



Occupational Future Concerns and Stress Management Conditions of Intern Doctors

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ABSTRACT

Objective: The study was conducted to evaluate the occupational anxiety levels of the final year medical students about their future and the factors affecting it.

Methods: This cross-sectional analytical research was conducted between September 2015 and February 2016 with 296 final year students who were at family medicine internships. The Perceived Stress Scale (PSS) and the State Trait Anxiety Inventory (STAI TX-2), and a questionnaire containing socio-demographic items prepared by the researchers were administered.

Results: Of the participants, 47.3% (n=140) were female and 52.7% (n=156) were male. The average ages of the male and female students were 23.83±1.18 and 24.13±1.18 years, respectively. Among the students, 51.8% (n=142) were living with their friends, 34.3% (n=103) with their family members and 12.8% (n=38) in hostels. 81.8% (n=242) of the participants had occupational future anxiety. Occupational anxiety was significantly more frequent in female students than in male students ($\chi^2=5.167$, $p<0.05$). During medical education, 68.9% of the students (n=204) had difficulty during oral exams, 18.9% (n=56) were unable to communicate with senior staff, 27.0% (n=80) had difficulty with presenting their patient during visits, 22.3% (n=66) were afraid of misdiagnosing, 15.9% (n=47) were afraid of psychiatric patient management, and 16.6% (n=49) had difficulty with reporting a case.

Conclusion: Being a doctor is accepted as a profession with high income and work guarantee in general. However, this study has revealed that final year students have high levels of occupational future concerns. There is a need for further research on causes and solutions.

Keywords: Medical education, occupational concerns, anxiety

INTRODUCTION

The aim of the current education in medical faculties is to educate doctors in internationally accepted criteria who have comprehensive knowledge of the health issues of the country they are living in and who are equipped with the knowledge, skills, and attitudes that can solve these issues in the primary health care, who obey the ethics rules of the profession, and who update their knowledge and skills by continuously renewing themselves with researches (1).

Well-equipped physicians in every respect are needed at every step of the health field. Previous studies have shown that the majority of medical faculty students, for future postgraduate planning, take into account the financial possibilities, prestige, professional satisfaction, compulsory service, center facilities of the workplace, marital status, family and community pressure, and desire for academic career throughout their medical education (2, 3). In addition, health politics, which always occupies the agenda in our country as it does worldwide, plays a role in changing career plans after graduation (4).

Medical education, which is a long and difficult process, creates stress on students. The resulting psychological distress reaches the

highest level in senior students who come within an inch of stepping into the profession. Inadequacies in the clinical skills acquired during clinical practice, the inability to fully use the theoretical education during the course of the practical approach and thus the anxiety of not being able to approach the patient in a proper way, fear of incorrect diagnosis, intervention in acute situations, inadequacy to master the generic names when prescribing medicines, and inadequacy of hospital facilities are sources of stress for doctors who will soon start their profession. The fact that the places to be worked for compulsory service are usually in the hardship areas, failure to adequately prepare for the specialty examination, or failure in the examination for the specialty that they dream about constitutes an important issue for students and new doctors with high expectations from the medical profession, especially because of material and social situation. Resident doctors who are selected through examination for specialty education in medicine face different issues. The most important of these issues is the increasing workload. The number of university hospitals is increasing day by day, whereas the number of positions for resident doctors is decreasing. The difficulties awaiting physicians are not limited to these; at the end of the specialty education, they face public service obligation and subspecialty examinations (11).



Factors such as future planning, taking individual responsibilities of patients, and exposure to violence may lead to a high level of anxiety and psychological and emotional depression in doctors who start their profession after medical education. It is thought that physicians can commit mistakes more easily when practicing their profession in a high-anxiety environment (12).

The aim of the present study was to evaluate the anxiety status of intern doctors at a medical faculty using the Perceived Stress Scale (PSS) and the State-Trait Anxiety Inventory (STAI).

METHODS

Type and Place of the Study and Sample Selection

This cross-sectional analytical study was conducted in 296 final year students studying at the Meram School of Medicine of Necmettin Erbakan University between September 2015 and February 2016. No sample selection was performed in the present study; all intern doctors in the specified period were included in the study. Intern doctors diagnosed with any psychiatric disorder were excluded from the study.

The study was approved by the Non-Interventional Clinical Studies Ethical Committee (number 2015/157) of Necmettin Erbakan University, Meram School of Medicine, and at the implementation phase, after being informed about the purpose of the study, verbal consent were obtained from the students who agreed to participate.

Data Collection

PSS and STAI TX-2 were evaluated through the occupational anxiety questionnaire, which also included socio-demographic information and was prepared by the researchers. Age, gender, places of residence, and habits of the individuals were recorded in this questionnaire. The questionnaires were filled out by the participants in person. The researchers did not intervene in the process of completing the questionnaire.

PSS

There are several studies in literature about the role of stress in the occurrence or progression of many diseases. Developed by Cohen, Kamarck, and Mermelstein in 1983, PSS is an important tool for measuring stress. In the present study, the scale adapted to Turkish by Bilge et al. (2007) has been used. Three items (4th, 5th, and 6th) of the scale, which has been prepared in the form of a five-point Likert scale (0=none and 4=very frequent), have opposite expressions, and five items (1st, 2nd, 3rd, 7th, and 8th) have direct expressions. Points ranging from 0 to 32 can be obtained in total. There are two subgroups in the scale: perceived stress (1st, 2nd, 3rd, 7th, and 8th items) and perceived coping (4th, 5th, and 6th items). It is interpreted through the total score and subscale scores. A higher overall score indicates higher perceived stress. Taking high scores from the subscales is a negative.

STAI TX-2

Spielberger developed this scale to measure the level of trait anxiety. It assesses how the person feels about himself/herself, regardless of the condition and situation the person is in. Trait anxiety is the susceptibility of an individual to anxiety. It can also be described as the subject's tendency to perceive his/her situ-

ation mostly as stressful or to interpret it as stress. Trait anxiety is the sense of dissatisfaction and unhappiness that occurs by perceiving the situations, which are actually impartial, as dangerous and self-threatening (humiliating). State anxiety is the subjective fear that an individual feels due to the stressful (depressed) situation he/she is in. Physiologically, physical changes such as sweating, growing pale, flushing, and shivering, which occur due to stimulation in the autonomic nervous system, are signs of the individual's feelings of tension and restlessness. When the stress is intense, there is an increase in the state anxiety level. After the scale was developed in 1970, it was translated into Turkish between 1974 and 1977, and the validity and reliability study was performed by Öner and Le Compte (1). Points between 20 and 39 are interpreted as low-, points between 40 and 59 are interpreted as medium-, and points between 60 and 80 are interpreted as high-anxiety scores (2).

Statistical Analysis

For statistical analyses, the program Statistical Package for Social Sciences (SPSS) for Windows 20.0 (IBM SPSS; SPSS Inc., Armonk, NY, USA) was used. Descriptive statistics for continuous variables have been summarized as mean and standard deviation, and descriptive statistics for categorical data have been summarized as frequency and percentage in tables. Mann-Whitney U-test was used for comparisons of quantitative data. Chi-square test was used for comparisons of qualitative data. Significance level was accepted as $p < 0.05$.

RESULTS

Of the students included in this study, 47.3% ($n=140$) were females and 52.7% ($n=156$) were males, and the mean age was 23.83 ± 1.18 years and 24.13 ± 1.18 years, respectively. Of the students, 52.4% ($n=155$) were residing with their friends, 34.8% ($n=103$) were residing with their families, and 12.8% ($n=38$) were residing in hostels. Mothers of 19.6% ($n=58$) of the students and fathers of 73.3% ($n=217$) of them had a job. Of the working fathers, 46.6% ($n=138$) were civil servants and 14.2% ($n=42$) were workers, and 15.9% ($n=47$) of the working mothers were civil servants.

Of the students, 64.9% ($n=192$) chose the faculty of medicine willingly, 16.6% ($n=49$) chose with the guidance of their families, 9.8% ($n=29$) chose it because they thought there was a job guarantee, 7.1% ($n=21$) chose it owing to its popularity, and 1.7% ($n=5$) chose it with the guidance of their relatives. After graduation, 23.3% ($n=69$) of the students specified that they were planning to prepare for the specialty examination before starting the job, 64% ($n=195$) stated that they thought about preparing for the specialty examination while fulfilling the civil service obligation, 3.7% ($n=11$) stated that they would like to work in the private sector, 3.7% ($n=11$) stated that they did not plan to appear for the specialty examination, and 5.1% ($n=15$) stated that they did not consider working as a doctor.

For the question "Do you recommend the medical faculties for those who will sit for the university entrance examinations?," 60.1% ($n=178$) of the students answered "No, I do not recommend," and 39.9% ($n=118$) answered "Yes, I recommend." The situations that cause anxiety during medical education are listed in Table 1. For the question "Have you been exposed to violence by your patients or relatives during your internship?,"

16.6% (n=49) of the students answered "yes," and 57.1% (n=28) of these students were females. Of the students, 92.2% (n=273) stated that recent news about violence against health workers negatively affected their point of view related to the profession and the future. Overall, 76% (n=225) remarked that they do not believe they receive adequate support from their colleagues.

When the answers to the question "Do you have any occupational anxieties for the future?" were examined, it was observed that 81.8% (n=242) of the respondents have occupational anxiety. The frequency of female students having occupational anxiety was significantly higher than male students ($\chi^2=5.167$, $p=0.024$). The reasons for occupational anxiety of the students are shown in Table 2.

Of the students with occupational anxiety, 45.0% (n=109) stated that they thought to abandon the medical faculty. The level of coping with the perceived stress ($p=0.002$), state anxiety ($p=0.001$), and the total scores of perceived stress ($p=0.005$) were significantly higher in those who were considering to leave the medical faculty during the educational process.

The levels of perceived stress, coping with stress, and state-trait anxiety of the students having occupational anxiety are demonstrated in Table 3.

Considering the perceived stress and anxiety states by gender, the level of perceived stress and the total scores of perceived stress were significantly higher in female students ($p<0.05$) (Table 4). In the male students included in the study, the perceived stress score was 8.83 ± 2.86 , the score of coping with perceived stress was 4.07 ± 1.93 , the total score of PSS was 12.92 ± 4.15 , the state anxiety score was 42.06 ± 4.62 , and the trait anxiety score

was 33.30 ± 0.91 , whereas in female students, the perceived stress score was 9.76 ± 2.82 , the score of coping with perceived stress was 4.37 ± 1.89 , the total score of PSS was 14.14 ± 4.21 , the state

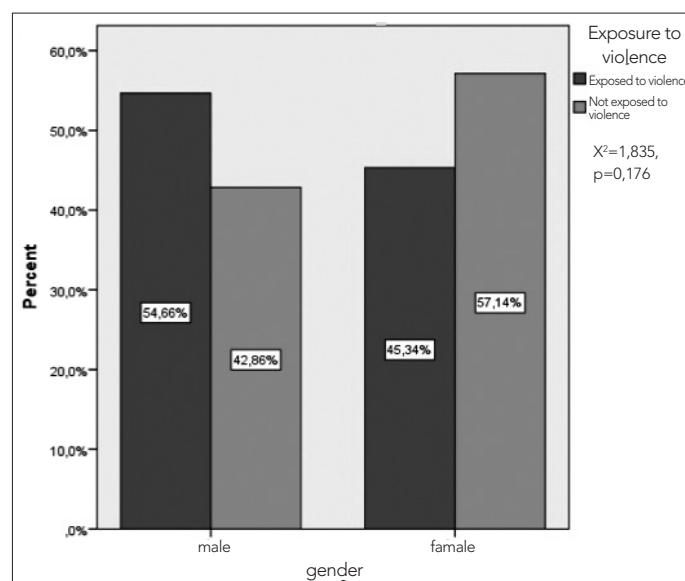


Figure 1. Relationship between gender and exposure to violence while on duty

Table 2. Causes of anxiety in students who have occupational anxiety

Causes of anxiety in students who have occupational anxiety*	n	%
Decrease in professional reputation	177	59.8
Inadequacy of the positions for the specialized personnel	154	52.0
Thinking that the practical training at the medical faculty is not enough	142	48.0
Being appointed to an undesired place	137	46.3
Knowledge about prescribing medication	113	38.2
Coping with the patient alone	103	34.8
Not knowing how to intervene with an emergency patient	103	34.8
Making a misdiagnosis	98	33.1
Inadequate salary	91	30.7
Poor communication with the health personnel working in the institution	45	15.2
Inability to reach a sufficient status in society	40	13.5
I do not consider taking the specialty examination in medicine	11	3.7
Have you been exposed to violence by the patient/relative during the internship period?	49	16.6

*In this question, more than one choice has been marked.

Table 1. Situations that create anxiety during medical education

Situations that create anxiety during medical education*	Yes		No	
	n	%	n	%
Oral exams	204	68.9	92	31.1
Inability to communicate with senior staff	56	18.9	240	81.1
Patient presentation at visits	80	27.0	216	73.0
Making a misdiagnosis	66	22.3	230	77.7
Taking anamnesis from a psychiatric patient	47	15.9	249	84.1
Case report	49	16.6	247	83.4
Gradual decrease in professional reputation	177	59.8	119	40.2
Anxiety about being appointed to an undesirable place	137	46.3	159	53.7
Does the news about violence against health workers affect your point of view about the profession and the future?	273	92.2	23	7.8

*In this question, more than one choice has been marked.

anxiety score was 40.52 ± 4.88 , and the trait anxiety score was 33.07 ± 0.94 .

In the process of choosing the medical faculty after university entrance examination, there was a statistically significant rela-

tionship between the affecting factors and the scores of perceived stress, coping with stress, and total stress ($p=0.014$, $p<0.001$, and $p<0.001$, respectively). When the state and trait anxiety scores were compared, there was a statistically significant relationship with the state anxiety scores ($p=0.044$), whereas there was no significant relationship with the trait anxiety scores ($p=0.394$) (Table 5).

A moderately significant correlation was found between the total score of PSS and the state anxiety score in the negative direction ($r=-0.316$, $p<0.001$) (Table 6). There was a poorly significant correlation between the total score of PSS and the trait score in the negative direction ($r=-0.163$, $p=0.005$) (Table 6).

DISCUSSION

In the Edinburgh Declaration, the purpose of medical education has been defined as "to raise 'talented and qualified' doctors having the knowledge, skills, values and behavior that provide quality, preventive and therapeutic services for patients and society" (3).

Before graduation and beginning of professional life, the insufficiencies in practical education and future anxiety create psychological pressures on senior medical faculty students who will take a step toward their new profession. In a previous study, anxiety was also found to be higher in female students than in male students, similar to the present study (4).

As in previous studies, most of the intern students in the present study chose the medical faculties willingly. Different from literature, state anxiety levels of those who willingly chose the medical faculty were found to be higher than those students who did not "willingly choose" (5-7).

In their study, Canbaz et al. (7) specified that situations such as case reports, communication with assistant health workers, patient presentations at visits, approach to patient at emergency service, and misdiagnosis caused anxiety in medical students. In addition, in the present study, 68.9% ($n=204$) of the students specified that they had difficulty in appearing for oral examinations, 27.0% ($n=80$) had difficulty in patient presentation at visits, and 15.9% ($n=47$) had difficulty in getting anamnesis from psychiatric patients.

Yalçinoğlu et al. (8) found in their study that the rate of students who considered themselves sufficient to become a doctor after receiving theoretical and practical training in medical faculties

Table 3. Comparison of stress and anxiety scale scores according to the state of occupational anxiety

	There is no occupational anxiety Median (min-max)	There is occupational anxiety Median (min-max)	Z	p
Perceived stress	8.0 (2-12)	9.0 (0-20)	-2.779	0.005
Coping with the perceived stress	3.0 (0-8.0)	4.0 (0-10)	-2.384	0.017
PSS	12.0 (3-19)	13.0 (0-28)	-3.031	0.002
State anxiety	42.0 (33-54)	41.0 (21-52)	-2.752	0.006
Trait anxiety	34.0 (31-34)	33.0 (31-34)	-2.981	0.003

PSS: Perceived Stress Scale; Min: minimum; Max: maximum

Table 4. Comparison of stress and anxiety scale scores according to genders

	Male Median (min-max)	Female Median (min-max)	Z	p
The score of perceived stress	9.0 (0-18)	10.0 (3-20)	-2.692	0.007
The score of coping with perceived stress	4.0 (0-10)	4.0 (0-10)	-1.508	0.131
The total score of perceived stress	13.0 (0-28)	14.0 (5-27)	-2.395	0.017
The total score of state anxiety	42.0 (31-52)	40.5 (21-54)	-2.928	0.003
The total score of trait anxiety	34.0 (31-34)	33.0 (31-34)	-2.370	0.018

Min: minimum; Max: maximum

Table 5. Comparison of the preference reasons for medical faculty with the perceived stress scores and STAI TX-2

	Willingly	Guidance of the family	Job guarantee	Pressure of the relatives	It being a popular profession	p*
Perceived stress	9 (0-20)	9 (4-18)	8 (3-14)	7 (6-9)	10 (4-14)	0.014
Coping with the perceived stress	4 (0-10)	4 (1-10)	4 (0-7)	3 (3-4)	5 (1-9)	0.001
Total of perceived stress	13 (0-27)	14 (7-28)	12 (7-21)	11 (9-12)	15 (9-21)	0.001
State anxiety	42 (27-54)	40 (31-48)	40 (21-50)	43 (40-50)	39 (33-47)	0.044
Trait anxiety	33 (31-34)	33 (31-34)	34 (31-34)	33 (31-34)	33 (32-34)	0.394

*Kruskal-Wallis test was performed.

Table 6. Correlation between the perceived stress score and STAI TX-2

Parameters		Gender	Perceived stress	Coping with the perceived stress	Total of perceived stress	State anxiety	Trait anxiety
Gender		1					
Perceived stress	r	0.162**	1				
	p	0.005					
Coping with the perceived stress	r	0.079	0.526**	1			
	p	0.177	0.000				
Total of perceived stress	r	0.145*	0.923**	0.812**	1		
	p	0.013	0.000	0.000			
State anxiety	r	-0.161**	-0.207**	-0.385**	-0.316**	1	
	p	0.006	0.000	0.000	0.000		
Trait anxiety	r	-0.119*	-0.165**	-0.104	-0.163**	0.041	1
	p	0.040	0.004	0.075	0.005	0.487	

r: correlation coefficient.
 *Correlation is significant at the level of 0.01.
 **Correlation is significant at the level of 0.05.

was 14.8%. In a study conducted by Yarış et al. (9), it was found that medical students had a high level of anxiety in terms of working as a family physician and theoretical inadequacy. In the present study, similar to other studies, 38.2% of the students think that they are not sufficient in terms of prescribing medication, and 34.8% think that they are not sufficient about how to intervene with a patient alone. The current education and health system train physicians whose primary goal is to pass the specialty examination in medicine. As a result of this, doctors who feel insufficient in general medical issues and are not confident in coping with a patient during compulsory service are trained (10–12). In the present study, the students who thought that they were inadequate in terms of occupation had higher occupational anxiety. Despite the fact that nearly all candidate doctors want to choose a specialty branch that does not require to be a night doctor and in which they will encounter fewer chronic patients after getting a high score in the specialty examination as soon as the school ends, it is inevitable for most of the students to work as a primary care physician, owing to the increase in quotas in medical faculties and compulsory service. Owing to all these reasons, a vast majority of physicians sit for the specialty examination once again every year and are not able to fulfill their other duties due to psychological exhaustion (13). As in similar previous studies, it has been put forward in the present study that 87.5% of the students aim to pass the specialty examination immediately after completing the medical faculty (13, 14). The frequency of students who did not consider appearing for the specialty examination was 3.7% in the present study, whereas in the study by Tayşi et al. (15), only 1.1% of intern students specified that they did not want to appear for the specialty examination and thought that they would continue to work as a primary care physician. In another study conducted with general practitioners working in the public sector in Kocaeli, it was found that 90.3% of them wanted to

be specialists (16). Only 1.2% of students stated that they did not want to attend specialty training in the study conducted by Yarış et al. (9). All these studies have reaffirmed that medical school students consider the specialty examination as an exit door. While it is planned that a vast majority of students who will graduate in the direction of Turkey's health policies should work as general practitioners, it is a big contradiction that the number of students who plan to work as general practitioners is small. Most of the health services in our country are carried out by primary care physicians. Because being a primary care physician is underestimated, it gives low occupational satisfaction, the work that is done is considered unimportant, they are considered as "second-class physicians," even by colleagues, and similar reasons, the primary objective of the majority of students is to appear for the specialty examination and pass it (17). In a study by Yeniçeri et al. (18), it was observed that the situation which most worried the students was to spend their professional lives as a general practitioner. Other situations that worried students were failure to become specialized and failure in the specialty examination. In another study, more than half of students were anxious about emergency patient intervention and harming the patient unintentionally; nearly half of them were anxious about making a misdiagnosis and applying an inappropriate treatment, and they think that they are inadequate in practical applications. While the students who were included in the study were most anxious about emergency patient intervention, they were rarely anxious about preventive medicine practices (19).

Violence against health care workers, which has frequently been on the agenda in recent years, is the most important factor that leads, especially the physicians, to exhaustion. In a study conducted by İlhan et al. (14), it was found that 65.5% of intern doctors and 59.5% of research assistant doctors were exposed to violence during their professional lives (19–21). Of the students who

were included in our study, 16.6% specified that they were exposed to violence during internship education. Of the students, 92.2% (n=273) indicated that the increasing reports of violence against health workers negatively affected their point of view related to the profession and the future, and 76% (n=225) of them indicated that they did not believe they received sufficient support from their colleagues.

Including the students of a single medical faculty into the study is one of the limitations of the present study. Local issues specific to this faculty may have affected students. Similarly, including the intern students of a single term is a limitation. Current practices at that time in the regulations of the specialty examination in medicine and compulsory service may have increased the anxiety of intern students. Regulations on the specialty examination in medicine and compulsory service are frequently updated in our country, and every update can lead to new anxieties. The present study reveals the occupational anxiety of the students who are at the final stage of becoming a doctor, and it also reveals the effect of violence on anxiety.

CONCLUSION

Despite the large role of primary care physicians in delivering health services, a vast majority of students prefer to be specialized in other branches. On the other hand, in a worldwide over-specialized health environment, it may be suggested that the opportunity should be given for taking the specialty examination in medicine after the fulfillment of civil service obligation as in previous years in order for the students to be able to focus on gaining the mentioned understanding and skills. It has been shown that the medical profession, which is regarded as a high-income and job-guaranteed profession by society, causes high occupational anxiety in senior medicine students. There is a need for further studies on the causes and solutions.

Ethics Committee Approval: Ethics committee approval was received for this study from the ethics committee of Necmettin Erbakan University Meram Medical Faculty.

Informed Consent: Verbal informed consent was obtained from medical students who participated in this study.

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REFERENCES

- Öner N, Le Compte A. Süreksiz Durumluk / Sürekli Kaygı Envanteri El Kitabı, 2. Basım, İstanbul, Boğaziçi Üniversitesi Yayınevi, 1982; 2.
- Sesti AM. State-Trait Anxiety Inventory in Medication Clinical Trials. QoL Newsletter 2000; 25: 15-6.
- World Federation for Medical Education. The Edinburgh Declaration, Lancet 1988, 8068, 464.
- Radcliffe C, Lester H. Perceived Stress During Undergraduate Medical Training: A Qualitative Study. Med Educ 2003; 37: 32-8. [CrossRef]
- Köksal S, Vehid S, Tunçkale A, Çerçel A, Erginöz E, Kaymaz A, et al. The attitude of students of Cerrahpasa School of Medicine on medical education and post graduated situation. Cerrahpasa J Med 1999; 30: 251-8.
- Dikici F, Yaris F, Topsever P, Tuncay M, Gurel F, Cubukcu M, et al. Factors affecting choice of specialty among first-year medical students of four universities in different regions of Turkey. Croat Med J 2008; 49: 415-20. [CrossRef]
- Canbaz S, Sünter AT, Aker S, Peksen Y. Tıp fakültesi son sınıf öğrencilerinin kaygı düzeyi ve etkileyen faktörler. Genel Tıp Derg 2007; 17: 15-9.
- Yalçınoglu N, Kayı İ, Işık Ş, Aydın T, Zengin Ş, Karabey S. İstanbul Üniversitesi İstanbul Tıp Fakültesi Son Sınıf Öğrencilerinin Tıp Eğitimi İle İlgili Görüşleri. İst Tıp Fak Derg 2012; 75: 41-5.
- Yarış F, Topbaş M, Çan G. Karadeniz Teknik Üniversitesi Tıp fakültesi öğrencilerinin tıp eğitimi hakkındaki düşünceleri. OMU Tıp Dergisi 2001; 18: 223-31.
- Terzi C, Saçaklıoğlu F, Sayek İ. 2020 Yılında Türkiye’de Tıp Eğitimi. 2000-2020 Sürecinde Nasıl Bir Dünya, Türkiye, Sağlık, Tıp Ortamı Öngörülebilir, Oluşturulabilir? Ankara: TTB Yayını; 2002.
- Kılıç B, Sayek İ. Türk Tabipleri Birliği Mezuniyet Öncesi Tıp Eğitimi Raporu-2000 (TTB-MÖTER). Toplum ve Hekim 2001; 16: 230-40.
- Ankara: Türk Tabipleri Birliği Tıp Öğrencileri Kolu TTB-TÖK. Tıp Eğitimi Kurultayı Sonuç Bildirgesi. Available from: ttb.org.tr [Erişim tarihi: 21.03.2016].
- Açık Y, Oğuzöncül F, Polat SA, Güngör Y, Güngör L. Fırat Üniversitesi Tıp fakültesi öğrencilerinin tıp eğitimi ve mezuniyet sonrası hakkındaki düşünceleri. Toplum ve Hekim 2002; 17: 195-201.
- İlhan MN, Özkan S, Kurtcebe ZÖ, Aksakal FN. Gazi Üniversitesi Tıp Fakültesi Hastanesinde Çalışan Araştırma Görevlileri ve İntörn Doktorlarda Şiddete Maruziyet ve Şiddetle İlişkili Etmenler, Toplum Hekimliği Bülteni 2009; 28: 15-23.
- Tayşi BN, Azizoğlu F, Perçinel S, Hasan HS. 1992-1993 Öğretim yılı intern doktorlarında beç depresyon envanterine göre depresyon prevalansı. Toplum ve Hekim 1994; 9: 68-74.
- Pala K, Türkkan A. Uludağ Üniversitesi Tıp Fakültesi öğretim üyelerinin “tıpta uzmanlık sınavı” hakkındaki görüşlerini içeren bir anket çalışmasının düşündürdükleri. Toplum ve Hekim 1993; 57: 12-5.
- Ankara: Türk Tabipleri Birliği Tıp Öğrencileri Kolu TTB-TÖK. Tıp Eğitimi Kurultayı Sonuç Bildirgesi. [Erişim tarihi: 12.11.2013]. Available from: http://www.ttb.org.tr/data/haber/mayis05/kurultay.php.
- Yeniçeri N, Mevsim V, Özçakar N, Özkan S, Güldal D, Başak O. Tıp Eğitimi Son Sınıf Öğrencilerinin Gelecek Meslek Yaşamları İle İlgili Yaşadıkları Anksiyete İle Sürekli Anksiyetelerinin Karşılaştırılması. DEÜ Tıp Fakültesi Dergisi 2007; 21: 19-24.
- Kara İH, Çelik S, Keyif MF, Demir A, Baltacı D, Mayda AS. Düzce Üniversitesi Tıp Fakültesi 5. ve 6. Sınıf Öğrencilerinin Branş Tercihleri ve Tıpta Uzmanlık Sınavı’na Bakışlarının İncelenmesi: Ön Çalışma. 3.Mültidisipliner Aile Hekimliği Kongresi Poster Özetleri; 2013; Antalya. Konuralp Tıp Dergisi 2013; 5: 1-16.
- Annagür B. Sağlık çalışanlarına yönelik şiddet: risk faktörleri, etkileri, değerlendirilmesi ve önlenmesi. Psikiyatride Güncel Yaklaşımlar 2010; 2: 161-73.
- Sayek İ, Odabaşı O, Kiper N. Türk Tabipleri Birliği Mezuniyet Öncesi Tıp Eğitimi Raporu 2010. 1. Baskı. Ankara: Türk Tabipleri Birliği Yayınları; 2010.