Centre for Medical Education Journal
ISSN: 2959-572X
DOI: https://doi.org/10.3329/cmej.v4i2. 84273

Vol.-4, Issue-02, July, 2025

Original Article

Unveiling Drivers Behind Migration of Bangladeshi Doctors

Noman MU[1], Rahman I[2], Ahommed F[3], Islam MS[4], Ahmed AKS[5], Leena J[6], Miah MA[7], Rahman MM[8]

Abstract

Background: Sustainable health care development demands satisfaction of the providers. Understanding of the factors associated with their decision for migration is the foremost step to fight this brain drain.

Methods: This cross sectional descriptive study was conducted in 8 medical colleges and coaching centers for foreign licensing examinations from 1st July, 2023 to 30th June, 2024. A total 427 respondents were sampled by convenience sampling, 320 were intern doctors and 97 were graduates who were taking foreign licensing examination. Data were collected by a semi structured questionnaire. The response was converted to six point semantic scale, score 0-6, for comparing the means and statistical inference. Data were analyzed and presented in tabular format with applicable statistical inference.

Results: Regarding socio-political factors, mean 'better living standard' score was 3.82±1.05, mean 'better household' score 3.58±1.19, mean 'better transport' score 3.91±1.04, mean 'better schooling for children' score 3.80±1.23, mean 'higher honors of doctor' score 3.76±1.30, mean 'better social transparency' score 3.94±1.30, mean 'better accountability' score 3.90±1.09,mean 'political noninterference' score 3.90±1.39, mean 'ethical equity' (everyone is treated as equal) score 3.81±1.23, mean 'religious equity' (all religion is treated equally) score 2.97±1.53 and mean 'better social security' score was 4.09±1.04. Regarding economic factors, mean 'better salary' score was 3.77±1.13, mean 'better employment' score 3.53±1.29, mean 'favorable cost of living' score 2.64±1.32 and mean 'reasonable tax burden' score was 2.26±1.43. Regarding family related factors, mean score of 'presence of relatives in abroad' 1.59±1.59, mean 'spouse's occupation / residency score' 2.53±1.86, mean 'better future of siblings' score 3.14±1.53, mean 'to provide better economic support to family' score 3.62±1.24 and mean 'parental demand' score was 1.70±1.62. Regarding personal factors, mean 'peer motivation' score 2.77±1.44, 'challenging job' score 2.79±1.33, mean 'aid work' score 2.73±1.47, mean 'exploring new places' score 3.63±1.18 and mean 'pursuit of personal dreams and satisfaction' was 3.55±1.63. in relation to academic factors, mean score for scope of post-graduation 3.42±1.21, mean score for scope of specialized training opportunities 3.60±1.24, mean 'career progression' score 3.32±1.49, mean 'involvement in research' score 3.61±1.24, mean 'trustworthy relationship between student and teacher' score 3.77±1.00 and mean 'favorable educational environment' score was 3.81±1.02.

Conclusions: The insight obtained from the study would contribute in structuring future health system and education.

Keyword: Intern doctors, Foreign licensing examination, Migration, Socio-political factors, Peer Motivation, Career Progression,

1. Dr. Mesbah Uddin Noman, Associate Professor, Department of Nephrology, Dhaka Medical College &Hospital.
2. Dr. Inamur Rahman, Assistant Professor, Community Medicine, OSD, DGHS.
3. Dr. Faruk Ahommed, Senior Consultant, Cardiology, Faridpur Medical College & Hospital.
4. Dr. Mohammad Saiful Islam, Assistant Professor, Dermatology, OSD, DGHS.
5. Dr. Abul Kasheem Shakir Ahmed, Assocciate Professor, Department of pediatrics, Mymensingh medical college & hospital
6. Dr. Jesmin Akhter Leena, Assistant Professor, Dermatology, Sir Salimullah Medical College.
7. Professor Dr. Md. Abdal Miah, Professor (c.c.), Teaching Methodology, Centre for Medical Education (CME), Dhaka
8. Dr. Mohammad Mohibur Rahman, Assistant Professor (Orthopedics), Posted against Assistant Professor (Media Development), Center for Medical Education (CME), Mohakhali, Dhaka.

***Corresponding Author :**
Dr. Mesbah Uddin Noman
Associate Professor, Department of Nephrology, Dhaka Medical College & Hospital. Email address: drmunoman@gmail.com

Introduction:

The migration of skilled professionals from developing to developed countries is a widespread global trend with profound consequences for both the countries of origin and destination. For instance, sub-Saharan Africa, home to 10% of the world's population and 24% of the global disease burden[1], faces significant challenges due to this

migration. In Nigeria, the physician-to-population ratio is just 0.28 per 1,000 people. However, Nigerian physicians constitute the sixth-largest group of international medical graduates in the UK, and in the USA, nearly 3,000 Nigerian doctors were practicing as of 2007, compared to only 35,000 doctors available to serve Nigeria's population of 135 million[1]. Meanwhile, the United States faces a severe shortage of physicians, with projections indicating that this gap will not be adequately addressed for at least the next two decades[2].

The migration of doctors has both positive and negative effects on both their home and host countries. Aluwihare (2005)[3] examined these impacts in the context of Sri Lanka, identifying several challenges for the home country. These included economic losses, a reduction in tax-paying and job-creating citizens, and a decline in the physician-to-population ratio. Additionally, physician migration disrupts medical education at both undergraduate and postgraduate levels, as it becomes challenging to gather the critical mass of specialized physicians needed to develop and sustain medical specialties. Astor et al. (2005)[4] conducted a study across India, Pakistan, the Philippines, Nigeria, and Colombia, surveying five groups: health professionals in medical universities, government officials, NGO representatives, and physicians from various specialties in both rural and urban settings. The study found that over 50% of respondents in Pakistan, Nigeria, and the Philippines believed that physician migration significantly contributes to the shortage of doctors necessary for establishing a sustainable healthcare system. In contrast, this view was less prevalent in India, where 40.9% disagreed, and in Colombia, where only 4% of respondents shared this perspective. On the other hand, Rahman and Khan (2007), in their article mentioned some of the positive impacts[5]. A profession which have the potential for migration and higher salary would invite larger population in that profession and ultimately not all will succeed to migrate which will end up into larger remaining professionals in the country. Another positive effect of migration is that remaining professionals get an advantage in career progression and income as there is less competition. Skilled professional personnel can help the home country by financial support, sharing advanced knowledge, technical support, management skill and entrepreneurship [6].

Several studies have explored the factors driving migration. In sub-Saharan Africa, key push factors include limited opportunities for postgraduate training, underfunded healthcare systems, inadequate career prospects, low salaries, civil unrest, and personal safety concerns in home countries[7]. Similarly, a study in Iran identified better living standards, the absence of interdisciplinary discrimination, and access to superior education as significant motivators for migration[8].

In Turkey, working condition, social lifestyle, opportunity to research and development and quality of the medical schools were main factors [9]. In Egypt, push factors that is factors prevailing in the home country played a more important role than the pull factors that are prevailing in the host country and professional domain was found to be most significant domain of consideration by the physicians [10]. In Pakistan, Aly and Taj (2008) found that higher salary, higher training and technical advancement, reaction against poor government management carried most weighe[11].

This cross-sectional descriptive type of study was conducted among intern doctors and graduates intending to migrate to reveal the factors associated with migration.

Methods:

This study was a cross-sectional descriptive type study conducted from 1st July, 2023 to 30th June, 2024. Data were collected from eight medical colleges, out of which 4 were public medical college and 4 were private medical colleges and again 4 were located in Dhaka and 4 were outside Dhaka and also from coaching centers dedicated for preparing graduates for foreign licensing examinations. General objective of the study was to identify the factors contributing to migration of Bangladeshi doctors abroad. The specific objectives were to assess the association of social factors, economic factors, family related factors, personal factors and academic factors with migration. The study population were graduates who are determined to emigrate and thus preparing themselves to attend foreign licensing examinations and intern doctors of selected medical colleges who are yet to be decided regarding migration. Convenience sampling method was applied and all who were preparing for appearing in foreign licensing examination and intern doctors who were present during

period of data collection were included in the study. The respondents who were not interested, grossly incomplete questionnaire/ response, nonresident Bangladeshi doctors were excluded. A total 417 respondents were sampled, out of which 320 were intern doctors and 97 were graduates. Data were collected using semi structured self-administered questionnaire was used for collection of data from intern doctors and medical graduate who were intending to appear in foreign licensing examination. Semantic differential scales was used to measure responses of each item. A six point scale (0-5) was used, in which, 0= Not at all, 1= very poorly, 2= poorly, 3= moderately, 4= highly, 5= very highly. For pretesting the semi structured questionnaire was administered on 20 intern doctors and medical graduates of a medical not included as study place. The result of the pre-testing was included in the study. The pretesting helped to upgrade the instruments for the research. A google form was created based on the structured questionnaire. After briefly explaining the purpose of the study, the google form was shared through whatsapp and email in presence of the researcher for the purpose of clarification. The responses were recorded in the google drive of the researcher. The medical graduates who were intending to appear in the foreign licensing examination were reached using email and contact numbers obtained from the coaching centers as well as using social media groups like 'platform' in facebook and during data collection at different medical colleges as many of them are working as post graduate trainee doctors in these hospitals. The same google form was shared with them through whatsapp, email and social media. Responses were recorded in google drive of the researcher. Data were analyzed by using Statistical Package for Social Science Version 25 (SPSS-25). Semantic differential scale used to record the response in six point scale (0-5) was interpreted with mean and standard deviation as required and subsequently statistical interference was drawn as numerical data where applicable.

Data were presented by the tables and figures with necessary statistical analysis and inference and description for clarification and interpretation. The results was compared with different studies done in similar contexts and a link was intended to be established with previous ones.

Results:

Table 1: Demographic distribution of the respondents

Distribution of the respondents by their age (n=406)		
	Frequency	Percentage
20 - 29 years	363	89.4
30 - 39 years	39	9.6
40 - 49 years	4	1.0
Distribution of the respondents by gender (n=415)		
Male	200	48.2
Female	215	51.8
Distribution of the respondents according to their marital status (n=416)		
Unmarried	274	65.9
Married	142	34.1
Distribution of the respondents according to their offspring (n=394)		
Have no children	353	89.6
Have children	41	10.4
Distribution of the respondents by ownership of medical colleges (n=382)		
Government	222	58.1
Private	160	41.9
Distribution of the respondents belonging to medical colleges within Dhaka and outside Dhaka (n=382)		
Within Dhaka	205	53.7
Outside Dhaka	177	46.3

Table 1 shows the demographic distribution of the respondents. Majority 363(87.1%) respondents belonged to age group 20-29 years with the mean and standard deviation of age (in year) was 25.90 ±2.97. Median of the data was 25, range 23-49 years, IQ range was 24-27 years. Data were not normally distributed W(407)=0.727, p=0.000 (sig). Out of 415 respondents, 2 did not mentioned their gender; of the 415 respondents 200 (48.2%) were male and 215(51.8%) were female. Male to female ratio was 0.93:1. Nearly two third, 274(65.9%) respondents were unmarried and 142(34.1%) were married. Most of the respondents did not have children 353(89.6%) and 41(10.4%) respondents have children. Out of 417 respondents 35(8.39%) did not mentioned the identity of their medical colleges; of the rest 382, more than half (58.1%) respondents graduated from government medical colleges and 160(41.9%) graduated from private medical colleges. Almost half 205(53.7%) respondents graduated from medical colleges situated within Dhaka and 177(46.3%) graduated from medical colleges situated outside of Dhaka.

Table 2: Level of agreement among the respondents regarding socio-political factors for migration

Socio - Political factors prevailing abroad favoring migration	Frequency (%) of Level of agreement with corresponding score						Mean score of level of agreement (Intern + Graduate) Mean±SD
	Not at all=0	Very poorly=1	Poorly =2	Moderately= 3	Highly =4	Very highly=5	
Better Living standard (n=405)	9 (2.22%)	4 (0.99%)	9 (2.22%)	126 (31.11%)	136 (33.58%)	121 (29.88%)	3.82±1.05
Better Household (n=413)	17 (4.12%)	9 (2.18%)	19 (4.60%)	134 (32.45%)	137 (33.17%)	97 (23.49%)	3.58±1.19
Better Transport (n=409)	10 (2.44%)	3 (0.73%)	7 (1.71%)	105 (25.67)	152 (37.16%)	132 (32.27%)	3.91±1.04
Better Schooling for children (n=413)	22 (5.33%)	4 (0.97%)	11 (2.66 %)	84 (20.34%)	168 (40.68%)	124 (30.02%)	3.80±1.23
Higher Honors of Doctor (n=412)	15 (3.64%)	20 (4.85%)	20 (4.85%)	83 (20.15%)	129 (31.31%)	145 (35.19%)	3.76±1.30
Better social Transparency (n=413)	8 (1.94%)	3 (0.73%)	8 (1.94%)	108 (26.15%)	142 (34.38%)	144 (34.87%)	3.94±1.03
Better Accountability (n=414)	11 (2.66%)	4 (0.97%)	14 (3.38%)	94 (22.71%)	151 (36.47%)	140 (33.82%)	3.90±1.09
Political noninterference (n=412)	31 (7.52%)	4 (0.97%)	7 (1.70%)	65 (15.78%)	130 (31.55%)	175 (42.48%)	3.90±1.39
Ethical equity (everyone is treated as equal) (n=410)	17 (4.15%)	6 (1.46%)	18 (4.39%)	85 (20.73%)	133 (32.44%)	151 (36.83%)	3.84±1.23
Religious equity (all religion is treated equally) (n=408)	45 (11.03%)	31 (7.60%)	41 (10.05%)	141 (34.56%)	72 (17.65%)	78 (19.12%)	2.97±1.53
Better Social security (n=408)	6 (1.47%)	6 (1.47%)	10 (2.45%)	81 (19.85%)	124 (30.39%)	181 (44.36%)	4.09±1.04

Table 2 showed that regarding socio-political factors respondents were in 'moderately' to 'very highly' agreement with the factors prevailing in abroad: 'better living standard', 'better household', 'better transport', 'better schooling for children', 'higher honors of doctor', 'better social transparency', 'better accountability', 'political noninterference', 'ethical equity' (everyone is treated as equal), 'religious equity' (all religion is treated equally) and 'better social security' in 94.57%, 89.11%, 95.1%, 91.04%, 86.65%, 95.40%, 93.0%, 89.81%,90%, 71.33%, and 94.6% respectively.

Table 3: Level of agreement among the respondents regarding economic factors for migration

Economic factors prevailing in abroad favoring migration	Frequency (%) of Level of agreement with corresponding score						Mean score of level of agreement (Intern + Graduate) Mean (±SD)
	Not at all =0	Very poorly =1	Poorly =2	Mode - rately =3	Highly =4	Very highly =5	
Better Salary (n=417)	13 (3.12%)	8 (1.9%)	17 (4.08%)	94 (22.54%)	175 (41.97%)	110 (26.38%)	3.77 ±1.13
Better Employment (n=417)	11 (2.64%)	36 (8.63%)	21 (5.04%)	99 (23.74%)	153 (36.69%)	97 (23.26%)	3.53 ±1.29
Favorable Cost of living (n=417)	35 (8.39%)	48 (11.51%)	80 (19.18%)	156 (37.41%)	65 (15.59%)	33 (8.39%)	2.64 ±1.32
Reasonable Tax burden (n=417)	63 (15.11%)	66 (15.83%)	92 (22.06%)	118 (28.30%)	52 (12.47%)	26 (6.24%)	2.26 ±1.43

Table 3 showed that regarding economic factors, respondents were in moderately to very highly agreement with the economic factors prevailing in abroad: 'better salary' and 'better employment' in 90.89% and 83.69% respectively. Opinions regarding 'favorable cost of living' were diverse and almost evenly dispersed except most opted for moderate agreement, on the other hand, 'reasonable tax burden' was viewed as very poorly to moderately favoring migration according to the respondents (81.3%).

Table 4: Level of agreement among the respondents regarding family related factors for migration

Family related factors prevailing in abroad favoring migration	Frequency (%) of Level of agreement with corresponding score						Mean score of level of agreement (Intern + Graduate) Mean (±SD)
	Not at all=0	Very poorly =1	Poorly =2	Moderately= 3	Highly =4	Very highly=5	
Presence of relatives in abroad (n=417)	170 (40.77%)	48 (11.51%)	56 (13.43%)	86 (20.62%)	40 (9.59%)	17 (4.08%)	1.59 ±1.59
Spouse's occupation / residency (n=142)	43 (30.28%)	4 (2.82%)	8 (5.63%)	24 (16.90%)	47 (33.10%)	16 (11.27%)	2.53 ±1.86

Better Future of siblings (n=417)	54 (12.95%)	7 (1.68%)	16 (3.84%)	132 (31.65%)	123 (29.50%)	85 (20.38%)	3.24	±1.53
To provide better economic support to family (n=417)	15 (3.60%)	11 (2.64%)	39 (9.35%)	94 (22.54%)	150 (35.97%)	108 (25.90%)	3.62	±1.24
Parental demand (n=417)	160 (38.37%)	43 (10.31%)	59 (14.15%)	95 (22.78%)	37 (8.87%)	23 (5.52%)	1.70	±1.62

Table 4 showed that in relation to family related factors respondents were in 'not at all' to 'moderate' agreement in majority cases regarding 'presence of relatives in abroad' as influencing factors for migration (65.71%). Regarding 'spouse occupation' bimodal opinion were noticed, 30.28 % opinioned not at all, whereas 61% (approximately) were in 'moderate' to 'very highly' agreement. 'Better future of siblings' and 'to provide better economic support to family' were in 'moderate' to 'very highly' agreement among 81.53% and 84.41% respectively. 'Parental demand' for migration was viewed as 'not at all' to 'moderate' degree of agreement by 85.61% respondents.

Table 5: Level of agreement among the respondents regarding personal factors for migration

Personal factors prevailing in abroad favoring migration	Frequency (%) of Level of agreement with corresponding score						Mean score of level of agreement (Intern + Graduate) Mean(±SD)	
	Not at all=0	Very poorly =1	Poorly =2	Moderately =3	Highly = 4	Very highly=5		
Peer motivation (n=411)	51 (12.41%)	33 (8.03%)	41 (9.98%)	156 (37.96%)	94 (22.87%)	36 (8.76%)	2.77	±1.44
Challenging job (n=411)	33 (8.03%)	42 (10.22%)	57 (13.87%)	162 (39.42%)	80 (19.46%)	37 (9.00%)	2.79	±1.33
Aid work (n=417)	50 (11.99%)	41 (9.83%)	53 (12.71%)	142 (34.05%)	88 (21.10%)	43 (10.31%)	2.73	±1.47
Exploring new places(n=410)	10 (2.44%)	14 (3.41%)	31 (7.56%)	110 (26.83%)	141 (34.39%)	104 (25.37%)	3.63	±1.18
Pursuit of personal dreams and satisfaction (n=410)	33 (8.05%)	37 (9.02%)	21 (5.12%)	58 (14.15%)	101 (24.63%)	160 (39.02%)	3.55	±1.63

Table 5 showed that regarding personal factors respondents were in 'moderately' to 'very highly 'agreement with the factors prevailing in abroad: 'Peer motivation', 'Challenging job', 'Aid work', 'Exploring new places', 'Pursuit of personal dreams and satisfaction' in 69.59%, 67.88%, 65.46%, 86.59% and 77.80% respectively.

Table 6: Level of agreement among the respondents regarding academic factors for migration

Academic factors prevailing in abroad favoring migration	Frequency (%) of Level of agreement with corresponding score						Mean score of level of agreement (Intern + Graduate) Mean(±SD)	
	Not at all=0	Very poorly=1	Poorly =2	Moderatel y=3	Highly =4	Very highly=5		
Scope of post - graduation (n=417)	11 (2.64%)	21 (5.04%)	49 (11.75%)	112 (26.86%)	149 (35.73%)	75 (18%)	3.42	±1.21
Scope of specialized training opportunities (n=417)	7 (1.68%)	21 (5.04%)	50 (12%)	88 (21.10%)	137 (32.85%)	114 (27.34%)	3.60	±1.24
Career progression (n=417)	32 (7.67%)	30 (7.19%)	36 (8.63%)	91 (21.82%)	13 0 (31.18%)	98 (23.5%)	3.32	±1.49
Involvement in research (n=417)	9 (2.16%)	19 (4.56%)	50 (12%)	79 (18.4%)	150 (35.97%)	110 (26.38%)	3.61	±1.24
Trustworthy relationship between student and teacher (n=417)	10 (2.4%)	2 (0.48%)	11 (2.64%)	121 (29.02%)	180 (43.17%)	93 (22.3%)	3.77	±1.00
Favorable educational environment (n=417)	10 (2.4%)	3 (0.72%)	11 (2.64%)	114 (27.34%)	173 (41.49%)	106 (25.42%)	3.81	±1.02

Table 6 showed that respondents were in 'moderately' to 'very highly' agreement with the academic factors prevailing in abroad: 'Scope of post-graduation', 'Scope of specialized training opportunities', 'Career progression', 'Involvement in research', 'Trustworthy relationship between student and teacher' and 'Favorable educational environment' in 80.59%, 81.29%, 76.5%, 80.75%, 94.49% and 94.25% respectively.

Discussion:

In the present study it was found that regarding socio-political factors, highest proportion found in 'very highly' agreement in 'higher honors of doctors' (35.19%), 'better social transparency'(34.87%), 'political noninterference'(42.48%), 'ethical equity'(36.83%), and 'better social security'(44.36%). Highest proportion found in 'highly' agreement for the factors: 'better living standard'(35.58%), 'better household'(33.17%), 'better transport' (37.16%), 'better schooling for children' (40.68%) and 'better accountability'(36.47%). The mean 'better living standard' score was 3.82±1.05, mean 'better household' score 3.58±1.19, mean 'better transport' score 3.91±1.04, mean 'better schooling for children' score 3.80±1.23, mean higher honors of doctor score 3.76±1.30, mean better social transparency score 3.94±1.30, mean better accountability score 3.90±1.09,mean political noninterference score 3.90±1.39, mean ethical equity (everyone is treated as equal) score 3.81±1.23, mean religious equity (all religion is treated equally) score 2.97±1.53 and mean better social security score was 4.09±1.04. In the Iranian study by Asadi et al. (2017)[8], a similar type of sematic scale with a score from 0-5 was used and the score was

converted later to 0-100 score, in which socio-political domain influencing decision of migration was considered as a single domain and score obtained in that domain was 74.06±22.29. In the study conducted by Sheikh et al. (2012)[12] in Pakistan, 55.4% respondents stated better way of life, 48.2% for better working environment, 31.3% stated better management, Lack of social security was stated by 40%, 39% of the respondents thought that more chance of harassment of doctors, interestingly political reason to leave was 3.1%, and lack of social transparency in 2.1% as the factors promoting the intention for migration. The study also used a five point Likert scale to score the degree of agreement. Among the socio-political factors better way of life was (Mean±SD) 3.48±1.41, better working environment was (Mean±SD) 2.97±1.67, lack of social security was (Mean±SD) 3.07±1.51, social transparency was (Mean±SD) 2.19±1.358, political reason was (Mean±SD) 1.23±0.698, and religious factor was (Mean±SD) 1.46±0.91. Imran et al. (2011)[13] conducted a similar type of study in King Edward Hospital in which factors for migration were approached as those prevailing in abroad and those prevailing in home. The study also used a 10-point scale to find out the degree of association. Among the factors socio-political factors that were analyzed : 'social condition', mean±sd score was 6.39±2.86; 'political condition' mean±sd score was 5.72±2.89 prevailing in abroad favoring migration and 'religious factor', mean±sd score was 6.38±2.85; 'political factors', mean±sd score was 4.75±3.26 against the intention of migration. Syed et al. (2007)[14] performed a study in Karachi at two private medical colleges, Aga Khan University (AKU) and Baquai University (BU), among fifth year students to find out the factors influencing migration in abroad. Data was also collected using a 10 point scale questionnaire from the students and factors prevailing in host country and home country for favoring migration and disfavoring migration. Regarding socio-political factors, 'political factors', mean±sd score was 4.14±3.15; 'religious factors', mean±sd score was 3.47±2.86 in favoring migration. On the contrary, factors in home country against the intention of migration: 'desire to settle in Pakistan', mean±sd score was 7.64±2.67; 'desire to serve our people', mean±sd score was 9.04±1.55; 'religious factor', mean±sd score was 6.38±2.85. Jośko et al. (2011)[15] did their research in Poland and they found among socio-political factors, 38% believed that higher prestige for doctors in abroad and better working condition in 45.1%. Though these studies are in accordance that some social factors like social security, working condition, honors of doctors were important pulling factors for those who intended to migrate, but the results are not statistically comparable as different scales were used in different study. However, it can be concluded that social factors found to be influential factors for migration in the present study, were mostly found to be important factors in studies done in other countries. One exceptional finding in the studies done in Pakistan is that political factors and religious factors were quoted as factors disfavoring migration, which is not in accordance with the present study. This difference may represent a socio-political culture in the country that is different from the present study place.

The present study found in relation to economic factors, highest proportion found in 'highly' agreement in 'better salary' (41.97%) and 'better employment' (36.69%). Regarding factors 'favorable cost of living' (37.41%) and 'reasonable tax burden' (28.30%), highest proportion were in 'moderate' agreement. The mean 'better salary' score was 3.77±1.13, mean 'better employment' score 3.53±1.29, mean 'favorable cost of living' score 2.64±1.32 and mean 'reasonable tax burden' score was 2.26±1.43. In the Iranian study by Asadi et al. (2017)[8], economic and financial problem score was 77.46±25.38 out of 0-100 scale. In the work done by Sheikh et al. (2012)[12] in Pakistan, 59.5% respondents' opinioned better job satisfaction. The score in 5 point Likert scale 'better salary' was (Mean±SD) 4.23±1.03 and 'job satisfaction' was (Mean±SD) 3.56±1.56. In another Pakistani study from Lahore (Imran et al., 2011)[13], 'financial condition of doctor', mean±sd score was 7.97±2.37; 'job opportunities', mean±sd score was 7.9±2.34; 'financial condition of the residents', mean±sd score was 7.9±2.41 out of 0-10 point scale. Syed et al. (2007)[14] performed a similar study in Karachi and found that 'salary during training', mean±sd score was 8.21±2.32; 'economic prospects after training', mean±sd score was 7.87±2.37; 'professional satisfaction', mean±sd score was 7.75±2.48 in 0-10 point scale.

The present study found that regarding family related issues, highest proportion found in 'not at all' agreement

for the factors: 'presence of relatives in abroad' (40.77%), 'spouse occupation' (43.65%) and 'parental demand' (38.37%). Highest proportion of agreement was found in 'moderate agreement' and 'highly' agreement for 'better future of siblings' (31.65%) and 'better economic support for family' (35.97%) respectively. The mean score of 'presence of relatives in abroad' 1.59±1.59, mean 'spouse's occupation / residency score' 1.83±1.83, mean 'better future of siblings' score 3.14±1.53, mean 'to provide better economic support to family' score 3.62±1.24 and mean 'parental demand' score was 1.70±1.62. The study with Sheikh et al. (2012)[12] in Pakistan revealed that parent pressure score was (Mean±SD) 1.35±0.83 in 5 point Likert scale. In the study with Imran et al. (2011)[13] and Syed et al. (2007)[14], which analyze factors in home country that disfavors migration reveal that 'family ties in Pakistan', mean±sd score was 8.17±2.60 and 8.83±1.79 out of 10 point scale respectively as a factor against migration. Jośko et al. (2011)[15] done their work in Poland and found that 18.2% students decided to emigrate as their family and friends were already working abroad. The present study looked into details of family related factors and their relationship with the decision of migration that was not found in the previously mentioned study. However, regarding the family related factors for migration, though siblings benefit and better economic contribution were found to be positively associate with the intention of migration, presence of relatives, spouse occupation were not high agreement. These findings are not in accordance with other study. It may be assumed that the culture of migration is relatively new in our society in comparison to the societies in which later studies were done. So physicians are yet to be influenced by these factors. On the contrary, parental demand was the least chosen factor for migration, which is in accordance with the studies conducted in Pakistan, which also revealed there were least parental demand and high family tie to inhibit migration.

Regarding personal factors, highest proportion found in 'moderate' agreement in 'Peer motivation'(37.96%), 'Challenging job'(39.42%), and 'Aid work' (34.05%). Highest proportion found in 'highly' agreement for 'Exploring new places' (34.39%) and in 'very highly' agreement in 39.02% for 'Pursuit of personal dreams and satisfaction'. The mean 'peer motivation' score 2.77±1.44, 'challenging job' score 2.79±1.33, mean 'aid work' score 2.73±1.47, mean 'exploring new places' score 3.63±1.18 and mean 'pursuit of personal dreams and satisfaction' was 3.55±1.63. In the Nigerian study conducted by Otubu (2008), 41.3% of the respondents felt that it was their personal desire to leave the country as an important to very important factor. Asadi et al. (2017)[8] in their work in Iran found that 'gaining new experience' score was 80.55±18.12 out of 100 point scale favoring migration. Among the respondents of the study conducted by Sheikh et al. (2012)[12] in Pakistan, 36.4% had personal desire to settle abroad. In the study conducted by Imran et al. (2011)[13] 'personal condition' mean±sd score was 5.94±2.84 out of 10 point scale in favoring migration. In the work of Syed et al. (2007)[14] 'desire to settle abroad', mean±sd score was 4.93±3.14 out of 10 in favor of migration and 7.64±2.67 against the decision of migration. Regarding personal factors, expiring new places and pursuing personal dreams were important factors for migration and most of the studies on similar issue agreed on this point except that was done in Pakistan that revealed that person desire is mostly against the decision of migration.

Regarding academic factors, the present study found that, highest proportion found in 'highly' agreement in 'Scope of post-graduation'(35.73%), 'Scope of specialized training opportunities'(32.85%), 'Career progression'(31.18%), 'Involvement in research'(35.97%), 'Trustworthy relationship between student and teacher'(43.17%) and 'Favorable educational environment'(41.49%). The mean score for scope of post-graduation 3.42±1.21, mean score for scope of specialized training opportunities 3.60±1.24, mean 'career progression' score 3.32±1.49, mean 'involvement in research' score 3.61±1.24, mean 'trustworthy relationship between student and teacher' score 3.77±1.00 and mean 'favorable educational environment' score was 3.81±1.02. Study conducted among Iranian physicians by Asadi et al. (2017)[8], respondents were asked to score academic factors as influencing factors for migration and it revealed that 'educational system problem' score was 77.41±21.27, 'strengthening of scientific status' score was 79.95±19.42, 'problem in the field of research' score was 74.56±23.20 out of 100 point

scale. Sheikh et al. (2012)[12] in their study found that 49.2% respondents agreed to better career progression and the score for career progression as positively influencing migration was (Mean±SD) 3.31±1.41 out of 5 point Likert scale. In one of the Pakistani study conducted by Imran et al. (2011)[13] in which respondents were asked to score the factors positively influencing migration out of Pakistan, 'career progression', mean±sd score was 8.2±2.35; 'clinical training', mean±sd score was 6.98±2.51; 'research', mean±sd score was 6.93±2.74; 'teaching in residency program', mean±sd score was 6.63±2.74; 'residency training opportunity', mean±sd score was 6.35±2.70. The study conducted in Poland by Jośko et al. (2011)[15] showed that better career prospective was opted by 55.6% subjects of the study.

Conclusion:

Socio-political factors were highly weighted as factors contributing for migration, among all the factors, social security was mostly valued. Better salary and better employment were found to be most important economic factors. Future of the siblings and better financial support to the family were valued among family related factors. Among personal factors, exploring new places and pursuit of personal dreams were found to be most important. All the academic factors were highly agreed upon and among them favorable educational environment was most weighted.

Authors' statements:

Ethical approval:

The ethical approval of the protocol was taken from Institutional Review Board of Centre for Medical Education and individual consent regarding interview and recording the response was obtained from the interviewee.

Acknowledgment:

All the faculty members of CME and the interviewee.

Funding:

No declaration applicable.

Conflict of interest:

No conflict of interest.

Author's Contribution:

1.Dr. Mesbah Uddin Noman: Drafting of the article
2.Dr. Inamur Rahman: Conceptualiation, data and analysis
3.Dr. Faruk Ahommed: Providing access to necessary resources and creating figures and tables.
4.Dr. Mohammad Saiful Islam: Helps in data collection and questionnaire preparation.
5.Dr. Abul Kashem Shakir Ahmed: Helps in data collection and questionnaire preparation.
6.Dr. Jesmin Akhter Leena: Conceptualiation, data collection and questionnaire preparation.
7.Professor Dr. Md. Abdal Miah: Supervision and correction of article
8.Dr. Mohammad Mohibur Rahman: Providing access to necessary resources and manuscript drafting.

Reference:

1. Oritsetsemaye Otubu. Physician Migration from Nigeria: A Look at the Influential Factors and Suggested Policy Options [Internet]. 2017 [cited 2024 Dec 10]. Available from: https://www.semanticscholar.org/paper/Physician-Migration-from-Nigeria%3A-A-Look-at-the-and-Otubu/165692a71e3c57bef57c6475d4471faef62c5048

2. Norcini JJ, Mazmanian PE. Physician migration, education, and health care. Journal of Continuing Education in the Health Professions. 2005;25(1):4–7.

3. Aluwihare APR. Physician migration: Donor country impact. Journal of Continuing Education in the Health Professions. 2005;25(1):15–21.

4. Astor A, Akhtar T, Matallana MA, Muthuswamy V, Olowu FA, Tallo V, et al. Physician migration: Views from professionals in Colombia, Nigeria, India, Pakistan and the Philippines. Social Science & Medicine. 2005 Dec;61(12):2492–500.

5. Rahman MO, Khan R. OUT-MIGRATION OF HEALTH PROFESSIONALS FROM BANGLADESH. Asian Population Studies. 2007 Jul;3(2):135–51.

6. Stilwell B, Diallo K, Zurn P, Dal Poz MR, Adams O, Buchan J. Developing evidence-based ethical policies on the migration of health workers: conceptual

and practical challenges. Human Resources for Health. 2003 Oct 28;1(1).

7. Eastwood J, Conroy R, Naicker S, West P, Tutt R, Plange-Rhule J. Loss of health professionals from sub-Saharan Africa: the pivotal role of the UK. The Lancet. 2005 May;365(9474):1893–900.

8. Asadi H, Ahmadi B, Nedjat S, Akbari Sari A, Abolghasem Gorji H, Salehi Zalani G. Factors affecting intent to immigration among Iranian health workers in 2016. Electronic Physician. 2017 Jun 25;9(6):4669–77.

9. Eser E, Elif ÇİL, Nesibe Efruz ŞEN GÜNDOĞAN, Meltem Çöl, Elif Öztürk, David Terence Thomas, et al. Push and Pull Factors of Why Medical Students Want to Leave Türkiye: A Countrywide Multicenter Study. Teaching and Learning in Medicine. 2023 Aug 2;1–13.

10. Schumann M, Maaz A, Peters H. Doctors on the move: a qualitative study on the driving factors in a group of Egyptian physicians migrating to Germany. Globalization and Health. 2019 Jan 7;15(1).

11. Aly Z, Taj F. Why Pakistani Medical Graduates Must Remain Free to Emigrate. PLoS Medicine. 2008 Jan 29;5(1):e2.

12. Sheikh A, Naqvi SH, Sheikh K, Naqvi SH, Bandukda M. Physician migration at its roots: a study on the factors contributing towards a career choice abroad among students at a medical school in Pakistan. Globalization and Health [Internet]. 2012;8(1):43. Available from: https://globalizationandhealth.biomedcentral.com/track/pdf/10.1186/1744-8603-8-43

13. Imran N, Azeem Z, Haider II, Amjad N, Bhatti MR. Brain Drain: Post Graduation Migration Intentions and the influencing factors among Medical Graduates from Lahore, Pakistan. BMC Research Notes. 2011 Oct 17;4(1).

14. Syed NA, Khimani F, Andrades M, Ali SK, Paul R. Reasons for migration among medical students from Karachi. Medical Education. 2007 Nov 28;42(1):61–8.

15. Jośko, J., Kasperczyk, J., Grzybowski, A.,Ejsmont, J., Karwat, D., Zarzeczna-Baran, M. and Jethon, Z., 2011. Career plans of Polish medical university students. Problemy Higieny i Epidemiologii, 92(2), pp.199-203