

Migratory Trends of Medical Graduates in India

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ABSTRACT

BACKGROUND: India has one of the largest medical education systems in the world but approximately one-third of fresh medical graduates leave India every year for residency training or practice abroad, with approximately 2.5-5% leaving for the United States. Although physician 'brain drain' has long been recognized, various interventions designed to address it has been constrained by a limited understanding of this migration, usually stemming from the unavailability of detailed data. This study was conducted to analyze the career trends of recent medical graduates and to identify the reasons behind those trends.

METHODS: A questionnaire was emailed to recent medical graduates from a medical school asking about the preference for further training, and reasons for their preference including the relative importance of each reason (very important, slightly important or not important). Statistical analysis was performed using SPSS v.17.

RESULTS: The questionnaire was e-mailed to 100 students. Sixty-six responses were deemed appropriate for analysis. Forty-four

students (66.7%) choose to do post-graduation in India, with 22 (50%) of them wishing to go abroad in future for further studies and 5 (11.36%) agreeing to change decision if they could go back in time. Twenty-two students (33.3%) choose to go to the United States, with 14 (63.6%) wishing to return back to India after completion of studies while 8 (36.4%) wished to settle abroad, and 2 (9.1%) agreeing to reverse decision if they could go back in time. There was no statistical difference in demographic profiles of students preferring training in India versus the United States.

CONCLUSION: This study found that many students (33.3%) prefer going abroad for post-graduation training. The reasons considered most important for choosing to go abroad included better job opportunities, better quality of life, better hospital infrastructure and facilities, and a comparative difficulty to get into desired sub-specialty in the home country (India). This is the first study that examines the preference of medical students and reasons for deciding a particular career path.

Keywords: India; Education system; Medical graduates; Abroad

INTRODUCTION

India has one of the largest medical education systems in the world consisting of 405 medical colleges enrolling 40,525 students each year [1]. It has been estimated that one third of the freshly qualified physicians leave India every year for residency training and/or practice abroad [2], and between 1,000 and 1,700 medical graduates emigrating to the United States each year to enter residency training [3,4]. Thus, approximately 2.5% to 5% of physicians graduating every year migrate to US for higher studies. There is currently 1 physician for 1953 people in India as

compared to 1 physician for 400 in the United States [5,6] In spite of the shortage of physicians, developing countries continue to lose physicians to the developed countries. Currently international medical graduates (IMGs) constitute 25% of the physicians in the United States with India being the leading contributor followed by Philippines [3]. As the United States continues to encounter a prolonged period of physician shortages, with future plans of further increasing residency spots, it a question worth pondering whether the high level of interest these Indian medical graduates have had in training and subsequently practicing in the United States

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will persist? [7-9].

Though physician 'brain drain' has long been recognized, designing various interventions to address it, including mechanisms of funding medical education, and establishment of new medical schools, has been constrained by a limited understanding of this migration, usually stemming from the unavailability of detailed data [10]. In order to reduce this 'brain drain', policymakers need to identify the factors that attract the students to foreign countries. Studies have attempted to find the association between the path chosen by medical graduates in India and their relation to the quality of physicians and quality of training [10, 11], however, very few studies in literature have tried to analyze the attitude and reason(s) for choosing a particular career path (staying in India or going abroad) by medical graduates in India [8]. This study has been conducted to analyze the career trends of medical graduates in India and further attempts to identify the reasons behind the decisions of graduates.

METHODS AND MATERIALS

This prospective study was conducted at a government-run medical college in New Delhi, the capital of India. A questionnaire was prepared asking the preference for post-graduation training and the reasons for such preference. The questionnaire is attached as Appendix 1. We enlisted several possible reasons for choosing a particular option and the students were asked to point the relevant importance of each parameter (very important, slightly important or not important). Open ended questions were asked about other reasons and student's views. Also they were asked if retrospectively they were to go back in time, would they change their decision. The questionnaire was emailed to all the students of a batch that had graduated couple of years ago from the college. This particular batch was chosen to study the reasons and perceptions of students and the batch that graduated one year ago was not included because most of the students of that batch were still going through post-graduate entrance examinations. Therefore, in order to avoid bias and to base our work on most current data, the batch that graduated two years ago was chosen.

To cater the anonymity option, providing name in the questionnaire was optional. A reminder email was sent 4 weeks later and another reminder another 4 weeks later. A final reminder

was sent 12 weeks after the first email. All responses received by the end of 12 weeks were considered for the purpose of this study. Statistical analysis was performed using SPSS v.17. Continuous variables were expressed as mean \pm SD and percentage was calculated for categorical variables.

RESULTS

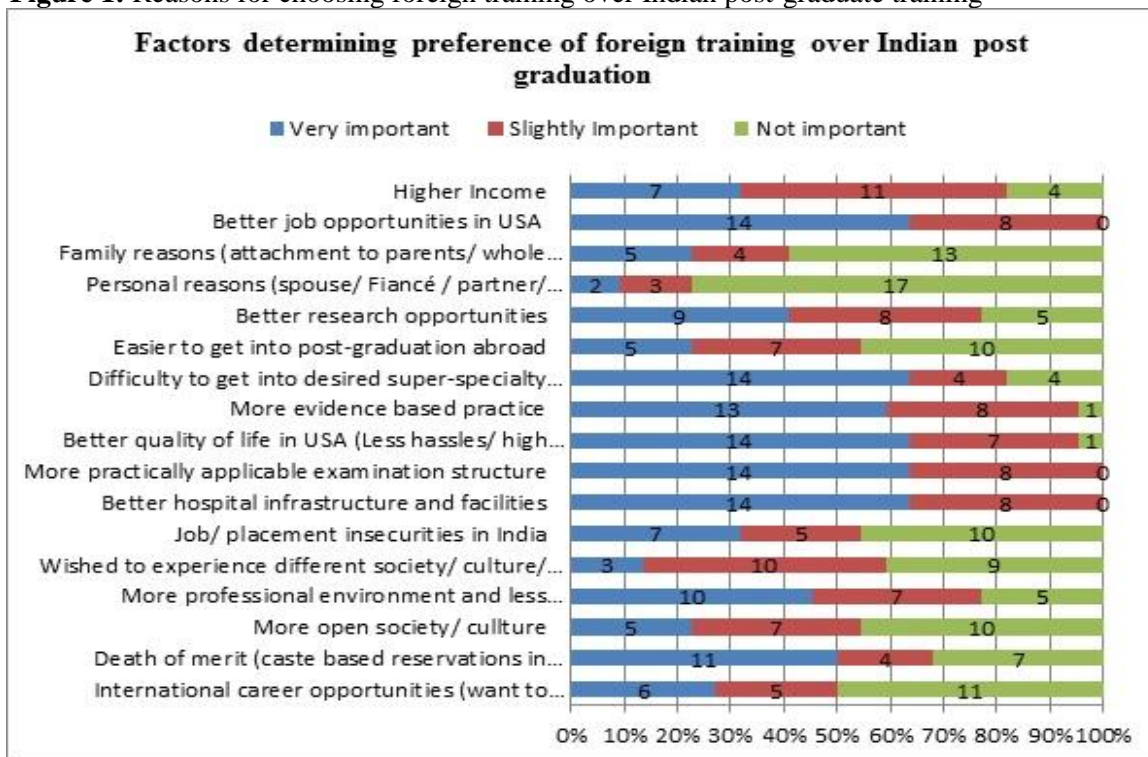
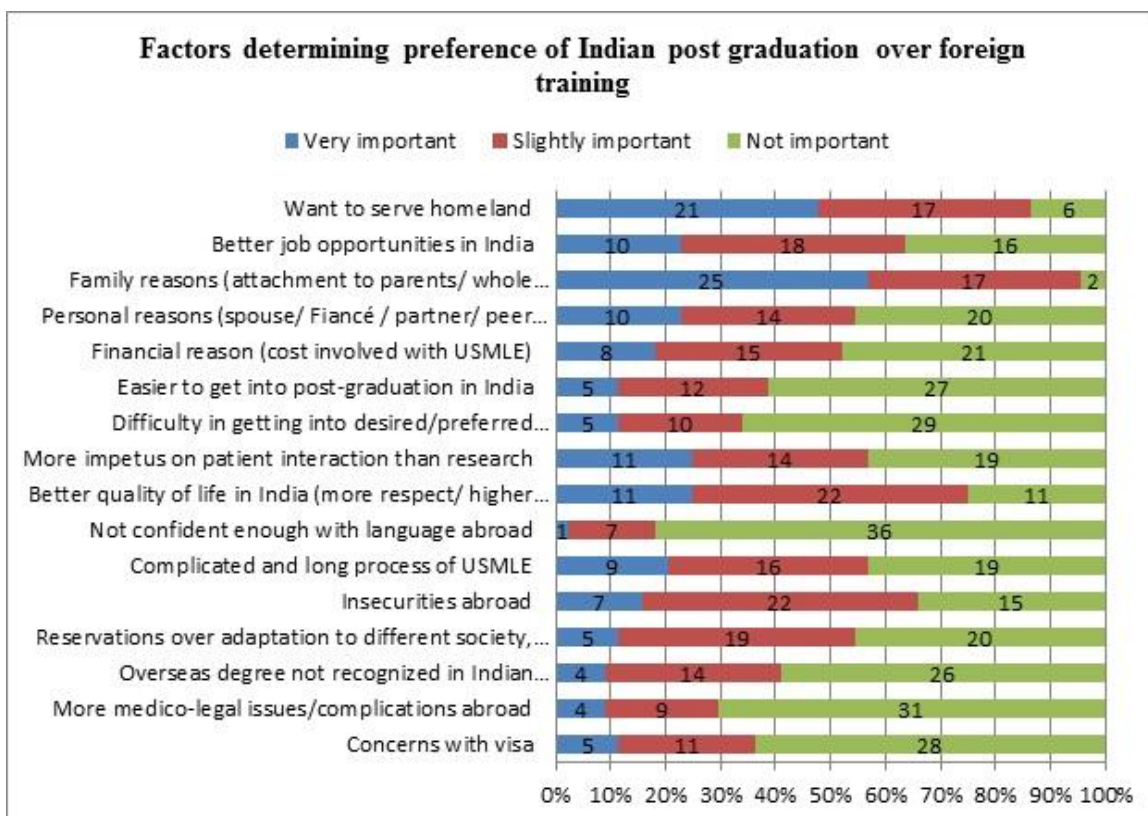
This email-based questionnaire was forwarded to 100 students. After the 3 reminders, we received 72 questionnaires. Three were incomplete and were excluded from the study. Three students had opted to leave the medical field and were also excluded from the analysis. Thus, 66 responses were deemed appropriate for analysis with response rate of 66%. The respondents included 52 males (78.79%) and 14 females (21.21%). The mean age of respondents was 25.4 ± 1.5 years. Out of 66 graduates, 44 (66.67%) choose to post-graduate in India while 22 (33.33%) choose to pursue it in the United States (Figures 1 and 2).

The average age of graduates preferring post graduation in India was 25.7 ± 0.9 years. Of the 44 graduates, 33 (75%) were males and 11 (25%) were females. Twenty-two (50%) had wished to go abroad at some time in life for further studies. Five (11.36%) graduates stated that if they were to go back in time they would have changed their decision.

The average age of graduates preferring higher studies abroad was 25.2 ± 1.0 years. Of the 22 graduates, 19 (86.36%) were males and 3 (13.64%) were females. Two (9.09%) agreed that if they were to go back in time they would have made a different decision. Fourteen (63.64%) wanted to return to India after completion of studies while 8 (36.36%) planned to settle abroad. There was no statistical difference in the graduates preferring Indian postgraduate studies or higher education in the United States with respect to age, gender or decision to change preference if they were to go back in time.

DISCUSSION

This study shows that many students (33.3%) prefer going abroad for post-graduation training. This is the first study performed in the state of New Delhi that highlights the medical graduates' preference and reasons for deciding career path. The preference of 33.3% students to go abroad is slightly less than an earlier study (8). However, study by Rao et al was performed in a Southern

Figure 1: Reasons for choosing foreign training over Indian post-graduate training**Figure 2:** Reasons for choosing Indian post-graduate training over foreign training

state as compared to the current study which was performed in a Northern state and thus baseline preference might be different.

It is interesting to note that even in those students who wish to stay in India for post-graduation, 50% wished to go abroad for some training at some point in future and among those who wish to go abroad for post-graduate training 64.64% students wanted to return to India eventually. This sub-set of medical students may represent a group that wants to get education from abroad but wants to practice back in India and shows some promise to healthcare in India.

The reasons considered most important for choosing to go abroad included better job opportunities abroad, better quality of life, better hospital infrastructure and facilities, difficult to get into desired super-specialty course in home country (Figure 1). The top reasons for preferring to stay in India for post-graduation were family reasons and desire to serve homeland (Figure 2). Clearly, the factors promoting brain drain are more related to infrastructure and job opportunities, and those encouraging students to stay in India were more personal than professional reasons.

The study has several potential limitations. Firstly, this was a small sample size involving graduates of a single medical college and thus may not represent the viewpoints of all Indian medical students. Secondly, we had a relatively low response rate of 66% which could have introduced an element of bias in the study. Nonetheless, the importance of study lies in the fact that it highlights factors promoting brain drain which should help policymakers create an environment wherein medical student prefer staying in India. Interventions aimed at factors identified in our studies may prevent brain drain and alleviate the adversely skewed doctor-patient ratio.

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