ORIGINAL ARTICLE

EARLY CAREER INTENTIONS OF NEWLY INDUCTED MEDICAL STUDENTS IN A PRIVATE MEDICAL COLLEGE IN PAKISTAN

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ABSTRACT

Background: With increasing estrangement of young doctors from country's health system, there is an urgent need to understand the preferences of medical students towards their career. The objective of the study was to examine trends of choosing a career in primary care, institution of training and place of work.

Material & Methods: In this descriptive study, first year medical students (2012-13) at CMH Lahore Medical College were invited to respond to a career choice questionnaire. Questions were asked about career choices and influencing factors.

Results: The response rate was 88% (256/290). Only 7.8% of respondents wanted to be primary care practitioner while 85.5% aspire to become subspeciality consultant. For postgraduate training, 72.3% would prefer a foreign country; but after acquiring postgraduate training, 73% would like to serve the country. Working in a rural area was preferred by only 16.4% over work in city (83.6%).

Conclusion: Entrant medical students had negative perceptions of primary health care, general practice and rural service. This has implications for deteriorating healthcare delivery for the majority of population. A balanced community-based curriculum may inculcate positive attitudes towards primary healthcare system of the country.

KEY WORDS: Career choice; Medical students.

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INTRODUCTION

Pakistan has an extensive infrastructure of healthcare delivery system. This system has been designed to cater to the needs of the unprivileged and the poor of the country who cannot afford the cost of private healthcare. In Pakistan, primary healthcare is suffering because very few doctors are choosing to serve in rural areas and adopt a career in general practice.[1] Policymakers have responded by allowing an exponential growth of private institutions that offer undergraduate medical education at a significantly higher cost as compared to government-run system. Since 2003, fifty new institutions offering undergraduate degrees were established in the country mainly in private sector. Interestingly, 75% of these institutions were commissioned by the regulatory authorities in last five years.[2] Contrary to the anticipation that more primary care physicians will emerge at the end of training, number of physicians willing to work in remote areas and primary healthcare remains low.

The country's medical education system is producing doctors who generally tend to regard primary healthcare low on their priorities. It has been observed that the content and format of training and teaching at the undergraduate level tend to favor career inclination towards hospital-based specialty practice.[3] Despite this disturbingtrend, relatively few studies have explored the factors that influence career choice. It is important to know the interests and expectations of future doctors which are essential for their career choice. This knowledge has a wider scope of ensuring uniform availability of trained professionals in all areas of

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the profession. Explorations into career intentions of Pakistani medical students have been attempted by involving students who were either near graduation or were graduates pursuing their house job.[4-7] The attitudes of senior students are claimed to be strongly influenced by direct observation of the practicing physician and the informal curriculum of the medical school.[8] There is paucity of research on career preferences of new-entry medical students in Pakistan especially those who are studying in private medical institutions.

Generally, the entrant medical students are highly motivated to play their role in providing healthcare for the poor and most vulnerable. This positive attitude may be reflected by willingness to work in rural areas and adopt careers in primary healthcare and general practice. We intended to explore career intentions of medical students' upon entry into undergraduate degree in a private medical college and their views on general practice, choice of training after graduation, and career choices, etc.

MATERIAL AND METHODS

This cross-sectional, questionnaire-based study was performed in Department of Physiology, Combined Military Hospital (CMH), Lahore Medical College & Institute of Dentistry, Lahore during January 2012 to June 2013. This private-sector institution is admitting 150 medical students each year for award of Bachelor of Medicine Bachelor of Surgery (MBBS) degree in affiliation with University of Health Sciences Lahore.

First-year medical students of session year 2012 as well as 2013 were asked to anonymously complete a one-page questionnaire. To avoid bias of influence of faculty and senior students, the study was conducted during first month of their stay into the medical college. Informed consent was implied by questionnaire completion. The questionnaire was completed by students at the campus after a brief description by the investigator. Students were asked to complete the questionnaire within this session and return it before leaving. Students who did not wish to attend the session or complete the questionnaire were allowed to leave and not contacted again for the same purpose.

The questionnaire was designed by the authors with reference to current literature on career choice and preference among medical students. This self-reported questionnaire contained both close and open-ended questions. Fixed choice questions were used to gain factual information and students' opinions with a predictable range of answers. Additional free text comments in favor of a specific choice were requested. A pre-test on the questionnaire was done in 20 first year medical students of the same institution in January 2011 to assess the applicability of the tool. Minor changes were incorporated in the questionnaire based on the results of pre-test (not included in the study).

We assessed their motivation for joining medical profession (self-motivation, parents' choice), choice of career (GP, Specialist, medical educationist), preferred country of work and further professional training, preferred work environment (government, military, private practice etc.), choice of work location (urban, rural),and factors influencing these choices.The qualitative descriptors of particular career choices were reported separately. Demographic data included information on gender, age and current residence of parents. Data were managed and analyzed using Statistical Package for the Social Sciences (SPSS version 17.0 Chicago, IL.). Descriptive statistics involved frequency distributions and percentages.

RESULTS

The questionnaire was administered to 290 first-year medical students comprising of two sessions of MBBS during years 2012-2013. A total of 256 students responded to the questionnaire with a response rate of 88%. The mean age of participants was 19 years. Our study included 41.8% (n=107) male and 58.2% (n=149) females. Amongst the participants, 87.1% were residents of Pakistan while 12.9% were overseas residents of Pakistani origin. A gender-based comparison of the results was also performed. (Table 1)

In our study, the majority 88.3% of newly admitted medical students reported self-motivation for joining medical profession and11.7% cited parent's ambition for making the choice. No significant difference was observed between motivations of male and female subjects. The reasons for joining the medical profession, described by self-motivated students were 'noble' and 'humanitarian' nature of the medicine.

Students who intended to specialize were 85.5% of our study subjects. Only 7.8% wanted a career as a general practitioner (GP). A career in basic medical sciences education or pre-clinical disciplines was the choice of 6.6% of the new medical students. Preference for general practice among males (9.3%) was more as compared to females (6.7%). More females (8.1%) intended to join medical education and pre-clinical disciplines as compared to males (4.7%). No gender difference was observed among those who had a preference for specialization. Preference for specialization was described because of

Table 1: Gender-wise comparison of career preferences of newly-inducted medical students in a private medical college.

Item	Male (n)	Female (n)	Total
Gender	41.8% (107)	58.2% (149)	256
Mean Age year (±SD)	19.15 (±0.74)	18.86 (±0.75)	19 (±0.81)
Residence			
Pakistani	94.4% (101)	81.9% (122)	87.1% (223)
Overseas	5.6% (6)	18.1% (27)	12.9% (33)
Motivation for choosing medical profession			
Self-motivation	88.8% (95)	87.9% (131)	88.3% (226)
Parents' choice	11.2% (12)	12.9% (18)	11.7% (30)
Preferred career path			
General practitioner	9.3% (10)	6.7% (10)	7.8% (20)
Specialist	86% (92)	85.2% (127)	85.5% (219)
Medical teacher	4.7% (5)	8.1% (12)	6.6% (17)
Preferred country for postgraduate training			
Pakistan	30.8% (33)	24.2% (36)	27% (69)
Foreign country	69.2% (74)	75.8% (113)	73% (187)
Preferred country for job			
Pakistan	70.1% (75)	75.2% (112)	73% (187)
Foreign country	29.9% (32)	24.8% (37)	27% (69)
Intentions for working in the			
City	83.2% (89)	83.9% (125)	83.6% (214)
Rural area	16.8% (18)	16.1% (24)	16.4% (42)
Preferred environment for job			
Private practice	25.2% (27)	25.5% (38)	25.4% (65)
Government institution	22.4% (24)	25.5% (38)	24.2% (62)
Private Institution	14% (15)	22.1% (33)	18.8% (48)
Armed Forces	38.8% (41)	26.8% (40)	31.6% (81)

'high prestige', 'advanced knowledge', and 'better income' associated with specialty practice. They indicated negative perceptions like 'lacking skill' and 'involved in malpractice' regarding general practitioners. Those who intended to become general practitioner cited 'professional independence', 'flexible working hours', and 'family responsibilities' in favor of their choice. Having a 'teacher role-model' in basic medical and pre-clinical science and intentions to 'improve teaching standards' were reasons described by students aiming to become medical teachers.

Only 27% would consider a postgraduate training position in Pakistan and the 73% intend to join a specialty slot in the foreign countries. The proportion of females with a preference for postgraduate training abroad (75.8%) was higher than males (69.2%). The theme emerging from data indicated that majority of students aspiring to pursue post-graduation abroad were 'not aware of training opportunities in Pakistan'. Others indicated 'lack of research facilities', 'accreditation problems', 'lack of supervisors, and 'confusing names of degrees' as reasons for not choosing Pakistan for post-graduation. Those having preference for specialization in Pakistan were desirous of 'stay in Pakistan' and indicated 'family responsibilities' for their choice.

Working in Pakistan would be preferred by 73% of newly enrolled students. The intentions behind this decision were 'service to nation', 'service to poor', 'familiarity with people and culture'. Intentions for working abroad were based on negative views like 'no career structure', 'bureaucratic system' and 'political interference' in Pakistan. Students also mentioned prevailing 'career prospects' and 'ethical standards' in foreign countries for their choice.

Irrespective of the gender, our participants had a preference for working in urban settings (83.6%) as compared to rural areas (16.4%). In support of their choice, they expressed that they 'have never been to a rural area', 'require urban conveniences', were 'used to urban lifestyle' and 'can't imagine living in a village'. The students opting for rural practice cited 'rural background', wanted a 'stress-free life' and wished to avoid 'urban hassle'.

The desire to serve in armed forces medical services was expressed by 31.6% students. Male students (38.8%) had a preference for military service than their female classmates (26.8%). Service in armed forces was preferred for 'patriotism' and the iconic 'attraction for military uniform'. Regardless of gender, 25% of our respondents wanted to run a private practice. The reasons cited for this preference were 'professional independence' and 'income prospects' associated with private practice. Overall, those who imagined themselves working in government sector were 24.2% and it comprised more females (25.5%) in comparison with males (22.4%). Our participants expressed the perception of being 'secure', and 'at ease working in government hospital'. Females (22%) were more interested in working in private-run institutions than males (14%) among an overall population of 18.8% students who foresee their professional career in private-sector. Students opined that they desired 'to earn better income' in 'well equipped' private institutions.

DISCUSSION

The lack of institutional capacity and expertise to deal with human resources projections, production and optimum utilization has led to a crisis of health workforce in the country.[9] Since mandated to collectively strive for providing the right balance of medical professionals to meet the needs of the communities, the ministries of health, medical universities and regulatory authorities remain oblivious of the career choices of medical professionals. This study evaluated preferences in career choice of first-year medical students in a private medical college in Pakistan.

We have shown that a significant proportion of entrants in medical colleges are forced to accept the choice of their parents and perhaps lack aptitude for medical profession. These students are likely to abandon medical profession to join lucrative civil service or end up as 'physician brides' resulting in a loss to the profession at large.[10] It is high time to incorporate broader assessment of attributes and competencies for medical practice by moving away from selection centered on academic performance in the medical colleges admission test (MCAT).

Our students have negative views of the work life of GP and general practice. The low proportion of first-year medical students interested in primary care and presence of negative views of general practice and GP suggests that they are strongly influenced by experiences before medical college and by the views of the larger culture.[11] Worldwide, the proportion of doctors choosing general practice as a career is declining with increasing numbers of both male and female graduates choosing to train in other specialties.[12,13] The hidden curriculum of the medical colleges inculcates that the best students will specialize in lucrative fields to earn highest income. The proportion of graduates of a medical college or university qualifying specialty positions in reputed institutions of the country and developed countries is considered a testament to the success of the alma mater. Interestingly, government stipend received by postgraduate trainees in cardiology, dermatology, or plastic surgery is no different than for one choosing forensic medicine, anatomy or psychiatry. To overcome the shortage of GPs, many of the newer medical schools in Australia have a culture of promoting and supporting general practice as a career choice. Some have set a goal to produce non-metropolitan medical practitioners, 60-70% of whom will choose general practice.14 Our medical universities need to shift the focus of their teaching away from tertiary hospitals to community settings and should award honorary academic appointments to suitable GPs of the area.

Our data indicate that entrant medical student career intentions do not take into account the availability of postgraduate training slots and postgraduate courses in Pakistan. This attitude reflects a reaction against the poor management and the so-called corruption associated with regulation of the medical education system, in favor of what is perceived to be the more merit-based medical training systems of the West. In Pakistan, there are no reliable statistics on the doctors required in the country; medical students inducted; available training positions in various disciplines; areas of workforce shortage; doctors working in foreign countries; geo-socioeconomic map of workforce shortage; un-employed doctors; doctors

staying at home to take care of children or household affairs; those working in other professions. No medical faculty in Pakistan provides careers advice for students structured across their professional lifespan. Policymakers of higher education and regulatory body of medical education have also failed to provide leadership in encouraging medical graduates aspiring for postgraduate qualifications especially in basic and pre-clinical disciplines.

Within our study we were able to demonstrate that the overwhelming majority of students have already made up their minds for a career in urban areas. Medical graduates tend to concentrate themselves in urban capitals where they believe they can earn more than those working in rural areas. Majority of the healthcare facilities in the rural areas are not adequately equipped both in terms of trained support staff and infrastructure. However, a model of healthcare continues to be taught, based on the supposition that these facilities are abundant and adequate. Rural upbringing has been reported to influence students in choosing family medicine as a career, and medical education designed to enhance rural practice is successful in recruiting students to family medicine.[15,16] Institutions can be designed and mandated to train physicians for predominantly rural areasand admission policies can be tailored to ensure that students with rural background are well represented in the student populationand have many opportunities to learn in rural settings.[17]

Our data also show that students do not intend to work in government-sector healthcare facilities for their perceived lack of facilities. The marked underinvestment in health at the national and provincial levels in Pakistan contributes to poor staffing and morale at government hospitals and clinics18. To retain and sustain the workforce of healthcare in Pakistan, working conditions must be addressed through implementing national plans that improve salaries and working conditions, instead of expecting graduates to lower their aspirations and standards.

Students entering in medical profession in this era are no less humane, but they bear an enormous educational cost in private medical institutions. They have to pay no less than PKR 5.0 million in private institutions to earn their degree. We ask them to invest their personal resources and then expect to use the education they've purchased towards serving a public mission? Therefore, it is not reasonable to presume that we could increase the number of students adopting rural service and general practice by producing more doctors through establishment of private sector institutions providing undergraduate and postgraduate trainings.

An important strength of this study is that it surveyed students before they had much experience of medical school. We provided free text space for respondents to give reasons for their career choice to identify reasons for choosing or not choosing a career in general practice. The face-to-face nature of the data collection was advantageous in terms of ensuring a high response rate. This was an exploratory study therefore generalization of our findings is limited. Due to the voluntary participation, a selection bias in favor of students more interested in the issue of career choice cannot be excluded. As the study is based on a cross-sectional survey, we cannot conclude causality in the analysis. There are no data on the validity or reliability of our questionnaire. However, the purpose of the study was to collect descriptive data on the career aspirations and views of students at one time-point.

CONCLUSION

This study reinforces the need for medical education to recognize that more emphasis is needed on career advice for undergraduates beginning at an early stage in medical training. It should be a joint effort by stakeholders of medical education to present the core craft skills of GPs as complex and valuable to medical students. A robust, longitudinal study is required to explore whether and how these students' chosen paths and career preferences change as they progress through medical college and training. Our participants' negativity about their future primary care work life and rural health reflects and portends a pessimistic culture of medicine.

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CONFLICT OF INTEREST
Authors declare no conflict of interest.
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