

# Perceptions of Family Medicine and Career Choice among First Year Medical Students: A Cross-Sectional Survey in a Turkish Medical School

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## ABSTRACT

*Public attitudes to family medicine in Turkey have lagged behind its rapid academic development. The effect of undergraduate training in primary care on medical students' attitudes to family medicine has not been assessed. Objectives of this study were to assess the attitudes of first year medical students at Uludag University School of Medicine in Bursa, Turkey to family medicine and to determine their career aspirations. The study was a survey of the first year medical class in 2003–2004. The response rate was 95% (248/261 students). Students were positive about their choice of medicine as a career but had negative opinions of general practice. Female students were more positive in this respect. Initial preference was for specialization in fields other than general practice with little knowledge of the academic specialty of family medicine. Greater undergraduate exposure to family medicine is needed in order to increase knowledge of the field and influence student career choices.*

**Key words:** family medicine, student, attitudes, career choice

## Introduction

Many medical schools aim to graduate qualified primary care physicians, and to accomplish this goal, they have reformed their curricula to stimulate interest in general medicine and thereby increase the number of primary care physicians<sup>1</sup>. However, the outcomes of these efforts are not always clear.

Primary care health services are essential to the health services of every country. This was defined as a policy objective in the Alma-Ata Declaration of the World Health Organization (WHO) in 1978<sup>2</sup>. Characteristics of primary care include; serving as the first point-of-contact for patients in the medical care system, offering continuous health care services to the patient, supplying comprehensive medical care, and coordinating the healthcare needs of patients from other institutions<sup>3</sup>.

Technological advances have been accompanied by the tendency towards specialization in medicine com-

bined with medical schools promoting education in specialized fields. In response, many countries have taken measures to attract and to increase the numbers of physicians providing primary care health services and general medicine (i.e., general practitioners, family physicians, general internal specialists, and general pediatricians)<sup>1,4</sup>. However, in Turkey, there is confusion regarding the nature of these primary care professions.

Strong primary care services are the basis of a successful healthcare system. There is evidence that 90–95% of problems presented by patients to their primary care physician can be solved in that setting. In Turkey, primary care is provided mainly in health centers. Most primary care physicians (called general practitioners) have not received specialty training in the area of primary care. In Turkey, physicians can begin a general medical practice after graduation from a six-year program of ba-

sic medical education<sup>5</sup>. Stable class sizes in existing medical schools, the opening of several new medical schools, and restriction of specialty training to only 10% of medical school graduates have resulted in the entry of large numbers of generalists into the profession. Most Turkish medical graduates hope eventually to be accepted for specialty by passing the TUS (Tipta Uzmanlik Sinavi: Examination for Specialization in Medicine), which is a legal requirement. Specialists in Turkey have higher incomes than generalists, higher social status, and academic rank. However, the most important reason to specialize is that young medical graduates do not want to become general practitioners<sup>6</sup>.

In Turkey, there are approximately 46,000 general practitioners and 41,000 specialists<sup>7-9</sup>. These figures have generated debate about the ideal number of general practitioners and their place in primary health care services.

The latest trend in primary care in Turkey is the development of family medicine as an academic specialty. Since 1984, physicians may receive the title of »Family Medicine Specialist« after three years of specialty training following graduation from medical school. Graduates are working for both in primary care health service institutions and in family medicine departments in 21 out of 47 medical schools in Turkey. Because family medicine in Turkey is a new discipline, it is not adequately publicized; consequently, the public is unaware of what this field has to offer them.

There is a growing tendency towards medical specialization in Turkey. However, some physicians consider the primary care field as a temporary situation until they are able to pass the entrance examination for specialty training. This is part of the problem of maintaining quality of care and adequate staffing in primary health care units.

This study aims to evaluate the attitudes of first year medical students at Uludag University in Turkey towards family medicine, their opinions of general practitioners, their expectations for post-graduate training, and their knowledge or attitudes towards family medicine as a specialty.

**Methods**

*Setting and population*

Bursa is the fifth largest city in Turkey with a population of one million. Uludag University School of Medicine is the only medical school in the city. The Family Medicine Department is responsible for the students' undergraduate knowledge of and training in primary care skills. Beginning in 2003, the Department required first year medical students to take a primary care course. The first year medical class in 2003-2004 consisted of 261 students, who formed the study population.

*Study instrument*

A questionnaire was developed to assess the attitudes of those medical students towards general practitioners and family medicine. It was tested in a pilot study with

30 students. The Family Medicine Department then distributed the questionnaire to all first year students at their first clinical practice attachment. The questionnaire requested information on socio-demographic data (i.e., age, gender, birthplace, high-school attended, and place of residence). Attitudes towards general practitioners and family medicine were assessed by questions scored on a five-point Likert-type scale with 1 representing »strongly agree« and 5 representing »strongly disagree«. The questionnaire also included two open questions to determine the attitude of the student towards choosing family medicine as a career.

*Data analysis*

SPSS 11.0 software was used to analyse the data obtained. Data structures were examined and non-parametric tests were found appropriate for the analysis; thus statistical analyses were performed using Kruskal-Wallis, Mann-Whitney U test and  $\chi^2$  test. Likert score averages were given as Mean  $\pm$  SD. Statistical significance was set at the p=0.05 level.

**Results**

Completed questionnaires were obtained from 248 of the 261 eligible students, for a response rate of 95%. Characteristics of the study population are listed in Table 1. The ages of the students ranged from 16 to 36 years (mean 19.05, sd=1.44), and 47.2% were female.

The students had come to Bursa from the Black Sea Region (21.4%), Marmara Region (21.0%), Central Anatolia (14.1%), East Anatolia (11.7%), the Mediterranean (9.7%), Southeast Anatolia (8.5%), Aegean Region (8.1%) and other countries (5.6%).

**TABLE 1**  
CHARACTERISTICS OF STUDY POPULATION (N=248)

Mean age (SD)	19 (144)
Female %	47%
Place of residence	
a. University dormitory	53.6%
b. Shared flats with friends	31%
c. Lived with their families	9.7%
d. Lived alone in a flat	3.2%
e. Lived with relatives or with a family member	2.4%
Region of origin	
a. Black Sea Region	21.4%
b. Marmara Region	21%
c. Central Anatolia	14.1%
d. East Anatolia	11.7%
e. Mediterranean	9.7%
f. Southeast Anatolia	8.5%
g. Aegean Region	8.1%
h. Other Countries	5.6%

Most students (53.6%) lived in the university dormitory, 31% shared flats with friends, 9.7% lived with their families, 3.2% lived alone in a flat, and the remaining 2.4% lived with relatives or with a family member.

Most students (52.1 %) had graduated from Anadolu high schools, which are competitive high schools that emphasize foreign language education. The remaining students graduated from science-based high-schools that emphasized natural sciences (16.5%) ordinary high-schools (12.1%), »super« high-schools that emphasized foreign language (11.3%), private high-schools that required tuition fees (4.4%), and vocational high schools (3.6%).

Tabulated results of responses to the attitude questions are listed in Table 2.

*Choice of medicine as a career*

The students reported that they had selected medicine as their first career choice and wanted to enter the school of medicine. Student responses were mixed about the potential financial advantages of medicine as a career, but they believed that a medical career would bring them prestige. Female students were more likely to report that they selected medicine as their first field of study choice (p<0.001). No significant association was found between region of birth and type of secondary education and responses to questions on the choice of medicine as a career.

*Choice of general practice as a career*

Students were asked to state their agreement with six statements regarding general practice or other specialties as a career choice after graduation from medical school.

Students indicated a negative attitude towards general practice as a career choice. They had doubts about the ability of the general practitioner and tended to favour careers in other medical specialties. Five students (2%) said they wanted to be general practitioners, compared with 230 students (92.7%), who wanted to become specialists. Female students were more likely to be positive about the adequacy of general practitioners (p=0.011). No significant associations were found between demographic variables and choice of general practice as a career.

*Attitudes toward family medicine*

Three questions were asked about the student’s knowledge of family medicine, its importance, and family medicine as a career choice.

Students were neutral in their responses regarding their knowledge of the job definition of family medicine and with regard to choosing family medicine as a career. They disagreed with the statement that family medicine is not important. Female students had a significantly higher appreciation of the importance of family medicine than male students (p=0.011). No association was found between demographic variables and knowledge of family medicine.

The questionnaire concluded with open questions about to learn more about the students’ positive and negative attitudes towards family medicine. Analysis of the free-text responses revealed positive comments from 42 students (16.9%) and negative comments from 78 (31.4%) students (Table 3). Most of the negative expressions re-

TABLE 2  
STUDENTS’ RESPONSES TO QUESTIONNAIRE

Choice of Medicine as a Career	Mean score (SD)
Medical school was my first choice	1.70 (1.08)
I want to enter the school of medicine	1.69 (1.03)
I had to choose medicine as my grade was not sufficient for other faculties	3.93 (1.30)
I chose medicine as it will provide me financial well-being	3.04 (1.19)
I chose medicine due to the prestige it will bring me	2.70 (1.15)
Choice of General Practice as a Career	Mean score (SD)
I’d be unhappy to stay as general practitioner	2.09 (1.07)
I believe in the sufficiency of general practitioner	3.22 (0.97)
I want to stay as general practitioner	4.27 (0.78)
I’d be satisfied to stay as a good general practitioner	3.83 (0.97)
I want to be a specialist	1.43 (0.81)
I want to have a career after specialization	2.01 (1.07)
Attitudes towards Family Medicine as a Specialty	Mean score (SD)
I know the job definition of family medicine	3.14 (0.83)
I may choose family medicine as career in the future	3.14 (0.72)
I think that family medicine is not important	4.17 (0.82)

**TABLE 3**  
STUDENTS' POSITIVE RESPONSES TO OPEN QUESTIONS ON ATTITUDES TOWARDS FAMILY MEDICINE

Comprehensiveness and patient continuity	<ul style="list-style-type: none"> <li>»I can provide comprehensive care for the patient.«</li> <li>»Through routine care, I will be able to provide continuous care to my patients.«</li> <li>»If I routinely provide care to the same patient, I feel more comfortable in my job more comfortable, and it is more rewarding because I can see a patient's progress.«</li> <li>»I have extensive knowledge of every topic.«</li> </ul>
Doctor-patient relationship and communication	<ul style="list-style-type: none"> <li>»Doctor-patient relationship is better in this specialty than the others.«</li> <li>»This specialty is more social and better for communication.«</li> <li>»This specialty have close relationships with people.«</li> </ul>
Turkey's needs and future expectations	<ul style="list-style-type: none"> <li>»A discipline that can be develop in our country.«</li> <li>»A specialty that will be more important in future.«</li> </ul>
Attitudes towards this specialty based on suitability with his/her personality	<ul style="list-style-type: none"> <li>»I like it; I feel that I will be happy in this specialty.«</li> <li>»It looks like a good field of study for me.«</li> <li>»I think that family medicine as a specialty is compatible with my visions of how I want to practice medicine.«</li> </ul>
The needs of society and the public associated with preventive medicine	<ul style="list-style-type: none"> <li>»It would be nice to prevent diseases.«</li> <li>»The principal of society is family, and family is the place for solving problems.«</li> <li>»Preventive medicine is good for the public.«</li> </ul>
Other expressions	<ul style="list-style-type: none"> <li>»If I am not accepted into the medical specialty that I want, I will consider family medicine.«</li> <li>»Why not?«</li> </ul>

**TABLE 4**  
STUDENTS' NEGATIVE RESPONSES ON OPEN QUESTIONS ON ATTITUDES TOWARDS FAMILY MEDICINE

Interest in and openness to pursue family medicine	<ul style="list-style-type: none"> <li>»I have different ideals.«</li> <li>»My priorities and goals are different.«</li> <li>»Family medicine is not one of the specialties that I would consider.«</li> <li>»For me a doctor is a man with a lancet.«</li> <li>»I am not interested in this specialty.«</li> </ul>
Not believe in further development of this specialty in Turkey	<ul style="list-style-type: none"> <li>»I do not believe in developing this specialty in our country.«</li> <li>»This specialty does not provide any benefits to our country.«</li> </ul>
Other expressions	<ul style="list-style-type: none"> <li>»General medicine is more exhausting.«</li> <li>»Working in a special field can be less tiring and more beneficial to me as a doctor.«</li> <li>»It is not an attractive specialty.«</li> <li>»The salary can be less than that of other specialties.«</li> </ul>

sulted because the student was interested in another specialty as a career choice, while most of the positive answers emphasized the student's wish to provide comprehensive and continuous care (Table 4).

## Discussion

This study presents the opinions of first year medical students attending Uludag University in Turkey. The study asked first year medical students about their opinions of general practitioners and family medicine specialists, family medicine as a specialty, and choosing general practice as a career. It adds empiric data to the public de-

bate on the importance of family medicine to the health care system by assessing attitudes of future doctors towards this field.

Turkey is a developing country with a population of 70 million. It appears that Turkey is going to face many of the same problems in the development of family medicine that were issues in Europe and the United States more than 30 years ago. In the beginning, while the field of family medicine was popular and experienced a steady rise in interest as a specialty, after a steady rise, at the end of 1990s, interest in this specialty declined among medical school graduates, especially in the USA and Europe. Many medical schools in those countries tried new

strategies to encourage students to specialize in family medicine, including changing their curriculum<sup>10–14</sup>.

The students in this sample selected medicine as their first field-of-study choice and indicated their interest in practicing medicine as a career. This suggests that this university will produce motivated and interested doctors. Looking at our study participants, we found that more of them came from Anadolu and Science high schools, which have more stringent educational requirements and emphasize foreign languages and science.

The eastern part of Turkey is still less developed in many aspects than the western part. The socioeconomic status of the population is higher in western Turkey. Given the great regional disparities in Turkey and the geographically diverse student population in Bursa, the question of interest is the effect of region of origin on attitudes towards and knowledge of family medicine. Other studies have shown a wide variation in the preferences of medical students for medicine as their first field-of-study choice ranging from 60% in the western region of Turkey to 80% in the eastern region<sup>15,16</sup>. Regional differences in the prestige of doctors in the community may account for these differences. In this study, female students were found to be more willing to choose medicine as a profession than male students. Many studies have found that male and female students differ in their motivation for entering medical school and for choosing careers<sup>17–19</sup>. One study found that female students were interested mostly in the people-oriented factors, while male students expressed interest in social prestige, job security, and salary<sup>20</sup>.

This study found a lack of interest in general practice among first-year medical students and a lack of interest in general practice as a career. This confirms the findings of other studies conducted in Turkey, which found that 89–92% of students preferred other medical specialties<sup>15,16</sup>. These results suggest that students choosing family medicine as a specialty after graduation will be highly motivated to do so. Although there is interest in family medicine, students have little knowledge about the specialty. Departments of family medicine have an important role to play in the medical field by increasing awareness of the discipline.

Career choices of medical student are affected by many factors (age, gender, years of education, etc.)<sup>21–23</sup>. Other studies have demonstrated a decline in student preferences for careers in general practice from the time they entered medical school until they graduated<sup>24</sup>. To increase interest in general practice, some medical scho-

ols have implemented various initiatives<sup>25–26</sup>. Some studies show that an internship in family medicine or a training program in primary care can encourage students to choose primary care as a career<sup>3,27–29</sup>.

These published findings, along with the findings in our study, may encourage medical schools to offer more primary health care attachments to encourage the choice of family medicine as a specialty. To increase contact between students and general practitioners, the university must bring more general practitioners into the educational system. To aid in the development of the profession, the country must develop policies that promote work in the primary care sector and improve the image of general practice as a career.

### Limitations

Since we included only first year students in this study, we cannot compare the results with the other classes of medical students. On the other hand, the attitudes of the first year students towards general practitioners and family medicine as a specialty can be extrapolated to show the general attitude of the medical school population. We are planning to repeat this study with this group of students at the beginning of their fourth class year and at the end of their internship program. By this way, we can understand the effects of medical education on their opinions and the influence of the Family Medicine Department, namely family physician lecturers, who are encouraging them to select general medicine as a specialty.

### Conclusion

Family medicine is developing rapidly as a specialty in Turkey. Increased contact between the new generation of family medicine specialists and medical students during their training may encourage students to consider family medicine as a career and decrease the high demand for specialization posts in other fields. Continued surveillance of student attitudes, career choice, and the effects of curricular change are variables in reaching the goal of training competent family physicians to provide excellent primary care in Turkey.

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## PERCEPCIJA OBITELJSKE MEDICINE I IZBOR SPECIJALIZACIJE KOD STUDENATA PRVE GODINE MEDICINE: ISTRAŽIVANJE NA MEDICINSKOM FAKULTETU U TURSKOJ

### SAŽETAK

Stav javnosti o obiteljskoj medicini u Turskoj zaostajao je u odnosu na njen brz znanstveni razvitak. Utjecaj do-diplomske nastave na stav studenata medicine o obiteljskoj medicini još nije bio procijenjen. Kako bi se procijenio stav studenata prve godine prema obiteljskoj medicini i njihove ambicije prema specijalizaciji, provedeno je istraživanje na studentima prve godine medicine upisanih školske godine 2003–2004 na medicinskom fakultetu u Bursi, Turska. U istraživanju je sudjelovalo 95% studenata (248/261). Studenti su imali pozitivan stav o svom izboru medicine kao profesije, ali su imali negativno mišljenje o medicinskoj praksi općenito. U tom smislu kod studentica je zamijećen pozitivniji stav. Primarnim izborom studenata pokazala se specijalizacija u područjima izvan opće medicine. Također, studenti su pokazali slabo poznavanje obiteljske medicine kao znanstvene discipline. Potrebno je veće uključivanje obiteljske medicine u dodiplomsku nastavu kako bi se znanje studenata o ovome području povećalo i time utjecalo na izbor specijalizacija.