



Original Article

A snapshot of residents in medical oncology in Turkey: A Nationwide survey on profile and key problems

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SUMMARY

Aim: The aim of this study is to be informed about demographic features, the reasons for preferring medical oncology, career plans, and the educational problems of the residents training in the subspecialty of medical oncology.

Method: The responses to questionnaire forms sent by e-mail to subspecialty residents who are continuing their training in different educational institutions of our country were recorded and analyzed. **Results:** Seventynine of 129 residents (61.2%) responded the survey forms. Median age of the participants was 33 years. Thirty six (45.5%) were female, and 43 (54.5%) were male. The responders stated different reasons for their preference of medical oncology but most of them (n:64, 81%) thought that medical oncology has a bright future. Of them, 38 (48.1%) the responders intended to refrain from their medical conscription was their most important concern. Fiftytwo (65.8%) of them were not satisfied much with their present education and academic activities. Sixty-nine (87.3%) of the participants indicated that they had been suffering from the symptoms of burnout syndrome.

Conclusion: Recognition of the subspecialty residents who are the future of medical oncology, and determination of their needs, and problems will contribute to the development of recommendations for their solution. In our country their main problems are medical conscription, inadequate education, and burnout.

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1. Introduction

In Turkey, up to 2007, each medical training, and research institution could select its own subspecialty residents. However in 2007, Turkish Ministry of Health and Social Welfare has made some amendments in the relevant articles of the law, and reorganized subspecialty training. The ministry opened a central exam for those who wanted to get training in medical oncology, and started to deploy successful candidates into educational institutions according to the examination results, and preferences of the candidates.

The first central exam was done in October, 2007, and from that date subspecialty exams have been organized biannually. The number of medical oncology residents has increased from 40 in 2007, to 129 within 4 years due to large candidate quotas opened for every exam.¹

In our country, de novo cancer patients are expected to increase in near future because of increase in our population, especially elder population, and advancements in diagnostic modalities. According to Turkish Ministry of Health (Reconstruction Program of Oncologic Health Care Services in Turkey), the required number of medical oncologists are 725 in 2010, and 1225 in 2023.² Even though many new subspecialty candidates started active duty as a de novo resident, when anticipated targets were taken into consideration, it seems to be very difficult to close the gap in the number of medical oncologists. When compared with other

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European countries, as for number of medical oncologists per 1.000.000 persons, our country ranks in the middle.³

Medical oncology subspecialty training in Turkey is provided for internists who passed the central exam. Educational institutions are divided into 3 categories as state universities, foundation or private universities, and training and research state hospitals. Duration of training is 3 years. During this period every subspecialty resident, get training in one-month rotations in pathology, hematology, and radiation oncology in addition to medical oncology. Each subspecialty specialist who completed his/her residency training should complete his/her compulsory service lasting nearly 18 months in hospitals assigned by Turkish Ministry of Health and Welfare.

Although similar studies have been conducted before in the United States of America, and France, any investigation about the “identity” of medical oncology subspecialty residents has not been carried on in our country so far.^{4,5} Consequently instructors of medical oncology more knowledgeable about those who receive this training will understand the problems of the residents which will improve interactive communication and increase the quality of education.

The aim of this study is to reveal preferences, opinions about the training curriculum, future plans, and professional problems of medical oncology subspecialty residents training in various hospitals localized in different socioeconomic regions of Turkey, and contribute to the development of recommendations for the solution of their problems.

2. Method

A questionnaire form consisting of 10 questions has been prepared. Questions of the survey forms are given in Table 1. The prepared questionnaire forms have been sent between January 2012, and February 2012 via e-mail to a total of 129 assistants in Turkey whose subspecialty training in oncology are still continuing. Subspecialty assistants who completed questionnaire forms sent their responses via e-mail. All responses were entered into MS Windows World Excel database, and analyzed.

3. Results

Questionnaire forms were sent to 129 residents, and 79 (61.2%) of them completed the questionnaire forms. Median age of these responders (female, $n = 36$; 45.5%, male, $n = 43$; 54.5%) was 33 (29–41 yrs) years.

Most of them (41.8%) had completed their training in internal medicine at least 4 years ago. Sixty-seven percent of all subspecialty residents were in the middle (2–3 years) of their medical oncology training. Higher grade-point averages were seen during review of the central exam results. Forty-two percent of the subspecialty residents had got 70 or more points over 100, and qualified for medical oncology training. Most of (68.3%) the subspecialty residents had been training in state universities, followed by training and research hospitals affiliated with the Ministry of Health, and Social Welfare (20.3%), and foundation/private universities (11.4%).

When asked why they felt the necessity of training in a subspecialty after they had completed their training in internal medicine, 57% of the participants stated that they wanted to refrain from broader scope, and heavy work load of internal medicine, and desired to practice in a more specific subspecialty. However 39.2% of the participants thought that training in a subspecialty will increase their chances of pursuing an academic career.

When inquired why they had preferred medical oncology among other subspecialties, 81.0% of the participants responded that they had predicted a relatively brighter future in the field of medical oncology (Table 2).

Compulsory medical service mandated by our country legislation attracted our attention as the most important (48.1%) problem of our participants. Inadequate salary took the second place (17.7%) (Table 2).

Only 34.2% of the participants had found their medical oncology subspecialty training adequate, while 46.8, and 19% the responders complained of limited adequacy, and inadequacy of their training, respectively. Still, academic activities were deemed to be adequate, by 16.5% of the trainees, while 38, and 45.5% of the participants indicated limited adequacy, and inadequacy of the training programs, respectively. As the training program nears to its end, increasingly greater number of participants considered inadequacy of their training. Opinions about training, and academic activities did not vary between different educational institutions.

Only 12.7% of the participating subspecialty residents indicated that they had never felt symptoms of burnout syndrome, and 54.4% of them rarely perceived these symptoms. However 25.3, and 7.6% of the participants had reportedly experienced these symptoms frequently (25.3%) or all the time (7.6%).

4. Discussion

In Turkey training of medical oncology lasts at least 3 years after a minimum of 4 years of residency in the internal medicine. Therefore in our country mean ages of subspecialty residents are higher relative to other countries (eg. Italy, Finland) which provide subspecialty training in medical oncology.³

In our country a marked difference does not exist between internists, and subspecialists as for economic, social, and personal rights. Still, subspecialty residents have a lower income than internists because of their residency status. Therefore, we asked subspecialty residents why they wanted to receive a subspecialty training. A substantial number of subspecialty residents replied that they wanted to work in a more specific discipline. When large working spectrum of internists in our country taken into account, this response might be considered as a normal wish. Making a career ranked second among frequently expressed wishes of the participants. In our country internists should complete their training in a subspecialty in order to practice. Despite favorable regulatory modifications implemented in recent years in our country, the incidence of subspecialty training among internists is nearly 18–24 percent. Presently this incidence is far from meeting requirement of academicians of our country in the future.

When compared with other applicants for other medical disciplines, medical oncology candidates obtained higher grades in the central state exam which allocates internists into medical institutions providing subspecialty training. Under the current working conditions of our country, this fact might indicate “popularity” of medical oncology among other subspecialties. Indeed a substantial number of oncology subspecialty residents reported that they had preferred training in the field of medical oncology because it would offer them a brighter future relative to other disciplines. In a similar study performed in 2010, in France, majority of the participants ranked special interest in the medical oncology in the first place among their preferences.⁵ As far as we know, any examination, and candidate placement program are not implemented in another European country. Therefore favorable, and unfavorable outcomes of this examination, and placement system which will emerge with time might be a referenced source of experience for other countries.

Table 1
Items of the questionnaire form

1. For how many years are you working as an internal medicine specialist? (1–2 years/3–4 years/≥ 4 years)
2. For how many years are you working as a subspecialty assistant in the field of medical oncology? (0–1 year/2–3 years/≥ 3 years)
3. What was your credit in subspecialty entrance examination? (50–60 points/61–70 points/≥ 71 points)
4. In which health institute are you working for? (state university/foundation or private university/training and research hospital affiliated with Ministry of Health and Social Welfare)
5. Why did you want to practice in a subspecialty after you became a specialist in internal medicine? <ul style="list-style-type: none"> • To postpone compulsory or military service • To assign to a post near my spouse • To choose the city I will live in • To create a chance of academic career • To gain more money in the future • To relieve myself from the routines of internal medicine, and practice in a more specific discipline • To be able to work in the future in a city in the worst case
6. What is your reason of choosing medical oncology rather than other subspecialties? <ul style="list-style-type: none"> • I have seen a bright future in medical oncology • I thought I will gain more money • I thought I will more easily build an academic career. • Because this subspecialty has been established in the city I want to live in. • Because I have good relationship with the educational staff of medical oncology • Because I feel personal sympathy towards cancer patients • Because I will have a higher opportunity to continue my education abroad
7. What is your most important problem as an assistant of a subspecialty of medical oncology? <ul style="list-style-type: none"> • Inadequate salary • Compulsory service • Longer training period • Deficient training • Inadequacy of your academic activities • Being in an intermediary status (Controversy between being an assistant and an instructor) • Burnout state of health caused by dealing with cancer patients
8. Do you find your training satisfactory? (Satisfactory/Not bad/Unsatisfactory)
9. Do you find your academic activities satisfactory? (Satisfactory/Not bad/Unsatisfactory)
10. Do you feel symptoms of burnout syndrome? No (never) <ul style="list-style-type: none"> • Occasionally but not frequently • Occasionally, and frequently • Yes (every time)

Table 2
The response rate of some important questions

Questions	Response	Response rates
What is your rationale for preferring medical oncology among other subspecialties?	I predict a brighter future in medical oncology	%81
	I think I will make more money	%11
	I think I will easily pursue a career	%2
	I can get training in this subspecialty in my home town	%2
	I have good relationships with instructors of medical oncology	%2
	I feel sympathy for cancer patients	%10
	I have much more opportunity to continue my training abroad	%2
What is the most important problem you are confronting as a medical oncology subspecialty resident?	Inadequate salary	%17.7
	Compulsory medical service	%48.1
	Longer training periods	%2
	Inadequate training	%4
	Inadequate academic activities	%4
	Working in an intermediate status (resident? instructor?)	%9.2
Feeling burnout while dealing with cancer patients	%15	

In our country, every physician who accomplished his/her subspecialty residency successfully, is obliged to complete a compulsory service in medical centers predetermined by Turkish Ministry of Health and Social Welfare. Duration of this service is approximately 18 months, and according to our legislation, physicians can not work as a subspecialist without completing their compulsory medical service. The most important concern of medical oncology subspecialty residents is apparently this compulsory service act. This act which was implemented to distribute health care services equally all over Turkey, seemed to lead to favorable outcomes at first. Unfortunately implementation of this act interrupts integrity of academic activities, and physicians are forced to live away from their families, and working environments. Physician-friendly amendments in the relevant act concerning subspecialties with

inadequate number of specialists will resolve this issue. As seen in every country, incomes of the physicians in Turkey are generally considered inadequate by the medical professionals. Even inadequate incomes were rated as of minor importance relative to the problems resulting from compulsory medical service act.

Most of the subspecialty residents assessed academic activities, and their training as far from being satisfactory which is worth considering. This deficiency was more dramatically felt by the physicians nearing their residency (≥3. year residents), and creates fears about their future medical practice. Subspecialty residents in different educational institutions (state universities, training and research hospitals affiliated with the Ministry of Health, and Social Welfare, and foundation/private universities) have given similar responses to the questions about quality of training, and academic

activities. This phenomenon is especially worth considering for foundation/private universities. However it should not be forgotten that residents who regard questionnaire forms as an expression of their problems will participate in greater numbers in the survey, while only limited number of those satisfied with their training, and academic activities will complete the survey forms, which eventually will create a kind of screening bias.

Burnout syndrome was reported with an incidence ranging between 8 and 51% among cancer professionals.⁶ In this study, questions concerning burnout syndrome were directed to the participants who had been supposedly acknowledged about the symptoms of this syndrome. Completion of a special questionnaire form (ie. Maslach Burnout Scale) was not requested from the participants.⁷ Assessment of the responses suggested that 87.3% of the participants had more or less suffered from burnout syndrome. This rate is much lower among physicians at the beginning of their training, however relevant symptoms are more intensely felt especially by subspecialty residents near the end of their training. It is noteworthy that subspecialty residents are under the impact of burnout syndrome at the onset of their professional lives. Working conditions of medical oncologist should be rearranged so as to satisfy their physical, and psychological needs. Indeed, none of the cancer patients want to consult to a 'worn-out' medical oncologist.

In conclusion, we are face to face with a group of medical oncology residents with following characteristics: (1) they are entertaining a hope for the future of medical oncology, (2) they dislike the concept of obligatory medical duty (3) they believe that they deserve better training, and sophisticated academic activities (4) they occasionally get the feeling of suffering from burnout syndrome even though they are in the initial stage of their professional life. Recognition of our subspecialty residents who will

shape the future of medical oncology, and acknowledgement of their needs, and problems will facilitate our search for ways of their solution. In the short-term, modifications in the article concerning obligatory medical duty, revision of the curriculum for training, and academic activities, providing psychological support to overcome thoughts of burnout will improve working zest, and productivity of subspecialty residents. We think that conduction of periodic questionnaire surveys will be useful.

Conflict of interest

The authors have declared that no competing interests exist.

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