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Original Article

Factors affecting interns to prefer general surgery specialization

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Abstract

Aim: The preference rates of certain surgical branches are gradually decreasing. Considering the general surgery branch; The quotas opened in the TUS (Examination for specialty in medicine) exam are also not seriously preferred. This situation is thought to be caused by professional and social difficulties. In our study, the opinions of medical faculty interns in terms of specialization in the general surgery branch were examined.
Materials and methods: Following the approval of the local ethics committee, a written questionnaire consisting of ten questions was applied to the interns of our university at the end of a one-month compulsory general surgery internship on a voluntary basis. Students who gave full answers to the survey questions were included in the study. The obtained written data were analyzed by descriptive statistical methods.
Results: One-hundred-and-five interns participated in the study. Fifty-three were women and 52 were men. While 21 interns stated that they would choose general surgery as their preference (20%), 84 interns stated that they would not prefer general surgery (80%).
When the interns were asked whether general surgery was preferred in TUS, 79 students stated that it was not preferred (75.23%), while 26 students stated that it was preferred (24.77%). Ninety-five percent of the interns stated more than one reason for not preferring it. When asked whether they would prefer general surgery if improvements were made based on the reasons stated, 40 out of 79 students (50.63%) stated that they would prefer it, 18 students (22.78%) stated they would not prefer it, and 21 students (26.58%) stated that they were undecided.
Conclusions: General surgery is less preferred than other surgical branches in the TUS exam. Many factors have been identified in the low rate of preference for general surgery specialists by interns. With the improvement of these negative factors, preference rates can increase.

Keywords: Medical faculty, medical residency, internship and residency, general surgery, surgery

INTRODUCTION

General surgery is one of the four major branches of medicine in our country, and it requires five years of education for specialization. It is one of the oldest branches of medicine, and its education is long, expensive, and difficult. In gaining the competence of a general surgeon; clinical and interventional competence constitute two basic steps. Acquiring these skills requires serious effort and dedication (1,2). In general, general surgery is a lifestyle with a high level of professional satisfaction as well as great challenges. Knowing the physical, psychological, and spiritual difficulties of surgery, identifying these difficulties, and making corrections for them play an important role in choosing and continuing a surgical career for future surgical students (3).

In our country, it is said that general surgery and many other surgical branches are less preferred in the TUS exam, as has recently been reflected in the media. The rate of physicians who prefer general surgery in the TUS is 19.8% (4). Some of the claimed reasons for this are the difficulty of surgical training, financial issues, mobbing in the department, long working hours,

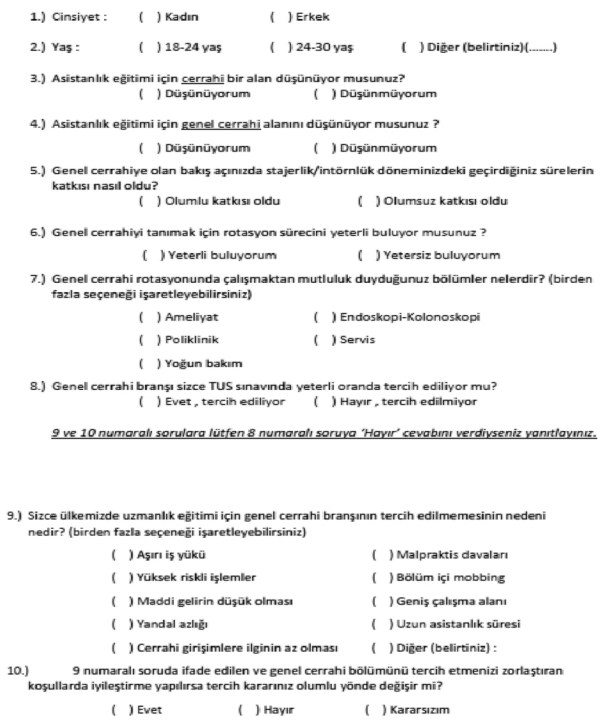
and large working areas. The rate of preference for surgical branches in the world has been decreasing in recent years (5,6).

In this study, we tried to reveal the perspectives of interns in terms of specialization preference for general surgery and the possible reasons for not choosing it in the TUS.

MATERIAL AND METHODS

Following the approval of the study via the local ethics committee (Kütahya University of Health Sciences University Local Ethical Committee Approval Number: 2022/02-09), permission from the faculty board and dean was obtained to apply for interns for a 10-question survey.

10-question survey questionnaires were prepared for sixth-year students between July 2021 and July 2022 after the end of their internship and their written consent was obtained. Personal data were not collected in order to make the answers given to the survey questions anonymous. In the 10-question survey, age range, gender, and preference for surgery and general surgery branches in the TUS exam were obtained. Their views on general surgery internship, the positive or negative contribution of the surgical rotation to their perspective on general surgery, and their opinions about the preference for general surgery in the TUS were questioned. The last two questions were prepared for interns who stated that general surgery was not their preference in the TUS (A sample of the questionnaire is shown in Figure 1).



1.) Cinsiyet : ( ) Kadın ( ) Erkek

2.) Yaş : ( ) 18-24 yaş ( ) 24-30 yaş ( ) Diğer (belirtiniz)(.....)

3.) Asistanlık eğitimi için cerrahi bir alan düşünüyor musunuz?
( ) Düşünüyorum ( ) Düşünmüyorum

4.) Asistanlık eğitimi için genel cerrahi alanını düşünüyor musunuz ?
( ) Düşünüyorum ( ) Düşünmüyorum

5.) Genel cerrahiye olan bakış açınızda stajerlik/intörnlük döneminizdeki geçirdiğiniz sürelerin katkısı nasıl oldu?
( ) Olumlu katkısı oldu ( ) Olumsuz katkısı oldu

6.) Genel cerrahiyi tanımak için rotasyon sürecini yeterli buluyor musunuz ?
( ) Yeterli buluyorum ( ) Yetersiz buluyorum

7.) Genel cerrahi rotasyonunda çalışmaktan mutluluk duyduğunuz bölümler nelerdir? (birden fazla seçeneği işaretleyebilirsiniz)
( ) Ameliyat ( ) Endoskopi-Kolonoskopi
( ) Poliklinik ( ) Servis
( ) Yoğun bakım

8.) Genel cerrahi branşı sizce TUS sınavında yeterli oranda tercih ediliyor mu?
( ) Evet , tercih ediliyor ( ) Hayır , tercih edilmiyor

9 ve 10 numaralı sorulara lütfen 8 numaralı soruya 'Hayır' cevabını verdiyseniz yanıtlayınız.

9.) Sizce ülkemizde uzmanlık eğitimi için genel cerrahi branşının tercih edilmemesinin nedeni nedir? (birden fazla seçeneği işaretleyebilirsiniz)
( ) Aşırı iş yükü ( ) Malpraktis davaları
( ) Yüksek riskli işlemler ( ) Bölüm içi mobbing
( ) Maddi gelirin düşük olması ( ) Geniş çalışma alanı
( ) Yandal azlığı ( ) Uzun asistanlık süresi
( ) Cerrahi girişimlere ilginin az olması ( ) Diğer (belirtiniz) :

10.) 9 numaralı soruda ifade edilen ve genel cerrahi bölümünü tercih etmenizi zorlaştıran koşullarda iyileştirme yapılırsa tercih kararınız olumlu yönde değişir mi?
( ) Evet ( ) Hayır ( ) Kararsızım

Figure 1. The sample questionnaire applied to the interns

The data obtained in the study were analysed with descriptive statistical methods with the R statistics program (R Foundation for Statistical Computing Platform: x86_64-w64-mingw32/x64 (64-bit) version 4.0.3 (2020-10-10).

RESULTS

One hundred and five intern physicians participated in the study. Fifty-three were women and 52 were men. While 43 students stated that they would prefer a surgical branch in the TUS exam (40.95 %), 62 students stated that they would not prefer any surgical branch (59.05 %). When the choice of general surgery branch is questioned as a choice in the TUS, 21 interns stated that they would prefer general surgery (20 %) and 84 interns stated that they would not prefer general surgery (80 %) (Table 1, Figure 2). When asked about the effect of their general surgery internship during their intern year on their view of general surgery, 85 students gave the answer that it contributed positively (80.95 %), while 20 students stated that it had a negative contribution (19.05 %). When questioned whether the duration of the general surgery internship is sufficient, 60 students stated that the rotation time is enough (57.14%); 45 students stated that it is not enough (42.86 %). When asked about their favorite units during the time they spent in different units of the general surgery department (operating room, polyclinic, service, endoscopy unit, and intensive care), 39 students stated that they liked only one unit, while 66 students stated that they were happy to work in more than one unit.

When interns were asked whether general surgery was preferred in the TUS exam, 79 students stated that it was not (75.23 %), while 26 students (24.77 %) stated that it was (Figure 3). Two additional questions were asked to students who stated that general surgery was not preferred in the TUS. When asked why general surgery was not preferred, only four interns gave a single reason; other interns gave more than one reason (Table 2). When asked whether they would prefer general surgery if improvements were made based on the reasons stated, 40 out of 79 students (50.63 %) stated that they would prefer it, 18 students (22.78 %) stated they would not prefer it and 21 students (26.58 %) stated that they were undecided.

Table 1. Comparison of percentages of the medical interns for the possible choices for surgical departments and general surgery department

	Number (n)	Percentage (%)
I do choose a surgical residency program	43	40.95 %
I do not choose a surgical residency program	62	59.05%
I will choose a general surgery residency program	21	20%
I will not choose a general surgery residency program	84	80%

Table 2. The possible factors leading to low preference rates of general surgery on the TUS exam according to the interns Total Number: 79

The factors	Number(n)*	Percentage (%)
Excessive Workload	70	88%
Malpractice Lawsuits	69	87%
High-risk procedures	67	84%
Mobbing in the department	55	69%
Low financial income	45	56%
Large working area	30	37%
Lack of subspecialty	20	25%
Lack of interest in surgery	20	25%
Extended residency duration	10	12%
Other (Insomnia)	1	0.1%

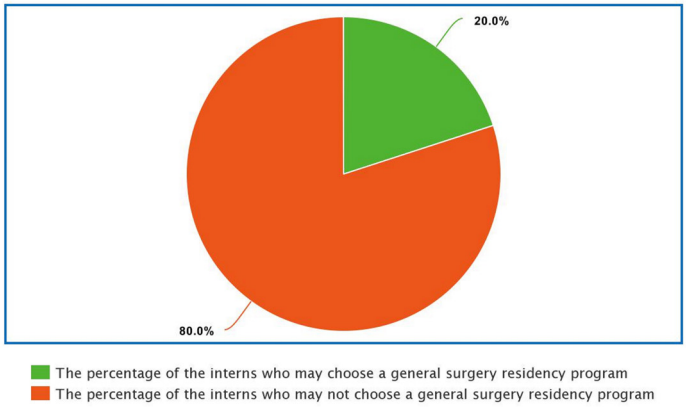


Figure 2. The percentage of interns for choosing general surgery on the TUS exam

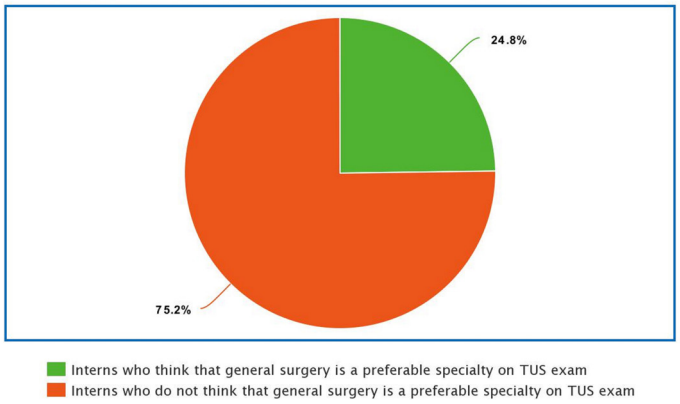


Figure 3. Interns' opinions about the popularity of the general surgery on the TUS exam

DISCUSSION

In this study, we have tried to reveal, for the first time in Turkey, the rate of interns choosing general surgery as their preferred specialty, and the possible reasons for the physicians who do not choose it. Only 20 % of the participants in this study stated that they would prefer general surgery under the current conditions.

While students take common courses at the Faculty of Medicine, newly graduated physicians make specialty preferences in line with many factors with the specialty exam. After specialization, there are significant differences between internal medicine and surgical specialists. The number of intern physicians who want to receive specialty training was shown as 93.4% in a study; 57.4 % of the resident physicians stated that they received specialization training in their first-choice branch. Among the factors that are important in the selection of internal and surgical branches, gender, compulsory service status, and TUS score were found to be significant variables. In addition, it was revealed that those who chose internal specialties were less open to experience in personality analysis compared to surgical branch residents (7). The choice made after the TUS can be thought of as not just a choice of specialization, but actually a choice of lifestyle.

In our study, the choice of surgical branch and the choice of general surgery branch were asked as two different questions. The number of interns who stated that they would choose a surgical branch is twice the number of interns who stated that they would choose the general surgery branch (40.95 % and 20 %, respectively). This shows that surgical branches are perceived differently among interns in terms of specialty training. In the TUS, preference rates differ between surgical branches. The main reasons given for not preferring surgical branches were the following: excessive workload, malpractice lawsuits, high-risk procedures, mobbing in the department, low financial income, large working area, lack of subspecialty, extended residency duration, lack of interest in surgical interventions, and insomnia. In our study, only four (5 %) of the interns who stated that the general surgery branch was not their preference stated a single reason. This shows that the reason why general surgery is not preferred is a multifactorial condition. Many of these factors are essential factors that may apply in all clinical branches. Especially specialty choices in neurosurgery, cardiovascular surgery and gynecology, and obstetrics in the TUS exam are lower than general surgery in our country.

In our country, there is no study on the preferences of interns in general surgery. However, this issue has been discussed in various countries around the world. The difficulty of surgical training and the negative effects of surgery on lifestyle and personality are the most essential factors for medical school students to give up their choice of general surgery (5). In studies conducted on this subject, the fact that medical faculty students' mentors are positive role models in surgical internships and provide a flexible working environment in surgical training has been revealed as an important factor in surgical selection (6). It has been shown that among physicians who had a happy surgical internship period during their student years, the resignation rate from the general surgery branch during their residency period was lower (8). This shows that the perception of general surgery is directly related to the attitudes encountered during student years. In a study

conducted in Taiwan, the most basic reservations among interns who are considering becoming surgical assistants are poor work-life balance, a salary that is insufficient for the work done, and insufficient support from human resources. The authors gave three suggestions to increase the number of students choosing surgery: appoint a coordinator for solving medico-legal issues in hospitals, allow more time off, and shorten shift times (9).

As with the study conducted by Baskan et al., the rate of preference for general surgery was found to be 20% in our study (4). According to the results obtained in our study, although the number of intern physicians who preferred general surgery was low, half (50.63%) of those who did not prefer it stated that they would prefer it if improvements were made on the current situation (50.63%), while 26.8% were undecided. We believe that the rate of preference for general surgery will increase with the detection and solution of problems specific to our country.

In addition to the choice of surgery, the career progression of the physicians who choose surgery is also a significant problem. Considering the risks that many surgical procedures may pose, the quality of surgical training is extremely important, and the problem of surgical assistants' access to this quality training should be taken into consideration. In a study by Yastı et al. in our country, although the number of general surgery specialists seems to be sufficient in terms of international standards (one surgeon per 25.000 people), the low qualifications and academic ratios of specialists pose a problem (1).

Financial problems can cause problems, especially in resignations from the assistantship period (10). In our study, this situation was shown to be among the reasons why intern students did not prefer general surgery. The latest improvements in our country aimed to reduce the number of shifts and increase the financial income of the residents.

Education, which forms the foundation of medical school, remains important to varying degrees throughout a surgeon's life. Theoretical and practical training continues with different expectations and responsibilities in the transition from medical school student to assistant, from junior resident to senior resident, and from resident to specialist. Later, continuous development and transformation take place in the life of the specialist and academic surgeon as a result of the profession (11). It has been shown that physicians who received qualified surgical training during the internship period preferred surgical branches at a higher rate (12). In a study conducted at the Yale University School of Medicine general surgery unit, resignation rates from assistantships were found to be below the general resignation rates (13). This shows that the rate of general surgery selection of student physicians who access quality and qualified surgical education at the level of medical faculty may increase later on, despite all the negativities.

In our country, general surgery specialization choices are lowering. The inters may think that they can not satisfied and get paid for their work. Because of this only idealist interns prefer surgery. Anymore in surgery clinics, we may see citizens of other countries more commonly.

In a study conducted in our country, medical students' perspectives on the concept of professionalism in medical education were examined, and it was understood that they expected a dutiful, respectful, and compassionate medical education from medical educators (14).

We believe that if a professional approach is taken by the specialists and residents in surgical clinics with respect to medical faculty students, more students will choose to specialise in surgery.

Limitations of the Study

The main limitation of our study is that it is a survey study conducted with interns studying in a single medical faculty. Although it is an anonymous survey, there is a risk that the answers given are subjective at some level. In the study, the sociocultural background and financial resources of the interns were not examined, nor was the connection between the choice of branch and gender. Prospective, multicentre studies can reveal the actual preference rates and possible reasons for not preferring the general surgery branch in more detail.

CONCLUSION

The rate of preference for general surgery, which is one of the oldest and most basic branches of medicine, is decreasing in our country and in the world. We should aim to train qualified general surgeons in the future by identifying the main reasons for this and addressing them.

Conflict of interests
The authors declare that there is no conflict of interest in the study.

Financial Disclosure
The authors declare that they have received no financial support for the study.

Ethical approval
Following the approval of the study via the local ethics committee (Kütahya University of Health Sciences Local Ethical Committee Approval Number: 2022/02-09), permission from the faculty board and dean was obtained to apply for interns for a 10-question survey.

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