

Selecting Emergency Medicine: Rationales from Perspective of Iranian Residents

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Received: 21 May 2013; Accepted: 18 Mar. 2014

Abstract- Emergency medicine is a relatively new specialty in Iran. Therefore, the general public and the medical community do not have enough information on its duties, capabilities, its nature, and its work schedule or its degree of occupational difficulty compared to other specialties. Hence, an insight from the early group of residents who selected this specialty can help identify the strengths and weaknesses of this field in order to promote the scientific quality of this field, and attract medical students. It can also help to alleviate deficiencies and strengthen positive aspects of emergency medicine. The aim of this study was to identify the reasons behind choosing emergency medicine as a specialty. A qualitative study was conducted using semi-structured interviews. Maximum variation opportunistic sampling was done, and face-to-face interviews were held with 23 emergency medicine residents and fellows (4 faculty members and 19 residents). Data were analyzed through thematic analysis, and categories and themes were extracted. The main levels extracted were: 1) Individual priorities, 2) the nature of work and the field of study, and 3) professional future. The themes of each main level were extracted and encoded. This study showed that the majority of residents choose emergency medicine specialty to achieve a better social and professional status in one of the most challenging fields of medicine.

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Acta Medica Iranica, 2014;52(12):922-926.

Keywords: Emergency medicine; Medical specialty selection; Job selection; Specialty resident

Introduction

Emergency medicine originated as a separate specialty in the early 1960s in the US (1). In Iran, training in this specialty officially was begun in 2001 in the "Iran University of Medical Sciences" (1). In the United States, emergency medicine has proven to be one of the most successful specialties in recruiting top medical professionals. Emergency medicine proved to be one the most competitive specialties currently sitting at second position (2).

In Iran, however, there is not enough information on the type of performance and working conditions of this specialty among medical graduates. Therefore, identifying the reasons behind choosing the specialty by

its pioneers can prove helpful to future policy makings in order to train efficient and expert resources, to plan its curriculum, and also to introduce the specialty to the medical community.

Materials and Methods

A qualitative study was performed and data were collected using semi-structured interviews. We defined our indicators as marital status at the time of choosing the specialty, gender, and the experience of working as a general physician (less than 2 years, between 2-5 years, more than 5 years). Since the number of residents and fellows in this specialty are small, we used its scientific council's database and the education office of three

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medical universities of 'Tehran', 'Iran' and 'Shahid Beheshti' to select the interviewees. The influential variables were taken into account while selecting them. Maximum variation opportunistic sampling, a type of purposeful sampling that is specifically used in qualitative studies was used to select the population under study. On the whole, face-to-face interviews were held with 23 individuals (4 faculty members and 19 residents). Each interview took around 30-45 minutes. An attempt was made to use open-ended questions in the interview and not to lead the interviewees into a specific direction. Three main questions were asked:

- 1) What were the reasons you chose emergency medicine?
- 2) What is your perspective toward this specialty?
- 3) How do you see the future of this specialty?

Data analysis

All the aforementioned residents and fellows were interviewed till data saturation was reached. At the beginning of each interview, after recording the required data including gender, marital status and years of working experience as a GP at the time of choosing the specialty, permission was taken from the participants to audio-record the interviews. Simultaneously notes were taken. Thematic analysis was used to analyze the data. The interviews were transcribed verbatim and two researchers independently studied the transcriptions. The extracted themes were then encoded and compared. The categories were identified after an agreement was reached. Where there was a disagreement on the categories the final decision was made by the research team. Interview transcriptions were studied for the second time and frequency of the factors mentioned by the interviewees were identified for each category.

Results

Three main categories were extracted:

1. Individual priorities
2. The nature of work and the field of study
3. Professional future

1) Individual priorities

In short, the themes extracted from the Individual priorities category were as follows:

- . Interest in the field
- . Inadequate scores to choose other specialties of interest in residency entrance exam. Having less interest in direct financial relationship with their patient

- . Having less interest in running a private practice
- . Having an academic career by accepting a faculty position
- . Interest in performing various procedures
- . Participating in direct the first-line patient care
- . Excelling in residency training
- . Fear of passing again
- . Financial issues
- . Having less interest to work as GP
- . Enjoying consultation with seniors
- . Family and friends' encouragement
- . Interest in working in the hospital
- . Imitating colleagues or seniors
- . Previous acquaintance with the field during years of education
- . The stress of taking the residency entry exam for a better score
- . The university of graduation
- . The possibility of working during educational years(it is called "moonlighting")
- . Idea of providing services with the least number of facilities available
- . The thirst for knowledge and science Previous experience of working in the emergency room
- . Relatively easier entrance to the field
- . because of the spiritual or religious reasons
- . Avoiding commitments or obligatory return of service
- . Self-recognition
- . Selecting a residency position closer to home

All participants had chosen the specialty based on personal interest and they expressed that they had enjoyed working in the emergency room with emergency patients. Emergency medicine was not the first choice of all cases except for three (13.04%). However, except for one subject, EM was among their first five choices.

Residency exam score seems to be an important factor. Except for two cases, the rest of participants would have taken up another specialty if they had higher scores. Working in the hospital and emergency room and interest in performing various medical procedures were among the other main reasons for choosing this specialty. Another issue that has lately risen as a result of new regulations was permitting the candidates to take residency entrance exam right after graduation and before obligatory return of service in individuals who were married or graduated with distinctions. The current regulation dictates that, if the candidate failed to pass the exam she/he should start their obligatory return of service period. This study showed that several subjects

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who chose EM residency were among this group. They decided to enter a residency program at all consequences to avoid the 2-3 year gap between their years of education.

Among other reasons of choosing this specialty, was having had become familiar with its responsibilities and its efficiency during MD internship. Another influential factor mentioned by participants was the possibility of continuing their education in well-known and larger universities in the country and staying in the metropolitan capital city of Iran, Tehran. One participant claimed that he had felt the need to acquire further skills after coming across sick and complicated patients. Another issue mentioned by participants was their lack of interest for “on call” duties. Another factor mentioned by many of the interviewees was their interest in academic career and potentials for becoming a faculty member.

2) The nature of work and the field of study

In short, the main themes extracted from this category were as follows:

- . Conversancy in multiple medical fields
- . Familiarity with various procedures
- . Teamwork
- . satisfaction in observing immediate results
- . Avoiding direct financial contact with the patient
- . Avoiding insurances
- . shorter residency period compared to other specialties
- . The field is new and growing
- . Interest in practical knowledge 12-hour shifts
- . No “on call” duties
- . Active and exciting field
- . strong relationships with large scientific centers across the world

Some interviewees believed emergency medicine is a specialty that can be utilized in wide variety of occasions and in many locations; and effective measures can be taken for the patient in variety of situation as emergency physicians are becoming familiar with multiple procedures, primary, pre-hospital, and advanced ICU care.

A factor that was repeatedly mentioned by participants as an influential factor in choosing emergency medicine was the shorter length of the courses compared to other specialties.

According to few of the participants emergency medicine is a new and growing field, and these are facts that affect their choices.

Others believed 12-hour shifts, without long term

contact with the patient, and in most cases giving priority to acute vs. chronic care were among other factors affecting their decision.

3) Professional future

In short, the main themes extracted from this category were as follows:

- . Increasing demand for this specialty
- . possibility to work in big academic and educational centers
- . options for joining the faculty
- . staying in Tehran
- . The work market and financial benefits
- . possibility to continue education abroad
- . possibility of continuing education in sub-specialties
- . The private sector demand

In this category, the main factors contributing to the selection of this specialty are concerned with the outlook toward its professional future.

Being married and having had a family, was an important factor for a strong preference for staying in Tehran for post-graduate education. Another major factor in this category was:

“I wanted to enter a specialty that was needed in the country, and I thought the hospitals needed most” Working in the private sector and at international level was also mentioned.

Discussion

The history of this specialty is older in other societies such as the United States of America and Australia. Therefore, studies conducted so far have all been performed quantitatively, using questionnaires and scoring of items. To our knowledge no similar study had been conducted on the reasons of choosing specialties and especially this field in Iran. Also, considering the social and cultural differences between our society and others, we decided to conduct a qualitative study and ask open-ended questions in the interviews. Therefore, we cannot give weight to the rationales found. Quantitative study needs to be performed in order to give weight and prioritize the aforementioned rationales. Upon comparing our results with other similar studies, we found that most of the rationales behind choosing emergency medicine are common among them. For example, in the study conducted on student selection of medical specialties in the US almost all the items mentioned in the interviews were the same as those mentioned in our study, except for the role of

management in choosing a specialty and its cost (3). However, since education in Iran is free of charge we did not expect to hear this as a reason either. The other reasons such as the type of patients they come across, the content of the specialty, confronting challenging patients, and working hours were similar.

Compared to another study conducted in Australia (4) most of the reasons mentioned in our study were mentioned too, namely, the role of the working environment, working experience in a special specialty, working hours, the role of the mentor, the possibility of performing various procedures, the length of the course, interest in helping others, the experience gained during graduation years, family's encouragement, room for progress in this specialty, professional safety, social prestige and income (4). The only reason that had not been mentioned in our study was the number of complaints, legal issues and cost of insurance. Considering the current status of medicine in Iran it seems such issues are not a big concern for the physicians' yet. Though, with the increasing trend of complaints against physicians in Iran it will probably become an issue in selecting specialties in the near future.

In another study (5), the role of selecting a specialty that can be studied in a city close to one's family and spouse has been mentioned, a point reiterated in many of our interviews. A positive experience of seniors' behavior with juniors has also been addressed (5). Many of our participants also pointed out a good experience during their internship as reason for choosing this specialty. The point that had been raised in this study but that was missing in our findings was the gender variety in this specialty, the fact that females could take up this field. Even though we had many female participants in our study, none of them referred to this as an issue. A very similar study to ours "Emergency Medicine Residency Selection" has clearly addressed the role of friendly and close relations between colleagues, seniors and juniors and residents and nurses in the workplace (6). Our interviews do not clearly address this issue. The popularity of the specialty and its academic career potentials has been mentioned. The academy's popularity has been mentioned in our study too, but since the specialty is a relatively new field its popularity has not been clearly addressed.

Similar findings found in a study by Kazzi *et al.*, (7). Possibility of working as well as studying has been clearly addressed; which is another factor mentioned in one of our interviews.

In general, our results are in line with those of other

similar studies. We conclude that the main reasons mentioned have been addressed in our study as well. The only factors that have not been mentioned during our interviews were:

- . The role of educational fees
- . The role of the department's management/head in specialty selection
- . The role of legal concerns and insurance costs
- . The effect of how the interviews were held
- . The effect of gender variety and the presence of the same sex (especially females) in the specialty in mind

Since education is free in Iran the issue regarding the education fees are of no significance. However, second item (role of department's management) is important. The system of residency selection is different in Iran; residents can get into different specialties on the basis of the scores they have gained in the entry exam and the priorities they select after the initial results are announced. There are no interviews for resident selection, so heads of departments have no role in resident admission.

On the other hand, keeping in mind the Iranian culture and more importantly the system of resident admission, and the financial relation between the physician and patient, are specific to the Iranian society, none of which have been mentioned in studies conducted abroad. Lack of interest in working in a private clinic and having a direct financial relationship with the patient and insurance companies for receiving their salary, fear of not passing the residency entry exam after a long interval after graduation, being up-to-date, repetitive and constant changes in residency exam rules and its references, and being a 'straight A' which are specific to Iran. The current laws in Iran do not allow general physicians to appear in the residency exam immediately after graduation, unless they satisfy certain eligibility criteria. Even those eligible groups are not allowed to take the exam more than once, and if they fail they have to go through 2 years of return of service and practice in underserved areas dictated by Ministry of Health. Therefore, those who are given this advantage try to make the best out of it and enter any specialty they can qualify for, even if they do not prefer it, in order to avoid the time lapse in their education. This matter specifically happens in Iran. Deficiencies in the emergency system in Iran and the desire to improve the status were other factors mentioned in interviews.

One major reason mentioned by participants was scores obtained in the residency entry exam and the possibility to select a specialty, the university and city of

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education and its priority based on the scores obtained. Another factor which is perhaps the major issue in "Iranian medical community" is an obvious difference in social status and income of a General Practitioners (GP) and a specialist. In many instances, we observed individuals escaped to enter residency training as a result of fear of remaining GP at all costs to promote their social status by becoming a faculty member and receiving higher income. One factor that has been highlighted in our interviews was the reward and various allocations defined for candidates based on religious values in Iranian health care system.

Based on our findings, in the past nine years that emergency medicine has been introduced in Iran, it has been selected on the basis of three main groups of reasons: individual priorities, the nature of emergency medicine as a profession, and professional future. It appears that emergency medicine has been selected by people who were interested in working in the emergency medicine as specialists. Even though it was not their first choice in their residency entry exam, but it has always been among their first five choices. The candidate's circumstance such as her/his limitation in selection given the scores she/he has achieved in the residency entry exam, being married, being a straight A student, having a single chance of appearing in the exam before his commitment period, familiarity with the specialty during internship, past working experience in the emergency room, not seeing a prospect in continuing as GP, consultations with seniors in the field, an inclination to stay in large cities, studying in mother universities, and entering any specialty possible were among the most influential individual factors in decision making. These individuals believed that working in the emergency department and passing this course has its own special advantages, such as, the universality and variety of procedures performed gives the physician a holistic medical view, it gives the physician confidence in confronting sick patients, provision of therapeutic services and observing its results in the shortest possible time, shift work, not having to face the patient for a long time, not needing a clinic nor maintaining a direct financial relationship with the patient, the opportunity of receiving one's training in mother universities, and the short duration of training compared to other specialties. Professional future was the third group of influential

factors in selecting this specialty; they believed that unlike most other specialties, this field is relatively new and the possibility of progress and becoming a faculty member in academic centers and provincial capitals is greater. Also, it is possible to continue studying in sub-specialties in other countries.

On the whole, it seems that conducting qualitative studies through face-to-face interviews are associated with certain limitations, as expected. Co-ordinations with individuals for interviews, designing ideal questions, the difficulties of interviewing different people in different social and academic positions, and the possibility of censoring the truth during interviews are all problems that need to be addressed.

The other issue is that in this study we could not give weight to our results. Therefore, it is necessary to design a quantitative study on the basis of these findings to give weight to, and determine the priority of each of the reasons behind specialty selection.

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