Factors Influencing Brain Drain among Nepalese Nurses

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ABSTRACT

Background

Brain drain means migration of technically skilled people from one country to another country. Migration of health workers including nurses are the result of interplay of many push and pull factors. Push factors are those conditions that influence the nurses' decision to leave their own country. Conversely, pull factors are those conditions in a given country that attract nurses, influencing their movement to that country.

Objective

The objective of this study was to identify push and pull factors of brain drain among the Nepalese nurses.

Method

Descriptive cross sectional study was done among 228 Nepalese nurses working in five different countries in 2016 by using quota sampling technique. A self administered questionnaire consisting of structured four-point Likert scale was designed to collect information on push and pull factors of brain drain. Descriptive and inferential statistics were computed using SPSS version 16.

Result

Many of brain drained nurses had ranked very important push factor was personal ambition (72.8%) and very important pull factor was better job and career opportunity (77.2%). Majority of nurses working in Nepal had ranked very important push factor was lack of job and career opportunity (86.0%) and pull factor was better job and career opportunity (85.1%). All push and pull factors were significantly associated with brain drain.

Conclusion

Most of the Nepalese nurses were forced to go abroad due to personal ambition, followed by low salary, and lack of job and career opportunity. Nurse migration out of Nepal is likely to persist and even increase if underlying factors aren't properly resolved.

KEY WORDS

Brain drain, nurses, pull factors, push factors

INTRODUCTION

The term "Brain drain" is originated in the 1960's, when many British scientists and intellectuals immigrated to the United States for a better working climate.[1] Globally, the estimated number of international migrants today is 2.14 million.[2] Immigrant nurses from the Philippines and India increased from 36.4% and 9.1% in 1984 to 38.9% and 10.9 % in 2000 respectively.[3] About 11% of nurses practicing in USA are foreign-born out of which 80% are from developing countries.[4] Every year 250,000 youth are reported to leave Nepal for higher living standards, employment, better income and education.[5] A total number of 4155 Nepalese nurses migrated abroad between 2002 and 2013 mostly to UK, Australia and the US.[6]

The literature suggests income as an important motivation for migration followed by better working conditions, more job satisfaction and the quality of management.[4] Limited opportunities of career growth and dissatisfaction of existing salary, lack of training and educational opportunities were some important reason behind migration among Nurses of Bangladesh and Nepal.[7,8]

The insufficient number of health workers because of migration in developing countries leads to an inability to provide quality care.[9] As the data shows, many Nepalese nurses migrated abroad. This may lead to serious skilled manpower scarcity in the country leading poor provision of health facilities and care. This study intended to identify the push and pull factors for brain drain and it will shed light on important factors which if considered can lead to better planning to check migration.

METHODS

Quantitative approach with descriptive cross sectional study was conducted from August 15 to September 15, 2016 in Nepal. The sample size was determined by using the following formula: $n= (Z^2 \times pq) \div L2$. Estimated proportion (p) was taken 63% based on literature review.[10] so, calculated sample size was 228. Nurses working in abroad and Nepal were selected by using non probability, quota sampling technique.

Purposes and objectives of the study were written at the top of the questionnaire. A self administered questionnaire was used for data collection on the basis of research objectives. The tools consisted of socio-demographic information, questions related to factors influencing brain drain and general information on brain drain. The questionnaire items addressing push and pull factors were scored using a four-point likert scale as; very important, moderately important, slightly important, and unimportant. Content validity were ensured by extensive literature review and consulting experts in the field of nursing research. Data collection tool was pre-tested in 10% of the total sample from each group. Those participants included in pretest were excluded in the main study. The study was done via online survey tool. A group of candidate who fit a set of inclusion criteria was contacted and after informing about research, they were invited to respond to web link (https://docs.google.com/forms) and shared the link in facebook using internet system or sending individual mail. To encourage participation, nurses were sent 2-3 reminders at a week of intervals. Response rate of the study was 100%. The collected data was automatically saved in Google drive.

An ethical clearance was obtained from IRC-KUSMS prior to the study. Permission to collect the data was taken from each respondent by informed consent provided at the beginning of questionnaire. Privacy and confidentiality of the respondents was maintained and they weren't forced to participate. Information of the respondents was used only for the research purpose. Nepalese registered nurses (PCL, BN/BNS BSc, and MN/M.Sc.) who were currently working in UK, US, Australia and Canada were included in one group while registered nurses currently working in Nepal were in another group. Registered Nepalese nurses who were currently involved in further studies in abroad or Nepal (for Bachelor, Master or Doctorate degree in nursing) were excluded from this study.

SPSS version 16.0 was applied for data analysis. Descriptive statistics percentage, frequency and mean were used to assess the distribution of factors of brain drain. As inferential statistics Mann Whitney U test was used to identify the factors associated with brain drain.

RESULTS

Out of 228 respondents, less than half (44.3%) of the respondents belonged to age group 26-30 years. Most of participants (91.2%) were Hindu. Less than half of respondents (39.9%) were Brahmin. Many of respondents (62.3%) were unmarried. Slightly above one third (34.6%) of respondents had educational qualification BN/BNS. Out of 114 respondents, nearly two fifth of respondents (38.6%) lived in Australia (table 1).

Push factors for brain drain

Many of brain drained nurses (72.8%) had ranked very important push factors were personal ambition followed by low salary (62.3%) and political conflict (64.0%). Majority of nurses (86.0%) working in Nepal had ranked very important push factors were lack of job and carrier opportunity followed by low salary (80.7%) and lack of satisfactory working environment (70.2%). All push factors were significantly associated with brain drain at <0.05 level of confidence. (Table 2)

Pull factors of brain drain

More than three fourth (77.2%) of brain drained nurses had ranked very important pull factors were better job and carrier opportunity, followed by family future security

Table 1. Socio-Demographic information of the respondents (n=228)

Variables	Number	%
Age in years		
20-25	89	39.0
26-30	101	44.3
31-35	30	13.2
above 35	8	3.5
Religion		
Hindu	208	91.2
Buddish	16	7.0
Christianity	4	1.8
Ethnicity		
Brahmin	91	39.9
Chhetri	57	25.0
Newar	53	23.2
Gurung	8	3.5
Others	19	8.3
Marital Status		
Married	85	37.3
Unmarried	142	62.3
Divorced	1	0.4
Educational status		
PCL	65	28.5
BN/BNS	79	34.6
B.Sc. nursing	52	22.8
MN/M.Sc. nursing	32	14.0
Name of the country where respondent live		n=114
Australia	44	38.6
USA	35	30.7
UK	25	21.9
Canada	10	8.8

(73.7%) and better working condition (71.1%). Majority of nurses (85.1%) working in Nepal had ranked very important push factors were better job and carrier opportunity followed by high salary (84.2%) and family future security (83.3%). All pull factors were significantly associated with brain drain at <0.05 level of confidence. (Table 3)

General information on brain drain

Most of the respondents (89.5%) were aware about the consequences of brain drain, where shortage of the manpower was reported to be the major consequence by (81.4%) of respondents. Most of the respondents (91.2%) perceived need of controlling brain drain where majority (88.5%) reported that providing better employment opportunity would be an effective measure. (Table 4)

DISCUSSION

Present study found that the main push factors reported by brain drained nurses were personal ambition (72.8%) followed by political conflict (64.0%) and low salary (62.3%). Nurses working in Nepal reported the main push factors were lack of job and carrier opportunity (86.0%) followed by low salary (80.7%) and lack of satisfactory working environment (70.2%). This finding was consistent with the findings of the study conducted in Nepal which revealed that lack of job and career op-portunities, followed by personal ambitions, economical factors, and political conflicts were the main causes of migration to abroad.[8] This findings are also consistent with findings from previous study.[10-12]

Present study also found that the main pull factors reported by brain drained nurses were better job and carrier opportunity (77.2%), followed by family future

Table 2. Push factors of brain drain (n=228)

Push Factors	Group Brain drain	Very important No. (%)	Moderately important No. (%)	Slightly important No. (%)	Unimportant No. (%)	p value
Personal ambition	Yes	83 (72.8)	17 (14.9)	10 (8.8)	4 (3.5)	0.001
	No	71 (62.3)	34 (29.8)	6 (5.3)	3 (2.6)	
Political conflict	Yes	73 (64.0)	25 (21.9)	6 (5.3)	10 (8.8)	0.001
	No	50 (43.9)	46 (40.4)	11 (9.6)	7 (6.1)	
Low salary	Yes	71 (62.3)	26 (22.8)	9 (7.9)	8 (7.0)	0.001
	No	92 (80.7)	17 (14.9)	2 (1.8)	3 (2.6)	
Curiosity to practice abroad	Yes	66 (57.9)	27 (23.7)	12 (10.5)	9 (7.9)	0.001
	No	52 (45.6)	36 (31.6)	20 (17.5)	6 (5.3)	
Lack of job and carrier opportunity	Yes	61 (53.5)	35 (30.7)	12 (10.5)	6 (5.3)	0.001
	No	98 (86.0)	11 (9.6)	2 (1.8)	3 (2.6)	
Lack of satisfactory working environment	Yes	59 (51.8)	41 (36.0)	7 (6.1)	7 (6.1)	0.001
	No	80 (70.2)	29 (25.4)	4 (3.5)	1 (0.9)	
Lack of modern facilities	Yes	52 (45.6)	39 (34.2)	11 (9.6)	12 (10.5)	0.001
	No	47 (41.2)	49 (43.0)	15 (13.2)	3 (2.6)	
Lack of self recognition	Yes	44 (38.6)	35 (30.7)	25 (21.9)	10 (8.8)	0.001
	No	74 (64.9)	28 (24.6)	8 (7.0)	4 (3.5)	

Table 3. Pull factors of brain drain (n=228)

Pull Factors	Group Brain drain	Very important No. (%)	Moderately important No. (%)	Slightly important No. (%)	Unimportant No. (%)	p value
Better job and carrier opportunity	Yes	88 (77.2)	15 (13.2)	9 (7.9)	2 (1.8)	0.001
	No	97 (85.1)	15 (13.2)	2 (1.8)	0 (0)	
Family future security	Yes	84 (73.7)	21 (18.4)	4 (3.5)	5 (4.4)	0.001
	No	95 (83.3)	16 (14.0)	3 (2.6)	0 (0)	
Better working condition	Yes	81(71.1)	24 (21.1)	5(4.4)	4 (3.5)	0.001
	No	91 (79.8)	18 (15.8)	5 (4.4)	0 (0)	
Political stability	Yes	71 (62.3)	26 (22.8)	10 (8.8)	7 (6.1)	0.001
	No	53 (46.5)	44 (38.6)	10 (8.8)	7 (6.1)	
Personal freedom	Yes	63 (55.3)	33 (28.9)	10 (8.8)	8 (7.0)	0.001
	No	69 (60.5)	29 (25.4)	12 (10.5)	4 (3.5)	
Modern facilities	Yes	62 (54.4)	32 (28.1)	13 (11.4)	7 (6.1)	0.001
	No	77 (67.5)	29 (25.4)	7 (6.1)	1 (0.9)	
High salary	Yes	62 (54.4)	36 (31.6)	11 (9.6)	5 (4.4)	0.001
	No	96 (84.2)	15 (13.2)	2 (1.8)	1 (0.9)	
Higher living standard	Yes	57 (50.0)	33 (28.9)	14 (12.3)	10 (8.8)	0.001
	No	78 (68.4)	34 (29.8)	2 (1.8)	0 (0)	

Table 4. Respondents' perception on general information of brain drain (n=114)

Variables	Number	%
Awareness about consequences of brain drain		
Yes	102	89.5
No	12	10.5
Respondent response about consequences of brain drain (*)		
Shortage of the skilled man power	83	81.4
Increase in dependency	44	41.2
Increase in remittance	42	43.1
Need to control brain drain		
Yes	104	91.2
No	10	8.8
Measures to control brain drain (*)		
Providing better employment opportunity	92	88.5
Providing better salary and wages	79	76
Providing better working environment	79	76

(*) indicates multiple response

security (73.7%) and better working condition (71.1%). Nurses working in Nepal reported the main pull factors were better job and carrier opportunity (85.1%) followed by high salary (84.2%) and family future security (83.3%). Which is supported by the study done in Nigeria which concluded that search for more money, higher technology, and improved living conditions are the main reasons for migration.[2] Another study done in Pakistan which revealed that the most common reasons to migrate were well-paid salary in abroad followed by quality of training, job satisfaction, better way of life, more opportunities, better working environment.[13]

In this present study, most of the respondents (89.5%) were aware about the consequences of brain drain, where shortage of the manpower was reported to be the major consequence by (81.4%) respondents. Most of the respondents (91.2%) perceived need of controlling brain drain where majority (88.5%) reported that providing better employment opportunity would be an effective measure. This finding is similar to study done in UK which concluded that most of respondents said higher remuneration was necessary for retention of skill persons.[14] Many other study findings support this findings.[5,15]

However, there are in some limitations of this study that must be acknowledged. This sample does not represent all Nepalese nurses. This will limit the ability to generalize our findings among nurses.

All push and pull factors of brain drain that were identified by the present study could be used to implement by policy-makers in creating a system or policies that would reduce brain drain.

CONCLUSION

Nepalese nurses are force to go abroad due to personal ambition, political conflict, and low salary, lack of job and carrier opportunity and lack of satisfactory working environment. Better job and carrier opportunity, future security of family, better working condition and high salary are the major motivating factors for Nepalese nurses to migrate abroad. There will always be shortage of the skilled nurses in Nepal if government policies cannot address these factors. This study is one of the first efforts to identify push and pull factors of brain drain among the Nepalese nurses.

No other published studies on this topic were identified in the literature, so findings of this research might be a reference on this area for other researchers. Finally, there is a need for large-scale mixed methods research study to find out the actual factors of brain drain among nurses.

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