

A Descriptive Research on the Causes and Effect of Nursing Shortage on Some Hospitals in Enugu State, Nigeria

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Introduction

The healthcare has been on the forefront of the news and the mind of many people, therefore, the fact that we have a nursing shortage has everyone uncertain about the future of healthcare. This shortage is especially alarming as we're faced with baby boomers who are living longer, as well as the Affordable Healthcare Act which increases the number of uninsured individuals, which leads more people in need of getting their health checked. Most importantly, patient safety is at risk resulting in medical errors that otherwise would never have happened. Nurses are also feeling dissatisfaction within their careers and many nurses across the country do not think positively about their field. It is important to control the nurses' shortage before the negative impacts of the deficiency are too great in damage. Together, hospitals, nursing programs, and the government must all work as a team in order to overcome the nursing shortage. The shortage of qualified health sciences professionals is most often associated with the demand for nursing staff. Indeed, nurses represent hospitals' largest labor expense, comprising the single greatest component of hospital staff. They are the primary providers of hospital patient care. "Birth and death, and all the various forms of care in between, are attended to by nurses." There are very few other professions which allow individuals to make such a positive contribution to society. Despite the fact that nursing is meaningful work, the country is facing a nursing shortage that grows more pressing with each passing year. Given their importance in health care delivery, hospitals and other health services facilities must address the reasons behind the growing shortage of nurses.

This study was restricted to only 10 hospitals in Enugu state due to time and finances but there are several hospitals suffering from the same problem in the state.

This study have helped in getting the views of nurses in the state on the causes of nursing shortage and how this shortage have affected their practice.

Keywords: *nursing shortage, baby boomers, nursing, nurse- patient ratio, healthcare system and patient.*

Statement of the problem

Nurses are over burdened with the stress of nursing care. Nursing care is meant to be done happily and cheerfully but due to the workload on nurses they are no longer rendering this care in love and due to this we find that nurses and patients are most times dissatisfied.

Nurses who are known as the bedrock of the healthcare system constitute the largest percentage of the healthcare force and patient's care suffer whenever there is a shortage of this nurses.

Nursing shortage is not a recent problem in the healthcare system, it have been on for decades but only recently have the rate become alarming. This alarming rate of nursing shortage result from the increase in population growth, aging workforce, declining number of applicants to nursing schools, and baby boom generation which calls for the increase in healthcare services.

Nursing shortage can be defined as a situation where the demand for nursing professionals i.e. registered Nurses (RNs), exceeds the supply for nurses both locally, nationally and globally. Nursing shortage can be measured by a deficiency in nurse to patient ratio, nurse to

population ratio or when the number of job openings exceed the number of nurses needed for the job. This situation is observed in developed and developing nations around the world.

Nursing shortage is not necessarily due to a lack of supply of trained nurses. In some cases, this shortages occur due to increased admission rates of students into nursing schools. Potential factors include lack of adequate staffing ratios in hospitals and other health care facilities, lack of placement programs for newly trained nurses, and inadequate worker retention incentives.

Globally, the World Health Organization (WHO) estimates a shortage of almost 4.3 million nurses, physicians and other health human resources worldwide—reported to be the result of decades of underinvestment in health worker education, training, wages, working environment and management.

Causes of nursing shortage

Professional alternatives in 2011 study found that more than 20 percent of nurses who provide direct patient care expressed job dissatisfaction, compared to 13 percent of nurses in non-institutional settings.

Nursing is meant to be a long term carrier and it have been so over decades of years but recently there is a decline of which most nurses are changing to other profession. This changes in their career results from dissatisfaction and some literatures were reviewed to find out some causes of this dissatisfaction. In a study completed by sociologist Bryan Turner, the study found that the most common nursing complaints were: Subordination to the medical profession on all matters, even over standardized regulations and difficult working condition.

A report from the Commonwealth of Australia identified a few other matters that led to nurse dissatisfaction: constant schedule changes, work overloads due to high number of patients and paperwork, shift work, lack of appreciation by superiors, lack of provided childcare, and inadequate pay.

Another study found that nurse dissatisfaction stemmed from: conflicting expectations from nurses and managers due to regulation of cost, inability to provide comprehensive nursing care due to work and Loss of confidence in the health care system.

Declining Enrollment and Educators New admissions into nursing schools have dropped dramatically and consistently for the past six years. Additionally, nursing colleges and universities denied 32,617 qualified applicants in 2005 due to the shortage of nursing educators. Faculty age continues to climb; higher compensation can be found elsewhere luring potential educators away from teaching. The Health Resources and Services Administration stated in a 2006 report that, "to meet the projected growth in demand for RN services, the United States must graduate 90 percent more nurses."

One main reason: There are not enough faculty to teach incoming nursing students. Either faculty are leaving due to retirement -- like their counterparts in health-care settings, they too are aging – or they're gaining higher salaries elsewhere in practice settings other than teaching.

According to the American Association of Colleges of Nursing, two-thirds of nursing schools admit faculty shortages were a main reason for turning away qualified applicants.

Nursing school enrollment is not growing fast enough to meet the projected demand for RN and APRN services. Though AAC reported a 2.6% enrollment increase in entry-level baccalaureate programs in nursing in 2013, this increase is not sufficient to meet the projected demand for nursing services. With the passage of the Patient Protection and Affordable Care Act in 2010, more than 32 million Americans will soon gain access to healthcare services, including those provided by RNs and Advanced Practice Registered Nurses (APRNs).

Age

The lack of younger people entering nursing has raised the average age of nurses. In Maryland, the average practicing RN is 46 years old, nationally the average working RN is over 43 years old. About half of the RN workforce will reach retirement age in the next 15

years. On top of this, the average age of new RN graduates is 31. Nurses are entering the profession at an older age and offer fewer years of work.

Nurses are known for their long hours, low pay, and very stressful jobs. As a result of this, enrollment in nursing schools has declined for the fourth straight year. With a declining amount of nurses, and a hospital industry that is constantly expanding, the need for nurses is rapidly growing. Also with less and less nurses going to school the older nurses are just getting older.

Approximately one third of the nursing workforce is over 50 years of age and the average age of full time nursing faculty is 49 years. A study published in the July, 2000, issue of JAMA predicts that 40% of nurses by 2010 will be 50 years old or older (Buerhaus, 2000a). According to a 2013 survey conducted by the National Council of State Boards of Nursing and The Forum of State Nursing Workforce Centers, 55% of the RN workforce is age 50 or older.

Increase in population of baby boomers

America's demand for nursing care is expected to balloon over the next 20 years. The future demand for nurses is expected to increase dramatically when the baby boomers reach their 60s and beyond. The population aged 65 years and older will double from 2000 to 2030. Furthermore, the population aged 85 and older is the fastest growing age group in the U.S. The Bureau of Labor Statistics ranks the occupation of nursing as having the seventh highest projected job growth in the United States. The real issue is that during this time of increased demand for health care, the overall number of nurses per capita will begin to decline. By 2020 the number of nurses will fall nearly 20 percent below requirements. Nursing is bracing for what's being called a "silver tsunami" — a graying Baby Boomer workforce entering retirement. On top of that, many other nurses are leaving the field out of frustration as they don't feel they're making enough of a difference for their patients.

Poor salary scale

One major cause of nursing shortage is poor salary scale of nurses. Nurses are leaving their present job place, state, country and as they leave this gap is hardly replaced causing shortage. Nursing is a challenging profession and it is perceived that the salary scale is not commensurate to the work load, hence if they are opportune to find a better paying state or country they migrate. This poor salary is the main reason behind nurse migration. For example, to accommodate perceived nursing shortage in the United States, American hospital recruit nurses from overseas, especially the Philippines and Africa. This, in turn, can lead to greater nursing shortages in their home countries.

The study published in the Open Journal of Nursing 2014, said increment in salary and allowances rated the best influence on recruitment and retention of nurses in Lagos State. The study published in the Open Journal of Nursing 2014, said increment in salary and allowances rated the best influence on recruitment and retention of nurses in Lagos State. The study identified lack of nursing leadership; sense of job security and work environment as major factors influencing recruitment and retention of nurses in Lagos health institutions.

In Philippine there is overabundance of RNs and a lack of open employment positions. The unemployment rate in the Philippines exceeds 10%. Additionally, health care budgets set up Filipino nurses for low wages and poor benefit packages. There are fewer jobs available, thereby increasing the workload and pressure on RNs. Filipinos often pursue international employment to avoid the economic instability and poor labor conditions in their native country.

Nurse patient ratio

The WHO recommends a nurse to a population ratio of 700, but according to the Open Journal of Nursing, 2014, Nigeria has less than 150,000 registered nurses to cater for an

estimated 160 million population, giving an average nurse population ratio of 1 to 1,066 people.

Modupe O. Oyetunde of the Department of Nursing, College of Medicine, University of Ibadan, and Olabisi O. Ayeni of the Lagos State School of Nursing, Lagos, in their study entitled "Exploring Factors Influencing Recruitment and Retention of Nurses in Lagos State, Nigeria within Year 2008 and 2012", found that the turnover rate of nurses in Lagos State Health institutions is higher than obtains in Federal health institutions in the country and also higher than the national average.

A registered staff nurse at the Lagos State University Teaching Hospital, LASUTH, who simply identified herself as Esther, noted that, ordinarily, the recommendation for maximum number of patients that a nurse can see safely within an eight-hour shift period ranges from 25-30.

Effect of nursing shortage on the healthcare system

Nursing shortage have affected the healthcare system over the years and if nothing is done about this suffer the healthcare system will continue to suffer.

In the March-April 2005 issue of nursing economics, Dr. Peter Bureaus and colleagues found that more than 75% of RNs believe the nursing shortage presents a major problem for the quality of their work life, the quality of patient care, and the amount of time nurses can spend with patients. Looking forward, almost all surveyed nurses see the shortage in the future as a catalyst for increasing stress on nurses (98%), lowering patient care quality (93%) and causing nurses to leave the profession (93%).

According to a study in the October 2002 Journal of the American Medical Association, nurses reported greater job dissatisfaction and emotional exhaustion when they were responsible for more patients than they can safely care for. Researcher Dr. Linda Aiken concluded that "failure to retain nurses contributes to avoidable patient deaths."

Shortage of registered nurses, in combination with an increased workload, poses a potential threat to the quality of care. In settings with inadequate staffing, patient safety was compromised.

Nursing shortage which invariably leads to increased rate of medication error and increased length of stay of patient due to infection results in extra cost for the hospital. The fact that nurses are not satisfied with the over burden placed on them due to this shortage results in them quitting their jobs and this results in recruiting of new staffs and this results in extra cost for the healthcare system. Due to this workload also the health of most nurses are affected and this results in more sick offs and to cover the shifts other nurses will be called to work over time for which the hospital will be responsible for their benefits.

Methods

Research design

A non-experimental design was used. A survey was used, it is a descriptive research based on the instrument like questionnaire and interviews used in making data collection. For this purpose, the researcher is interested in finding out the causes and effect of nursing shortage in healthcare system in Enugu state, Nigeria.

Settings

The study was conducted amongst 10 healthcare facilities in Enugu state, Nigeria. Enugu state is located in the south eastern part of Nigeria. It has a population of approximately 3.2 million people in 2009. It is an Igbo speaking state.

Target population

The target population constitute sixty nurses from about 10 healthcare facilities in Enugu state which include private hospitals, maternity homes and primary healthcare facilities.

Sampling technic

Random sampling technic was used to select the 60 nurses from the 10 healthcare facilities. They were picked irrespective of their years of working experience, qualification or sex.

Instrument for data collection

Structured interview in the form of a questionnaire was used for data collection as all involved are nurses. The same questions were presented to various respondents in the same order and responses were collected thereafter.

Method of data collection

The researcher went to different hospitals in the state and distributed the questionnaires in person and retrieved the filled questionnaire. The questionnaires were distributed randomly to the nurses she met in those hospitals she visited.

Method of data analysis

The responses of the questionnaire collected will be arranged and analyzed in simple percentage table, pie chart and bar chart.

Ethical considerations

The research was carried out in a caring attitude, the consent of the target population was considered, they were made to know what the research was about, and its benefit and topic was clearly explained to them. The lives of the target population was not endangered and the confidentiality of the target population was also maintained.

Validity and reliability of the instrument

The validity of the instrument was obtained by contact validity. The questionnaire was given to my supervisor in my place of work to look into the content for necessary correction and the corrections made were used in improving the questionnaires.

Reliability of the questionnaire was obtained by test and retest method in which 5 of the questionnaire were given to 5 of my colleagues to fill and this same 5 colleagues were given some questionnaire within one week so as to obtain the coefficient of reliability.

Results

This segment deals with the analysis of data collected from the respondents. The researcher is mainly interested in the causes and effect of nursing shortage and possible ways of reducing nursing shortage. A total of 60 questionnaires were printed and distributed to different nurses of different hospitals to get their opinions and all were answered. The data collected was analyzed using simple percentages, pie chart and bar chart.

Table 1. Sex of the respondents

Sex of respondents	Respondents	Percentage (%)
Male	5	8.3%
female	55	91.7%
Total	60	100

According to table 1, 8.3% of the respondents are male, while 91.7% of the respondents are female.

Table 2. Age of the respondents

Age of respondents	Respondents	Percentage %
20-30	10	16.7%
30-35	15	25%
35-40	25	41.7%
40 and above	10	16.7%
Total	60	100%

According to table 2, the highest age range of the respondents is 40 years and above which is 41.7%, 35-40 years makes up 25% of the respondents age, while 20-30 years and 30-35 years makes up 16.7% and 16.7% respectively.

Table 3. qualification of the respondent

Qualification of respondents	Respondents	Percentage
other specialties	10	16.7%
RN	30	50%
BSN	5	8.3%
RNM	15	25%
Total	60	100%

Table 3 shows that 50% of the respondents have diploma in nursing certificate(RN), 25% of the respondents are registered nurse midwife(RNM), 16.7% of them have other specialties added to their diploma in nursing like burns and plastic nursing, orthopedic nursing, cardiothoracic nursing and 8.3% of them are BSN holders.

Table 4. years of working experience

Years of working experience	Respondents	Percentage
1-10years	5	8.3%
10-20years	15	25%
20-30 years	30	50%
30years and above	10	16.7%
Total	60	100%

From table 4, the study shows that 50% of the respondents have a working experience of 20-30 years, 25% of the respondents have worked for 10-20 years, and 16.7% of the respondents have worked for 30 years and above and 8.3% of the respondents have working experience of only 1-10 years.

Table 5. is your facility experiencing nursing shortage?

Is your facility experiencing nursing shortage	Respondents	Percentage (%)
Yes	55	91.7%
No	5	8.3%
Total	60	100%

From table 5, 91.7% of the respondents said there is nursing shortage in their facilities and only 8.3% said they are not experiencing nursing shortage.

Table 6. causes of nursing shortage

Possible causes of nursing shortage	Respondents	Percentage
poor salary scale	30	50%
increased baby bloom population	12	20%
poor nurse patient ratio	15	25%
other reasons	3	5%
total	60	100%

From table 6, 50% of the respondents feel that poor salary scale is the reason for nursing shortage, 25% think it results from poor staffing ratio, 20% feel it is due to increase in population of baby bloom, and 5% gave other reasons like reduced admissions into nursing schools, aging number of staff nurses.

Table 7. Effect of nursing shortage

Effect of nursing shortage	Respondent	Percentage
increased workload on nurses	21	35%
increased medication error	12	20%
reduced patient care	12	20%
unhappy and frustrated nurses	15	25%
Total	60	100%

From table 7, 35% of the respondents say nursing shortage results in increased workload on nurses, 25% says it results in having frustrated and unhappy nurses, while 20% and 20% respectively say it result in increased medication error and reduced patient care.

Table 8. are you satisfied with your profession as a nurse?

Are you satisfied with your profession as a nurse?	Respondents	Percentage (%)
Yes	33	55%
No	27	45%
total	60	100%

Table 8 shows that 55% of the respondents are satisfied as nurses while 45% are not satisfied with nursing as a profession.

Table 9. If no what are your reasons for dissatisfaction

Reason for dissatisfaction	Respondents	Percentage%
lack of appreciation by superiors	10	16.67%
attitude of doctors to nurses	5	8.33%
too much workload	7	11.67%
poor salaries	5	8.33%
total	27	45

Table 9 shows that 16.67% are not satisfied with the profession because of lack of appreciation from their superiors, 11.67% are not satisfied because of the workload, 8.33% of the respondents say the attitude of doctors towards nurses and another 8.33% says it's due to poor salaries.

Table 10. any intension in the future of quitting nursing?

Any intension of quitting the profession in the future	Respondents	Percentage%
yes	15	25%
No	45	75%
Total	60	100%

From table 10, 75% of the respondents says they have no intension of quitting the profession, while 25% says there is very high tendency of them leaving the profession when the opportunity arises.

Table 11. if yes, what is your reason for quitting?

Reason for quitting the profession	Respondents	Percentage%
rivalry between doctors and nurses	5	8.33%
work over load	3	5%
lack appreciation of superiors	4	6.67%
poor salary	3	5%
total	15	25%

From table 11, 8.33% gave rivalry between doctors and nurses as reason for quitting, 6.67% of them said it is due to lack of appreciation from superiors, 5% said its due to work overload and the other 5% said its due to poor salary.

Table 12. What do you think are the possible ways of reducing nursing shortage?

ways of reducing nursing shortage	respondents	Percentage
increasing salary scale	30	50%
adjusting nurse patient ratio	15	25%
employing younger nurses	12	20%
other solutions	3	5%
Total	60	100%

From table 12, 50% of the respondents said nursing shortage can be reduced by increasing the salary of nurses, 25% said by adjusting nurse patient ratio, 20% said by employing younger nurses into the healthcare system and 5% gave other reasons like supports from superiors, better work environment, policies to upgrade the nursing profession.

Discussion

Based on the data analyzed, the following are what was found from the respondents.

Table 5 clearly shows that 91.7% of the respondents are experiencing nursing shortage in the facility where they work and only 8.3% of them say that their facility is not having crisis of nursing shortage. This is in line with the study which is signifying the rate of nursing shortage in Enugu state, Nigeria.

Table 2 also shows that 41.7% of the respondents are between the ages of 40 years and above, 25% of the respondents are between ages 35-40, 16.7% are 20-30 years and 16.7% also fall between ages 30-35years. This findings explain the fact that greater percentage of the population of nurses are nearing retirement age and this accounts for some of the causes of nursing shortage and if nothing is done to replace this one's retiring the healthcare system will suffer more damages of nursing shortage.

Table 4 shows that 50% of the respondents have a working experience of 30-40 years, 25% has experience of 20-30years, and 8.3% has experience of 40 years and above and the remaining 16.7% of the respondents have only a working experience of 1-10 years. This results shows that maturity of nurses are nearing retirement age and this will create a big vacuum in the health system if plans are not made to employ younger nurses who can spend more years in service before retiring.

Table 6 shows the causes of nursing shortage. 50% of the respondents feel that poor salary scale is the reason for nursing shortage, 25% think it results from poor staffing ratio, 20% feel it is due to increase in population of baby bloom, and 5% gave other reasons like reduced admissions into nursing schools, aging number of staff nurses. This study shows that in Enugu state the main reason for nursing shortage is poor salary. Some of the nurses were questioned to find out the amount they are paid and some are paid as fifteen thousand naira which is so poor compared to the services they render. There are so many nurses who are not working because of the amount of salaries been paid, they will prefer to relax at home or venture into other businesses than to be paid such amount.

From table 7, 35% of the respondents say nursing shortage results in increased workload on nurses, 25% says it results in having frustrated and unhappy nurses, while 20% and 20% respectively say it result in increased medication error and reduced patient care. This data explains the damage which the shortage of nursing does to the healthcare system. Nurses are over burdened with caring for excess patients and this puts strain on most of the nurses. They have to go out of their way to ensure that they cater for the whole patients under their care though this makes them unable to give patient complete attention.

In table 8, 55% of the respondents said they are satisfied with the nursing profession while 45% of the respondents are not satisfied with the nursing profession. This statistics reminds us

of nursing dissatisfaction with the profession. This table is closely related to table 9 where the reasons for the dissatisfaction were given. 16.67% are not satisfied with the profession because of lack of appreciation from their superiors. They feel that their efforts are not appreciated and that they will prefer to be where they will be appreciated. 11.67% are not satisfied because of the workload. Most of the hospitals visited in the course of this research had 2 to 4 nurses on duty with a 20-25 bedded ward. With this I even observed the way the nurses were rushing around to attend to these patients. 8.33% of the respondents say the attitude of doctors towards nurses' result in the dissatisfaction. The rivalry going on between doctors and nurses is one which have been on for years and nurses feel that they cannot be second to the doctors. During the study some nurses disclosed that they want a profession that is independent where they will be an authority. The other 8.33% says it's due to poor salaries. Nurses during the study said that the amount they are paid is nothing compared to the services they render. They said that if salaries will be increased they will be more encouraged to carry out their nursing care effectively.

From table 10, 75% of the respondents says they have no intention of quitting the profession, this group see nursing as a calling and feel that though there are challenges but if proper measures are taken to correct things people won't even think of quitting the profession. 25% says there is very high tendency of them leaving the profession when the opportunity arises. This finding explain professional alternatives as possible causes of nursing shortage. This group are fed up with all what is going on in the profession and wish to switch to another profession where their impact will be felt.

From table 11, 8.33% gave rivalry between doctors and nurses as reason for quitting, 6.67% of them said it is due to lack of appreciation from superiors, said that despite all their hard work their superiors never seem to be satisfied with it. 5% said it's due to work overload and the other 5% said it's due to poor salary.

From table 12, 50% of the respondents said nursing shortage can be reduced by increasing the salary of nurses, 25% said by adjusting nurse patient ratio, 20% said by employing younger nurses into the healthcare system and 5% gave other reasons like supports from superiors, better work environment, policies to upgrade the nursing profession.

Conclusion

In conclusion, nursing shortage in Nigeria have remained on the high side especially in the eastern part of the nation of which Enugu state is one. The main causes of nursing shortage include poor salary scale, poor nurse- patient ratio, increase in population of baby boomers, increase in aging population of nurses and professional alternatives.

To reduce the rate of nursing shortage, nurses complain need to be heard. The salaries of nurses should be increased to measure with their workload. There should be incentives to help encourage and entice more nurses into the profession like bonuses, leave allowances, and flexible work shifts. There should be strict policies on nurse patient ratio and this should be adopted by all healthcare facilities. There should be in-service training of nurses and there shifts should be made flexible to allow them study.

Acknowledgement

My sincere gratitude goes to my student coordinator Ms. Cinthana for her constant support and to my spouse for always been there.

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