

Future priorities of interns in public and private tertiary care hospitals of a mega city in a developing country

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Abstract

Objective: To determine the future priorities of young medical doctors in tertiary care hospitals in a major urban centre.

Methods: This multi-centre cross-sectional study was conducted at four tertiary care hospitals of Karachi, Pakistan, from January to June 2015, and comprised medical interns. A questionnaire-based survey was conducted. The participants were inquired about their demographics, preferred places and hospitals for training in the future and reason for their choices. Differences in future choice for going abroad between gender, relationship status, household monthly income, etc. were analysed. SPSS 16 was used for data analysis.

Results: Of the 308 participants, 228(74%) were females and 80(26%) were males. The overall mean age was 24.56±1.18 years. Moreover, 118(38.3%) participants wanted to go abroad for their postgraduate training. Of them, 46(39%) wished to return to Pakistan after completing the training from abroad. Top five reasons for going abroad included better quality of training 60(50.8%), better environment and facilities 35(29.7%), security and safety 29(24.6%), better career growth 24(20.3%) and fiancé/spouse settled there 18(15.3%). Preference of pursuing postgraduate training abroad outside Pakistan was significantly higher among doctors who were males ($p=0.026$), had graduated from medical colleges in Karachi ($p=0.003$), had household monthly income of greater than Rs100,000 ($p<0.001$) and had an immediate family member abroad ($p<0.001$). Besides, 190(61.7%) doctors wanted to pursue their training in Pakistan. Of them, 85(44.7%) wished to do their postgraduate training in public sector hospitals while 105(55.3%) had their preference for private hospitals. Main reasons for joining private hospitals included quality of training 40(38.1%), clean environment 25(23.8%), facilities 25(23.8%) and familiarity with environment 25(23.8%).

Conclusion: Almost half of the female doctors were planning not to pursue their careers in the future, whereas half of the male doctors wished to go abroad for training with only one-third among them planning to return.

Keywords: Interns, Future priorities, Training, Migration. (JPMA 67: 100; 2017)

Introduction

Unbalanced distribution of the medical workforce between and within countries is a serious public health challenge, particularly in developing nations.¹ About 50 per cent of the world's population lives in Asia which has access to only 30% of the global stock of doctors, nurses and midwives while Europe and North America, constituting only 20% of the world's population, have almost half of the doctors and 60% of the nurses.² This is mostly due to brain drain of international medical graduates (IMGs) from developing to more developed nations. Despite global efforts to retain health workforce in developing nations, migration intentions of health workforce in developing countries remain high.^{3,4} Around 23-28% of doctors working in the United States (US), United Kingdom (UK), Canada and

Australia are immigrants and lower income countries supply 40-75% of them.⁵

A proliferation of private medical colleges in Pakistan has resulted in a significant increase in the number of registered doctors; the current doctor-to-population ratio is 1:1,073.⁶ However, it is believed that only half of female doctors, who constitute half of all the doctors, work after their graduation.⁷ Moreover, a significant proportion of male doctors leave the country after graduation. Pakistan has contributed about 13,000 medical graduates to the US, UK, Canada and Australia.⁸ Main reasons for the emigration of Pakistan's medical workforce to the West include pursuit of quality training, higher salaries and super-specialisation.⁹ This is reflected in a previous survey conducted in two private universities.¹⁰

To our knowledge, there is lack of an in-depth multi-setting representative study to understand the future priorities and the major 'push and pull' factors contributing overseas migrations of young medical doctors working in urban tertiary care hospitals of

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Pakistan. The current study was planned to understand the patterns and reasons that drive the future priorities of young doctors in a megacity of Pakistan.

Subjects and Methods

This cross-sectional study was conducted at four tertiary care hospitals - two public and two private - of Karachi, Pakistan, from January to June 2015, and comprised medical interns. Considering 80% of junior doctors willing to go abroad for their careers from a previous study,¹⁰ a minimum of 246 doctors were required to achieve a confidence level of 95%. List of interns was obtained from the institutional administration of the selected hospitals. Non-probability convenient sampling was used. All the interns were approached and invited to participate in the study and those who consented to participate were interviewed.

A structured questionnaire was used to obtain detailed information on socio-demographic characteristics along with the educational and occupational data of the interviewee. Future choices on preferred country and hospital for future training were inquired and reasons for specific choices were explored.

Ethical approval was obtained from the institutional review board of the Jinnah Sindh Medical University. Permission was obtained from the administration of all hospitals. The names of hospitals were kept confidential and hospitals were classified as public or private. Informed consent was obtained from all the participants and confidentiality of their identities was maintained. Details pertaining to objectives of the study were explained to the participants. Pattern and time required were also conveyed to the respondents before interviewing them.

Descriptive statistics were presented as mean and standard deviation (SD) for quantitative variables and frequency and percentages for qualitative variables. Differences in future choice for going abroad between gender, relationship status, household monthly income, type of hospital, hometown, any family member abroad and graduating college were statistically analysed using chi-square test. P<0.05 was considered significant. SPSS 16 was used to analyse the data.

Results

Of the 308 participants, 228(74%) were females and 80(26%) were males. The overall mean age was 24.56±1.18 years. Moreover, 191(62%) participants were single, 54(17.5%)

were engaged and 63(20.5%) were married. Also, 225(73.1%) interns had either graduated from public or private medical colleges of Karachi while 83(26.9%) were graduates of medical colleges in other cities of the province of Sindh. The parents of 56(18.2%) doctors were also doctors

Table-1: Descriptive characteristics of Research Participants (n=308).

	Mean 24.56 SD 1.18
Age	
Gender	
Male	26% (80)
Female	74% (228)
Marital Status	
Single	62% (191)
Engaged	17.5% (54)
Married	20.5% (63)
Hospital	
Public	56.8% (175)
Private	43.2% (133)
Hometown	
Karachi	73.1% (225)
Outside Karachi	26.9% (83)
Father's Occupation	
Doctor	18.2% (56)
Non-Doctor	252 (81.8%)
Household Monthly Income	
Less than 1 Lac	19.8% (61)
>1 Lac	80.2% (247)
Family Member Abroad	38% (117)
Graduating College	
Private Medical College	42.2% (130)
Public Sector Medical College in Karachi	44.8% (138)
Public Sector Medical College outside Karachi	13% (40)

SD: Standard Deviation.

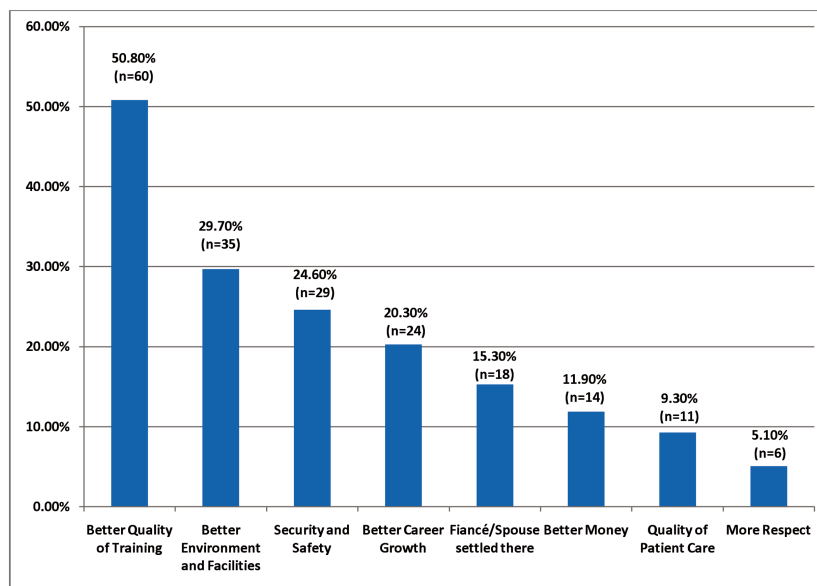


Figure-1A: Primary reasons for going abroad (n=118).

Table-2: Factors associated with preference of pursuing postgraduate training abroad outside Pakistan (n=308).

	Yes % (n)	No % (n)	p-value
Gender			
Male (n=80)	48.8% (39)	51.2% (41)	0.026
Female (n=228)	34.6% (79)	65.4% (149)	
Relationship Status			
Single (n=191)	38.2%(73)	61.8% (118)	0.572
Engaged (n=54)	33.3%(18)	66.7% (36)	
Married (n=63)	42.9% (27)	57.1% (36)	
Hospital			
Public (n=175)	36.6% (64)	63.4% (111)	0.471
Private (n=133)	40.6% (54)	59.4% (79)	
Hometown			
Karachi (n=225)	43.1% (97)	56.9% (128)	0.004
Outside Karachi (n=83)	25.3% (21)	74.7% (62)	
Household Monthly Income			
Less than 1 Lac (n=61)	13.1% (8)	86.9% (53)	<0.001
>1 Lac (n=247)	44.5% (110)	55.5% (137)	
Family Member Abroad			
Yes (117)	55.6% (65)	44.4% (52)	<0.001
No (191)	27.7% (53)	72.3% (138)	
Graduating College			
Public Sector College outside Karachi (40)	17.5% (7)	82.5% (33)	0.003
Public Sector College in Karachi (138)	36.2% (50)	63.8% (88)	
Private Medical College(130)	46.9% (61)	53.1% (69)	

and 117(38%) had any one of the immediate family member (parent/sibling) settled abroad (Table-1).

Moreover, 118(38.3%) interns said they wanted to go abroad for future training. Top five reasons for going abroad included better quality of training 60(50.8%), better environment and facilities 35(29.70%), security and

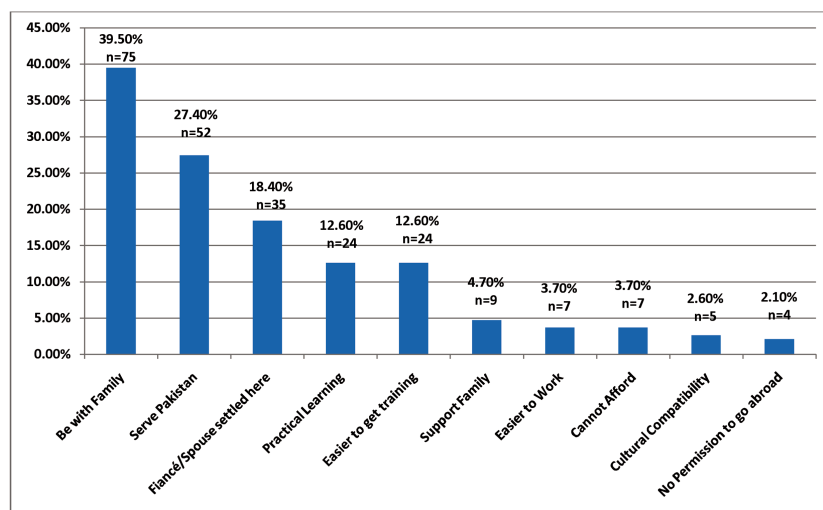
safety 29(24.6%), better career growth 24(20.3%), and fiancé/spouse settled there 18(15.3%). Only 6(5.1%) interns said they were going abroad because there was more respect for doctors in foreign countries. The US 48(40.7%) and UK 37(31.4%) were the most preferred countries for training followed by Australia 11(9.3%), the United Arab Emirates (UAE) 8(6.8%) and Saudi Arabia 4(3.4%) (Figure-1A).

By contrast, 190(61.7%) interns wanted to stay in Pakistan for future training. Top five reasons included living with family 75(39.5%), serving Pakistan 52(27.4%), fiancé or spouse settled here 35(18.4%), practical learning 24(12.6%) and easier to get training here 24(12.6%). Less reported reasons included supporting family 9(4.7%), easier to work 7(3.7%), non-affordability 7(3.7%), cultural compatibility 5(2.6%) and no parental permission to go abroad 4(2.1%) (Figure-1B).

Preference of pursuing postgraduate training abroad outside Pakistan was significantly higher in males 39(48.8%) as compared to females 79(34.6%) ($p=0.026$). Doctors whose hometown was Karachi ($p=0.004$) and had graduated from medical colleges in Karachi ($p=0.003$) were also significantly more likely to plan their postgraduate training abroad. Those whose household monthly income was greater than Rs100,000 and those whose immediate family member was abroad were also significantly more likely ($p<0.001$) to wish for pursuing postgraduate training abroad outside Pakistan. No significant difference was found in terms of relationship status and type of hospital where internship was being done (Table-2).

Among those who wished to continue their postgraduate training in Pakistan, 85(44.7%) wished to do their postgraduate training in public hospitals. Main reasons included practical learning 49(57.6%), working hours 18(21.2%) and quality of training 16(18.8%). Less reported reasons included familiarity with environment 11(12.9%), experienced faculty 6(7.1%), serving poor 6(7.1%) and facilities 5(5.9%) (Figure-2A).

On the other hand, 105(55.3%) said they would prefer private hospitals for training. Main reasons included quality of training 40(38.1%), clean environment 25(23.8%), facilities 25(23.8%) and familiarity with environment 25(23.8%). Less reported reasons included practical learning 13(12.4%), career growth 8 (7 . 6 %) , quality of patient care 7(6.7%) and safety 5(4.8%) (Figure-2B).

**Figure-1B:** Primary Reasons for Staying in Pakistan for future training (n=190).

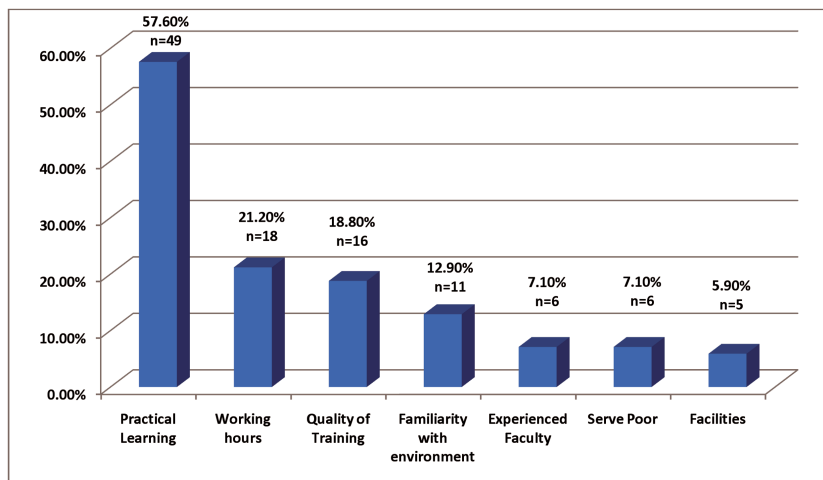


Figure-2A: Primary Reason for Training in Public Sector Hospital (n=85).

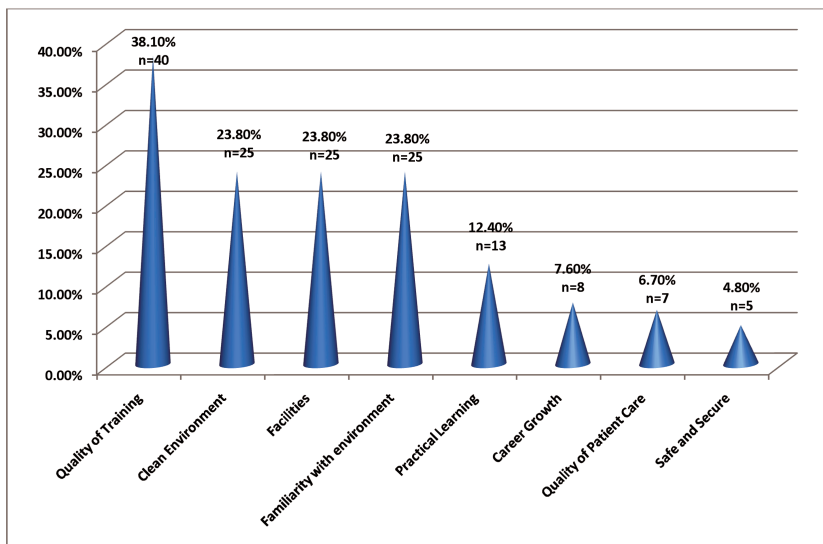


Figure-2B: Primary Reason for Training in Private Sector Hospital (n=105).

Discussion

This is the first multicentre survey with representation from public and private hospitals in a mega city of Pakistan on intentions of young doctors to migrate after doing their internship. Besides studying the migration intentions and their primary reasons, this study also explores the preferred hospitals for postgraduate training in future and reasons for choosing either a public or private sector hospital.

This study reveals that more than one-third of interns wanted to go abroad for the future training and almost two-thirds among them wanted to continue their practice outside Pakistan. This proportion is less as compared to a previous study on final-year medical students in two private universities

which reported desire for migration ranging from 65%-95%.¹⁰ Similar high proportions have been reported in the studies on medical students in other developing countries ranging from 59%-95.5%.^{11,12} This is contrary to developed countries where majority of medical graduates do their training and practice in their own country.^{13,14} However, even in a developed country like Ireland, intention to emigrate is as high as 88% owing to concerns related to career opportunities and working conditions.¹⁵ Possible explanation for lower proportions observed in this study could be that all the previous studies have been conducted on medical students. At the stage of internship, future decisions are more likely to be practical and less influenced by emotion. This is also reflected in a Polish study in which senior medical students expressed less desire to emigrate.¹⁶ Another reason could be that this study involved four major tertiary care hospitals of Karachi and included doctors who not only graduated from a megacity like Karachi but also from relatively smaller cities. Preference for going abroad was two times higher in doctors whose hometown was Karachi and had graduated from medical colleges in Karachi. Moreover, three-fourths of participants in the survey were females. Stratification of gender revealed that almost half of the male interns wanted to go abroad for training. Unsurprisingly, doctors whose monthly income was greater than Rs100,000 and had a family member settled abroad were also more likely to desire for postgraduate training abroad.

Predictably preferred destination for training were US, UK and Australia as also reflected in a previous study in India and an overview on physician's migration in Europe.^{11,17} Only about one-third of doctors wished to return to Pakistan after completing their training. This is consistent with a previous study in Lebanon in which 25% of medical students wished to return to their home country after completing their training.¹²

Major reasons highlighted for going abroad for training included better quality of training, better environment and facilities and security and safety. These findings are consistent with the previous study done in Pakistan.¹⁰ While it is understandable that quality of training is bound to be better in developed countries, poor facilities and lack of security also discourage junior doctors to continue their training in

Pakistan. These findings suggest that improvement in training standards and better upkeep of hospitals can encourage young doctors to pursue their future careers in Pakistan. Moreover, arrangements for periodic placement of doctors in developed countries for highly specialised trainings can also contribute in reducing the brain drain. On the contrary, the main driving forces for staying in Pakistan were living with family and serving Pakistan. For engaged and married females, the country where their spouse or fiancé was settled was also an important factor in choosing a place for their future training. Some young doctors also believed it was easier to get training in Pakistan and a few of them pointed at non-affordability to go abroad. This indicates that if the procedures involved in going abroad for training are relaxed, more doctors would prefer to go abroad.

Similar number of interns wanted to do their training in either public or private hospital in future. However, the reasons for choosing public and private hospitals for postgraduate training were strikingly different. The main reason of joining a public sector hospital in the future was practical learning. This explains an easy access of young doctors to learn on patients in public sector hospitals who are relatively from poorer backgrounds. The second-most important attraction for interns was less number of working hours which suited their family life. A low proportion also hinted at serving poor as a reason of being in public sector. On the contrary, major reasons for preference for training in private hospitals were better quality of training, clean environment and better facilities. A low proportion also pointed to quality of patient care and safety. These findings suggest that standards of postgraduate training are not uniform across private and public sector hospitals in the country. There is a need to introduce policy guidelines on structured training, optimum working hours, treatment protocols and maintenance of minimum facilities and cleanliness levels.

Although this study explores future migration intentions and preference for type of hospital for future training in a megacity, one major limitation of this study is that it doesn't provide information about priorities of junior doctors regarding going back and settling in their peri-urban hometowns. Secondly, this study also is not representative of junior doctors doing their internship training in relatively smaller cities.

Conclusion

With almost half of female doctors not pursuing their careers in the future and half of male doctors planning to go abroad for training with only one-third among them planning to

return, Pakistan is certainly going to face a serious challenge of shortage of doctors in the future. There is a need for comprehensive retention policies for young doctors which fulfil their training needs.

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