

Career Choice and Primary Care in the United Arab Emirates

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ABSTRACT

Background The low number of medical trainees entering primary care is contributing to the lack of access to primary care services in many countries. Despite the need for primary care physicians in the Middle East, there is limited information regarding trainees' career choices, a critical determinant in the supply of primary care physicians.

Objective We analyzed the career choices of medical students in the United Arab Emirates (UAE), with a larger goal of reforming postgraduate training in the region and enhancing the focus on primary care.

Methods We conducted a cross-sectional survey of applicants to a large established internal medicine residency program in the UAE. We calculated data for demographics, subspecialty choice, and factors affecting subspecialty choice, and we also reported descriptive statistics.

Results Our response rate was 86% (183 of 212). Only 25% of applicants ($n = 46$) were interested in general internal medicine. The majority of respondents ($n = 126$, 69%) indicated a desire to pursue subspecialty training, and the remainder chose careers in research or administration. A majority of respondents (73%) were women, unmarried, and childless. Educational debt or lifestyle were not indicated as important factors in career choice.

Conclusions Low interest in primary care was similar to that in many Western countries, despite a much higher percentage of female applicants and a reduced emphasis on lifestyle or income factors in career decisions. Reasons for the reduced interest in primary care deserve further exploration, as do tests of interventions to increase interest, such as improving the primary care clerkship experience.

Introduction

Primary care physicians fill a vital need in a country's health care infrastructure.¹ The value of primary care physicians is demonstrated by studies showing reduction in mortality and health care-related costs.² International analyses demonstrate that countries with strong primary care programs have better health outcomes.¹ Accordingly, medical students' specialty choices can have significant public health and policy ramifications. Yet, many Western countries struggle with a primary care physician deficit.^{3,4}

The United Arab Emirates (UAE), like other nations, faces issues of physician shortages, skill imbalance, and specialty misdistribution. Despite its small population and its wealth, access to skilled health care workers is inconsistent. Recent World Health Organization (WHO) data list the total number of physicians in the UAE to be 17.3:10 000,⁵ with an estimated family physician/

population ratio of 1:59 000.⁶ Data regarding the percentage of generalists versus specialists are limited.

The Middle East's current large-scale importation of health care professionals occurs against a backdrop of regional political instability and global physician shortages. Furthermore, inadequate educational infrastructure and capacity, an aging population, and a high prevalence of noncommunicable diseases threaten the nation's health care system.⁷ Cognizant of the struggles of other nations, many countries in the Middle East are attempting to align graduate medical education with national health care needs. Reforms have included capacity building (new medical schools and residency programs), increasing accountability of postgraduate training through mandating competency-based education, and international accreditation by the Accreditation Council for Graduate Medical Education-International.⁸

Notably, the definition of "primary care" differs across nations. In the United States, primary care encompasses general internal medicine, family medicine, pediatrics, and obstetrics-gynecology for reproductive women. In other settings, geriatricians and

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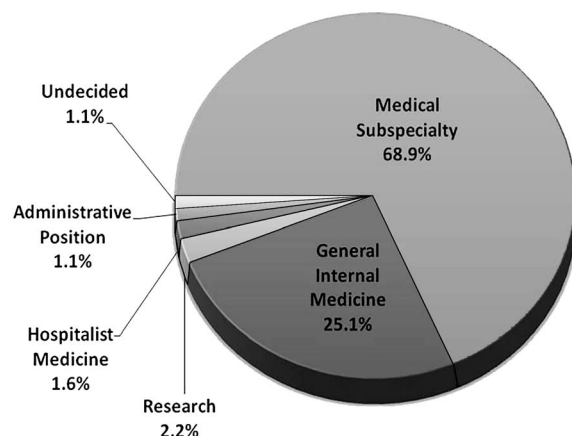


FIGURE 1
Future Career Choice of 183 Applicants to Internal Medicine Residency Program in United Arab Emirates During 2013 Residency Match

hospitalists are also part of the primary care workforce. The UAE has traditionally followed a United Kingdom-based framework where primary care services are predominantly offered by family or general practitioners. The nation's recent graduate medical education restructuring, based on a US model, has sought to expand the primary care workforce through the training of more general internists and pediatricians.⁹

To date, there has been no published information on the percentage of UAE trainees pursuing primary care. Our purpose is to assess future career choices of applicants to an internal medicine residency program in the UAE, and the factors that contribute to their choices.

Methods

We conducted a cross-sectional study of all 2013 applicants to the Tawam Hospital internal medicine residency program, a large, well-established residency and 1 of only 7 internal medicine programs in the UAE. In May 2013, e-mails were sent to applicants with an anonymous and voluntary electronic link to the survey.

The questionnaire was developed after a literature review, and piloted on 10 current residents who did not participate in the final survey. Demographic data (10 questions), future career plans (2 questions), and factors affecting career choices (31 factors) were collected. Applicants were asked to "mark all that apply" for which factors affected their career choices and, in a separate question, to "rank the top 3 items" affecting their decisions. The survey also asked whether applicants paid tuition for medical school

and, if yes, the average annual cost of medical school tuition. These answers were used as a possible indicator of financial debt.

Institutional Review Board approval was obtained from the Al Ain Medical District Human Research Ethics Committee.

Descriptive statistical analyses were performed. SPSS version 21 (IBM Corp) was used to compare the individuals indicating a career interest in primary care and those who did not for 5 demographic variables using a Fisher exact test.

Results

The response rate was 86% (183 of 212). Of the respondents, 126 (69%) indicated a desire to pursue a medical subspecialty, while 46 (25%) indicated an interest in primary care (FIGURE 1). The remainder indicated interest in a career in research or administration ($n = 11$, 6%), hospital medicine ($n = 3$, 1.6%), and geriatrics ($n = 2$, 1.1%). Common factors considered in determining specialty choice included best match with interests ($n = 143$, 78%), broad practice area ($n = 94$, 51%), and positive clerkship experience ($n = 87$, 48%; FIGURE 2). In both career choice and subspecialty choice, there were no significant differences in sex, age, marital status, educational debt, or nationality.

Discussion

Ample data demonstrate that only 20% to 28% of internal medicine residency graduates in Western nations choose a primary care career.^{3,10} Similarly, our findings demonstrate that only 25% of applicants to a UAE internal medicine program intended to pursue primary care. Our results did show an unusually high number of female applicants.

A prominent feature in our sample was the ratio of women to men. Compared with a large US study with 49% of female internal medicine residents,¹¹ our proportion was substantially higher at 73.2%, which is consistent with World Economic Forum 2012 data confirming that Emirati women in tertiary education outnumber men 3 to 1.¹² An explanation for the low ranking of lifestyle factors in career choice decisions may be that the majority (79%) of our applicants were unmarried and childless.

Another finding was the lack of correlation between tuition cost and career choice. Studies in the United States have demonstrated the impact of medical school debt on future career choice.¹³ As 41% of our survey respondents had their medical education completely funded by the government,

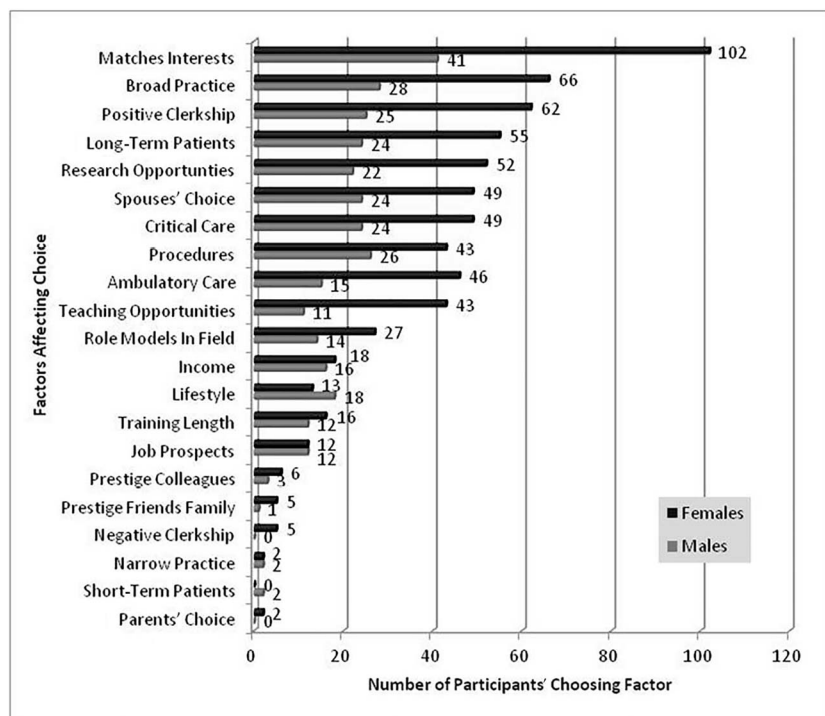


FIGURE 2

Important Determinants of Career Choice for Applicants to Internal Medicine Residency Program in Abu Dhabi During 2013 Residency Match

tuition cost rarely factored into their choice of specialty. Similarly, for the 59% of medical students who paid tuition, potential future income was not an important determinant of career choice. This finding is indicative of the uniqueness of medical students in this region; it contrasts with a study of other UAE health care workers in which “material rewards” ranked first in importance.¹⁴ Training programs may find this information useful, and it may be used to guide more residents into the primary care pathway. A particularly promising area is the influence of the clerkship experience, which suggests that enhancing the primary care experience for medical students may be an important factor in increasing interest in a generalist career.

Limitations of our study include the reliance on respondents' self-reporting of specialty preferences and the lack of follow-up data on actual residency selection data or future career trajectories. We also studied a single residency program, which limits the generalizability of our findings. Even with these limitations, we are not aware of any other published studies of primary care versus subspecialty care choices of residency applicants in the Middle East. As such, our study offers insight into the career choices of medical students, which can affect educational and health care policy reform in this region.

Although these findings represent a cross-section of medical graduates, data collection should continue with the potential to monitor trends and identify institutions that succeed in producing primary care physicians. Further larger-scale, multi-institutional, and longitudinal studies are needed.

Conclusion

In this study of applicants to a UAE internal medicine residency program, only 25% of respondents expressed interest in primary care, a finding that could have negative implications on the nation's health care system. The unique findings of a higher predominance of female applicants and the limited importance of income-related factors in this cohort could be an asset in recruiting more primary care physicians. Another promising area entails reforming the clerkship experience to increase interest in primary care.

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