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PERCEPTIONS OF NEPALESE PHYSICIANS AND NURSES ON THE SHORTAGE OF HEALTH CARE PROFESSIONALS IN NEPAL

By

Shyamala Shiwakoti

Master's thesis presented in Partial Fulfillment

Of the Requirements for the Degree

Master of Science, Health Service Administration

Regis University

December, 2011

FINAL APPROVAL OF MASTER'S PROJECT

HSA696 MASTER'S THESIS

I have **READ AND ACCEPTED**

the Master's Thesis by:

Student Name

Title of Project

Submitted in partial fulfillment of
requirements for the
Master of Science in Health Services Administration
degree at
Regis University

Primary Research Advisor:

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Date:

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Abstract

The shortage of health care professionals is one of the biggest issues in the health care sector across the world. The situation is worse in developing and the least developed countries. A non experimental, cross sectional descriptive survey was conducted to find out the perception of physicians and nurses towards the shortages of health care professionals in Nepal. The survey was done by using a semi structured questionnaire. The study finding revealed that the vast majority of the survey respondents perceive that there is a shortage of health care professionals in Nepal. Lack of opportunity for carrier development, poor working environment, political conflict, low salary, immigration of health care professionals, and inadequate workforce planning were the major reasons for the shortages of health care professionals as perceived by the survey respondents.

The result of the study is important as it addresses the perception for the shortages of health care professionals as well as reveals solution for the problem. Increasing opportunity for carrier development, adequate workforce planning, good working environment, stable political situation, and increasing salary and wages are some of the solutions perceived by respondents for the shortages of health care professionals. The study addresses the perception of health care professionals who are currently working in the country. If policy makers and administrator intervene accordingly the problem of shortages of health care professionals can be solved very effectively.

Keywords: shortages, health care professionals

Acknowledgements

I would like to thank following individual for their love and support. I would like to thank my husband, Ram Chandra Panta, for his constant support and love. Thank you to my parents without whom this journey would not have been possible. I would also like to thank Michael Cahill and Dr. Tristen K. Amador for their guidance and support.

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Introduction

Identification of the Problem

Fifty seven countries, most of them in Africa and Asia, face a health workforce crisis. The World Health Organization (2006) reported that at least 2.3 million health service providers and 1.8 million management support professionals, or a total of 4.2 million health care professionals overall, are needed to fill the gap. Further, they state that without prompt action, the shortage will certainly worsen (Global shortages …., 2006). In Nepal, as in most of the world, development of human resource for health is an urgent priority (Nick Simon Institute, 2006).

The Ministry of Health (2003), reported that shortage of health care professionals in Nepal is reflected in the population per doctor at 18,439 and per nurse 4,987.Ghimire, Hornby, and Ozacn (2003) estimated that there is need for the addition of 50,000 more health professionals in the government services from 2003 to 2017. The over-all distribution of staff in terms skills shows a deficiency in the middle technical grades which includes health assistants, auxiliary nurse midwives, and community medical assistant, with a particular deficiency in managerial staff. The MOH reported that staff vacancies and absenteeism are common, with only 70% sanctioned positions filled. Ailuogwemhe, Dieterich, Iliaki, Rajbhandari, and Villar (2005) found number of public sector hospital beds for a population of 24 million is very low, a ratio of one bed to 5,435 people. The situation is made difficult by the reported understaffing and hence under utilization of districts beds. The major reason for underutilization of the districts bed is that there are no health care professionals working at the district level.

The World health Organization, Regional Office for South East Asia (2008) reported that Nepal encounters many problems in human resource development and human resource

management. The categories they described include absolute shortage, inadequate competencies, uneven-distribution, and improper human resource management. It can be concluded that studying perceptions of physicians and nurses on the shortage of health care professionals is one of the most important and initial steps in solving this problem.

Statement of purpose

In recent years major initiatives have been launched to tackle health care and, specifically, inequalities in access to health care. These include the Millennium Development Goals initiatives and programs to combat major priority diseases like malaria, TB and HIV AIDS (Dieleman, Lehmann & Martineau, 2008). However, the development of appropriate strategy first requires an understanding of factors which influence decisions (Dieleman et al., 2008). World Health Organization, Regional Office for South East Asia (2008) has identified below 'threshold' density of physicians and nurses which is an essential step in meeting the MDG. A threshold of 2.5 health care professionals including physicians, nurses, and midwives per 1000 people has been recommended by the Joint Learning Initiative on Human Resources for health in order to achieve essential health interventions and health-related Millennium Development Goals. Nepal with one health care worker per 694 individuals is far below this goal with its existing human resource situation to meet its own MDG. Hence, this study will be conducted to assess perceptions of physicians and nurses towards the shortage of health care professionals in Nepal.

Justification of studying the problem

Kumar (2007) reported that professional shortage derives from a combination of underproduction, internal misdistributions, and emigration of trained health care professionals. In Nepal 77% of all health care professionals are employed in the public sector. A study by

Ghimire, Hornby and Ozcan showed that the total numbers of health care professionals (34,912) in proportion to population is low (one health care worker to 694 people). This is consistent with the low hospital bed to population ratio (one bed to 5,435 people). These low ratio result in a direct adverse survival of rates of women and children. Therefore, as the number of health care professionals declines, survival declines proportionally (WHO, 2006). Countries of South East Asian Region such as Nepal have attempted reform effort of the health system by investing in infrastructure, trying to decentralize health system, and administration and management(World health Organization, Regional Office for South East Asia ,2008). Many of the efforts have either failed to bring an expected outcome or brought limited intended outcomes (WHO, SEARO, 2008). Many studies have been conducted worldwide assessing perception of physicians and nurses towards shortages of healthcare professionals but very few similar studies have been conducted in Nepal. Hence, one aim of this study is to shed light on this topic and also to develop a strategic approach to solve this problem.

Formal research question

“What is the perception of Nepalese physicians and nurses on the shortage of health care professionals in Nepal?”

Implications of the research problem for health care administrators

Health policies in Nepal are no doubt well documented and articulated across the health sector. Review, reorientation and reform are necessary milestone of the sectors implementation process staring from policy making to people’s health practice (WHO, Country Office for Nepal, 2007). This study could be useful in developing an outline for policies and strategy to strengthen health services. Additionally, in Nepal, human resource planning and development are not presently aligned enough with the health sectors needs and proprieties, resulting in an imbalance

of production and suboptimal skill mix (WHO, Country Cooperation strategy, 2006). Likewise, hospital administration remains a relatively neglected area due to paucity of competent managerial staff. Moreover, most of the existing human resource management is not conducive to optimal performances. The study will also present the overview of major factors that need to be addressed for improving health outcomes in equitable and sustained manner in country. Since there are complex dynamics within the health workforce in Nepal, this study may provide some direction in managing health workforce.

Literature Review

The world is experiencing a chronic shortage of well trained health care professionals. A total of 57 countries mostly in sub-Saharan Africa but also including Bangladesh, India and Indonesia are facing crippling shortages of health care professionals (Task shifting to tackle, 2007). Nepal, one of the developing countries in South East Asia is facing shortages of health care professionals. The impact of shortages of health care professionals can be easily be pictured from the health indictors such as child mortality rate of under five is 74/1000, life expectancy of 61 years, and annual state expenditure on health per person is only $64 (country facts Nepal, 2010).

In Nepal, seventy-seven percentages of all health care professionals work in the public sector. The study by Ghimire, Hornby and Ozcan, (2003) showed that the total numbers of staff (34,912) in proportion to the population is low (one health staff to 694 people). This is consistent with the low hospital bed to population ratio (one bed to 5,435people). Ghimire et al. found the overall distribution of staff in terms of the mix of skills shows a significant deficiency in the middle technical grades. Additionally, there is currently a high number of unskilled support staff (35% percentage of the total workforce). These staff, together with semiskilled staff, constitutes 55% of the workforce. There are several factors for the shortages of health care professionals in Nepal. Migration of health care professionals, low salary, political conflict, ineffective human resource management, and lack of opportunity for career development and training are some of the major reasons for the shortage.

Migration of health care professionals

Adkoli (2006), reported that migration of health care professionals from developing countries to the developed world has been debated for more than three decades. He also reported that the

magnitude of the problem and its implications have been changed due to rapid pace of globalization. Low wages, poor working conditions, lack of supervision, equipment, and infrastructure as well as HIV/ AIDS, all contribute to the flight of health care personnel, a flight which has become migration crisis for many low income countries (Dieleman, Lehmann & Martineau, 2008). Countries experiencing migration of health care professionals that are affected by a crisis in their health care workforce is further weakening an already fragile health care system (Serour, 2009). Further, it is a serious impediment to achieving health related Millennium Development Goals which are to eradicate extreme poverty and hunger, achieve universal primary education, promote gender equality, empowerment of women, reduce child mortality, improve maternal health, combat HIV/AIDS, malaria and other disease, ensure environmental sustainability, and develop a global partnership for development(Serour,2009). According to WHO (2006), in high income countries, predominantly in northern hemisphere, a growing ageing population and increasingly high-tech health care are increasing the demand of health care professionals. Furthermore, poor planning and underinvestment in health worker's education has left high income nation with too few health professionals to meet demands (WHO, 2006).

Lal (2007) reported that educational institutions tailor their syllabi for overseas markets. Students often prepare for careers abroad from the moment they finish school. A large proportion of high level health care professionals (physicians and nurses) leave Nepal to study and then work overseas. Today, well over 50% of Institute of Medicine's physician graduates head for the USA (Nepal's health 2009). The article, *Nepal to face critical shortage of physicians* (2008) reported brain-drain figures unveiled by the Nepal Medical Association are staggering. The latest statistics report that out of the registered 9,000 physicians, only 4,000 are currently serving the

nation. The remaining ones have either left the country or are in a process to emigrating. Lal also reported that normally brain drain occurs when a country lacks skills due to the emigration of specialists. But in Nepal there is a contradiction in that both unemployment of trained manpower and a shortage of skilled professionals exist.

Political conflict

Nepal, one of the least developed countries, has faced in a decade of political unrest until very recently. The conflict, which started in 1996 with the Maoist insurgency, took many lives significantly hampered the country's economic development. However, recent political changes have paved the way towards multiparty democracy and a solution to the decade-long political conflict and violence (WHO Country, 2006).Twelve years of traumatic experiences of thousands of poor Nepalese is still lingering aftermath of the ceasefire between the government and the Maoist rebels and it has devastated all sectors of health care in the country (Nepal, 2007).

Singh (2004) reported almost 20,000 people lost their lives as a direct result of or consequences of insurgency. A quarter million people are internally displaced, many became homeless and many more skilled people have fled the country. The study also showed half of the people are deprived of basic health necessities and 80% are deprived of basic medical supplies (Singh, 2004). Gimire and Pun (2006) reported that "forty health posts were completely destroyed between January, 2002, and December, 2004, and tens of others were rendered unusable" (p.1945). It was not easy for health professionals to do their jobs during the insurgency. The government issued a directive to all health professionals not to treat Maoists without notification of security personnel. In cases of defiance, physicians were to be regarded as supporters of terrorism and were jailed. It was impossible to work under such conditions when Maoists demanded treatment for their wounded (Ghimire and Pun, 2006). In addition, the health

care professionals were instructed by the insurgents to be on the standby to provide treatments to their cadres, abducted to provide services, forced to attend mass meetings and indoctrination programs, made to express the views regarding the armed conflict in public gathering and compelled to pay levy to insurgents (Devkota, 2005). After ceasefire, repeated strikes and agitation organized by different groups and organizations have left the economy in limbo and has added woes and worries to daily living, thus making necessary medical checkups a luxury (Nepal, 2007).

Working environment

The current fashion is to blame governments and civil servants for the public sectors poor performance as health care providers. Physicians and nurses in government employment are labeled as unproductive, poorly motivated, inefficient, client- unfriendly, absent or even corrupt (Conceicao, Damme, Ferrinho and Lerbeeghe, 2002). In Nepal, some respondents accused staff members at public facilities of being incompetent, based on the perception that people presenting with different symptoms are often given the same medicines, or patients are given diagnoses without any laboratory tests performed(“Naya Nepal”, 2007). Khalik (2008) reported that public hospitals in Nepal are crowded, not very clean and the staff harried. In the private sector, where patients might have to pay half a month’s salary for a simple treatment, the situation is marginally better.

Staff members working at the public facilities are perceived as corrupt, only giving medicine to people they know or people with influence. As far as physicians are concerned, the instances that they are assaulted are on the rise people as people are dissatisfied with the treatment and services. There is dissatisfaction with the services provided be it in the public or private sector (Dixit, 2009). Sunuwar (2009) reported that attacks on health professionals and

institutions have in fact risen particularly after the 2006 people's movement. He also reported at least four dozen incidents of attacks on health institutions and physicians in the last two and half years. But the government has been a silent spectator to such incidents and the state has neither implemented the safety security act nor investigated the incidents.

Low salary for health care worker

WHO, country cooperation (2006) reported that “Nepal as one of the least developed countries with GDP per capita of only US$ 294.While about 80% of the population depends on agriculture for livelihood, the share of agriculture sector in GDP is only 40%”. Health financing is one of the major issues. According to WHO country cooperation strategy (2006-2011) total public spending on health is considered to be low (1.76% of GDP and 5.86% of the total national budget). According to the Nepal Medical Association (2008), the medical shortage is fueled largely by the state inability to tap qualified and trained human resources through salary and perks and due to a lack of clear-cut policies in health sector. The physicians in government hospitals do not receive good salary as Nepalese government cannot afford that. Thus, it has become a vicious circle and in the end, most physicians these days are leaving not only the government hospitals but also the country (Butterworth, Hayes and Neupane, 2009). As a result, there is shortage of physicians in the country and within a decade this shortage will reach a disastrous level unless something drastic is done right away (Ahmed, 2009).

Dixit (2009) who stated that annual salary for an RN is only 1000 US dollars in Nepal. Similar is the story for physicians .Salaries and allowances for the new medical officers range from NRs. 19000 (USD 292) to NRs. 29000 (UDS 415) per month depending on the remoteness of the posting. The government recently increased the salary of physicians by 3,500 rupees (some US$47.20), following a string of protests. But the physicians consider the amount too

paltry to motivate them. In average, salaries would have to be multiplied by at least a factor of five to bring them to the level of income from a small private practice (Lerberghe, 2000). In addition, those physicians working in rural areas have les opportunities for private practice, the normal way for physicians in Nepal to supplement their government salary (Butterworth, Hayes and Neupane, 2009).

A registered nurse works various twelve hours day and night shifts to earn 76,050 rupees (US $=1000) yearly. On the others hand, many of the nurses going to Australia, UK or the USA are going as caregivers and getting a higher paying job than what many will ever get in Nepal (Dixit, 2009). Kathmandu, the capital of Nepal has an overall cost of living index which equates it with low cost of living locations. The overall cost of living index is comprised of the prices for defined quantities of the same goods and services across all 13 Basket Groups. Kathmandu is currently ranked 262 overall, most expensive places in the world for expatriates to live, out of 282 international locations (Nepal, Kathmandu cost of living, 2010). Although the cost of living is low in Nepal, the quality of life is poor. Nepal ranks 137 on quality of life index out of 195 countries (International living, 2007). Furthermore, the ratio of pay between the highest grade health care worker (medical specialist, medical officer, graduate nurse, pharmacist, radiologist, and manager) and the lowest grades health professionals (community health professionals, female community health volunteer, auxiliary health worker) is approximately 2.8 to 1. This implies highest grade health worker receive only double amount of salary as the lowest grade health worker (Ghimire, Hornby & Ozcan, 2003).

Ineffective human resource management

With each change in government groups of people who are interested in starting medical colleges become active and start lobbying. In 2006, Nepal had 13 medical colleges, 40 nursing

campuses, and 125 campuses for mid-level health care professionals. This proliferation, however, has not trickled down to rural areas where the need is greatest (“Nepal’s health”, 2009). Currently the great demands seem to be in nurses and schools or training centers are mushrooming all over Nepal (Dixit, 2009). Each nursing campuses operates within different universities and produces about 40 to 65 students per batch. Of the total 40 graduates from a batch, only 10 managed to get a job, some however voluntarily engaged in the hospital just to gain experience. However, there is nursing shortage because the government has no support for improvement of nursing profession. Additionally, there is high workload nurses and low salary. This has lead to frustration among nurses and forces them to emigrate.

As reported by Tamang (2011), every year 1000 physicians, 5000 nurses and more than 6000 paramedics and allied health professionals graduate every year in the country. However, issues such as poor quality of education and imbalance of production of different categories of health professionals persist, resulting in lack of appropriate skill mix in many cases. Production of human is entrusted to the Ministry of Health and Ministry of Education, but coordination among the concerned ministries, universities and institutions is weak. The issue of human resource management with regard to deployment, retention, utilization and accountability is another challenge (“WHO, country cooperation, “2006).

There is still a gaping disparity in the quality of health care access offered in urban and rural areas. While the capital city of Kathmandu has 98 physicians for every 100,000 people, rural Nepal averages just 2.5 per 100,000 and in many of its 75 districts, there is no doctor. Many approved government posts of all levels of health care worker are unfilled. One indication of unmet need is that for the whole of Nepal, only 13% of all baby deliveries are conducted by trained personnel. For the poorest fifth of the population (mainly rural) the number of babies

delivered by trained health personnel is just three percentage (Nepal's health, 2009). Butterworth, Hayes and Neupane (2008), reported that many health care professionals criticized the government system of frequent transfers to other remote areas. All health care professionals agreed that there should be some sort of rotation between urban and rural areas. Many health care professionals were willing to serve in rural areas, but do not want to become trapped there. Information on vacancies and on the movement of staff in the service is either not available or is not currently assembled in a form which will enable planners and decision makers in the ministry to make consistent decisions in the allocation of new staffs (Ghimire, Hornby and Ozcan, 2003). Furthermore, frequent change in government and leadership also lead to a cascade of staff changes down to the level of division chiefs and lower. Health care professionals are especially dissatisfied and demoralized with the irregular nature of transfers that do not appear to follow any human resource policies (Ailuogwemhe, Dieterich, Iliaki, Rajbhandari and Villar, 2005). Integrated supportive system at the central, regional, district level and below is absent or inadequate. Paramedical staffs such as auxiliary nurse midwives, auxiliary health care professionals, and health assistants are often engaged in private practice providing necessary services in several areas. Such practice is illegal but there is no control over the quality of services provided in their private practices (Paudel, 2006).

Lack of opportunities for carrier development and training

Henderson & Tulloch (2008), 2008 stated that opportunities to continue education, training and professional development have been identified as important motivating factors for health care professionals. The provision of specialized training is difficult in countries where resources are limited and training opportunities are scare. In Nepal, there are only two medical schools which offer higher education after Bachelor's of Medicine and Bachelor's of Surgery

(MBBS) and two nursing schools for higher studies (BPKIHS, 2006). Likewise, in service and continuing education continuous to employ a neither vertical program approach nor are they linked to carrier advancement opportunities. There is also a lack of incentives/ carrier ladders for many categories of staff (Paudel, 2006).

Globally, health care professional's crises are characterized by widespread global shortages, misdistribution of personnel within and between countries, migration of local health care professionals and poor working condition. In Nepal, a combination of all the mentioned factors has lead to the shortages of health care professionals. All of these factors mentioned are interconnected to each other. Political conflict leads to lack of safety and security which results in poor working condition. Inadequate salary and benefits in combination with lack of carrier development and training trigger migration of health care professionals. Ineffective human resource management is the main reason for misdistribution of health care professionals. It requires a lot of effort to break this cycle of cause and effect. Hence, a better planning in health workforce, protection and fairer treatment of health care professionals, orientation of healthcare worker training and development of carrier can be some of the factors which can reduce shortages of health care professionals in Nepal.

Chapter 3

Survey Design

The purpose of study was to find perceptions of Nepalese physicians and nurses on the shortage of health care professionals in Nepal. The survey is a non-experimental, descriptive research method. Descriptive design emphasizes what characteristics the group possesses. Surveys can be useful when a researcher wants to collect data on phenomena that cannot be directly observed. Surveys can be of three types: cross-sectional, longitudinal or group comparison. The primary difference among the three choices is time dimension and group focus. Cross sectional occurs at one point in time, whereas longitudinal takes over a period of time. Group comparison simply compares groups on the issue (Neutens and Rubinsons, 2001).

The survey conducted for study was a descriptive cross sectional survey using questionnaire. Survey design was used to collect the data for the study because perception of an individual cannot be directly observed.

Settings

The study was conducted in three different health care facilities in Nepal which are

- **Star Hospital Pvt. Ltd.**

  Star Hospital established by a group of physicians, engineers, educators, and social professionals is a 50 bed general hospital. It aims to provide quality health care in a reasonable cost affordable manner to middle class families. Star hospital has the entire infrastructure necessary for providing quality health services as a 50 bed general hospital .It has full emergency services, an intensive care unit, operating theatre, and maternal and child health unit. Currently there are 60 nurses and 30 physicians working in this facility.

- **Chirayu National Health and Research Centre**

  Chirayu National Health and Research Centre is a 50 bed hospital with 24 hour emergency service, a medical and surgical unit, maternal and child care unit, and intensive care unit. It is located in Kathmandu, capital city of Nepal. Currently there are 50 nurses and 20 physicians working in this facility.

- **Vanasthali Health Foundation Nepal**

  It is a private clinic founded by physicians. It mainly provides outpatient services which include general check up, immunization, dressing, etc. Currently there are two physicians and two nurses working in this facility.

Population

The population of the study was all the nurses and physicians working in Nepal at participating institutions.

Sample

Health care professionals who meet the inclusion criteria constituted the sample of the study.

Sampling technique

Nonrandom purposive sampling technique was used

Eligibility criteria

This includes inclusion criteria and exclusion criteria. Inclusion criteria included participants who were eligible to participate in the study. All the nurses (professional nurses and Auxiliary Nurse Midwife) and physicians (interns, house officer, and residents) at participating institutions were included in the study. Exclusion criteria included other health care professionals such as (laboratory assistants, radiology technicians, physical therapist, dieticians, and

pharmacists, and support professionals such as financial officers, cooks, drivers, and cleaners at participating institutions.

Data collection procedure

Written permission was obtained from hospital director and the ethical committee to conduct the survey. A person was hired, who worked under instruction to distribute survey questionnaires. Respondents were invited to participate in the survey and were given the hand distributed survey questionnaire. Informed consent was obtained from respondents. They were explained the purpose of the study, risks and benefits of the study, financial obligation, confidentiality and their freedom to withdraw from the research. They were informed that study could be used for journal, conference, and abstract. They were also informed that their name will not be used and information in aggregate form will be utilized and collect them after the completion by respondents. The completed survey questionnaires were collected by the hired person and were mailed back to the researcher.

Data Analysis

Descriptive statistics was used to summarize the results of the survey questions. Descriptive study was used utilizing nominal and ordinal data. Frequency counts were to describe the results.

Operational Definition:

- **Auxiliary nurse/nurse-midwife**: Those who received education in nursing and midwifery for 1-2 years. They can provide basic nursing and midwifery care in a limited scope and with limited responsibilities. They normally have to be supervised by professional nurses/midwives (WHO, SEARO, 2008).

- **House officer:** A resident physician and surgeon of a hospital (the "house") who is receiving further training, usually in a medical or surgical specialty, while caring for patients under the direction of the attending staff (Medicine net, 2010).
- **Clinical professionals**: These are the professionals whose main activities are aimed at enhancing health. They include the people who provide health services such as physicians, nurses, pharmacists, and laboratory technicians.
- **Non clinical professionals:** These are management and support professionals such as financial officers, cooks, drivers, and cleaners (WHO, 2006).
- **Interns**: In medicine, a doctor who has completed medical school and is engaged in a year of additional training at a hospital before residency (Medicine net, 2010).
- **Professional or fully qualified nurses**: Those who have received basic professional education for 3 years or more. They provide basic as well as skilled nursing and midwifery care independently (WHO, SEARO, 2008).
- **Resident:** In medicine, a physician who has finished medical school and internship and is now receiving training in a specialized area as, for example, surgery, internal medicine pathology or radiology. Board certification in all medical and surgical specialties requires the satisfactory completion of a residency program (Medicine net, 2010).

Survey questionnaire

Please mark below the appropriate category range that applies to you:

1. What is your profession?
   a. Nurse

   b. Doctor

   c. Dental surgeon

   d. Others (please specify)……………………..

2. What is your year of graduation?

   ………………………………

3. What is your experience in this profession?

   a. (1-5) years

   b. (6-10) years

   c. (11-15) years

   d. (16-20) years

   e. more than 20 years

4. What is your current working position?

   a. Auxiliary nurse midwife (ANM)
   b. Staff nurse
   c. Intern
   d. House officer
   e. Resident
   f. others

5. What is your working hours per week?
   a. ≤ 40 hours
   b.> 40 hours

6. The overall situation of your profession has been
   a. Getting better
   b. Staying the same
   c. Getting worse

7. Do you think there is a shortage of health care professionals in Nepal? Yes /No

7.1 If yes, how severe do you perceive the shortage to be:

a. Very serious
b. Somewhat serious
c. Not serious

7.2 If no, please specify why?
………………………………………………………………………………

8. What factors do you think are the main reasons for the shortages of health care professionals (circle all that apply)?

a. low salary and benefits

b. Lack of opportunity for carrier development and training
c. Inadequate workforce planning and management
d. Poor working environment
e. Political conflict
f. Migration of health care professionals
g. Others (please specify) ……………………………………………………

9. What factors do you think would solve the problem of shortage of health care professionals (circle all that apply)?

a. Providing provision for carrier development and training
b. Increasing salary and benefits
c. Stable political situation
d. Good working environment
e. Adequate planning and workforce environment
f. Others (Please specify)…………………………………………………………………….

10. What is your intent to working in Nepal?

a. Yes
b. May be
c. No
d. Don’t know

Chapter 4

Results

The purpose of the study was to determine perception of physicians and nurses towards the shortage of health care professionals in Nepal. A purposive non random sample of 150 from different health care settings participated in the study. Nurses (professional nurses and auxiliary nurse midwife), and physicians (interns, house officer, residents), and administrators were included in the study. All other health care professionals were excluded from the study.

Summary of results and findings

Demographics descriptions

Majority of the participants in the survey were nurses (59.3%) followed by dental surgeon (14%) physicians (12%), and other health care profession (14.6%). Majority of the participants 90.6% graduated in between 2000-2010. Most of the health participants (61.3%) in the survey have experience of 1-5 years. Professional nurses included 32% of the survey participants followed by house officers 20% and ANM 17.3%. 58.7% of the respondents work more than or equal to 40 hours/ week while the remaining work less than or equal to 40 hours.

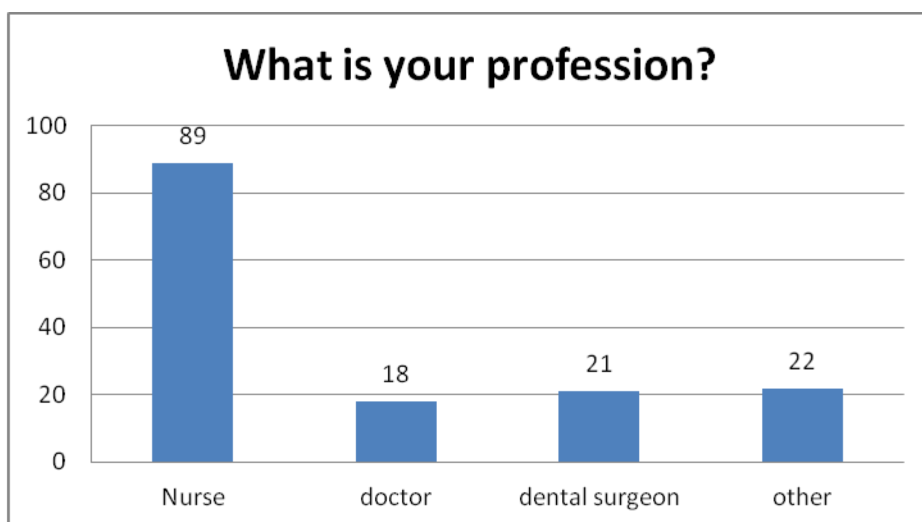

Figure 1: Profession of the participants

Perception about situation of health care profession

43.3% of the respondents perceive that situation of the health care profession is getting better, 40.7% think it is the same, and 16% think it is getting worse. Overwhelmingly, 94.75% of the respondent perceives that there is the shortage of health care professionals while 5.25% of the respondents perceive that there is no shortage. Only 8% of the participants think that there shortage of health care professionals is not serious remaining 92% perceive shortage to be serious

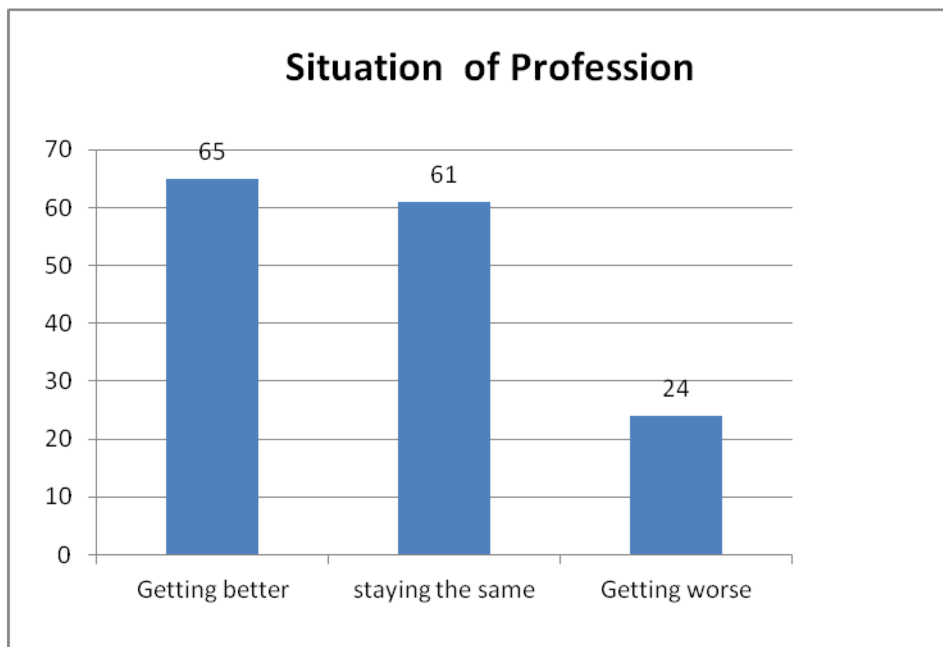

Figure 2: Perception about situation of health care profession

Factors associated with the shortage of health care professionals

20.4% of the respondents perceive that lack of opportunity for carrier development and training main reason for the shortage of health care professionals. Likewise, 18.8% of the respondents perceive political conflict is the main reason for the shortage of health care

professionals. Additionally,17.8% of the respondents perceive low salary and benefits, 17.1% perceive inadequate workforce planning and management, 15.8% perceive poor working environment, and 8.9% of the respondents perceive migration of health care professionals are the major factors associated with the shortages of health care professionals.

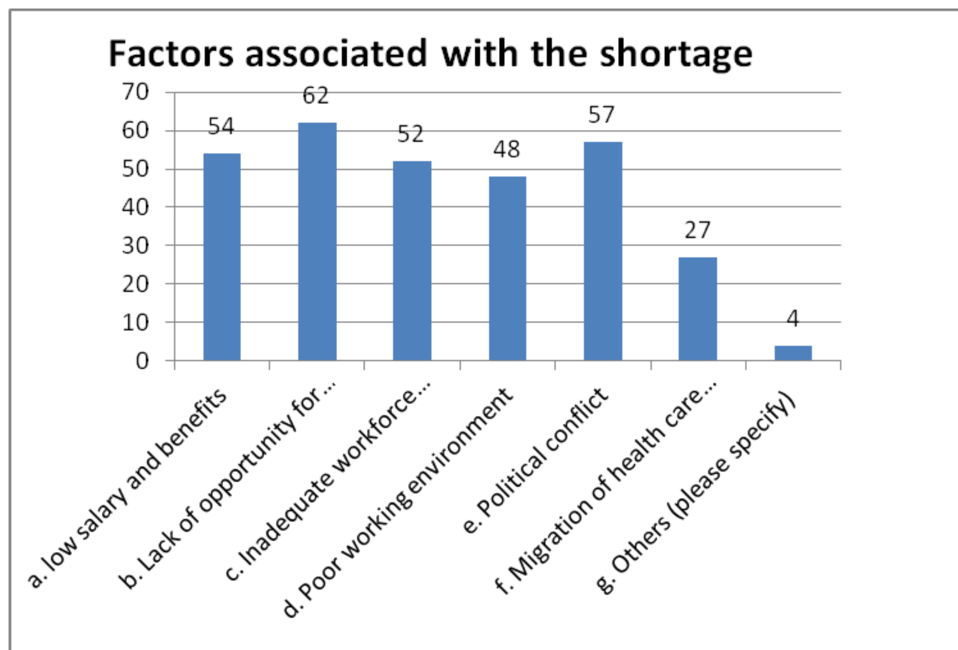

Figure 3: Factors associated with the shortage of health care professionals

Solution to the shortage of health care professionals

25% of the participants perceive that increasing salary and benefit would solve problem of shortage of health care professionals. Likewise, 24.4% and 23.7% of the respondents perceive good working environment and stable political situation would solve the problem respectively. Additionally, 15.2% of the participants think that provision for carrier development and training can solve the problem. Lastly, 11.7% of the participants think that adequate workforce planning cacan play a vital role to solve the problem for the shortages of health care professionals.

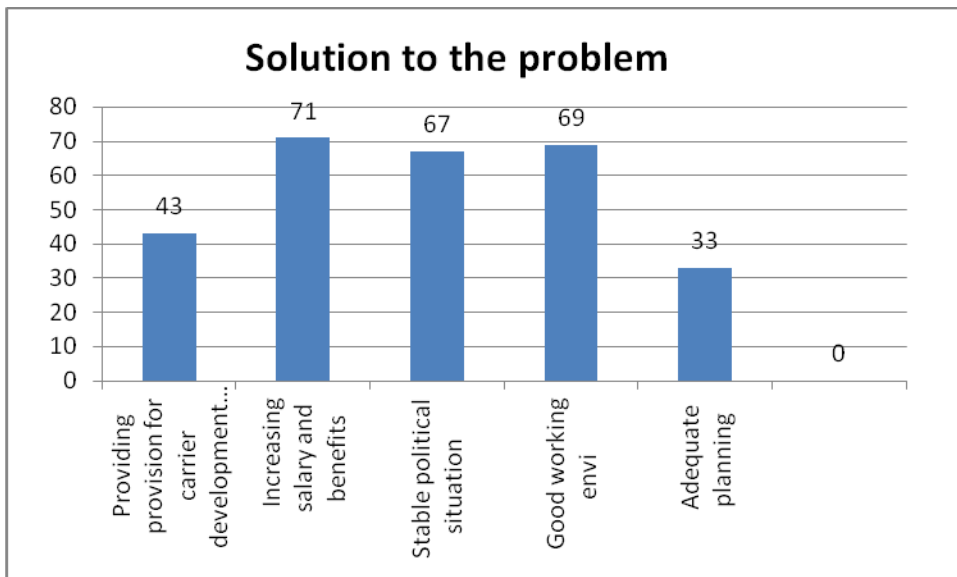

Figure 4: Solution to the shortage of health care professionals

Intent of further working

Only 18.7 % of the respondents have intent of working in the country, whereas 25.3% of the participants do not have any intent of working in the country. 41.3% of the respondents think that they may be working further in the country and 21% of the participants do not know about working further in the country.

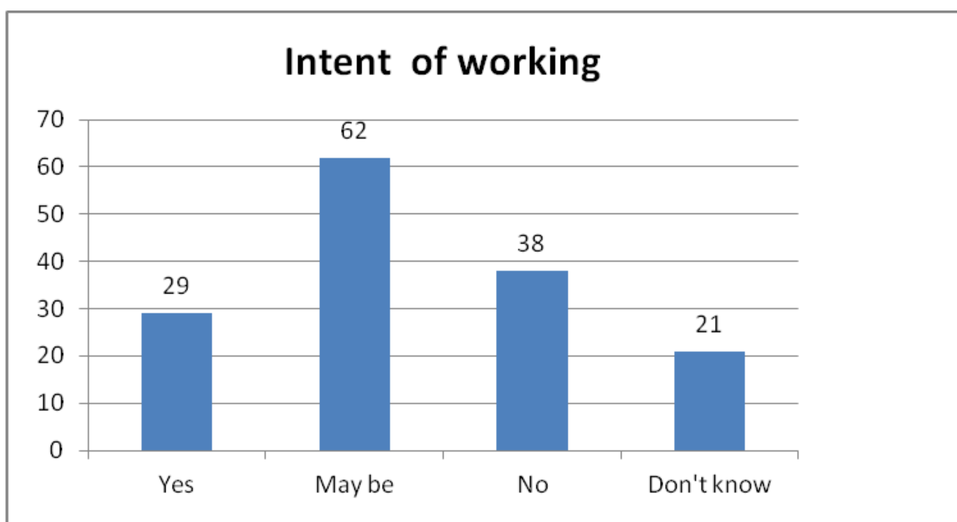

Figure 5: Intent of further working

All of the remaining findings are listed in tables and figures in appendix A

Chapter 5

Discussion

The research question was what is the perception of physicians and nurses towards the shortage of health care professionals in Nepal? The survey shows that 43.3% of the respondents perceive that situation of the health care profession is getting better, 40.7% think it is the same, and 16% think it is getting worse. Overwhelmingly, 94.75% of the respondent perceives that there is the shortage of health care professionals while 5.25% of the respondents perceive that there is no shortage. Only 8% of the participants think that there shortage of health care professionals is not serious remaining 92% perceive shortage to be serious.

Factors associated with the shortage of health care professionals

20.4% of the respondents perceive that the lack of opportunity for carrier development and training is the main reason for the shortage of health care professionals. This finding is consistent with the literature review done by (Ailuogwemhe, Dieterich, Iliaki, Rajbhandari, and Villar (2005), from Harvard School of public health in Nepal. Likewise, 18.8% of the respondents perceive political conflict is the main reason for the shortage of health care professionals. This result is consistent with the findings from the study conducted by Devkota, (2005) in which he discussed that health care professionals had widespread apprehension, reluctant to travel, ill treatment, and curtailment of freedom both from insurgent as well as from government security forces. The result is also consistent with the literature review done by (Lehmann U, Delemann M. and Martineau (2008) which discusses that social unrest and political conflict ranked as highest reason for emigration among healthcare professionals in Pacific region leading to shortages of health care professionals.

17.8% of the respondents in the survey perceive low salary and benefits as another factor associated with shortages of health care professionals. This finding is consistent with the finding from Dixit (2009) who stated that annual salary for an RN is only 1000 US dollars in Nepal. Similar is the story for physicians. Salaries and allowances for the new medical officers range from NRs. 19000 (USD 292) to NRs. 29000 (UDS 415) per month depending on the remoteness of the posting. 17.1% of the survey participants perceive inadequate workforce planning and management as the reason for shortages of health care professionals. This is consistent with the findings with the study done by WH0 (2006), which reveals that the issue of human resource management with regard to deployment, retention and utilization is the challenge for Nepal. This is also consistent with the finding from the study done by Ghimire,Hornby and Ozcan,(2003) where they found information on vacancies and movement of staff were not available for the planner and decision makers in ministry to make decision for the allocation for the staff.

The survey result shows that 15.8% of the participants perceive poor working environment as the reason for the shortages of health care professionals in Nepal. This finding is consistent with the study done by Dixit (2009), which discusses that there is rise in the instances where physicians and other health care professionals are assaulted. The survey shows that 8.9% of the respondents perceive migration of health care professionals are the major factors associated with the shortages of health care professionals. This result is consistent considering the fact that around 4,000 Nepali physicians have settled abroad. Of the 3,000 Nepal Medical Association affiliated physicians, only around 940 serve in government hospitals. One of the interesting things is that around 25 per cent of physicians in government hospitals have been on 'study leave' for the last 17 years. Similarly, the nursing council records in Nepal show that there are 30000 nurses in the country. Every year around 5000 nurses graduate in the country from

public and private sector. It is surprising that in the national health care delivery system only 3000 are currently working and there is no data on how many nurses emigrated.

Solution to the shortage of health care professionals

Increasing salary and benefits, good working environment, stable political situation provision for carrier development and training, and adequate workforce planning are the solution perceived by the participants as the solution to the shortages of health care professionals. This finding is consistent with the study done by Lakhey (2011) where found a vast majority of the medical students (88%), interns (89%) and house officers (74%) were of the opinion that improving the career opportunities and working environment could make medical profession more attractive.

Intent of further working

25.3% of the participants do not have any intent of working in the country. This finding is similar to the study done by Lakhey (2011) shows that shows that 40.3% of the student, 58.0% of the interns, and 48.0% house officer will migrate to develop countries after graduation. The survey result shows that only 18.7 % of the respondents have intent of working in the country. The survey finding shows that 41.3% of the respondents think that they may be working further in the country and 21% of the participants do not know about their intent of working further.

Study limitation and opportunities

The biggest limitation of the study is the sample size. The sample size of 150 cannot represent perception of all the health care professionals in Nepal. The research finding would be very useful for the health care administrators and policy makers as the results shows percentage for each factors related to shortages of health care professionals. Hence the study provides information about which are the most important factors for the current problem. This study is the

first one done in Nepal which includes diverse health care professionals from different settings. Other similar studies are done in one setting and population is only physicians or nurses. Hence the study can show fresh perspective to the existing problem.

Suggestion for additional research

More research on shortage of health care professionals in needed in Nepal. Future research should include more sample and more healthcare settings in Nepal. Furthermore, future research should include rural healthcare settings which can represent true picture of shortages of health care professional in the country. The study can be time consuming and costly however, it can give a robust direction to health care manager and administrators to tackle the shortage of health care professionals.

Conclusion

The study conducted gives a new dimension to health care situation in Nepal. Although the results are discouraging in a sense that the vast majority of the respondents perceive that there are shortages of the health care professionals in Nepal, on the flip side it also gives the solution to the problem. In addition, the 41.1% of the respondents think that they may be working further in the country is a very positive sign. With the end of civil war, new republic system and formation of new government in the country it seems that the country will gain some political stability. The peace deal between insurgent Maoist and the government and the recent election for the formation of constituent assembly suggests that Nepal may be entering the era of stabilityand effective working system. If government raises salary and benefits and establish further training institution in the country the biggest challenge in healthcare field can be tackled very effectively.

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Appendix A

Experience

	Frequency	Percent	Valid Percent	Cumulative Percent
(1-5) years	92	61.3	61.3	61.3
(6-10) years	39	26.0	26.0	87.3
(11-15) years	19	12.7	12.7	100.0
Total	150	100.0	100.0	

position

	Frequency	Percent	Valid Percent	Cumulative Percent
ANM	26	17.3	17.3	17.3
Staff nurse	48	32.0	32.0	49.3
Intern	18	12.0	12.0	61.3
House officer	30	20.0	20.0	81.3
Resident	3	2.0	2.0	83.3
Others	25	16.7	16.7	100.0
Total	150	100.0	100.0	

hours/week

	Frequency	Percent	Valid Percent	Cumulative Percent
≤ 40 hours	62	41.3	41.3	41.3
≥ 40 hours	88	58.7	58.7	100.0
Total	150	100.0	100.0	

situation of profession

	Frequency	Percent	Valid Percent	Cumulative Percent
Getting better	65	43.3	43.3	43.3
Staying the same	61	40.7	40.7	84.0
Getting worse	24	16.0	16.0	100.0
Total	150	100.0	100.0	

shortage of professionals

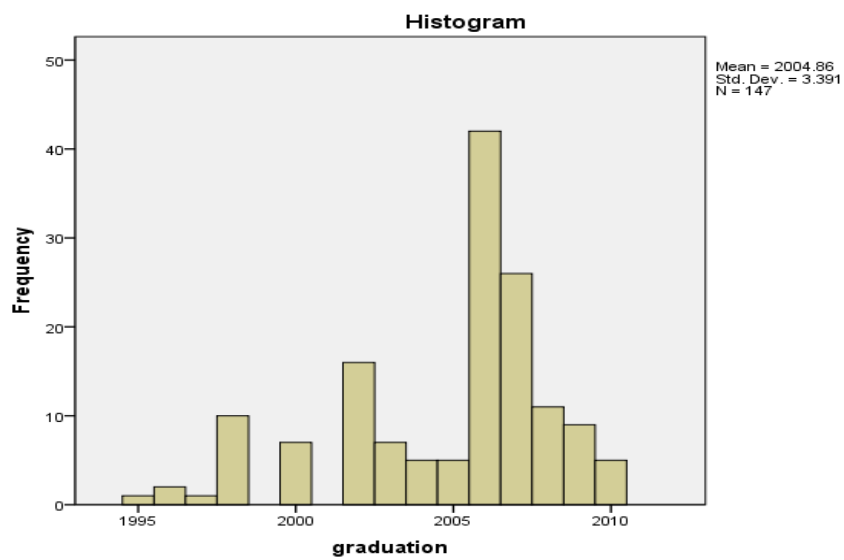
	Frequency	Percent	Valid Percent	Cumulative Percent
no	8	5.3	5.3	5.3
yes	142	94.7	94.7	100.0
Total	150	100.0	100.0	

If yes

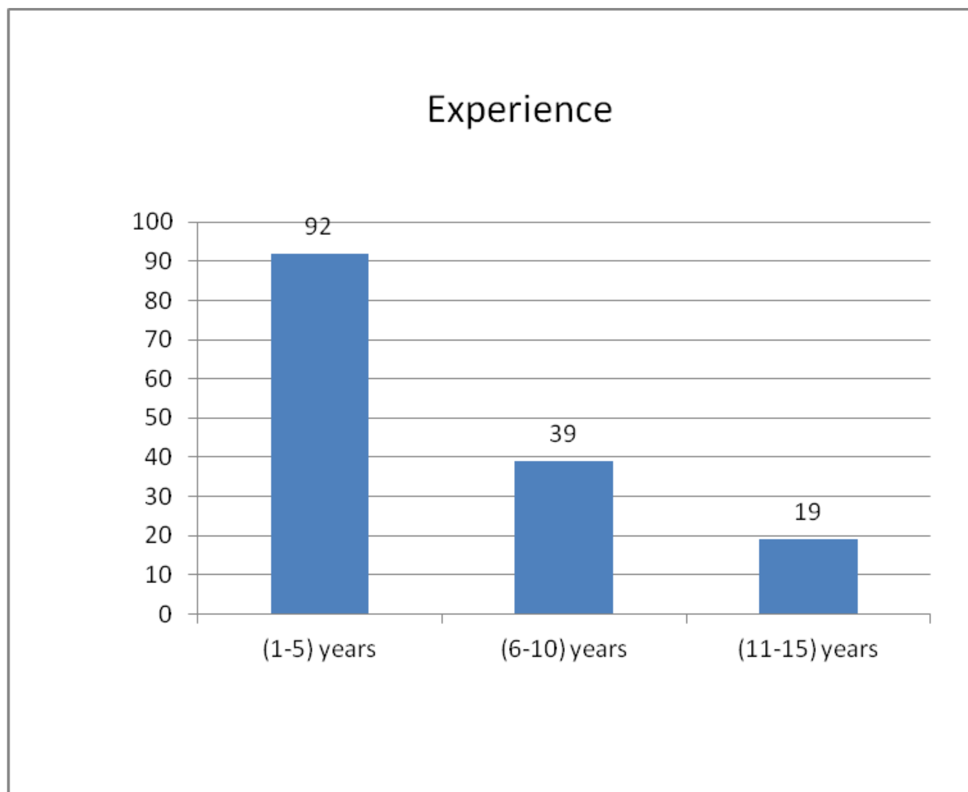
	Frequency	Percent	Valid Percent	Cumulative Percent
	7	4.7	4.7	4.7
Very serious	46	30.7	30.7	35.3
Somewhat serious	85	56.7	56.7	92.0
Not serious	12	8.0	8.0	100.0
Total	150	100.0	100.0	

if no

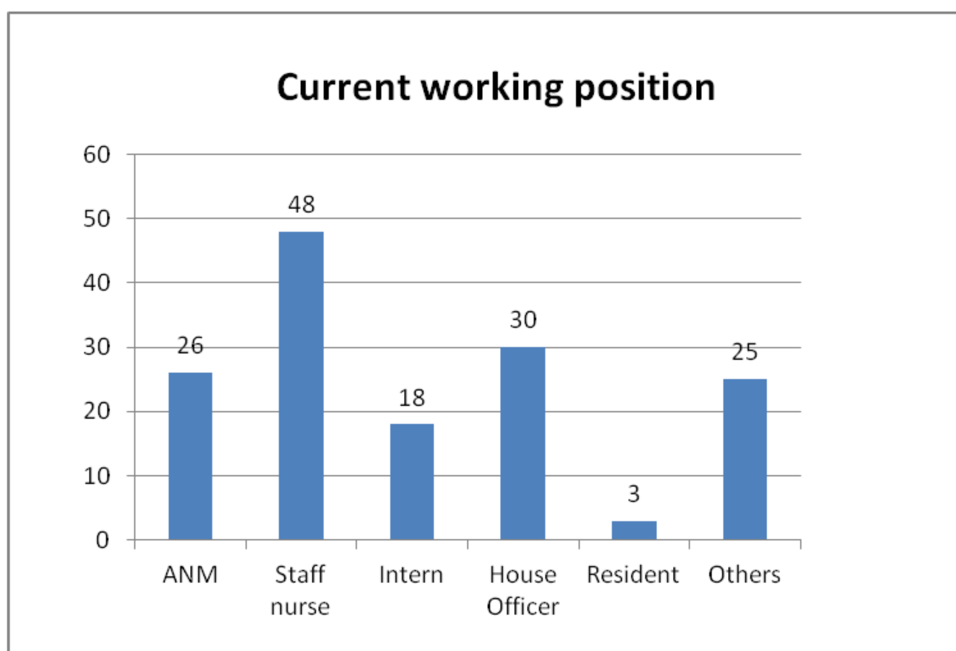
	Frequency	Percent	Valid Percent	Cumulative Percent
	144	96.0	96.0	96.0
centralized service	1	.7	.7	96.7
growing Med Institute	3	2.0	2.0	98.7
hard to find open position	1	.7	.7	99.3
lot of nursing student	1	.7	.7	100.0
Total	150	100.0	100.0	



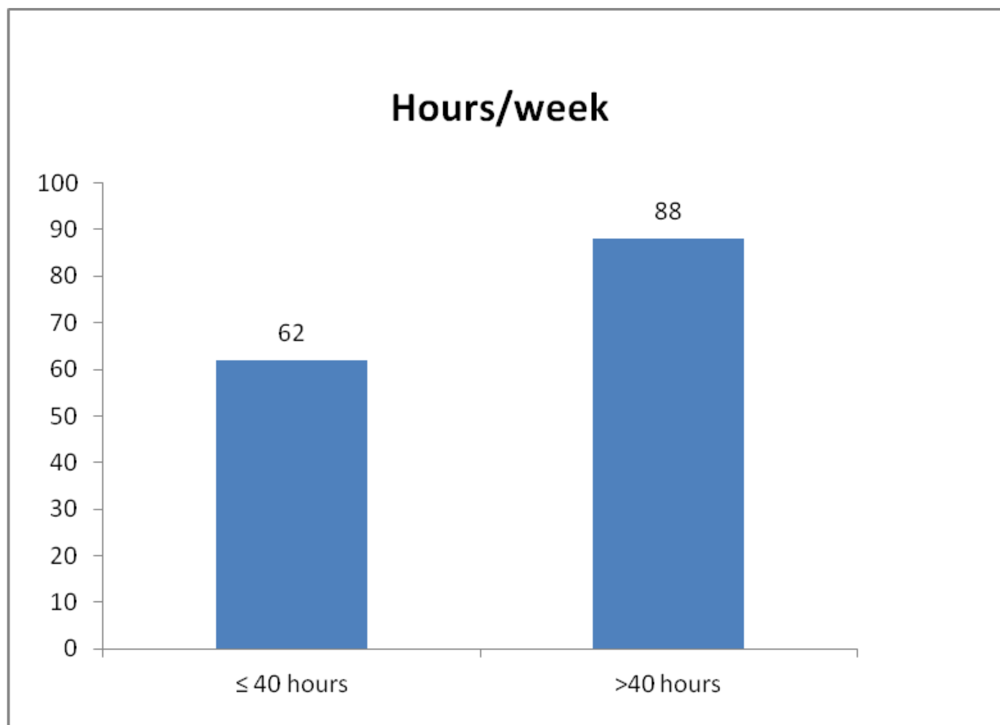
Year of graduation



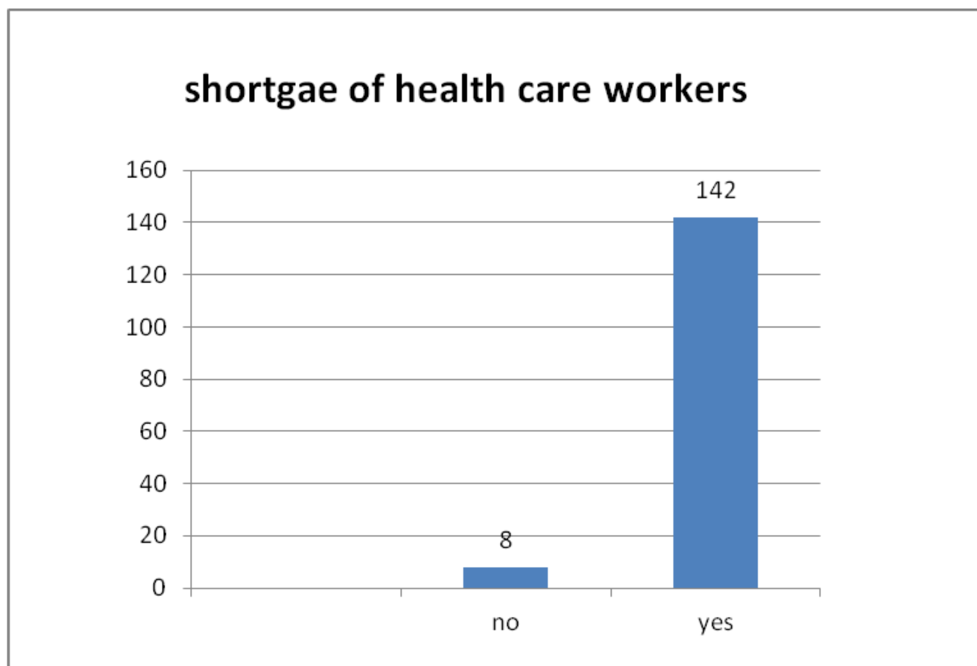
Years of Experience of the participants



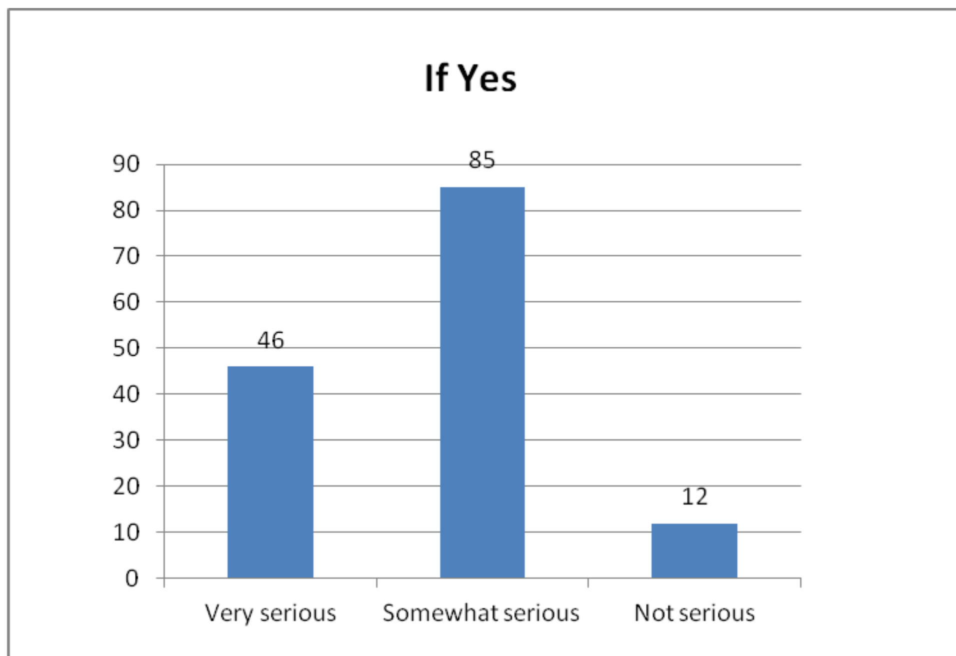
Current working position of the participants

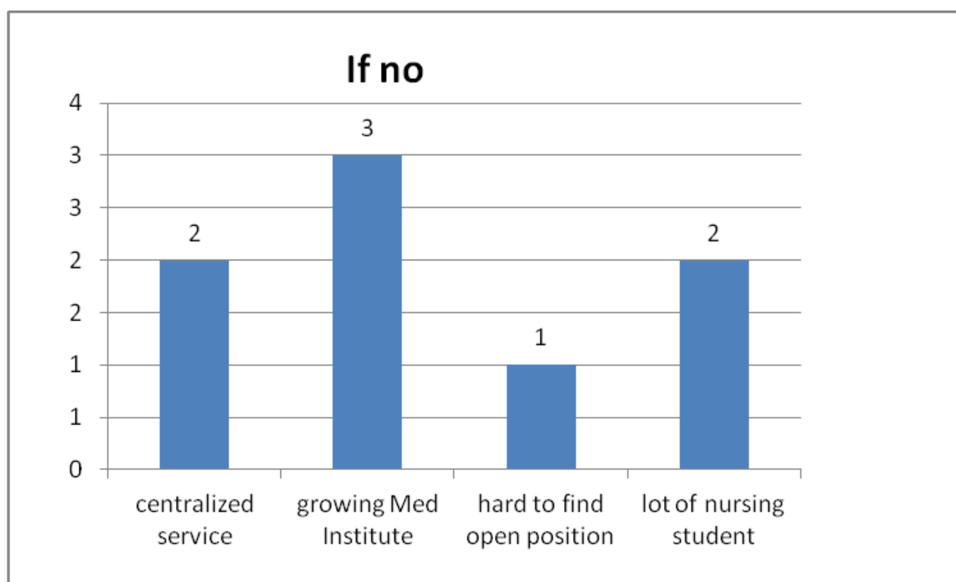


. Working hours per week



Perception about shortage of health care professionals


If Yes
90
80
70
60
50
40
30
20
10
0
85
46
12
Very serious
Somewhat serious
Not serious


If no
4
3
3
2
2
1
1
0
2
3
1
2
centralized service
growing Med Institute
hard to find open position
lot of nursing student

Appendix B

Informed Consent Form

Invitation to Participate

You are invited to participate in a research study titled: **"Perception of physicians and nurses towards shortage of health care professionals in Nepal"** conducted by Shyamala Shiwakoti, a student from Regis University, Department of Health Services Administration, under the direction of Faculty Advisor, Michael Cahill. The study will be done at health facilities in Nepal.

Basis of Subject Selection

You are invited to participate because you are doctor or nurse working in Nepal.

Purpose of the Study

The purpose of this research project is to understand perception of physicians and nurses towards shortage of health care professionals in Nepal.

Explanation of Procedures

You will be part of a survey. You will be asked questions regarding your perception about the shortage of health care professionals in Nepal.

Potential Risks and Discomforts

During the study, it is possible there will be questions you are uncomfortable answering in this study. If this occurs, please answer only the questions you are comfortable with.

Potential Benefits

The results of this study will tell us about your perception towards shortage of health care professionals in Nepal. You will receive no benefit from participating in this study other than the opportunity to share your thoughts on this subject.

Financial Obligations

There will be no expense to participate in this survey

Assurance of Confidentiality

You need not write your name or any other identification in questionnaire. The filled returned questionnaire will be given a code number. Information we get from this study may be published in professional journals or presented at professional meetings. In such publications or presentations, your identity will never be revealed.

Withdrawal from the Study

Participation is voluntary. Your decision to participate or not to participate will not affect your current job. If you participate also, you are free to withdraw from the study at any time without prejudice from the researchers.

Offer to Answer Questions

If you have any questions now or at any time during the study, please ask them. If you have questions after this study, please contact Shyamala Shiwakoti at shiwa154@regis.edu or Michael Cahill at MichaelCahill@centura.org. If you have any questions concerning your rights as a subject, you may contact Regis University Institutional Review Board at 1 + (303) 9643616.

Printed Name of Subject………………………………………………………….

Signature of Subject………………………………………………………….

Date

IN MY JUDGEMENT THE SUBJECT IS VOLUNTARILY AND KNOWINGLY GIVING INFORMED CONSENT AND POSSESSES THE LEGAL CAPACITY TO GIVE INFORMED CONSENT TO PARTICPATE IN THIS RESEARCH STUDY.

____

Signature of Investigator (Data collector employed by Primary Investigator on site)

____

Date

Investigators: Primary Investigator, Shyamala Shiwakoti (720) 346-8448 and Faculty Advisor, Michael Cahill.

Additional ethical consideration

The confidentiality of the participants will be maintained. The participants will be anonymous. Each filled questionnaire will be given a code number. There will be no way to track down the respondents from the information they have provided.

Research Funding

There is no any source for funding this research.

Note: Research must be resubmitted for approval, if changes are made in the research plan that significantly alter the involvement of human subjects from that which is described by this application.

Signature of Principal Investigator Shyamala Shiwakoti

(Note: if this document is being sent electronically, your typed signature will be considered as your signature)

Date 05/21/2010

Signature of Faculty Advisor ________________________________

Note: if this document is being sent electronically, by a faculty member who is doing the research, a typed name indicates signature for a faculty member. However, if the IRB is for a student, the faculty advisor must send an email affirming his/her approval. This email should (1) indicate that the faculty advisor has read the application and (2) agrees with the information provided on the form.

Date ________________________________

The space below this line is for the use of the Institutional Review Board.

____

Action of Institutional Review Board:

1. Exempt according to condition __________________________________

2. Approved by expedited review __________________________________

(reviewer, date)

3. Approved in general and specific details.

4. Approved in general with specific details to be resubmitted.

5. Disapproved for the following reasons:

Signature

____

Chair, Institutional Review Board Date