
RESEARCH ARTICLE

Determinants Of Choosing Family Medicine As A Specialty For Young Doctors

Seyma Handan Akyon MD¹, Tarik Eren Yilmaz MD, MSc², Adem Ozkara MD, Prof.³

¹University of Health Sciences, Ankara City Hospital, Department of Family Medicine, Ankara, Türkiye

²University of Health Sciences, Gulhane Training and Research Hospital, Family Medicine

³ University of Health Sciences, Ankara City Hospital, Department of Family Medicine, Ankara, Türkiye

Abstract

Introduction: The reasons why family medicine specialists tend to choose this branch show differences in social and academic aspects. In this study, it was aimed to determine the reasons for choosing family medicine as the specialty of family medicine resident doctors and their concerns and fears while choosing their specialty.

Methods: Our study is a cross-sectional observational study. 275 assistant doctors who started family medicine specialization training in Ankara between 2018-2020 and are actively working constitute our study population. The participants were asked to score 0: the most ineffective, 10: the most effective, for the reasons for preferring family medicine consisting of 20 propositions and their concerns while choosing family medicine consisting of 7 propositions.

Result: A total of 130 volunteer participants, who filled out the questionnaire completely, were included in the study. According to the survey results, the most important reasons to select family medicine specialty were; the desire to “spend more time with the family, the environment, and themselves”, “less night and weekend shifts” and the desire for a “more easy and comfortable life”. On the other hand, the main concerns of family medicine residents when choosing this specialty were “unnecessary rest reports demands” and “unnecessary medication demands” by patients.

Conclusion: While it was determined that the personal factors of the residents were at the center of the reasons for choosing the family medicine branch, the characteristics and factors related to the discipline were the secondary preference reasons. On the other hand, it is necessary to take measures against alarming situations and develop new policies.

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Correspondence Address: University Of Health Sciences, Ankara City Hospital **Phone:** 03125526000 / **e-mail:** drseymahandan@gmail.com

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Introduction

Specialization preferences of medical school graduates change periodically depending on numerous factors such as government policies, training opportunities, health system-related factors of the countries, and social prestige of the relevant discipline.¹ It is essential for every branch to know the expectations of future physicians' generation which are essential for their career choice. The reasons why family medicine specialists prefer this branch basically differ in terms of social and academic aspects.²

Along with the health transformation policies implemented in Turkey, family medicine practices have become widespread in the whole country under the name of "family physicians" in the last decade.³ Family medicine residency training started in Turkey in 1985, and to date, more than two thousand family medicine residents have received their specialty degrees from many family medicine departments and training clinics in Turkey. Family medicine residency training and working conditions differ in each country. The factors affecting the choice and causing concern should be determined specifically for the countries and, improvement and development should be made in the health and education system accordingly. For this reason, it is of great importance to bring the countries' situation on these issues and the solution proposals for possible problems to the international literature. Therefore, good practice examples can be provided.

There are numerous studies conducted to analyze the determinants of choosing family medicine for medical students in the United States, Germany, Canada, and Turkey.¹⁻²⁻⁴⁻⁷ Moreover, similar studies are presented targeting young doctors (residents and new graduates) in the United States and Australia.⁸⁻¹⁰ There are limited studies targeting family medicine residents in Turkey.^{11,12}

Determining the reasons why residents prefer family medicine residency training and their concerns about family medicine can give important results in terms of developing family medicine residency training programs and strengthening primary health care services. In this study, we aimed to determine the reasons of the residents just starting their family medicine residency training in Turkey for choosing a family medicine specialty and their concerns and fears in choosing the specialty.

Materials and Methods

Our study is observational and descriptive survey research which is conducted between 01/01-01/02/2020. Our study population consists of 275 residents starting their family medicine residency training between the years 2018-2020 in 10 educational institutions in the province of Ankara. It was aimed to reach the entire population within the scope of our study without considering any gender and racial-ethnic limitation and biases. 130 of 275 residents volunteered to participate in our study.

The parameters in the questionnaire were created by discussing in light of the information received from 6 academicians and approximately 40 residents in the family medicine clinic academic councils. After evaluating the comprehensibility and applicability of the questionnaire with a pilot study by the way of face-to-face interview method, the final version of the questionnaire was prepared with an online questionnaire preparation program. The link created through the program was sent to 275 family medicine residents at the same time, first by phone and then by e-mail 1 month later. Informed consent was obtained from the participants at the beginning of the survey.

In the first part of the questionnaire, information about the location and duration of compulsory service after graduation (working as a physician before residency training), which may affect the sociodemographic characteristics and academic orientation of the participants, was questioned. In the second part of the questionnaire, the reasons for choosing family medicine were questioned, consisting of 20 propositions, and in the third part, their concerns about choosing family medicine were questioned, consisting of 7 propositions. The family medicine residents were asked to score between 0-10 points for the relevant propositions, with 0: the most ineffective, 10: the most effective. The scores given to each proposition were summed up separately for the total scores of the relevant propositions, and the preference rankings of the entire participant group were made. According to the first part which includes participants' factors of preference for Family Medicine branch, the first five most preferred parameters are gathered under two general headings. Accordingly, since the options "desire to spend more time with my family, myself and my surroundings", "less night

and weekend shifts”, and “desire for a more relaxed and comfortable life” include situations such as “work-life balance”, “family conditions”, etc. we compiled and evaluated the relevant parameters under the title of “personal conditions”. The options “to include a holistic approach to the patient” and “to include preventive health services” are special conditions for the Family Medicine Discipline, and we have gathered them under the title of “discipline-related factors”. The categories of these factors of preference are classified and listed in Table 1.

Descriptive statistics of the data were analyzed together with the related questionnaire preparation program. The relevant parameters’ median, minimum and maximum values or mean values were presented together with the standard deviation value by checking the conformity with the normal distribution of the continuous variables with the Skewness-Kurtosis test. Chi-Square tests were used to show relationships between variables. Descriptive statistics were done using frequency and percentage on categorical variables. A level of 0.05 was considered significant. For the study, ethics committee approval (Document Date: 12/12/19, Document Number: E. Kurul-E 1-19-181) was obtained from the local research ethics committee and informed consent forms were obtained from the participants.

Results

A total of 130 volunteers filled out the questionnaire completely, 92 females and 38 males, were included in the study. Participants were among the physicians who started to work as a resident in family medicine clinics throughout the province between 2018 and 2020. The return rate of the study was 47% of the entire population.

The median age of the participants included in the study was 28, the lowest was 24 and the highest was 48. Of the participants, 47.7% (n:62) were single, 51.5% (n:61) were married, and 0.7% (n:1) were widowed. The median time of the participants’ family medicine training was 4 months. In addition, 10% of the participants (n=13) stated that they worked as a resident in another specialty area before working as a family medicine branch was determined as 10 months.

The results of the 20 propositions that are among the reasons for the physicians to choose the family medicine branch and the findings of the 7 propositions that are among the con-

cerns on choosing the family medicine branch are given in Table 2 and Table 3, respectively, starting from the one with the highest score.

Gender, age, marital status, and compulsory service experiences of participants are the independent variables. The median values of the propositions concerning factors and between the median values of all propositions of the reasons for preference are dependent variables. It was observed that the median values of the propositions of the reasons for preference according to gender and marital status did not differ. Based on Chi-Square tests, there are no significant relationships between the median values of all propositions of the reasons for preference and compulsory service experiences of participants ($p > 0.05$). There are no significant relationships between the median values of all propositions concerning factors and compulsory service experiences of participants ($p > 0.05$). Based on the Skewness-Kurtosis tests, the continuous variables showed normal distribution ($-3 < \text{skewness value} < 3$; $-3 < \text{kurtosis value} < 3$). Based on Pearson Correlation tests, there are significant negative correlations between the age and the median values of the first three propositions of the reasons for preference, separately (Pearson correlation values = -0.504, -0.292, and -0.486, respectively; $p < 0.05$). Based on Pearson Correlation tests, there are strong positive correlations between “the desire to devote more time to my family, environment and me” and “the desire for an easier and more comfortable life” (Pearson correlation = 0.603, $p = 0.00$); “inclusion of preventive health services” and “inclusion of a holistic approach to the patient” (Pearson correlation = 0.686, $p = 0.00$)

Discussion

According to the results of this study, personal factors such as the desire “to spend more time with the family, the environment and themselves”, and for this, “less night and weekend shifts”, “more relaxed and comfortable life” and then discipline-related factors such as the desire to “provide holistic and preventive health care to their patients” are seen to be the reasons why the family medicine discipline is preferred.

In a study conducted with 237 senior medical school students in Turkey in 2017, the students’ reasons for choosing a medical school, wishes on working with chosen institutions, specialties, and opinions on Medical Specialty Examination (TUS)

Table 1. Classification of Factors Making the Family Medicine Branch Preferable

Personal factors	<p>The desire to devote more time to my family, environment, and myself</p> <p>Having less frequency of night and weekend shift</p> <p>The desire for an easier and more comfortable life</p> <p>Satisfactory income status</p> <p>Having support from my family</p> <p>Professional satisfaction</p> <p>Social prestige</p> <p>Being a comfortable section so I can get prepared for TUS again</p> <p>Having more opportunities abroad</p> <p>Recommendation of colleagues and the consulted family doctors</p> <p>Advice from Family Medicine professors at the School of Medicine</p>
Discipline-related factors	<p>Inclusion of a holistic approach to the patient</p> <p>Inclusion of preventive health services</p> <p>Having a high probability of working in the desired province as a specialist</p> <p>Providing an opportunity to work in the field, except for the hospital</p> <p>Having more opportunities to communicate with patients</p> <p>Having patients from all age groups</p> <p>Having more career opportunities</p> <p>Relatively shorter duration of residency training (3 Years)</p> <p>There are more quotas available in large cities such as Ankara</p>

are questioned and it is seen that “the presence and number of duties” is the most effective factor after “their fields of interest “ and “TUS scores” among the factors affecting students’ choice of specialization. 7Moreover, in a study conducted with medical students from ten medical schools in 2019 in the USA, the lifestyle factors such as “having control of work schedule” and “having enough time offwork” were more important factors to choose a specialty for the fourth-year students than the first-year students, while specialty-related factors were more important for the first-year student than the fourth-year students.¹³ It draws attention that in recent years physicians are choosing a specialty that is more comfortable with fewer night and weekend shifts.

In a study conducted in 2013 to determine the factors affecting the residency preferences of students studying in different medical schools in the US and their interest in primary care medicine, it was found that the most important factor in choosing a specialty field was to enjoy the work done.

When the reasons for preference of the students preferring Family Medicine residency in the first order are examined; it was determined that the factors such as “sparing time for family”, “work/private-life balance” and “taking personal time outside of work” received high scores.⁴

In a survey conducted in 2011 with medical school students from five different medical schools in Germany, 7% of the students stated that they would prefer the family medicine branch, and the most influential factors of the preference reasons are “personal ambition” and “work-life balance”.² In a survey study conducted with medical school students in Australia, the family medicine branch is the second preferred branch, and the most important factors in choosing it when compared to other branches are found in a related review to be “wanting to help people”, “family circumstances”, “flexibility in working hours”, “residency duration time” and “family medicine education in medical school”.⁸⁻⁹ As a result of the survey conduc-

Table 2. Descriptive statistics: The Ranking of the Questions and the Median Values of the Scores According to the Total Points Given by the Family Medicine Assistants to the Factors Making Them Prefer the Family Medicine Branch

Factors Making the Family Medicine Branch Preferable	Total Points (n:130)	Median Value min:0; max:10	Maximum Value	Minimum Value	Mean± Std. Deviation
The desire to devote more time to my family, environment, and myself	1168	10	10	0	8.98±1.76
Having less frequency of night and weekend shift	1127	10	10	0	8.67±2
The desire for an easier and more comfortable life	1117	10	10	0	8.59±2
Inclusion of a holistic approach to the patient	849	7	10	0	6.53±2.8
Inclusion of preventive health services	823	7	10	0	6.33±2.9
Having a high probability of working in the desired province as a specialist	773	7	10	0	5.95±3.9
Providing an opportunity to work in the field, except for the hospital	744	6	10	0	5.72±3.4
Having more opportunities to communicate with patients	713	6	10	0	5.48±3
Satisfactory income status	686	5	10	0	5.28±2.9
Recommendation of colleagues and the consulted family doctors	669	5	10	0	5.15±3.2
Having patients from all age groups	626	5	10	0	4.82±3.3
Relatively shorter duration of residency training (3 Years)	583	4	10	0	4.48±3.6
There are more quotas available in large cities such as Ankara	566	4	10	0	4.35±3.5
Having support from my family	577	4	10	0	4.34±3.5
Professional satisfaction	551	4	10	0	4.24±3
Having more career opportunities	455	3	10	0	3.5±3.2
Social prestige	356	2	10	0	2.7±2.6
Being a comfortable section so I can get prepared for TUS again	345	1	10	0	2.65±3.4
Having more opportunities abroad	287	1	10	0	2.2±2.7
Advice from Family Medicine professors at the School of Medicine	173	0	10	0	1.3±2.1

Table 3. Descriptive statistics: The Ranking of the Questions and the Median Values of the Scores According to the Total Points Given by the Family Medicine Assistants to the Concerning Factors While Choosing the Family Medicine Branch

Factors to Worry on Choosing a Value Family Medicine Branch	Total Points (n:130)	Median Value min:0; max:10	Maximum Value	Minimum Value	Mean± Std. Deviation
Unnecessary health or rest report requests	1016	9	10	0	7.82±3
Unnecessary medicine requests	1015	9	10	0	7.81±3
The future of family medicine in our country	878	8	10	0	6.75±3.1
Family Medicine Residency is not being well-known	753	6	10	0	5.79±3.3
Having different models of residency training in full-time and contracted family medicine doctor	672	5	10	0	5.17±3.6
Being a fairly new branch	560	5	10	0	4.31±3
Lacking subspecialty opportunities	549	4	10	0	4.22±3.4

ted with medical school students in Canada, a positive relationship was found between “reasons for choosing family medicine” and “work-life balance”.⁶ These data show that “personal factors” are at the forefront in choosing family medicine specialty in different parts of the world. Although the study populations are different, it can be said that personal factors are more effective in choosing family medicine than academic factors, since the reasons for choosing family medicine of graduates from medical faculty are similar in the literature, and the reasons for the preference of resident doctors who prefer family medicine branch according to this study results.

Specialist doctors and preceptors who are positive role models in family medicine are important for attracting medical school students’ attention to family medicine.⁶⁻¹⁴⁻¹⁵ Having more roles in the education process as a Family Medicine branch in the early stages of medical school may encourage more students to choose family medicine specialization as a career. In a study conducted in 2019, the factors affecting the residency preference of 1814 newly graduated medical school students were examined with a survey study. As a result of this research, 39.2% of the participants stated that they wanted to choose the Family Medicine branch as their residency, and more than 90% of those who wanted to choose the family medicine branch stated that the most important factor in their preference was the support of the Family Medicine branch preceptors during their medical school years.¹⁰ Again, in a study conducted with the students from the top ten medical schools in the US, it was seen that the most effective factor in choosing Family Medicine as a specialty was the presence of high-quality family medicine preceptors.⁵ As a result of our survey, the factor of “the advice of Family Medicine preceptors in medical school” having the least effect on the choice of family medicine branch and the result of the study conducted in the US differ greatly. This may be caused by family medicine discipline in Turkey in the undergraduate curriculum not being addressed much or it lacking a standard format.

In another study conducted with medical school students in Germany, it was stated that adding Family Medicine as an elective course in medical school was effective in the preference

of family medicine as a specialty, even among students who had no previous knowledge or interest.¹⁶

Again, the results of a survey study conducted in Germany indicate that the applied practice in Family Medicine program included in the discipline of Family Medicine in the early and late period of medical school will provide a great contribution.¹⁷ In the literature, when medical school students were asked what affects their choice of specialty, it was seen that the existence of “role model family physicians with clinical experience” is one of the most important reasons for choosing family medicine, especially for students who want to choose primary care medicine.¹⁸⁻²⁰ In Turkey, the reasons for the low rates in this study may be the insufficient number of family medicine departments throughout Turkey or the preceptors in family medicine academic staff as role models, or the lack of adequate and effective communication between family medicine preceptors and medical school students within the scope of the undergraduate education program. Therefore, eliminating the shortcomings identified in light of these data may increase the preference rate for family medicine.

One of the issues that the resident doctors saw as worrying was the patients’ inappropriate medication requests. The use of wrong, unnecessary, ineffective, and high-cost medications is a serious problem all over the world. The underlying causes of this may be caused by the physician, as well as by the patient. Increasing demands for unnecessary and inappropriate prescriptions by the patient is a problem faced by many doctors, especially family doctors. In separate studies conducted with physicians from three different branches; it was found that most frequently patients requested medicine prescriptions and laboratory tests, and least they requested consultation.²¹⁻²³ Many “rational choice” campaigns are launched to reduce unnecessary health practices around the world, to increase the awareness of physicians on this issue, to support physicians by organizing training, raise awareness of patients, and to ensure their active participation in the process; unnecessary examination and procedure lists were determined, and health literacy and media literacy issues for patients were brought up.²⁴ In a study conducted in Turkey, as in the rest of the world, it was found that patients’ inappropriate demands were an effective factor in physicians’ prescription of medicine and antibiotics without appropriate indications.²⁵ In a qualitative study conducted in İstanbul in 2017 to evaluate the problems of patients faced by primary care

physicians, the most common problems physicians encounter with patients are requesting unnecessary prescriptions, violence against physicians, problems related to examination order, after-hours examination requests by patients, and communication problems.²⁶ As a result of the study conducted for family medicine specialists and family medicine specialty students across Turkey in 2018 to evaluate patients' unnecessary prescription demands and outcomes in primary health care services, more than 95% of physicians occasionally or more frequently encountered the request of patients to prescribe off-label drugs, 4% of them rarely encountered, only less than 1% stated that they had never faced such a request. Again, more than 94% of physicians stated that they occasionally or often encounter patients' requests to issue an unnecessary rest report, and 5% of them rarely encounter; only less than 1% never encounter such a request.²⁷ When the results of these studies conducted in Turkey are examined, the most common problems faced by physicians are patients' requests for non-indication medicine prescriptions, unnecessary laboratory tests, and rest reports. In our study results, propositions such as "unnecessary rest reports" and "unnecessary medicine requests" are at the forefront of the concerns of family medicine residents when choosing this branch, similar to those in the literature. To eliminate such concerns, it would be beneficial to include education on health literacy and rational medicine use in informative activities for society. This situation is one of the most common problems faced by family doctors in Turkey as in the world and it may be considered alarming by the doctors within the scope of our study. Also, it was seen in the scores of the residents, who finished their compulsory service and they made up the majority of our participant group. The residents were also worried about this issue. The fact that they encountered this situation during their compulsory services and mostly in their first medical practices within the scope of primary health care services may cause this concern to be formed and settled.

In some countries, the fact that society does not recognize family medicine as a specialty is one of the most important of these problems. The physicians may think that in Turkey, the name "family physician" is given to the primary health care practitioner unit and the majority of physicians without a specialty degree are serving in this system, and

the term "family medicine specialist" is not well-known by the society or it causes confusion in the meaning of the social prestige. Thus, sometimes it is difficult for family medicine specialists to express themselves as specialists to society. In addition, another problem is that society cannot understand the importance of family physicians' holistic and patient-centered approach. Therefore, it can be predicted that conducting studies to introduce the Family Medicine discipline as a residency branch for society will indirectly have a positive effect on the doctors who will prefer our discipline.

The number of physicians per capita is decreased in both Canada and the US, and this decline is expected to continue. When the growing population and the decreasing number of physicians are combined, it is expected that this decrease in the physician-to-population ratio will have negative effects on the health systems of both countries. Therefore, health policy planners will probably seek to expand the role of primary health care and especially family medicine. In order to support such an expansion, a proportional increase in the number of family doctors who have completed residency training domestically will be required.⁶ Due to the low number of physicians per capita in Turkey, the number of family doctors is not at the desired level and each physician is required to deal with a larger number of requests such as unnecessary reports, medications, examinations, etc. and this may become a concern for physicians.

The results of our study on the concerns of family physicians when choosing this branch, which has not been studied much in the literature, have the potential to shed light on the dynamics of family physicians' relationships with their patients and suggest that developing policies to address the identified concerns and to solve these concerns will positively affect the preference rates and development of our discipline.

The low number of participants in our study prevents the generalization of our results. This situation has led to the fact that there are not enough group ratios to make comparisons and became one of the most important limitations of the study. 70.8 percent of the participants are women and all participants are a citizen of Turkey. Moreover, the possibility that physicians volunteering to participate in the study are the ones interested in the subject also raises the potential case of selection bias.

Our study includes national data that cannot be generalized. A sufficient number of people representing the universe could not be reached and the people reached could not be chosen randomly. Although it is known that the findings of our study may differ from country to country and each country should act according to its conditions, it is very important to know the family medical problems all over the world in terms of establishing exemplary practices against common problems, and this is both a limitation and a strong aspect of our study.

Conclusion:

According to the results of the study, it was determined that the reasons for preference depended more on personal factors and the characteristics and factors related to the discipline were the secondary preference reasons. “The advice of family medicine preceptors in medical school” has been the least effective suggestion in choosing family medicine. The introduction of family medicine discipline in medical professional education may increase the preference of this branch. On the other hand, “unnecessary rest reports” and “unnecessary medication requests” are at the forefront of family medicine residents’ concerns when choosing this branch, and taking measures to address these concerns in the short and medium term and developing new policies in this regard may increase the preference of the family medicine discipline.

When the international and national literature is searched, there are studies on the factors affecting the medical school students’ specialization choice in different countries and the factors that may be effective for them to prefer the Family Medicine branch. However, there are not so many studies on family medicine residents, and we hope that our study should help planning more comprehensive studies. Also, repetition of the studies at certain periods will contribute to the monitoring of the development of our discipline.

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