothers (98.2%) and fathers (96.5%) were alive, and while 42.2% of the students' mothers had elementary school diplomas, 63.8% of the students' fathers had high school or university diplomas.

**Table 2:** Socio-Demographic Characteristics of the Military Medical Faculty Students

Characteristic	Group	n	%	Characteristic	Group	n	%
Sex	Male	30	5.5	Did you choose this school yourself?	Yes	521	95.1
	Female	518	94.5		No	27	4.9
Year of study	1 <sup>st</sup> Year	135	24.6	Family income level(TL)	≤1000	86	15.7
	2 <sup>nd</sup> Year	164	29.9		1001-1500	127	23.2
	3 <sup>rd</sup> Year	105	19.2		1501-2000	141	25.7
	4 <sup>th</sup> Year	49	8.9		2001-2500	85	15.5
	5 <sup>th</sup> Year	60	10.9		2501-3000	43	7.8
	6 <sup>th</sup> Year	35	6.4		≥3001	66	12.0
Is your mother alive?	Yes	538	98.2	Location of family residence	Village	47	8.6
	No	10	1.8		District	125	22.8
Is your father alive?	Yes	529	96.5		Town	32	5.8
	No	19	3.5	Large City	344	62.8	
Mother's educational level	Illiterate	39	7.1	Father's educational level	Illiterate	9	1.6
	Elementary School	231	42.2		Elementary School	130	23.7
	Middle School	62	11.3		Middle School	59	10.8
	High School	123	22.4		High School	147	26.8
	University	93	17.0		University	203	37.0

The Structural Equation Model showing the effects between the items in the motivation scale and motivation dimensions is presented in Figure 1. The

fit index of the model was determined to be within acceptable limits.



CMIN=675.572; DF=221; CMIN/DF=3.057; p=.000; GFI=.899; AGFI=.874; NFI=.908; IFI=.936; TLI=.927; CFI=.936; RMSEA=.061

**Figure 1:** Structural equation model and fit indices defining factors that motivated Military Medical Faculty students

Estimated parameter values of the model are given in Table 3. According to the table, among the sub-dimensions of motivation, there were high levels of covariance between extrinsic motivation, and intrinsic motivation ( $p = 0.898$ ); between learning motivation ( $p = 0.865$ ) and negative motivation ( $p = 0.343$ ); between intrinsic motivation, and learning

motivation ( $p = 0.851$ ) and negative motivation ( $p = 0.431$ ); and between learning motivation and negative motivation ( $p = 0.426$ ) ( $p < 0.001$ ). In light of these findings, it can be deduced that there was a statistically significant and substantial relationship between the motivational factors.

**Table 3:** Covariance between the sub-dimensions of motivation

	Dimensions		Estimate	Standard Error	t-value	p
EM	<-->	IM	0.898	0.036	10.521	***
EM	<-->	LM	0.865	0.035	11.303	***
EM	<-->	NM	0.343	0.028	6.037	***
IM	<-->	LM	0.851	0.037	10.526	***
IM	<-->	NM	0.431	0.030	6.906	***
LM	<-->	NM	0.426	0.032	7.133	***

\*\*\*p < 0.001

**Table 4:** Factors Motivating Military Medical Faculty Students to Pursue the Profession of Medicine (n= 548)

Sub-dimension	Items	Mean	Standard Deviation
<b>IM</b>	<b>Intrinsic Motivation</b>	<b>4.11</b>	<b>0.80</b>
IM1	Interest in the profession	4.21	1.02
IM2	Sincerity and willingness to learn the profession	4.16	0.99
IM3	Competence to learn the profession	4.24	0.92
IM4	Self-discovery in the profession	3.80	1.07
IM5	Being a promising profession	4.17	0.95
<b>EM</b>	<b>Extrinsic Motivation</b>	<b>3.98</b>	<b>0.74</b>
EM1	Being socially accepted	3.78	1.04
EM2	Reaching out to more people	4.02	0.96
EM3	A profession providing job security	4.12	0.98
EM4	Easy access to written resources	3.88	1.00
EM5	Advancing in one's career	4.10	0.91
EM6	Family happiness	4.18	0.92
EM7	Gaining prestige among friends	3.72	1.01
EM8	Increase in quality of life	4.05	0.90
<b>LM</b>	<b>Learning Motivation</b>	<b>4.13</b>	<b>0.77</b>
LM1	Working with someone who loves and is passionate about his/her job	4.10	0.97
LM2	Appeal of materials studied	4.15	0.93
LM3	Willingness of the student cohort	4.09	0.99
LM4	Educational and instructional processes meeting the expectations	4.15	0.91
LM5	Ability to utilize knowledge and skills	4.17	0.92
<b>NM</b>	<b>Negative Motivation</b>	<b>3.57</b>	<b>0.88</b>
NM1	Limited abilities and experience	3.85	1.15
NM2	Lack of adequate effort	3.05	1.22
NM3	Stress and forgetfulness during learning efforts	3.62	1.19
NM4	Showing resistance against learning and negative thinking	3.79	1.25
NM5	Memorizing rather than learning	3.53	1.15

**Table 5:** Comparison of year of study and motivational factors of Military Medical Faculty students

Motivational Factors	Year of Study	n	Mean	Standard Deviation	F	p	Bonferroni Post Hoc.
<b>General Motivation</b>	1 <sup>st</sup> Year	135	4.254	0.554	10.287	0.000	<b>1-2 p=0.000</b> <b>1-3 p=0.000</b>
	2 <sup>nd</sup> Year	164	3.885	0.610			
	3 <sup>rd</sup> Year	105	3.718	0.704			
	4 <sup>th</sup> Year	49	3.876	0.627			
	5 <sup>th</sup> Year	60	3.933	0.537			
	6 <sup>th</sup> Year	35	3.885	0.637			
<b>Extrinsic Motivation</b>	1 <sup>st</sup> Year	135	4.212	0.664	3.620	0.003	p>0.003
	2 <sup>nd</sup> Year	164	3.902	0.734			
	3 <sup>rd</sup> Year	105	3.883	0.835			
	4 <sup>th</sup> Year	49	3.929	0.676			
	5 <sup>th</sup> Year	60	3.925	0.663			
	6 <sup>th</sup> Year	35	3.936	0.778			
<b>Intrinsic Motivation</b>	1 <sup>st</sup> Year	135	4.347	0.653	3.507	0.004	p>0.003
	2 <sup>nd</sup> Year	164	4.088	0.846			
	3 <sup>rd</sup> Year	105	4.025	0.864			
	4 <sup>th</sup> Year	49	3.951	0.840			
	5 <sup>th</sup> Year	60	3.970	0.748			
	6 <sup>th</sup> Year	35	4.074	0.711			
<b>Learning Motivation</b>	1 <sup>st</sup> Year	135	4.450	0.672	7.325	0.000	<b>1-2 p=0.000</b> <b>1-3 p=0.000</b>
	2 <sup>nd</sup> Year	164	4.046	0.798			
	3 <sup>rd</sup> Year	105	3.912	0.826			
	4 <sup>th</sup> Year	49	4.016	0.749			
	5 <sup>th</sup> Year	60	4.157	0.618			
	6 <sup>th</sup> Year	35	4.074	0.812			
<b>Negative Motivation</b>	1 <sup>st</sup> Year	135	4.006	0.673	16.501	0.000	<b>1-2 p=0.000</b> <b>1-3 p=0.000</b>
	2 <sup>nd</sup> Year	164	3.502	0.858			
	3 <sup>rd</sup> Year	105	3.050	0.995			
	4 <sup>th</sup> Year	49	3.608	0.742			
	5 <sup>th</sup> Year	60	3.680	0.769			
	6 <sup>th</sup> Year	35	3.457	0.827			

Factors motivating Military Medical Faculty students to pursue the profession of medicine are shown in Table 4. The table shows that Learning Motivation (4.13±0.77) was at the top of the list among the sub-dimensions, followed by Intrinsic Motivation (4.11±0.80). These two sub-dimensions were followed by Extrinsic Motivation (3.98±0.74) and Negative Motivation (3.57±0.88) as the third and fourth sub-dimensions, respectively. One-by-one evaluation of the items that formed the scale revealed that the most motivating factors for the Military Medical Faculty students were "competence to learn the profession (IM3) (4.24±0.92)", "interest in the profession (IM1) (4.21±1.02)", "family happiness (EM6) (4.18±0.92)", "ability to utilize knowledge and skills (LM5) (4.17±0.92)", "being a promising profession (IM5) (4.17±0.95)", "sincerity and willingness to learn the profession (IM2) (4.16±0.99)", "educational and instructional processes meeting the expectations (LM4) (4.15±0.91)",

"appeal of materials studied (LM2) (4.15±0.93)", "a profession providing job security (EM3) (4.12±0.98)", "working with someone who loves and is passionate about his/her job (LM1) (4.10±0.97)", and "advancing in one's career (EM5) (4.10±0.91)"

It was also determined that the least motivating factors among the sub-dimensions "Intrinsic Motivation", "Extrinsic Motivation", and "Learning Motivation" were "gaining prestige among friends (EM7) (3.72±1.01)", "being socially accepted (EM1) (3.78±1.04)", "self-discovery in the profession (IM4) (3.80±1.07)", and "easy access to written sources (EM4) (3.88±1.00)".

Evaluation of the factors in the sub-dimension "Negative Motivation", which constitutes a problem of motivation, revealed that all scores were above 3.00, meaning that these factors did not pose a problem in terms of factors motivating Military Medical Faculty students to pursue the profession of medicine. The factor with the lowest mean among

these was "lack of adequate effort" ( $3.05 \pm 1.22$ ), which concerns acquiring knowledge and skills necessary for the profession.

#### Relationships between Socio-Demographic Characteristics and Motivational Factors

There was no statistically significant difference when motivational factors that affected the Military Medical Faculty students were compared according to their socio-demographic characteristics, in terms of other socio-demographic characteristics, other than years of study and choices.

A statistically significant difference was determined according to the students' years of study in terms of both "General Motivation" and all sub-dimensions ( $p < 0.05$ ; Table 5). However, the result of the Bonferroni corrected post-hoc test (Bonferroni correction:  $\alpha / \text{number of comparisons} = 0.05 / 15 = 0.003$ ) performed to determine which years of study the differences originated from revealed that the differences in the dimensions of "Extrinsic Motivation" and "Intrinsic Motivation" were not significant ( $p > 0.003$ ). Accordingly, the statistically significant difference in terms of "General Motivation", "Learning Motivation", and "Negative Motivation" were determined to be between the first- and second-year students and first- and third-year students. This finding was associated with Military Medical Faculty first-year students having higher means in "General Motivation" and the sub-dimensions "Learning Motivation" and "Negative Motivation" than the second- and third-year students. In other words, levels of motivation towards the

profession of medicine decrease as students advance from first year to second and third years.

There was a statistically significant difference in terms of the sub-dimension "Intrinsic Motivation" according to whether the students chose Gulhane Military Medical Faculty voluntarily or not ( $p < 0.05$ ; Table 6). In light of this finding, it was determined that the levels of "Intrinsic Motivation" were higher in students who chose Gulhane Military Medical Faculty voluntarily compared to those that did not. There was no significant difference between other sub-dimensions and general motivation levels in terms of choice. However, there was a statistically significant difference, with respect to whether the students chose Gulhane Military Medical Faculty voluntarily or not, in terms of the opinions of the students on the following factors among the sub-dimensions of "Intrinsic Motivation", "Extrinsic Motivation", and "Learning Motivation": "Being socially accepted (EM1)", "reaching out to more people (EM2)", "a profession providing job security (EM3)", "advancing in one's career (EM5)", "increase in quality of life (EM8)", "interest in the profession (IM1)", "sincerity and willingness to learn the profession (IM2)", "competence to learn the profession (IM3)", "self-discovery in the profession (IM4)", and "educational and instructional processes meeting expectations (LM4)" ( $p < 0.05$ ). Evaluations revealed that these differences originated from students who chose Gulhane Military Medical Faculty voluntarily having significantly higher motivation means than those who did not choose this faculty voluntarily.

**Table 6:** Comparison of students who chose Gulhane Military Medical Faculty voluntarily or not and motivational factors

Motivational Factors	Voluntary Choice	N	Mean	Standard Deviation	t	p																																					
Extrinsic Motivation	Yes	521	4.010	0.718	3.971	0.132																																					
	No	27	3.440	0.897			Intrinsic Motivation	Yes	521	4.148	0.765	<b>3.381</b>	<b>0.009</b>	No	27	3.444	1.067	Learning Motivation	Yes	521	4.154	0.760	3.016	0.196	No	27	3.696	0.927	Negative Motivation	Yes	521	3.605	0.865	4.721	0.988	No	27	2.800	0.854	General Motivation	Yes	521	3.979
Intrinsic Motivation	Yes	521	4.148	0.765	<b>3.381</b>	<b>0.009</b>																																					
	No	27	3.444	1.067			Learning Motivation	Yes	521	4.154	0.760	3.016	0.196	No	27	3.696	0.927	Negative Motivation	Yes	521	3.605	0.865	4.721	0.988	No	27	2.800	0.854	General Motivation	Yes	521	3.979	0.621	5.159	0.987								
Learning Motivation	Yes	521	4.154	0.760	3.016	0.196																																					
	No	27	3.696	0.927			Negative Motivation	Yes	521	3.605	0.865	4.721	0.988	No	27	2.800	0.854	General Motivation	Yes	521	3.979	0.621	5.159	0.987																			
Negative Motivation	Yes	521	3.605	0.865	4.721	0.988																																					
	No	27	2.800	0.854			General Motivation	Yes	521	3.979	0.621	5.159	0.987																														
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in students who chose Gulhane Military Medical Faculty voluntarily compared to those that did not. There was no significant difference between other sub-dimensions and general motivation levels in terms of choice. However, there was a statistically significant difference, with respect to whether the

students chose Gulhane Military Medical Faculty voluntarily or not, in terms of the opinions of the students on the following factors among the sub-dimensions of "Intrinsic Motivation", "Extrinsic Motivation", and "Learning Motivation": "Being socially accepted (EM1)", "reaching out to more people (EM2)", "a profession providing job security (EM3)", "advancing in one's career (EM5)", "increase in quality of life (EM8)", "interest in the profession (IM1)", "sincerity and willingness to learn the profession (IM2)", "competence to learn the profession (IM3)", "self-discovery in the profession (IM4)", and "educational and instructional processes meeting expectations (LM4)" ( $p < 0.05$ ). Evaluations revealed that these differences originated from students who chose Gulhane Military Medical Faculty voluntarily having significantly higher motivation means than those who did not choose this faculty voluntarily.

## **DISCUSSION**

Motivation is a psychological factor that affects one's choices. Different motivators lead to differences in behaviors, and that these behaviors vary depending on the individual's personal characteristics (6).

The dimension at the top of the list of motivating factors for the Military Medical Faculty students towards the profession of medicine was "Learning Motivation" ( $4.13 \pm 0.77$ ). Medical faculty students are expected to have high motivation, because learning motivation is crucial for them to be successful during their busy schedules and when they continue working in their professional life as a medical doctor (21).

The highest mean value ( $4.21 \pm 1.02$ ) was determined to be an "interest in the profession (IM1)" in all the students who participated in this study in terms of their motivation towards the profession of medicine. This factor reveals the reason behind the students' choice of the profession of medicine. In a study conducted in the USA in 2001, it was revealed that one in ten young individuals saw the profession of medicine as the most popular profession (22). In another study, conducted in England by Clack and Head (1998), it was determined that the most influential factor for the majority of the students who chose medicine was the interest in the profession (23). In a study by Koksalan (1999) on determining the factors that are effective in choosing a career, conducted with 1,434 students selected from five different universities in the Eastern Anatolia Region of Turkey, the most effective factor was determined to be "interest in the profession" (24). The profession

of medicine includes a long educational process, and also requires great self-devotion. Therefore, interest in the profession is the most important factor that affects motivation for individuals who will be making a choice.

While half or more of the students were female in most studies on motivation and motivational factors conducted with students from other faculties (18, 19, 20), the majority of the students participated in the current study were male (94.5%). This was believed to be due to the institutional structure of Gulhane Military Medical Faculty and their limited quota for female students. The absence of significant differences in the statistical analyses in terms of gender was associated with the low number of female students who participated in the study.

In the current study, there were significant differences between the students' years of study, particularly among the first, second, and third-year students, in terms of motivational factors. It was determined that motivation levels of first-year students were higher than the students who were in their second and third years of study. In a study by Powell et al. (1987) conducted in England with medical students in their first, third, and final years of study, it was determined that first-year students had higher levels of motivation than others, though the primary factors motivating first-year students were revealed as income, prestige, and a feeling of success (25). Their findings of higher motivation levels in first-year students are concurrent with the findings of the current study.

## **CONCLUSION**

Motivation has a major effect on the students' behaviors in learning and studying, choosing the profession of medicine as a career, presenting academic performance, choosing a specialty, and continuation of training. The purpose of this study was to determine the factors that motivate Gulhane Military Medical Faculty students to pursue the profession of medicine.

The results of the study showed that "Learning Motivation" was the primary factor, followed by "Intrinsic Motivation" as the secondary factor. There was a statistically significant difference between the students' years of study and choosing Gulhane Military Medical Faculty, and motivational factors. It was determined that the "General Motivation", "Learning Motivation", and "Negative Motivation" means of first-year students were higher than of second- and third-year students, and in addition,



"Intrinsic Motivation" means of students who chose Gulhane Military Medical Faculty voluntarily were higher than of those who did not.

Motivation, defined as the primary source of human behavior, is of great importance in terms of both individual and institutional success. In this context, it should be asked students' expectations from medical education, using appealing materials, increasing their interest and willingness in pursuing a medical education and the profession of medicine by forming study groups among students in different years of education, and through conferences and meetings, emphasizing the importance of their education and the profession of medicine, both in terms of the Turkish Armed Forces and the national health system.

This study is limited to the Gulhane Military Medical Faculty students. It is suggested that this study be repeated with students from other medical faculties in Turkey, and the results be compared, in order to acquire sufficient knowledge on the factors that motivate and demotivate students to become medical doctors.

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