



Tekin M. & Karayaka H. (2023). The Impact of Health Ministry Policies on Pre-Graduate and Post-Graduate Medical Education Career Planning (*IOJET*), 10(2). 932-946.

Received : 19.12.2022  
Revised version received : 23.02.2023  
Accepted : 24.02.2023

## **THE IMPACT OF HEALTH MINISTRY POLICIES ON PREGRADUATE AND POSTGRADUATE MEDICAL EDUCATION CAREER PLANNING**

*Research article*

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# THE IMPACT OF HEALTH MINISTRY POLICIES ON REGRADUATE AND POSTGRADUATE MEDICAL EDUCATION CAREER PLANNING

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## Abstract

The news that physicians tend to work abroad in recent years in Turkey, the frequent occurrence of violence in healthcare, the dissatisfaction of physicians and the news of resignation have prompted the Ministry of Health and led to some regulations known as 'White Reform' in the society. We aimed to investigate the impact of these reforms on the career plans of final-year medical students, medical residents, and doctors who have graduated in the last 5 years. A descriptive study was planned, and a survey form created by researchers was used to reach the target audience. Data from 561 doctors and medical students were evaluated. The majority of doctors viewed the reforms positively, but it was determined that they were not implemented at the desired level in terms of application and adequacy. The impact of the reforms on career plans was seen primarily among intern doctors. The most common goal in terms of career plans was to work as a specialist physician.

*Keywords:* Intern doctor, medical resident, career

## 1. Introduction

The dictionary definition of career is an achievement, success, and expertise obtained in a profession over time and work (TDK, 2011). Career choice is a decision-making process that begins with the choice of profession. It can be said that there are many individual and environmental factors that affect this decision-making process. Choosing a profession and career planning is a different process for each individual and is determined according to their own priorities (Kartal, Ayyıldız, & Alp, 2020; Tengiz & Babaoğlu, 2020).

It can be said that the career choice of every doctor begins after the university entrance exam administered by ÖSYM (Öğrenci Seçme ve Yerleştirme Merkezi [Student Selection and Placement Center]) prior to entering medical school. A study has shown that students who enter medical school are influenced by factors such as the prestige of medicine as a profession, job security, interest in medicine, desire to help people, high scores on the exam, and family guidance (Dörtyol, 2017). There are studies that suggest that students who enter medical school have two career paths after graduation: working as a general practitioner or beginning specialized training with the "Turkish Medical Specialty Exam" (Dörtyol, 2017). However, in recent years, the "Turkish Medical Association" (Türk Tabipleri Birliği-TTB) has announced an increase in the number of applications for the "goodstanding" certificate, which is required to practice medicine abroad, indicating that another career plan for doctors is to work abroad. In Turkey, doctors graduate after a six-year medical school education and are assigned to their first duty stations as general practitioners through the "State Service Obligation" (Devlet Hizmeti Yükümlülüğü-DHY) assigned. The first duty stations for general practitioners are usually emergency departments of state hospitals, community health centers, provincial/district health directorates, 112 emergency command centers, and emergency health service stations.

Doctors who are placed in a specialized training program with the first “Turkish Medical Specialty Exam” after graduation from medical school usually work as general practitioners for a short period before beginning their specialized training. Some doctors after graduation from medical school do not work as general practitioners in the places, they are assigned through the DHY assigned, and instead focus on preparing for exams related to their career goals, such as specialized training and practicing medicine abroad (Tengiz & Babaoğlu, 2020).

There are many factors that influence the choices of physicians in their preferences for the “Turkish Medical Specialty Exam”. In a study, the factors affecting physicians’ specialty preferences were shown from most to least as the distribution and duration of shifts (workload), the future of the specialty, individual characteristics, the region of appointment for the relevant specialty, the financial return of the specialty, malpractice case status, academic career opportunities, family expectations, and the encouragement and general attitude of mentors towards the specialty (Avcı, Alkan, Günel & Aladağ, 2018). After completing their specialization training, physicians are reassigned through DHY assigned and are required to work as specialist physicians during the mandatory service period.

Malpractice lawsuits, financial problems, heavy workload, violence against healthcare workers, and mandatory service obligations are among the factors that affect the career plans of physicians and lead to a shortage of doctors in some specialties and brain drain. The Ministry of Health has implemented many regulations, known as the “White Reform” in the public, to address these issues. On June 15, 2022, the Ministry of Health issued a regulation called “Regulations on the Investigation of Health Professionals for Medical Procedures and Practices and the Recovery of Compensation Paid by the Administration” (Resmi Gazete, 2022a; 2022e). According to this regulation, complaints filed against healthcare workers will be sent by the prosecutor’s office to the Professional Responsibility Board, which will grant permission for investigation in necessary cases after conducting a preliminary review. In cases where compensation has been ordered by criminal courts, physicians will be held responsible for intentional acts and compensation will be recovered in proportion to their fault. With the “Law on Amendments to Some Health-Related Laws and the Law Decree No. 375” dated June 23, (Resmi Gazete, 2022b), and the “Regulation on Additional Payment of the Ministry of Health” dated August 12, (Resmi Gazete, 2022c), regulations have been made to improve the financial conditions of healthcare workers. The number of personnel subject to Law No. 4924 has been increased by the Presidential Decree dated July 29, 2022. It has been proposed to pay final-year medical and dental students the minimum wage amount. The “Regulation on Specialization in Medicine and Dentistry” dated September 3, (Resmi Gazete, 2022d), introduced regulations on working conditions for assistant physicians, transfer to another program, limiting the number of night shifts to eight per month, and allowing a day off after night duty. By extending the appointment time to 10 minutes per patient, the number of patients that a physician can examine in a day has been reduced.

One important issue for healthcare professionals and other healthcare workers is violence in healthcare. There are many studies conducted in our country regarding incidents of violence in healthcare. One study has shown that violence in healthcare affects the perspective of medical students towards their profession. According to the same study, a large majority of medical students are exposed to violence in healthcare during their education (Yılmaz, Tellioglu & Arıkan, 2021). Violence can be verbal or physical, and physical violence incidents can even result in the loss of the healthcare worker's life (Özcan & Yavuz, 2017). There are studies that show that healthcare workers who have experienced or witnessed violence are affected by it. This situation reduces employee satisfaction and can lead to burnout among healthcare workers. Unfortunately, factors such as increased expectations from patients and their families, the desire for immediate attention, and doubts about the orderly functioning of

the system increase the risk of violence (Polat & Çırak, 2019). A law regarding violence in healthcare was published in the Official Gazette on May 26, 2022, which classified incidents of violence in healthcare as catalogue crimes and introduced changes such as detention during trial and increased penalties for perpetrators.

### **1.1. Problem Statement**

How has the career plan of physicians been affected by the regulations made by the Ministry of Health, known as the white reform in the society?

- What are the most important situations affecting the career plan of physicians?
- What are the opinions of the resident doctors about limiting the number of shifts per month to 8, and have their career plans been affected?
- What is the point of view of the physicians on the arrangements made about the financial situation and has it changed their career plans?
- What are the views of physicians on the regulations on malpractice and have their career plans been affected?
- What are the views of physicians on the regulations on violence in health, and have their career plans been affected?

### **1.2. Aim and Importance**

In this study, it is aimed to investigate the effects of a series of regulations and practices implemented by the Ministry of Health, known as the 'White Reform' in society, in response to issues such as long working hours, low pay, malpractice risk, and healthcare-related violence, which have been stated as factors influencing physicians' career choices in previous studies, on the career planning of physicians who graduated in the last 5 years and intern physicians currently in their final year of medical school.

## **2. Method**

### **2.1. Research Design**

This research is a descriptive survey study aimed at describing individuals or groups and evaluating the nature of existing conditions by quantifying and summarizing the essence of an existing phenomenon. The goal of most descriptive studies is to simply describe something as it is (McMillan & Schumacher, 2014), and descriptive studies provide insight for generating hypotheses in future research (Erkuş, 2013).

### **2.2. Participants**

In the research, physicians who graduated after 2017 and intern physicians who were in the final year of medical school at the time of the research were determined as the universe. The research was conducted with 561 individuals from this population, who were determined using the convenience sampling method, one of the non-probability sampling methods. In non-probability sampling methods, the probability of selecting each sample from the population cannot be determined exactly (Sümbüloğlu & Sümbüloğlu, 2005).

The most important criterion for inclusion in the research is volunteering to participate. Other inclusion criteria include being a specialist, resident, general practitioner, or intern

physician. Some sociodemographic characteristics of the research participants are presented in Table 1.

**Table 1.** *Sociodemographic characteristics of the research participants*

	Variables	n(%)
Gender	Female	274(48.8)
	Male	287(51.2)
Work	General Practitioner	159(28.3)
	Assistant Physician	296(52.8)
	Intern Physician	92(16.4)
	Specialist Physician	14(2.5)
Institution of Assistant Physicians	YÖK (Council of Higher Education)	63(11.2)
	SBA (Ministry of Health)	65(11.6)
	EAH (Training and Research Hospital)	168(29.9)
	Non-Assistant Physicians	265(47.2)
<b>Total</b>		<b>561(100)</b>

The participants had a mean age of 27.45 with a standard deviation of 3.01. Of the 561 participants, 274 (48.8%) were female and 287 (51.2%) were male. 159 (28.3%) were general practitioners, 296 (52.8%) were resident physicians, 92 (16.4%) were intern physicians, and 14 (2.5%) were specialist physicians. Of the resident physicians, 63 (21.3%) reported working in universities, 65 (22%) in positions affiliated with the Ministry of Health, and 168 (56.7%) in training and research hospitals.

### 2.3. Data Collection Tool

Research was conducted and a questionnaire was developed as a data collection tool by the researchers since they could not find a validated and reliable tool in the literature that could obtain data for the purpose of the study. The questionnaire consisted of 21 questions and was composed of three parts. The first part consisted of 4 questions, which asked for the participants' sociodemographic characteristics. The second part consisted of questions 5 and 6, which questioned the factors affecting the participants' career planning. The last part (questions 7-21) included questions that would determine the participants' opinions about the regulations made by the Ministry of Health in 2022 and their relationship with career planning. A section was provided where participants could express their opinions if they wished.

The following steps were followed in the development process of the questionnaire:

- An open-ended question was prepared via Google Forms. In this form, the question “What is your opinion about the regulations made by the Ministry of Health in 2022?” was asked and participants were allowed to write their opinions freely. This form was sent to 10 doctors who have obtained a specialization degree, 10 assistant doctors who have passed the “Turkish Medical Specialty Exam” and are in the post-graduation education phase, 10 general practitioner doctors working in the Ministry of Health system, and 10 intern doctors who were in the pre-graduation period.
- The data obtained from the open-ended question application were examined by the researchers and a list of candidate questions for the questionnaire was created.
- The list of candidate questions was sent to 40 participating doctors in the open-ended question application, and they were asked to rank the questions in order of importance.
- The researchers examined the feedback received on the list and the ranking of questions according to their importance. A 29-question candidate questionnaire form was reached.

- The candidate questionnaire form was presented to an expert group. The expert group consisted of 2 academicians specialized in medical education, 2 academicians who served in the specialty education commissions, and one academician specialized in measurement and evaluation.
- The views of the expert group on the candidate questionnaire form were coded and the consistency among the expert views was examined using the Krippendorff Alpha coefficient. A consistency level of 0.88 was obtained, indicating a high level of consistency (Krippendorff, 2004). The expert views were considered and examined by the researchers due to the high consistency level obtained.
- Based on the expert views, 8 questions in the candidate questionnaire form were removed from the questionnaire, and wording was revised in 4 questions.

The final version of the questionnaire was administered to participants in a hybrid format (face-to-face and online). In face-to-face applications, the purpose of the research was explained to participants, and their informed consent was obtained before administering the questionnaire. The questionnaire was administered to online participants through a link sent to them. The data collected from the questionnaire were analyzed and interpreted by the researchers to reach conclusions for the purpose of the study.

#### **2.4. Data Analysis**

The data obtained from the participants was transferred from Google Forms in "Excel" format to JAMOVI statistical software. JAMOVI was chosen as it is a free software. Descriptive statistics (frequency, percentage, etc.) were considered in analyzing the data, and the data was visualized using tables. Additionally, the relationship between physicians' current duties and their careers as physicians, and the relationship between their current duties and career plan changes resulting from regulations made in 2022 were examined. These investigations were analyzed using chi-square analysis. The reason for choosing chi-square analysis is that the variables used for comparison are categorical variables. The frequencies of the cells compared in the chi-square analysis were examined. If the number of cells with a frequency of 5 or less is equal to or less than 20% of the total number of cells, the Pearson chi-square value was used. If it was more than 20%, the Exact chi-square value was used to interpret the chi-square result.

#### **2.5. Ethical Consent of the Research**

In this study, all the rules set out in the scope of the "Directive on the Ethics of Scientific Research and Publication in Higher Education Institutions" were adhered to. Participants were informed of the topic and purpose of the study, and their written and verbal consent was obtained, indicating that the data would be used in scientific research.

Approval was obtained from the Scientific Research Ethics Committee of Çanakkale Onsekiz Mart University to carry out this research.

### **3. Findings and Comments**

Participants were asked to list the top 3 factors that affect their career plans in order. Individual factors were identified as the first factor, financial situation as the second factor, and working conditions as the third factor as the most important factors affecting career plans (Table 2).

**Table 2.** *The 3 most important factors affecting the career plan*

	<b>The Most Important Factors Affecting the Career Plan</b>			
	<b>1. Factor n(%)</b>	<b>2. Factor n(%)</b>	<b>3. Factor n(%)</b>	<b>Total n(%)</b>
Working conditions	63(11.2)	121(21.6)	183(32.6)	367(21.8)
Financial situation	134(23.9)	224(39.9)	69(12.3)	427(25.4)
Individual factors	311(55.4)	88(15.7)	59(10.5)	458(27.2)
Violence in health	25(4.5)	32(5.7)	49(8.7)	106(6.3)
Professional status and prestige	28(5.0)	61(10.9)	143(25.5)	232(13.8)
Malpractices risk	0(0)	35(6.2)	23(4.1)	58(3.4)
Other factors	0(0)	0(0)	35(6.2)	35(2.1)

According to the responses given to the question of whether the limitation of the number of monthly on-call duty (nocturnist) for resident doctors to 8, within the framework of the "Regulation on Specialization in Medicine and Dentistry," is positive or not, it was found that 527 (93.9%) people expressed a positive opinion, 25 (4.5%) people expressed a negative opinion, and 9 (1.6%) people did not express an opinion. We asked about the implementation of a maximum of 8 on-call duty per month in their working environment in accordance with this regulation. According to the responses given, 147 (26.2%) people stated that it was implemented, 18 (3.2%) people stated that it was not implemented, 114 (20.3%) people stated that it was partially implemented, while 282 (50.3%) people reported that they had no opinion (Table 3).

**Table 3.** *Opinions about limiting the number of monthly on-call duty of resident physicians to 8*

		<b>n</b>	<b>%</b>
Opinions about limiting the number of monthly on-call duty to 8	Positive opinion	527	93.9
	Negative opinion	25	4.5
	Didn't opinion	9	1.6
Implementation of a maximum of 8 on-call duty decisions per month	Being implemented	147	26.2
	Not applicable	18	3.2
	Partially implemented	114	20.3
	Didn't opinion	282	50.3

Participants were asked about their thoughts on the decision to provide a minimum wage payment to Intern Doctors (interns) as a financial improvement through the Supplementary Payment Regulation of the Ministry of Health. 511 (91.1%) participants responded positively, 39 (7%) responded negatively, and 11 (2%) did not express their opinion. When asked about the implementation of this regulation in the institution they work for, 271 (48.3%) responded "Yes, but I think it is insufficient", 67 (11.9%) responded "Yes, the improvement made is sufficient", 36 (6.4%) responded "no", and 187 (33.3%) participants responded that they did not have an opinion (Table 4).

**Table 4.** *Opinions on the amendments made in the Ministry of Health, Supplementary Payment Regulation*

		n	%
Opinions on the decision to pay minimum wage to intern physicians	Positive opinion	511	91.1
	Negative opinion	39	7
	Didn't opinion	11	2
Have you made any improvements in your financial rights in the institution you work for?	Yes, but I think it's insufficient	271	48.3
	Yes, the improvements made are sufficient	67	11.9
	No	36	6.4
	Didn't opinion	187	33.3
If you are an Intern Physician, did you receive a minimum wage payment?	Yes	26	28.3
	No	29	31.5
	Didn't opinion	37	40.2
Has there been a change in your career plan after the financial arrangements	Yes	111	19.8
	No	443	79
	Didn't opinion	7	1.2

When asked about their opinions on the regulations regarding malpractice, 268 (47.8%) of the participants evaluated it as positive, 85 (15.2%) as negative, and 208 (37.1%) did not express an opinion. When asked if the regulations on malpractice caused a change in their career plans, 54 (9.6%) people answered yes, while 507 (90.4%) stated that it did not change. (Table 5).

**Table 5.** *Opinions on the regulations on malpractice*

		n	%
Opinions on the regulation on malpractice	Positive opinion	268	47.8
	Negative opinion	85	15.2
	Didn't opinion	208	37.1
Has the regulation on malpractice changed your career plan?	Yes	54	9.6
	No	507	90.4

Responses to the regulations regarding violence in healthcare were evaluated. 410 (73.1%) participants stated that they were positive, 33 (5.9%) stated that they were negative, and 118 (21%) stated that they had no opinion. Regarding the implementation of the regulations on violence in healthcare, 276 (49.2%) people thought that it was partially implemented, 85 (15.2%) people thought it was implemented, and 200 (35.7%) people thought it was not implemented. When asked about the impact of the regulations on violence in healthcare on their career plans, 68 (12.1%) people said yes, indicating that it influenced their career planning (Table 6).

**Table 6.** *Opinions on the regulations on violence in health*

		n	%
Opinions on the regulation of violence in health	Positive opinion	410	73.1
	Negative opinion	33	5.9
	Didn't opinion	118	21.0
Opinions on the implementation of regulations on violence in health	Yes	85	15.2
	Partially Implemented	276	49.2
	No, I don't think it's implemented	200	35.7
Regulations on violence in health affect the career plan	Yes	68	12.1
	No	493	87.9

When asked about their evaluation of all the regulations made by the Ministry of Health in 2022, 75 (13.4%) participants stated that they were completely sufficient, 166 (29.6%) stated that they were largely sufficient, 269 (48%) stated that they were partially sufficient, and 51

(9.1%) stated that they were insufficient. When asked about the impact of all these regulations on their career plans, 95 (16.9%) stated that it had an effect, while 466 (83.1%) stated that it did not have an effect (Table 7).

**Table 7.** *Opinions on the regulations of the Ministry of Health in 2022*

		n	%
Opinions on the regulations of the Ministry of Health in 2022	totally sufficient	75	13,4
	largely sufficient	166	29,6
	partially sufficient	269	48
	Insufficient	51	9,1
The effect of the regulations made by the Ministry of Health in 2022 on the career plan	Yes	95	16,9
	No	466	83,1

According to the responses given when asked about the career goals of physicians; 422 (75.2%) stated that they want to work as specialist physicians, 84 (15%) said they want to practice medicine abroad, 34 (6.1%) indicated that they want to work as general practitioners, and 21 (3.7%) reported that they do not want to practice medicine (Table 8).

**Table 8.** *Career goals of physicians*

Career goals	n	%
Working as a specialist physician	422	75.2
Working as a physician abroad	84	15
Working as a general practitioner	34	6.1
Not practicing medicine	21	3.7

### 3.1. The Relationship between Current Roles of Physicians and Their Careers as Physicians

The participants in the study are currently medical school 6th-year (intern) students, residency (“Turkish Medical Specialty Exam”-successful assistant) students, general practitioners, or specialist doctors. On the other hand, the doctors occupying these positions have a career plan. The relationship between the position and career was examined with chi-square analysis. The results are shown in Table 9.

**Table 9:** *The relationship between the duties of physicians and physician candidates and their career plans (Chi-Square Analysis)*

		Career Plans				Total
		Working as a Specialist Physician	Working as a physician abroad	Working as a general practitioner	Not practicing medicine	
Work	general practitioner	f 92 %(row-column) (%57.9-%21.8)	29 (%18.2-%34.5)	25 (%15.7-%73.5)	13 (%8.2-%61.9)	159 (%100-%28.3)
	Assistant Physician	f 253 (%85.5-%60)	33 (%11.1-%39.3)	4 (%1.4-%11.8)	6 (%2-%28.6)	296 (%100-%52.8)
	Intern Physician	f 64 (%69.6-%15.2)	21 (%22.8-%25)	5 (%5.4-%14.7)	2 (%2.2-%9.5)	92 (%100-%16.4)
	Specialist Physician	f 13 (%92.9-%3.1)	1 (%7.1-%1.2)	0 (0-0)	0 (0-0)	14 (%100-%2.5)
	Total	f 422 (%75.2-%100)	84 (%15-%100)	34 (%6.1-%100)	21 (%3.7-%100)	561 (%100-%100)

$$X^2_{(9)} = 67.901, p < .05$$

According to the study, there is a significant relationship between the current positions and career expectations of the participating physicians ( $p < .05$ ). The significant difference obtained was of moderate effect size according to Cohen's (1988) classification ( $\phi = 0.20$ ). Accordingly:

- General practitioners mostly want to work as specialist physicians, and later desire to work abroad or remain as general practitioners.
- Assistant physicians mostly want to work as specialist physicians, and later prefer to work abroad.
- Intern physicians mostly want to work as specialist physicians, and later prefer to work abroad.
- Specialist physicians, as they have already gained the right to specialize, mostly aim to continue their duties as specialist physicians, followed by planning to work abroad.
- Regardless of their current positions, it appears that physicians have mostly aimed to become specialist physicians as their career goal. Secondly, they aim to work abroad.
- Those who aim to become specialist physicians or remain as specialist physicians are mostly specialists themselves and assistant physicians. This is quite normal since those who have earned the right to become specialist physicians primarily try to maintain their position. On the other hand, assistant physicians are individuals who have passed the "Turkish Medical Specialty Exam" and are progressing towards specialization. However, there are also quite a significant number of physicians among both intern physicians and general practitioners who are interested in specializing.

### 3.2. The Relationship between Current Positions of Physicians and Changes in Career Plans as a result of the Arrangements Made in 2022

The participants in the study are medical students in their 6th year of medical school (Interns), residents who have passed the "Turkish Medical Specialty Exam", general practitioners, or specialist physicians currently working in those positions. Additionally, it was investigated whether there was a change in career plans as a result of the regulation made in 2022 for the physicians in these positions, and their responses were obtained in a yes-no format. The relationship between occupation and change in career plans due to the 2022 regulation was analyzed using chi-square analysis, and the results are shown in Table 10.

**Table 10:** *The relationship between the duties of physicians and physician candidates and career plan changes as a result of the regulation made in 2022 (Chi-Square Analysis)*

		Has There Been a Change in Your Career Plan as a Result of the Regulations Made in 2022?		Total	
		Yes	No		
Work	General Practitioner	f %(row-column)	27 (%17-%28.4)	132 (%83-%28.3)	159 (%100-%28.3)
	Assistant Physician	f %(row-column)	12 (%4.1-%12.6)	284 (%95.9-%60.9)	296 (%100-%52.8)
	Intern Physician	f %(row-column)	52 (%56.5-%54.7)	40 (%43.5-%8.6)	92 (%100-%16.4)
	Specialist Physician	f %(row-column))	4 (%28.6-%4.2)	10 (%71.4-%2.1)	14 (%100-%2.5)
	Total	f %(row-column)	95 (%16.9-%100)	466 (%83.1-%100)	561 (%100-%100)

$$X^2_{(3)} = 138.757, p < .05$$

There is a significant relationship between the current position of the participating physicians and the changes in their career plans following the 2022 regulation ( $p < .05$ ). The significant difference obtained occurred with a high effect size according to Cohen's classification ( $\phi = 0.49$ ). Accordingly:

- There has been little change in the career plans of general practitioners due to the 2022 regulation.
- There has been little change in the career plans of resident physicians due to the 2022 regulation.
- The rate of change and no change in the career plans of intern physicians due to the 2022 regulation has been split down the middle.
- There has been little change in the career plans of specialist physicians due to the 2022 regulation.
- The decision to change career plans the least was made by resident physicians, while the decision to change career plans the most was made by intern physicians, due to the 2022 regulation. The results are presented in Table 10.

#### 4. Conclusion, Discussion and Recommendations

Our study aimed to determine the impact of the Health Ministry's policy changes in 2022, known as the "White Reform", on the career plans of final-year medical students and recent graduates (within the last 5 years). Career plans can vary depending on individuals' circumstances. A study by Açıkgöz et al. (2019) found that medical students' specialty preferences changed during their education.

There are many studies examining the factors that influence medical students' career plans. Dörtyol et al. identified interest in the field (80.3%), "Turkish Medical Specialty Exam" scores (72.1%), the presence and number of monthly on-call duty (59.0%), the intensity of working hours (57.9%), and financial gain (51.9%) as factors that affect the specialty preferences of final-year medical students. Tengiz et al. (2020) found that working conditions, financial concerns, and personal characteristics were the main factors influencing career plans. Most of the studies focused on pre-residency medical students or medical students' career plans. Our study focused on the group of young doctors who are at the beginning of their careers and have a higher probability of making changes. The most important factors affecting career plans in our study were individual characteristics, financial status, and working conditions, in that order.

It is seen that the majority of the assistant physicians (93.9%) expressed a positive opinion on the regulations made in the "Regulation on Specialization in Medicine and Dentistry" (Resmi Gazete, 2022d). It was observed that the majority of the regulations were implemented fully or partially in the clinics where they worked. Only 18 out of 296 resident physicians reported that the regulations were not implemented in their clinics. It was found that most of the participants who reported non-implementation were working in departments such as basic sciences without shifts or with on-call duty.

Although the majority of participants (91.1%) had a positive opinion about the regulation of an additional payment management, only 11.9% (67 individuals) believed that it was sufficient. While 48.3% (271 people) indicated that it was insufficient, 6.4% (36 people) reported that no financial improvement had been made in their institutions. It can be said that there is a need for an improvement in the financial situation, which is known to have a significant impact on physicians' career planning and is the second factor that affects career plans in our study. In the open-ended questions section of our research, it was observed that

assistant physicians working in the Higher Education Institution and the Ministry of Health receive lower wages than those in Education and Research Hospitals, so they want to switch to Education and Research Hospital positions. It can be stated, according to the data obtained from open-ended responses, that there is a tendency towards specialization training and sub-specialization training after these regulations. After the changes made in the additional payment management regulation, it was observed that 19.8% (111) of physicians mentioned a change in their career plans.

Problems in making the right distinction between malpractice and complications can complicate the legal processes for physicians (Özcan & Özcanoğlu, 2020). One of the factors that lead to physicians being removed from their profession is the difficult legal situation that they may face due to complications that arise during the patient's treatment. While 47.8% (268) of physicians found the regulation introduced by the Ministry of Health in 2022 regarding malpractice to be positive, 15.2% (85) found it negative. 37.1% (208) of physicians declared that they had no opinion. As a result of malpractice regulations, 9.6% of physicians reported that their career plans were affected. It was observed from the open-ended responses that those who changed their career plans particularly chose surgical branches.

In recent years, violence against healthcare workers has become an important issue that has had an extremely negative impact on the well-being of healthcare workers (Özcan & Yavuz, 2017). It is thought to play a role in the emigration of doctors and changes in career preferences (Harman-Yıldız & Özer, 2022). A 12-point circular was published in the Official Gazette dated April 6, 2011, to ensure the safety of patients and healthcare workers, and the "White Code" was introduced in 2012. The content of these regulations provides legal support to health workers after they have been subjected to violence and could not prevent violence. In 2022, regulations were introduced on the subject of violence in health care, which were named the "White Reform". While 73.1% of physicians (410) reported positive views on these regulations, only 5.9% (33) reported negative views, and 21% (118) did not express any opinion. When questioned about the application of these regulations, only 15.2% (85) believed that they had been implemented. This situation indicates that the regulations are good, but there are shortcomings in their implementation. It is necessary to show that the regulations have been implemented and to ensure that they are implemented.

The regulations introduced by the Ministry of Health, known as the "White Reform" in the public opinion, were generally evaluated as Partially Adequate (48%, 269) by physicians. It was found that these regulations had changed the career plans of 16.9% (95) of physicians. The group with the most changes in career plans was the Pre-physician group, with 56.5% (52 people) ( $p=0.000$ ). When looking at physicians' career plans, it was revealed that 75.2% wanted to work as specialist physicians, 15% (84) wanted to work abroad, 6.1% wanted to work as general practitioners, and 3.7% did not want to work as physicians. In the study conducted by Öcek and colleagues (2007), the rate of physicians who preferred to specialize was 85.7%, and in the study conducted by Açıkgöz and colleagues (2019), it was 88.5%. It is known that the number of physicians who want to work abroad has increased in recent years. This rate of 15% found in our study can be explained as a relative decrease in the rate of specialist work.

The participants in the study found that there was a significant relationship between physicians' current duties and career expectations ( $p<0.05$ ). The significant difference obtained was of medium effect size according to Cohen's classification ( $\phi=0.20$ ). In the analysis of the current duties and career goals of physicians, it was found that the most common career goal among all groups was to work as a specialist physician. The individuals who aimed to become or remain specialist physicians the most were specialists themselves and assistant physicians. This is quite normal because those who have qualified to become specialist physicians try to maintain their position as a priority. On the other hand, both intern and general practitioners also include a significant number of physicians who aim to specialize. Perhaps the effect of the

policies of the Ministry of Health, the economic benefits or prestige of specialist medicine, are the factors that make specialist physician the most prominent career goal for physicians. Working abroad is in second place. Intern physicians were the ones who aimed to work abroad the most, while specialist physicians aimed to work abroad the least. Although working as a physician abroad seems like a good idea, it is likely that the effects of factors such as knowing the language of the country you are going to treat patients in, establishing a new life there, and adapting to the culture of the country you are going to, make working abroad the second priority in the career plan of physicians.

The relationship between the current duties of physicians and the career plan changes after the regulation made in 2022 was examined. The significant difference obtained was found to have a high effect size according to Cohen's classification ( $\phi=0.49$ ). Assistant physicians had the least change in their career plans, while intern physicians had the most changes ( $p<0.05$ ).

The general overview of physicians and interns who graduated within the last five years towards the "White Reform" regulations by the Ministry of Health in 2022 is positive. These regulations have caused a 16.9% change in physicians' career plans. The most important factors that affect the participants' career plans are, in order, individual factors, financial factors, and working conditions. The majority of the participants consider working as a specialist physician as their career goal. The highest group with a career goal of working abroad is Intern Physicians. After the regulations, interns were the most affected group in terms of career plans. Although the regulations aimed at preventing violence in healthcare are seen as highly positive, the widespread opinion among physicians is that these regulations are not being implemented adequately.

## References

- Açıkgöz, B., Ekemen, A., Zorlu, I., Yüksel, N. A. & Ayoğlu, F. N. (2019). Tıp öğrencilerinde uzmanlaşma eğilimi, uzmanlık alan seçimi ve etkileyen faktörler. *Mersin Üniversitesi Sağlık Bilimleri Dergisi*, 12(1), 113-125. <https://doi.org/10.26559/mersinsbd.502276>
- Avcı, S., Alkan, A., Günel, S., & Aladağ, Z. (2018). *Tıpta uzmanlık bölüm tercihinin bulanık topsis ile belirlenmesi*. 1. Zeugma Multidisipliner Çalışmalar Kongresi, 13-16 Eylül 2018, Gaziantep.
- Cohen, J. (1988). *Statistical power analysis for the behavioral science*. The USA: Lawrence Erlbaum Associates Publishers.
- Dörtyol, B. G. (2017). *Tıp fakültesi son sınıf öğrencilerinin mezuniyet sonrası ile ilgili düşünceleri, kariyer seçimleri ve etkileyen faktörler*. Ulusal Tıp Eğitimi Sempozyumu, 15-17 Mart 2017, Akdeniz Üniversitesi, Antalya.
- Erkuş, A. (2013). *Davranış bilimleri için bilimsel araştırma süreci*. Ankara: Seçkin.
- Harman-Yıldız, G., & Özer, K. (2022). Neoliberal sağlık politikaları ve hekim göçü. *SCAR*, 1(1), 1-13.
- Kartal, K. S., Ayyıldız, E., & Alp, S. (2020). Meslek seçimini etkileyen faktörler ile kariyer planlama tercihleri arasındaki ilişkinin incelenmesi. *İstanbul Ticaret Üniversitesi Girişimcilik Dergisi*, 3(5), 29-50.
- Krippendorff, K. (2004). *Content analysis an introduction to its methodology*. The USA: Sage Publications.
- McMillan, J., & Schumacher, S. (2014). *Research in education evidence based inquiry*. The UK: Pearson Education.
- Öcek, Z., Gürsoy, Ş. T., Çiçeklioğlu, M., Aksu, F. & Türk, M. (2007). Ege Üniversitesi Tıp Fakültesi dördüncü sınıf öğrencilerinin kariyer planları ve genel pratisyenliğe yönelik tutumları. *Sürekli Tıp Eğitimi Dergisi*, 16(9), 146-152.
- Özcan, F., & Yavuz, E. (2017). Türkiye’de sağlık çalışanları şiddet tehdidi altında. *The Journal of Turkish Family Phsyician*, 8(3), 66-72. <https://doi.org/10.15511/tjtfp.17.00366>
- Özcan, Z. & Özcanoğlu, A. B. (2020). Yargıtay içtihatları ışığında malpraktis komplikasyon ayrimına bağlı ispat sorunları. *Uyuşmazlık Mahkemesi Dergisi*, 0(16), 289-315. <https://doi.org/10.18771/mdergi.848412>
- Polat, Ö. & Çırak, M. (2019). Sağlıkta şiddetin beyaz kod verileri ile değerlendirilmesi. *Bakırköy Tıp Dergisi*, 15, 393-8.
- Sümbüloğlu, V., & Sümbüloğlu, K. (2005). *Klinik ve saha araştırmalarında örnekleme yöntemleri ve örneklem büyüklüğü*. Ankara: Alp Ofset.
- T.C. Resmi Gazete. (2022a). *Sağlık Meslek Mensuplarının Tıbbi İşlem ve Uygulamaları Nedeniyle Soruşturulmasına ve İdarece Ödenen Tazminatın Rücu Edilmesine Dair Usül ve Esaslar Hakkında Yönetmelik*. 15 Haziran 2022, sayı: 31867

- T.C. Resmi Gazete. (2022b). *Sağlıkla İlgili Bazı Kanunlarda ve 375 Sayılı Kanun Hükmünde Kararnamede Değişiklik Yapılmasına Dair Kanun*. 23 Haziran 2022, sayı:31875
- T.C. Resmi Gazete. (2022c). *Sağlık Bakanlığı Ek Ödeme Yönetmeliği*. 12 Ağustos 2022, sayı: 31921
- T.C. Resmi Gazete. (2022d). *Tıpta ve Diş Hekimliğinde Uzmanlık Yönetmeliği*. 3 Eylül 2022, sayı: 31942
- T.C. Resmi Gazete. (2022e). *7406 Türk Ceza Kanunu ve Bazı Kanunlarda Değişiklik Yapılmasına Dair Kanun*. 27 Mayıs 2022, sayı: 31848
- Tengiz, İ. F., & Babaoğlu, A. (2020). Tıp fakültesi son sınıf öğrencilerinin kariyer tercihleri ve bu tercihleri etkileyen faktörler. *SDÜ Tıp Fakültesi Dergisi*, 27(1), 67-78. <https://doi.org/10.17343/sdutfd.560350>
- Türk Dil Kurumu (TDK). (2011). *Güncel Türkçe Sözlük*. Retrieved from: <https://sozluk.gov.tr/>
- Yılmaz, M., Telliöglü, M., & Arıkan, İ. (2021). Sağlıkta şiddet: Tıp fakültesi öğrencilerinin mesleğe bakışına etkisi. *Online Türk Sağlık Bilimleri Dergisi*, 6(3), 404-412.