



**INTENT TO STAY IN NURSING PROFESSION AND ITS PREDICTORS
AMONG NURSES WORKING IN JIMMA ZONE PUBLIC HOSPITALS,
SOUTH WEST ETHIOPIA**

BY:

ADMASU BELAY (BscN)

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DEPARTMENT OF NURSING

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BY:

ADMASU BELAY (BscN)

ADVISORS:-

- 1. PROF. TEFERA BELACHEW(MD, Msc, PhD)**
- 2. Mr. WADU WOLANCHO (RN , BscN, AssN, MscN)**

JUNE, 2014

JIMMA, ETHIOPIA

DECLARATION

I, the undersigned, declare that this thesis is my original work, has not been presented for a degree in this or any other university and that all sources of materials used for the thesis have been fully acknowledged.

The undersigned agrees to accept responsibility for the scientific ethical and technical conduct of the research project and for provision of required progress reports as per terms and conditions of the College of Public Health and Medical sciences in effect at the time of grant is forwarded as the result of this application.

Name of the student: Admasu Belay Gizaw (BscN)

Date. _____ **Signature** _____

APPROVAL OF THE ADVISORS:

Name of First Advisor	Signature	Date
1. Prof. Tefera Belachew(MD, Msc, PhD))	-----	-----

Name of second Advisor	Signature	Date
2. Mr. Wadu Wolancho (RN , BscN, AssN, MscN)	-----	-----

Name of internal examiner

1. Fantahun Ayalew (RN, BscN, MscN)

Signature -----Date-----

DEDICATION

This Thesis is dedicated to the loving memory of my mother, Etalem Tesema, who passed away 2002 E. C. She showed me how not only to make a living, but a life, she live for me, she suffers a lot with me. Not a day goes by that she is not missed, to my brother Bizuayehu Belay and Jember Tadese. Finally to my lovely Tesfamariyam!

Abstract

Background: About 4- 54% of nurses worldwide intend to leave their profession hence hospitals are facing difficulties in providing quality nursing care due to shortage of experienced nurses. This shortage is related with low nurse to population ratio, inadequate financial resource to train sufficient number of nurses and turnover of existing nurses from their profession which is the outcome of low intention to stay in the profession. Several factors affect intention of nurses to stay in their profession. Among these job satisfactions, professional and organizational commitment, job related stress and poor nurse-physician communication, and leadership style were identified as a common cause at different time at different parts of the world. In Ethiopia, a number of nurses leave their profession each year, their level of intention to stay in their profession is known only to some extent till know so, this study may help as a baseline to find out factors that related with intention to stay in the profession among nurses working at Jimma zone public hospitals.

Objective: This study aims to assess intent to stay in the nursing profession and its predictors among nurses working in Jimma Zone public Hospitals from March 10-April 10, 2014.

Methods: Institution based cross-sectional study was conducted on 317 nurses. Structured self-administered questionnaires were used to collect data. Data was cleaned with Epi-data version 3.1 and then exported to IBM SPSS version 20 for analysis. Independent sample t-test, one-way ANOVA and linear regression were done to see mean difference and association of variables. P-value of less than 0.05 was taken as statistically significant.

Result: The overall level of intention to stay is 57.75% of which 133 (42%) of them have low, 95 (30%) of them have moderate and the rest 89 (28.1%) have high level of intention to stay in the profession. Organizational and professional commitment, working at district hospital, job satisfaction, organizational factor, and job related stress were identified as predictors of intention of nurses to stay in their profession.

Conclusion: The overall level of intention to stay is slightly more than half. So, improving this level of intention needs collaborative intervention on related factors which is a big homework for managers on health sectors of Jimma zone, and Jimma zone public Hospitals.

Key Words: Intent to stay, Nursing profession, commitment, job satisfaction, Job related stress, Jimma Zone.

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List of Abbreviations

AC	Affective Commitment
BscN	Bachelor of Science in Nursing
CC	Continuance Commitment
CPHMS	Collage of Public Health and Medical Science
ICU	Intensive Care Unit
JU	Jimma University
MD	Medical Doctor
MDGs	Millennium Development Goals
MVLRM	Multivariable Linear regression Model
Msc N	Masters of Science in Nursing
NC	Normative Commitment
OCQ	Organizational Commitment Questionnaire
PHN	Public Health Nurse
RN	Registered Nurses
SD	Standard Deviation
SET	Social Exchange Theory
SPSS	Statistical Package for Social Sciences
TCM	Three-Component Model of commitment
WHO	World Health Organization

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CHAPTER ONE: INTRODUCTION

1.1 Background

Arriving at a clear and comprehensive definition of nursing is difficult(1). Nursing theorists, textbooks, organizations, and healthcare facilities all define nursing with slightly different emphases and shades of meaning(2). From these, definition of nursing by ANA and Virginia Henderson were widely used.

ANA define nursing as: a protection, promotion, and optimization of health and abilities, prevention of illness and injury, alleviation of suffering through the diagnosis and treatment of human response, and advocacy in the care of individuals, families, communities, and populations(3).

Virginia Henderson define nursing as the unique function of the nurse is to assist the individual, sick or well, in the performance of those activities contributing to health or its recovery (or to a peaceful death) that he/she would perform unaided if he/she has the necessary strength, will, or knowledge to do this in such a way as to help him/her gain independence as rapidly as possible(4) respectively.

The nursing profession began with a genuine desire to serve and care for others, combined with a sense of compassion and commitment. Nurses stay by the side of those they serve through the worst times and celebrate with patients and families in the best times(5). They provide patient care within a broad range of service models which continually change due to: scientific and technological advancements, consumer expectations, the ageing of the population in a system where health care costs and prevalence of chronic illness were persistently rising(6). It is a profession vital to the health and well-being of all nations and backbone of healthcare system.

The word intention is defined as: something that somebody plans to do/ a course of action that one intends to follow in his her life(7).

As cited by 'Boyle et al. 1999' nurses' intent to stay in their profession can be defined as their decision to remain in their profession before retirement. Retention of professionals in their profession and job satisfaction were identified as a major concern across different parts of developed countries.

Even though quality nursing care depends on an adequate supply of qualified nursing personnel, the global shortage of nurses reaching a critical level and many nurses continue to voluntarily leave their profession before the normal age of retirement(8). This hinders the provision of a consistent level of quality nursing care in a fast-changing health environment(9). Leaving once profession begins from feelings of an individual which is 'intention to leave'. This intention ends to actual performance an action if conditions were not managed early. Due to this globally evolving nursing shortage is receiving considerable attention from the healthcare industry, educators, researchers, and policy makers at the state and federal levels. However, health care leaders recognize that the present and imminent nursing shortage is different from previous ones because the retirement of large numbers of older nurses, increased prevalence of chronic illness, turnover, small nurse to population ratio due to inadequate resource to training and recruitment and poor retention strategies that related with job dissatisfaction in some developed and most developing country (10).

The financial cost of losing a single nurse has been calculated to equal about twice the nurse's annual salary in one year. Losing these critical employees negatively affects the bottom line of healthcare organizations in a variety of ways including: Decrease in quality of patient care, increase death rate, nurse turnover, staff costs, accident rate(11,12)

Several factors affect intention of nurses to stay in their profession and continue career advancement within the profession. These factors differ from country to country and from facility to facility. Among these, job and pay satisfaction, professional and organizational commitment, co-worker relation, Poor nurse physician communication, stress due to work overload, not receiving recognition, lack of role clarity; lack of trust, poor communication with management and some socio-demographic characteristics were identified.

1.2 Statement of the Problem

The shortage of healthcare professionals, in particular nurses, as they constitute over 50% of the healthcare workforce, is a critical global issue. About 4- 54% of nurses worldwide intend to leave the nursing profession. The current shortage and high turnover rate of nurses is of great concern in many developed and developing countries(13).

WHO reported severe international shortages in human resources for health, specifically nurses and particularly nurses in developing countries. Developed countries actively engage in recruiting nurses from undeveloped countries to alleviate their nursing shortages. This serves to redistribute the nursing shortage and intensifies the problem for developing countries(14).

In USA, On Issue of Nursing Economics, Dr. Peter Buerhaus and colleagues Rosseter found that more than 75% of RNs believe the nursing shortage presents a major problem for the quality of their work life and the quality of patient care. The shortage of nurses in the future is a catalyst for increasing stress on nurses (98%), lowering patient care quality (93%) and causing nurses to leave the profession (93%). Therefore, nurse leaders are faced with two challenges: to recruit sufficiently qualified nurses and to establish work environment that promote retention. In June 2011,they reported that employers and staffing agencies posted more than 121,000 new job ads for Registered Nurses which account up to 46%(15).

National Center for Health Workforce Analysis' report in USA, Projected Supply, Demand and Shortages of Registered Nurses: from 2000-2020 years, if no action is taken, the projected shortage of registered nurses will coincide with an increased need for nursing services due to aging of the baby boom generation. These changes suggest that it will be more difficult, and more costly, to respond to the future shortage (16,17)

In Australia, Media reports continually the nursing shortage and its consequences. The reasons given for nurses leaving nursing profession include: pay, work conditions, larger workload, greater complexity of patient care, and poor recognition of the skills and knowledge required to be a nurse. Advertisements placed in the Weekend Magazine requesting nurses to "Come back to nursing" and the offer of up to \$6,000 to aid in their return, are clear signs of the government's concern(6).

Nurse shortages and nurse turnover have become increasingly problematic in Mainland China. Factors contributing to the severe shortage of registered nurses are: the inadequate policies for recruitment, retention of healthcare providers, and the required retirement ages of nurses. Turnover rate exceeds 20% per year with experts estimating the cost of turnover to be about 150% of one employee's annual compensation (18).

Africa will require one million additional health workers to ensure the staffing required to deliver basic health interventions(19).

Statistics from the South African Nursing Council show a decline of 42.0% in the number of nurses who completed their training from 1996 to 2005. These aspects helps to predict a potential shortage of nurses in South Africa in the future(20)

WHO has identified a threshold in workforce density below which the coverage of essential interventions, including those necessary to meet the health-related Millennium Development Goals (MDGs), is very much un-likely. The minimum level of health workforce (MD, nurses and midwives) density required to achieve MDGs in Africa, has been estimated at 2.5 per 1000 population (21).

Out of 46 countries in the sub-Saharan Africa region, only 6 have workforce density 2.5 per 1,000 people and over. Indeed, Africa's health workforce density averages 0.8 workers per 1000 population, significantly lower compared to the other regions and to the world median density of 5 per 1,000 populations(19). Currently in Ethiopia the ratio of nurses and midwifery per 10,000 populations is 2.5 which is 0.25 per 1000 clearly indicates how much the problem is high(22,23)

Eventhough little is known and there is no published study result on nurses' intention to stay in nursing profession among nurses in Ethiopia, from my work experience qualified and experienced nurses leave their profession each year which may affect the future nursing profession development and more importantly the current quality of nursing care. All the above mentioned reason contributes to low intention to stay in the profession and increases actual turnover.

CHAPTER TWO

2.1 Literature Review

Different study at different parts of the world identified factors that affect intention of nurses to stay in their profession. Among these study results show the following.

A qualitative study done by Banks & Bailey in University of Mississippi USA on 'Career Motivation in Newly Licensed Registered Nurses: What Makes Them Remain', findings revealed that 13% of newly licensed RNs had changed their jobs after one year, and 37% reported that they felt ready to change jobs mainly because of low pay and poor job satisfaction(24).

On the study done by Sourdif J. in Montréal, Québec, Canada on 'Predictors of nurses' intent to stay at work as a nurse in a university health center' result showed that, satisfaction at work, satisfaction with administration, organizational commitment, Education qualification and work group cohesion are identified as factors that affect nurse's intension to stay in their profession or to quit. Satisfaction at work and satisfaction with administration are the best predictors of intent to stay and explained 25.5% of intent to stay variance. Intent to stay was higher for a nurse holding a diploma than a baccalaureate degree(25).

A descriptive survey conducted by Ann E. Tourangeau on 'Nurse Intention to remain employed: understanding and strengthening Determinants' among registered nurses in Ontario Canada: the finding indicated that, Job satisfaction, years of employment in the hospital, work group cohesion and collaboration, and organizational commitment of nurses are identified as determinants of nurse intention to remain employed in their profession(8).

A study on Nurse Turnover: A literature review report on International Journal of Nursing Studies in Canada Toronto revealed that, autonomy and relationships with doctors, had direct effects on changes in psychological empowerment job satisfaction and intent to stay in nursing profession (12).

Study conducted by Buchan J, Jobanputra R, Gough P, Hutt R on 'Internationally recruited nurses in London: a survey of career paths and plans', the finding revealed that, the majority of respondents (60%) indicated that they planned to stay for at least five years, but just under half (43%) also reported that they were considering leaving their profession(26)

A meta-analysis conducted among Jordanian nurses to assess the relationships of the three components of commitment, affective, continuance, and normative with different work related behaviors and they found that, low level of organizational commitment is an important factor related to turnover intention(27).

According to the study done by Wang L., Tao H on ‘Predictors of hospital nurses’ intent to stay: a cross-sectional questionnaire survey in Shanghai China among nurses working in hospitals, the finding showed that factors contributing to the severe shortage of registered nurses are: inadequate policies for recruitment, poor retention of nurses, absences of social respect for nurses contribute to intention of nurses to quit their profession. Organizational commitment, praise/recognition, professional advancement opportunities and working hospital classifications are significant factors of nurse intent to stay(18).

On the study done by Abualrub R.F., Omari F.H. & Al-Zaru I.M. ‘Support, satisfaction and retention among Jordanian nurses in private and public hospitals in Jordan, The study result also indicated that, career development opportunities were a strong predictor of commitment to stay in nursing profession. Nurses who work in private hospitals were more satisfied and intended to remain in their jobs more than nurses in public hospitals (28).

According to the study conducted by Majd T. Mrayyan among Jordanian nurses ‘Job satisfaction and intent to stay: comparing teaching and non-teaching hospitals’ Findings showed that Marital status (being single), shift works (rotating or day), years of experience in nursing and current area of work, and age are predictive factors of job satisfaction and retention. Nurses who work permanent night shift reported lower levels of commitment to nursing which in turn influence nurse job satisfaction and retention. Nurses who were working in non-teaching hospitals reported higher job satisfaction and intent to stay rates than those working in teaching hospitals(29).

A cross-sectional study done by Orawan Kaewbooncho et, al on job stress and intention to stay at work among Thailand registered nurses in hospital by using self-administered questionnaire on hospital nurses indicated that, level of intention to stay in nursing profession was 22.4%. Factors related to intent to stay were psychological job demand and social support(30).

Cross-sectional study conducted by Mohamad Alameddine on ‘Retention of health human resources in primary healthcare centers in Lebanon’ among health providers the finding revealed that, two out of five respondents indicated likelihood to quit their jobs within the next 1–3 years and an additional 13.4% were not sure about quitting. The top three reasons behind likelihood to quit were poor salary (54.4%), better job opportunities outside the country (35.1%) and lack of professional development (33.7%). Regression analysis revealed that high levels of burnout, lower level of education and low tenure were all associated with increased likelihood to quit(31).

According to the survey conducted by Kudo et al. on ‘Association between Intention to stay on the Job and Job Satisfaction among Japanese registered nurses and licensed practical nurses working in 4 small and medium-sized private hospitals. The result of the multiple regression analysis suggests that the intention to stay on the job was higher among nurses who were older and more satisfied with work and working conditions (32).

According to the study conducted by K. Shacklock in Australia on ‘Intention to continue nursing: work variables affecting three nurse generations’ by using self-report survey across four states of Australia, Six variables were found to influence nurses’ intention to continue working as nurses: work–family conflict, perceptions of autonomy, attachment to work, importance of working to the individual, supervisor– subordinate relationship and interpersonal relationships at work(33).

The result of the study done by Anna L. Howe on stabilizing the aged care workforce: an analysis of worker retention and intention in Australian Elder care nurses showed that, two-thirds of the aged care workforce were Committed workers who had been in their job for more than 1 year and intended to stay, whereas less than 5% were uncommitted workers who had been in the job for less than 1 year and did not intend to stay(34).

Cross-sectional descriptive study conducted by Chan & Morrison on ‘Factors influence the retention and turnover intentions of registered nurses in a Singapore hospital’ found that a larger proportion of RN working in the ICU and surgical ward stated that they would stay in the hospital, compared to those employed in non-ICU. The findings also indicated that those with longer years of nursing experience were more likely to stay. Even if more than 70% of the

respondents in this study intended to stay employed in profession, they were not satisfied with the working conditions(35).

An exploratory descriptive study done by Kgaogelo E. Mokoka¹ Valerie J. Ehlers¹ Martha J. Oosthuizen¹ on ‘Factors influencing the retention of registered nurses in the Gauteng Province of South Africa’; finding suggested that, most important factors that would influence more than 90.0% of nurses’ decisions to stay with their current employers and within their profession related to finances, safety and security, equipment and/or supplies, management, staff relationship and patients flow. Regarding staff-related factors that would contribute to the retention of registered nurses in this study, adequate advancement opportunities in the organization 93.5%; receiving support from colleagues 92.6%; and respecting diversity 90.7%(20).

A case study conducted on Economic Analysis of Nurses Shortage in Egypt by Marwa Farag suggests that many nurses are choosing to exit the local market either to work abroad, stay home, convert to other professions which contributing to the overall shortage of nurses in Egypt (36).

Study conducted on ‘Human Resource Development for Health in Ethiopia: Challenges of Achieving the Millennium development Goals’ by Samuel Girma¹ et.al by using Review of different documents on human resource for health showed that, shortage of Health workers staff in Ethiopia has always been critical. Health worker/population ratios, for example are 3 to 4 times lower than even East African standards. In 2005 in Ethiopia, there were 18,809 nurses, all categories which encompasses about 2.5nurses per 100,000 population ratio which is very much low when compared with other African countries and developed western and eastern countries (23).

Generally different study at different parts of the world identified the level of nurses’ intention to stay in their profession and predictors of intention to stay in nursing profession among nurses. From these, job dissatisfaction, low commitment to the profession and to the organization, high job related stress, poor nurse-physician collaboration at work, low pay, low recognition for contribution, work load, risky work environment and lack of supportive management were identified.

2.2 Conceptual Framework

Developed by the investigator after review of relevant literatures(18,25,37–40) .

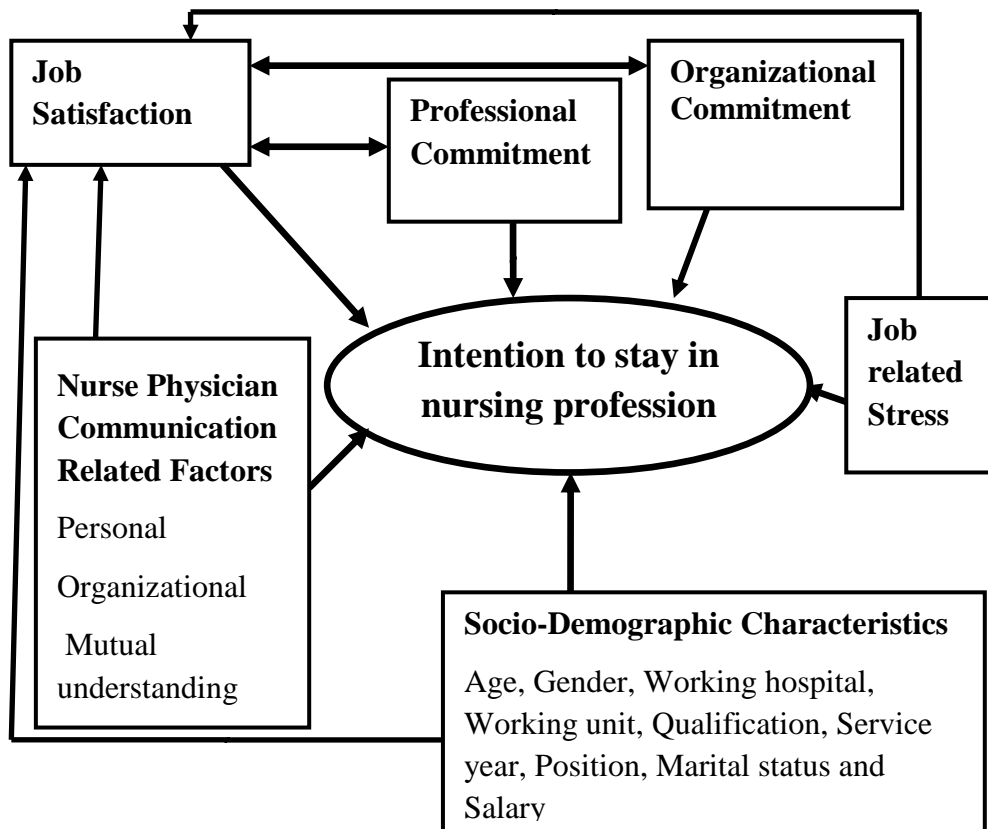


Figure 1: Conceptual framework on nurse's intent to stay in nursing Profession and its Predictors in public hospitals in Jimma Zone Oromia Regional State, South Western Ethiopia, 2014.

2.3 Significance of the Study

Nursing shortage is a significant part of the ongoing healthcare crisis in the health care delivery system because, many nurses are changing their profession while some of them pursue career in another profession, and many others were quitting the profession altogether. These results in a lack of nursing resources required to give adequate nursing care, justifying the importance of analyzing the problem from the angle of nurses' intent to stay in the profession and understanding the factors that are related to this issue.

So; assessing nurses' intention to stay in their profession and its related factors were needed to guide the development of policies for retention of nurses in their working place, within their profession and finally their career plan in the profession and improve nursing care quality and may help those concerned body to use as a baseline data for further study and designing strategies for retention of nurses in their profession.

CHAPTER THREE: OBJECTIVES

3.1. General Objective

- To assess intent to stay in the nursing profession and its predictors among nurses working in Jimma Zone public Hospitals from March to April, 2014

3.2. Specific Objectives

1. Determine the level of intension to stay in nursing profession among nurses working in Jimma Zone public Hospitals, South West Ethiopia, 2014.
2. To identify predictors of nurses' intention to stay in their profession among nurses working in Jimma Zone public Hospitals, South West Ethiopia, 2014.

CHAPTER FOUR: METHODS AND MATERIALS

4.1 Study area and Period

The study was conducted in three public hospitals found in Jimma Zone, Oromia Regional state from March 10-April 10 2014. Jimma is one of the 18 zones of the Oromia Regional State found at 352 kms from Addis Ababa, the capital city of Ethiopia, in the South western part. Based on the 2007 conducted Census by the CSA, this Zone has a total population of 2,486,155, of thus 1,250,527 are male and 1,235,628 female; with an area of 15,568.58 square kilometers(41)(42)

In this zone there are three public hospitals namely, Jimma University specialized hospital (JUSH), Shenan Gibe and Limu Genet hospital. The first two are situated in Jimma town where as the later one is at Limu town which is 72kms far from Jimma town. Except JUSH both are district level. JUSH plays a pivotal role in this zone and it is the only teaching and referral hospital in the southwestern part of the country, and provides specialized clinical services to about 15 million people South West part including those clients referred from SNNRS ho (43). .

4.2 Study Design

Institution based cross sectional study was conducted.

4.3 Population

4.3.1 Source population

- All nurses who were working in Jimma Zone Public Hospitals.

4.3.2 Study population

All nurses who were working at Hospitals in Jimma Zone Public Hospitals during data collection period.

4.3.3 Inclusion Criteria

Nurses who were available at work at the hospital during data collection period

Nurses who have work experience of greater or equal to 06 months.

Nurses having at least diploma qualification

4.4 Sample size Determination

The total populations of nurses in the three hospitals were 433. From these 73 of them have work experience of less than 6 months. Census was conducted on the rest study populations that fulfill the inclusion criteria.

4.5 Study Variables

4.5.1 Dependent Variables

- Intention to stay in nursing Profession.

4.5.2 Independent variables

- ***Socio-demographic Characteristics*** (age, sex, marital status, educational qualification, work experience, salary, working hospitals, position and working unit)
- ***Professional Commitment***
- ***Organizational Commitment***
- ***Job satisfaction***
- ***Nurse Physician Communication Related Factors*** (Personal Factors, Organizational factors, and Mutual Understanding at Work)
- ***Job Related Stress***

4.6. Data collection procedures and quality control

4.6.1 Data Collection Instrument

The questionnaire for this study consisted of Socio- demographic characteristics, professional and Organizational Commitment Scale, Job satisfaction scales, Nurse Physician communication scale, Job related stress Scale and intent to Stay Scale. Socio- demographic characteristics represented by question number 100- 109, Professional Commitment Scale adapted from Blau (2003) which is represented by question number (201, 202,203,205,207,209,211), Organizational Commitment Scale adapted from instrument developed by Meyer and Allen (1988, 1990) which consists of affective, continuance and normative organizational commitment subscale with question number (204,206,208,210),(212,213,215,217,219,221), (214,216,218,220,222, 223) respectively. Intent to stay scale from McCain's which is represented by question number 224, 225, and 226. job satisfaction scale from McCloskey/Mueller satisfaction scale; for the purpose of this study, 05 subscales of the MMSS are selected from the original scale The five subscales are: Extrinsic Rewards subscale consisting of three items (227-229), Co-worker relation sub scale consisting of two items(242-243), Professional growth Opportunities sub scale consisting

of three items (244-246), Praise and Recognition consisting of four items (238-241), Control and Responsibility consisting of three items (248-250). Nurse Physician Communication Related Factors consists of personal Factors (303, 304 & 305), Organizational factors (306, 307, 308, 309, 310 & 311), and Mutual Understanding at work consists of (300, 301 & 302) which was adapted from a study conducted in Iran and finally Job Related Stress which developed through adaption from expanded nursing stress scale which was developed by Gray-Toft and Anderson and Revised by Susan E. French, Rhonda Lenton, it contains 13 items which help to identify stressors that cause job stress among nurses. For the purpose of this study 04 subscales were selected based on literature. These include: work overload (item 401, 402, 406, 407& 408), lack of support (item 403,404 & 405), conflict between nurses and physicians (item, 409 & 410,) and uncertainty regarding patient treatment (item 411, 412, & 413).

Five percent of the questionnaire was pre- tested at Woliso Referral Hospital to assess clarity, sequence, consistency, understandability and for total time it takes before the actual data collection. The result of reliability test showed that crombatch's alpha for intent to stay scale, Overall job satisfaction scale, professional commitment scale, organizational commitment scale Nurse Physician communication scale and job related stress scale are 0.84, 0.83, 0.8, 0.86, 0.804 and 0.81 respectively on pre-test. Then necessary comments and feedbacks were incorporated in the final instrument.

4.6.2 Data Collection personnel

A total of five Diploma Nurses were recruited to distribute, facilitate and to collect data. They have been trained and oriented for one day on the questionnaire and the way of data collection.

4.6.3 Data quality control

The collected data was reviewed and checked for completeness and missed and jumped questions by the facilitators and principal investigator. For each shift the questionnaire were distributed after the purpose of the study explained and told them to return when they finish.

4.7 Operational Definition and Definition of terms

Intent to stay in nursing profession: Nurses' decision to stay in their profession which was measured by 03 items in nursing profession having a 4 point likert (1= strongly disagree to 4=strongly agree) the sum score ranging from a minimum of 03 to maximum of 12 the higher the score the higher intention to stay in the profession.

Professional commitment is “one’s attitude/agreement toward one’s profession which is measured by 07 items of Professional Commitment Scale the higher the score the more committed nurses were to their profession.

Organizational commitment is ‘a measure of the alignment of the employee’s motivations with the mission of their organization’ which is measured by 16 items of Meyer and Allen (1988, 1990) OCS based on Affective, Continuance and Normative Commitment component the higher the score the more committed nurses were to their organization.

Affective Commitment: employee's positive emotional attachment to their organization.

Continuance Commitment is the “need” component or the gains verses losses of working in an organization.

Normative Commitment is the individual’s levels of commitment to remains with an organization because of feelings of obligations.

Overall Job Satisfaction It is the degree to which nurses like or enjoy their job which is measured in terms of Coworker relationship, promotional opportunity, Professional Autonomy, Recognition for contribution/praise and satisfaction with extrinsic reward in which has a minimum score of 15 and maximum score of 60 the higher the score the more nurses are satisfied.

Personal factors: A factor that affects nurse physician collaboration due to negligence of duty, uncooperativeness and poor attitude at work which was measured by 3 items and their sum ranges from minimum of 3 to maximum of 15 indicating the higher the sum the lower nurse-physician communication.

Organizational factor: A factor that affects one’s communication/collaboration which arises from organizational constraints and measured by 6 items and their sum ranges from minimum of 6 to maximum of 30 indicating the higher the sum the lower nurse-physician communication.

Mutual understanding at work: nurses & physicians communication at work regarding patient care which is measured by 3 items and their sum ranges from minimum of 3 to maximum of 15 indicating the higher the sum the higher nurse-physician communication.

Overall job related stress: Stress perceived by the nurse related to workload, conflict, Uncertainty regarding patient treatment and lack of support in work place and these subscales

have a total of 13 items, sum score ranging from a minimum score of 13 and maximum of 52 the higher the score the more the nurses are stressed.

Turnover of nurses: it is defined as leaving nursing profession to join other non nursing fields and stoping doing as a nurse.

4.8 Data entry and analysis procedures

The data was edited, entered into Epi-Data version 3.1 for cleaning and to check completeness and missing values and then exported to IBM SPSS version 20 for analysis. Percentage, Frequency, mean and standard deviation were calculated. For intent to stay subscale, the participant's responses on each item scored, summed: Intent to stay score ranging from a minimum score of 03 and maximum score of 12. The higher the score the more intention to stay nurses had in their profession. Except nurse physician communication scale all independent variables were summed and overall score were taken for analysis, but in nurse physician communication scale total score for mutual understanding, personal factors and organizational factors were used independently. Intent to stay scores was compared with socio-demographic characteristics using an independent sample t-test and one-way ANOVA after checking the assumptions. For the purpose of analysis dummy variables were created: Working hospitals into Referral vs District, Marital status into Single vs ever married, Working unit into inpatient and outpatient and Title/ position into clinical staff nurse and clinical nurse staff managers. Then bi-variate analysis was done to select candidate variables. Variables with P-value less than 0.25 in the bi-variate analysis were included in the multivariable model. Finally multivariable linear regression was done to see the association between the predictor and the outcome variables. In multivariable, all candidate variables were intered once then variables with greater p-value removed until only significant variables left in the model. β -coefficients, p-value and 95% CI were used to show predictors of intent to stay. P-value of less than 0.05 will be taken as statistically significant. Results were summarized and presented by tables, charts and graphs.

4.9 Ethical Consideration

Ethical clearance and approval letter to conduct study was obtained from JUCPHMS, Institutional Review Board to communicate with Hospitals administrative body in Jimma zone. Permission letter was obtained from administrative body of each hospital. Prior to administering the questionnaires, the aims of the study were explained to the participants, also told that participation is voluntarily, confidential and anonymity ensured throughout the execution of the study as participants were not required to disclose personal information on the questionnaire. Finally verbal consent was assured from the study subjects.

4.10 Dissemination Plan

The final report will be disseminated to the Department of nursing, College of public health and medical sciences, Jimma University. Again the study findings will be disseminated to the Jimma University Specialized Hospital, Limu Genet hospital, Shinen Gibe hospital, Jimma zone health Bureau, and other relevant bodies, after the completion of the academic process at Jimma University, attempts will be made to publish the findings in scientific journal.

CHAPTER FIVE: RESULTS

Among 341 study population to whom questionnaire were distributed, 321 respondents returned their questionnaires. From the total returned questionnaires 04 questionnaires have missing information, incomplete answer and place of work and some socio-demographic information were not complete so 317 questionnaire were used in this study which makes 92.96% response rate.

5.1 Socio-Demographic Characteristics of Study Participants

As shown on (table 1) among the total study participants majority of them 272(85.8%) were working at JUSH and the rest 45(14.2%) were working at District Hospitals (Limu and Shenen Gibe). Concerning gender distribution, half of study participants were female 159(50.2%) & the rest were male. Regarding their marital status, majority of nurses who participate in this study were single which account 171(53.9%) and the rest 138(43.5%), 7(2.2%) & 1(0.3%) were married, divorced and widowed respectively. Concerning Working Unit/department, the top four unit in which majority of nurses working include: Surgical ward, OPD, Medical ward and Pediatrics which account 66 (20.8%), 63 (19.9%), 53(16.7%) and 45 (14.2%) respectively while the rest were working at Gyn/Obs, Chronic Illness, major Operation room, Ophthalmic unit, ICU and Psychiatry as shown on the (table1). Coming to the educational qualification of nurses participating in this study, majority of them 196(61.8%) were clinical nurses whereas the rest 121 (38.2%) were Bsc nurses (figure 2). Regarding study participants position, most of the respondents were staff nurses 282 (89%) who give direct patient care and a few of them were head nurses, shift supervisors and Matron (figure (4)).

The mean age of the study participant is 27.83 ± 6.8 with minimum age of 21 and maximum age of 58 years. The minimum monthly salary is 1233, and the maximum monthly salary 4820 Ethiopian birr with means salary of 1860.90 ± 496.26 . The average service years of study population are 5.14 ± 6.27 years having minimum service of 8 months and maximum years of 39.

Table 1: Socio-demographic Characteristics of nurse's working at Jimma Zone public Hospitals
Jimma South West of Ethiopia May, 2014.

Socio-demographic Characteristics		N	%
Working Hospital	JUSH	272	85.8
	Shenen Gibe	20	6.3
	Limu Genet	25	7.9
	Total	317	100
Gender	Male	158	49.8
	Female	159	50.2
	Total	317	100
Marital status	Married	138	43.5
	Single	171	53.9
	Divorced	7	2.3
	Widowed	1	0.3
	Total	317	100
Working Unit/department	Medical ward	53	16.7
	Surgical ward	66	20.8
	Intensive Care Unit (ICU)	10	3.2
	Major Operation room	19	6.0
	Psychiatry	7	2.2
	Pediatrics	45	14.2
	Obstetrics & Gynecology	22	6.9
	Ophthalmology	12	3.8
	Chronic Illness Follow Up Clinic	20	6.3
	OPD	63	19.9
	Total	317	100
Age	<24	107	33.8
	25-29	149	47.0
	30-34	20	6.3
	35-39	14	4.4
	>40	27	8.5
	Total	317	100
Work Experience in Nursing	0.5 -5 years	244	77.5
	6-10 years	38	12.1
	11-15 years	9	2.9
	>15 years	24	7.6
	Total	317	100

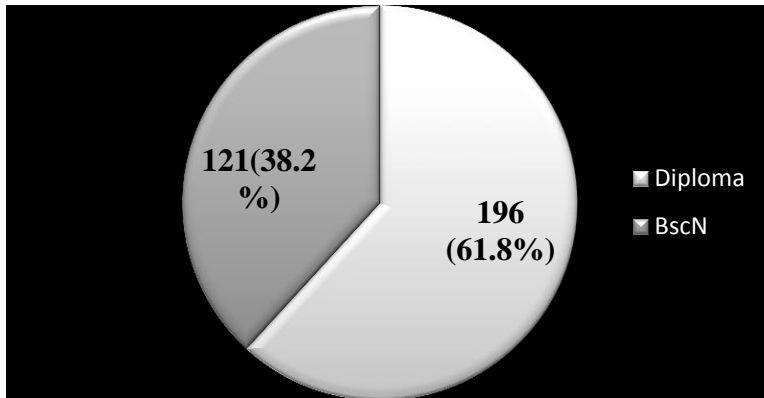


Figure 2: Educational qualification of the study participants working at Jimma Zone Public hospitals May 15, 2014.

Regarding general working unit, majority of nurses 234 (73.8%) were working at inpatient unit while the rest 83 (26.2%) were working at outpatient department (figure 4).

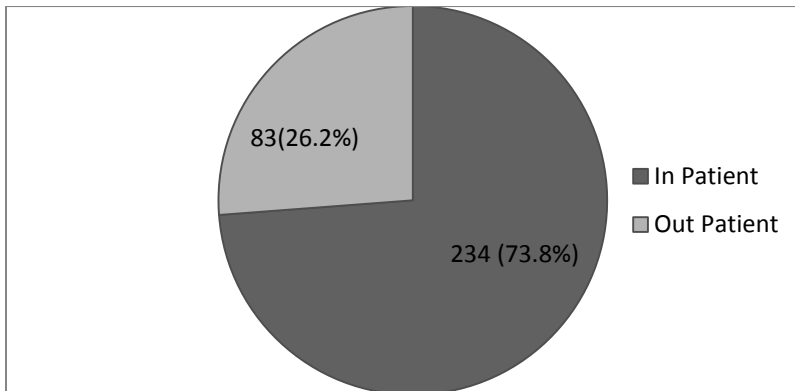


Figure 3: Percentage distribution of study participants' position in the study of intention to stay in nursing profession and its predictors among nurses working at Jimma Zone Public hospitals May 15, 2014.

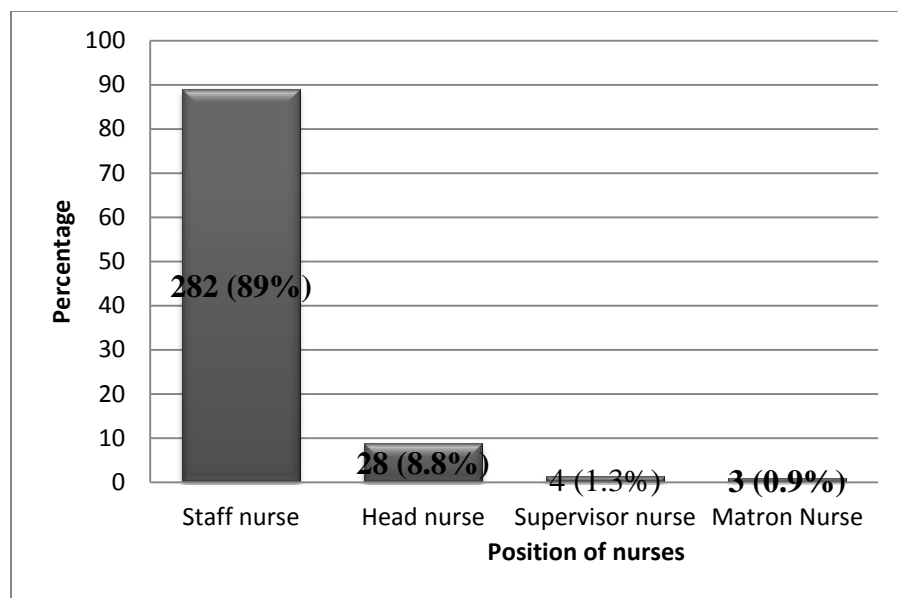


Figure 4: Frequency distribution by position/title of nurses in the study of intention to stay in nursing profession among nurses working in Jimma Zone Public hospitals may 15, 2014.

Table 2: Mean score of selected socio-demographic characteristics in the study of intention to stay in nursing profession among nurses working in Jimma Zone public in public Hospitals Jimma South West of Ethiopia May, 2014.

Socio demographic Variables	Min.	Max.	M	SD
Age	21	58	27.83	6.81
Salary	1233	4820	1860.90	496.26
Length of Service in year	0.67	39.00	5.14	6.27

5.2 Description of predictor variables

The overall job satisfaction score used in this study has a minimum score of 15 and maximum score of 55 with mean score of 35.19 ± 7.62 . Professional Commitment Score has a minimum score of 7 and maximum score of 28 with mean score of 15.73 ± 4.34 . Organizational Commitment Score has a minimum score of 16.00 and maximum score of 58.00 with mean score of 35.04 ± 8.79 . Overall Job Related Stress Score has a minimum score of 15 and maximum score of 52 with mean score of 29.26 ± 6.63 . Nurse Physician Communication mutual understanding at work has a minimum score of 3 and maximum score of 15 with mean score of 8.95 ± 3.48 . Nurse Physician Communication Organizational factor has a minimum score of 6 and maximum score of

30 with mean score of 21.44 ± 5.73 . Nurse Physician Communication Personal Factor has a minimum score of 3 and maximum score of 15 with mean score of 8.89 ± 2.86 (Table 3).

Table 3: Descriptive Statistics results of the predictor variables in the study of intent to stay in nursing profession among nurses working at Jimma Zone Public Hospitals; Jimma South West Ethiopia may 2014.

	Mini.	Max.	Mean	S. D
Overall Job Satisfaction Score	15.00	55.00	35.19	7.62
Total Professional Commitment Score	7.00	28.00	15.73	4.34
Overall Organizational Commitment Score	16.00	58.00	35.04	8.79
Overall Job Related Stress Score	15	52	29.26	6.63
Nurse Physician Communication mutual understanding at work Score	3.00	15.00	8.95	3.48
Nurse Physician Communication Organizational factor Score	6.00	30.00	21.44	5.73
Nurse Physician Communication Personal Factor Score	3.00	15.00	8.89	2.86

Table 4: Mean and percentage mean score for Organizational Commitment and Professional Commitment among nurses working at Jimma Zone Public Hospitals Jimma South West Ethiopia may 2014

Subscale	Mini	Maxi	M	SD
Organizational Commitment	16.00	58.00	35.04	8.79
Professional Commitment	7.00	28.00	15.73	4.34

5.3 Organizational commitment

The table above shows the mean score for organizational commitment is 35.04 ± 8.79 with minimum score 16 and maximum score of 58.

Mean score for Organizational Commitment=35.04 Percentage mean score= 54.75%

On tertiale classification of the level of organizational commitment for the study participants by rank order, 108 (34.1%) of nurses have low commitment, 109 (34.4%) have moderate level of commitment and the rest 100 (31.5%) have high level of commitment to their organization (figure 5).

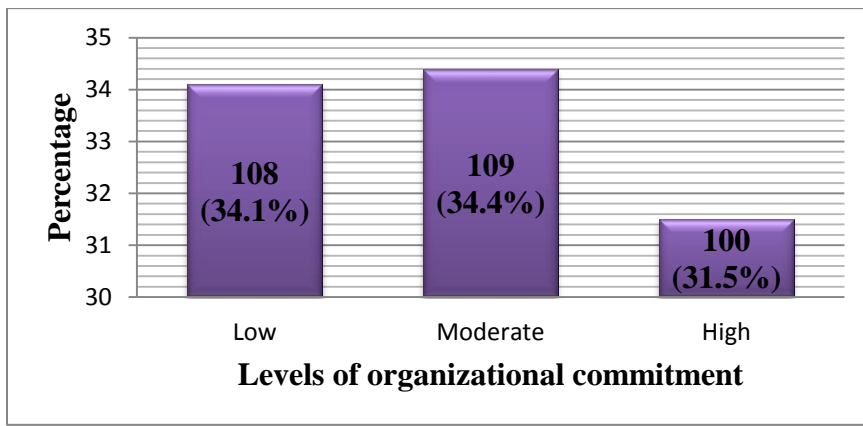


Figure 5 Levels of organizational commitment among nurses working at Jimma Zone Public Hospitals Jimma South West Ethiopia may 2014

5.4 Professional Commitment

For Professional Commitment, mean = 15.73 ± 4.34 maximum score=28 then Percentage mean score= **56.17%**. On tertiale classification of the level of professional commitment for the study participant, 115 (36.3%) of nurses have low commitment, 88 (27.8%) have moderate level of commitment and only one third 114 (36%) have high level of commitment for their profession (figure 6).

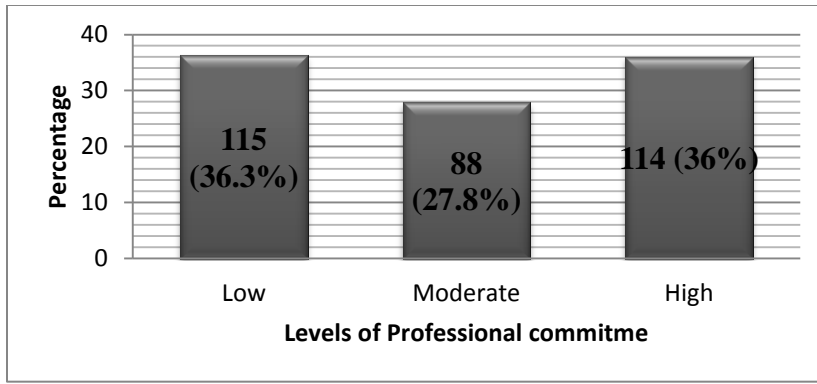


Figure 6 Levels of Professional commitment among nurses working at Jimma Zone Public Hospitals Jimma South West Ethiopia may 2014

5.5 Intent to stay

Regarding Questions about intention to stay in nursing profession among nurses participating in the study, 120(37.9%) were agreed to stay, 51(16.1%) nurses were strongly agreed to stay, 69(21.8%) strongly disagreed to stay and 77(24.3%) disagreed to stay for the first question (table 4). This shows 54% of respondents were agreed to stay for 2-3 years in the profession when we add both agree and strongly agree together. Coming to the second question ('I Plan to work at my present job for as long as possible'), 39(12%) of them strongly agree, 95(30% agreed, 96 (30.3%) Strongly Disagreed and 87(27.4%) were disagreed which shows 57.7% disagreement and 42.3% agreement for the question. Concerning the last question ('Even if my job does not meet all my expectations, I will not quit doing as a nurse') there is only 40% agreement (Agree& Strongly Agree) and the rest 60% is disagreement (Disagree& Strongly Disagree) (table 4).

Table 5: Percentage distribution of each item on intent to stay scale among nurses working in Jimma Zone Public Hospitals; Jimma South West Ethiopia May, 2014

items	Strongly Disagree		Disagree		Agree		Strongly Agree		M	SD	Total
	n	%	n	%	n	%	n	%			
“I Plan to keep my job for at least 2 or 3 years in nursing.”	69	21.8	77	24.3	120	37.9	51	16.1	2.5	1.01	100
“I Plan to work at my present job for as long as possible.”	96	30.3	87	27.4	95	30.0	39	12.3	2.24	1.02	100
“Even if my job does not meet all my expectations, I will not quit doing as a nurse.”	102	32.2	88	27.8	86	27.1	41	12.9	2.21	1.04	100

Respondents’ level of intention to stay in the profession

Descriptive statistics was used to compute the overall mean and overall intention to stay and percentage mean score. The minimum score is 03 and the maximum score is 12, for questions about intention to stay. The overall mean intention to stay score of the study participants in this study was (6.93± 2.43).

The calculated mean score was changed to percentage mean score to identify percentage of nurses who intend to stay in the profession Percentage mean score of intention to stay was calculated by using:

$$\text{Percentage mean score of intention to stay} = \frac{\text{Actual mean score}}{\text{Maximum potential score}} *$$

$$100\% = (6.93/12) * 100\% = 57.75\%$$

Table 6: Mean & Percentage mean score in the study of intention to stay in nursing profession among nurses working in Jimma Zone Public Hospitals; Jimma South West Ethiopia May 14, 2014.

Mean & Percentage mean score	Mini.	Max.	M	SD
Intent to stay score	3.00	12.00	6.93	2.43
Percentage Mean Score for Intent to stay	25	100	57.75	20.25

The overall level of intention to stay in nursing profession for the study participant is 57.75%. The level of intention to stay was done by using data driven classification (tertile classification by rank order); the lower tertile represents low level, the middle tertile represents to moderate level where as upper tertile indicate the higher level of intention to stay. Accordingly 133(42%) of nurses have low levels of intention to stay, 95(30%) nurses have moderate level of intention to stay and only 89 (28%) of nurses have high level of intention to stay in nursing profession (figure 7)

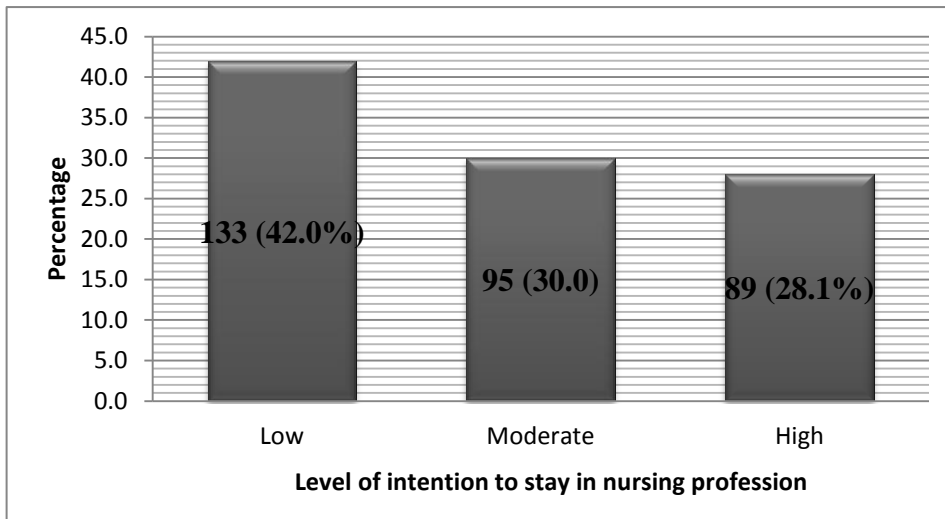


Figure 7 Levels of intention to stay in nursing profession among nurses working at Jimma Zone Public Hospitals Jimma South West Ethiopia may 2014

Table 7: Distribution of intention to stay in nursing profession by sex and educational qualification among nurses working at Jimma Zone public hospitals Jimma South West Ethiopia may 2014.

Intent to stay level	Sex				Total	Total
	Male		Female		N	%
	N	%	N	%	N	%
Low	47	14.82	36	11.35	83	26.1
Moderate	69	21.7	76	23.9	145	45.6
High	42	13.24	47	14.8	89	28.04
Total	158	49.8	159	50.2	317	100

Intent to stay level	Educational qualification				Total	Total
	Diploma		Bsc			
	N	%	N	%		
Low	49	15.45	34	10.7	83	26.15
Moderate	92	20.02	53	16.7	145	36.72
High	55	17.3	34	10.7	89	28
Total	196	61.82	121	38.17	317	100

The distribution of the level of intention to stay among female and male study participant showed that males 69(21.7%) and female 76(%23.9) have moderate level and the rest had low and high level of intention to stay (Table 7)

Majority of diploma and Bsc Nurses in this study had moderate levels of intention to stay in nursing profession (Table 7).

Table 8: Mean difference between intention to stay in nursing profession and selected socio-demographic characteristics among nurses working in Jimma Zone Public Hospitals Jimma South West Ethiopia May 14, 2014.

Variables list		Category	M	SD	t	P
Working Unit	Intent to stay in Nursing Profession	In Patient	6.76	2.36	-2.03	0.04*
		Out Patient	7.39	2.56	-1.96	
Position	Intent to stay in Nursing Profession	Clinical Staff nurse	6.90	2.38	-.61	0.54
		Clinical nurse staff managers	7.17	2.83	-.54	
Sex	Intent to stay in Nursing Profession	Male	6.75	2.38	-1.27	0.20
		Female	7.11	2.47	-1.27	
Educational qualification	Intent to stay in Nursing Profession	Diploma	6.97	2.42	.38	0.70
		BscN	6.87	2.45	.38	
Working Hospital	Intent to stay in Nursing Profession	Riferal/teaching	6.94	2.39	.20	0.84
		District	6.86	2.69	.18	
Marital Status	Intent to stay in Nursing Profession	single	6.79	2.38	-1.09	0.27
		Ever married	7.09	2.48	-1.09	

Independent Samples Test Were done to compare if there is mean difference between groups for variables that are categorized in to two (table 6). Accordingly, mean difference was seen only in working unit. Nurses working in Outpatient department have higher intention to stay compared to nurses working in inpatient department having $t(315) = 2.034$, $p = 0.043$ with a mean value of **(7.39 ± 2.56)**.

Table 9: Mean difference between intention to stay in nursing profession and Length of Service, Monthly Salary category and Age Category in the study of intention to stay in nursing profession among nurses working in Jimma Zone Public Hospitals Jimma South West

Length of Service category					
	Sum of Squares	Df	Mean Square	F	p
Between Groups	21.719	2	10.86	1.849	0.159
Within Groups	1843.89	314	5.87		
Total	1865.61	316			
Monthly Salary category					
Between Groups	14.19	3	4.73	.800	0.495
Within Groups	1851.41	313	5.92		
Total	1865.61	316			
Age Category					
Between Groups	19.960	4	4.99	.844	0.498
Within Groups	1845.65	312	5.92		
Total	1865.61	316			

One-way Analysis of Variance (ANOVA) was done to see if there is a mean difference for intention to stay in nursing profession in Age, Length of Service and Monthly salary category, but there is no significant association among these groups (table 9).

5.6 Simple Linear Regression Analysis

Bivariate Regression/ Simple Linear Regression analysis was done to identify candidate variables for multivariable linear regression. First all 09 socio-demographic, 01 Overall job satisfaction score, 03 nurse physician communication, 01 Overall job related stress score, 01 Overall Organizational commitment and 01 professional commitment predictor variables totally 16 were interred one by one. From these, 12 variables were selected for multivariable linear regression having p- value of less 0.25 (table 10).

Table 10: Bivariate Analysis Showing lists of candidate variables for multivariable linear regression in the study of intention to stay in nursing profession among nurses working in Jimma Zone Public Hospitals Jimma South West Ethiopia May 14, 2014

Predictors variables	Unstandardized Coefficients				95% CI for β	
	β	Std. Error	t	p	Lower Bound	Upper Bound
Sex	0.35	0.27	1.27	0.204*	-0.189	0.884
Age	0.02	0.02	1.22	0.223*	-0.015	0.064
Educational qualification	-0.11	0.28	-0.38	0.705	-0.660	0.447
salary	0.001	0.001	0.62	0.537	0.0001	0.001
Working at District Hospital	-.078	0.39	-0.20	0.042*	-0.849	0.692
Marital Status	0.30	0.27	1.09	0.273	-0.238	0.839
Position	0.27	0.44	0.61	0.540	-0.590	1.125
Working Unit	0.63	0.31	2.03	0.043*	0.021	1.236
Length of Service	0.35	0.23	1.5283	0.128*	-0.101	0.799
Nurse Physician Communication Attitude towards Work	-0.07	0.04	-1.84	0.067*	-0.149	0.005
Nurse Physician Communication Organizational factor	-0.09	0.02	-4.14	0.000*	-0.142	-0.050
Nurse Physician Communication Personal Factor	0.09	0.05	1.92	0.054*	-0.001	0.185
Organizational Commitment	0.15	0.01	11.02	0.000*	0.120	0.172
Professional Commitment	0.29	0.03	11.06	0.000*	0.243	0.349
Overall Stress score	-0.15	0.009	-8.02	0.000*	-0.093	-0.06
Overall Job satisfaction	0.044	0.010	4.55	0.000*	0.025	0.063

*Variables having p-value of less than 0.25 are candidate for MVLRL, CI= Confidence Interval for β * =Indicate selected variables*

5.7 Multivariable Linear Regression Analysis

The candidate variables were entered in multivariable linear regression model once. Then, variables having greater p-value were removed one by one until only significant variables left in the model. Multivariable linear regression result showed that six independent variables contribute 43.6% variation in intention to stay in nursing profession among nurses working in Jimma zone public Hospitals on the final model (**Table 11**).

Out of the 16 selected candidate variables from bivariate regression analysis six of them were identified as predictors of intention to stay in nursing profession on the final model. These include:

Working at district hospital from Socio-demographic factors, Organizational factor from Nurse Physician Communication factors, Professional Commitment, Organizational commitment, Overall Job satisfaction and Overall Stress (Table11).

Table 11: Multivariable Linear Regression Analysis final model for the study of intention to stay in nursing profession among nurses working in Jimma Zone Public Hospitals Jimma South West Ethiopia May 14, 2014

Predictor Variables	Unstandardized Coefficients			p	95.0% CI for β	
	β	Std. Error	t		Lower Bound	Upper Bound
(Constant)	3.787	1.109	3.414	0.001	1.604	5.970
Sex	0.010	0.205	0.049	0.961	-0.394	0.414
Age	0.004	0.015	0.285	0.776	-0.025	0.034
Working at District Hospital	-0.847	0.296	-2.858	0.005*	-1.430	-0.264
Nurse Physician Communication	-0.037	0.018	-2.022	0.044*	-0.073	-0.001
Organizational factor						
Professional Commitment	0.166	0.032	5.238	0.000**	0.104	0.228
Organizational Commitment	0.079	0.02	4.545	0.000**	0.040	0.102
Job related Stress	-0.043	0.01	-5.224	0.000**	-0.059	-0.027
Job satisfaction	0.019	0.01	2.535	0.012*	0.004	0.035

*Adjusted R²=0.436, Maximum VIF= 1.85 and P<0.0001, F (41.2) & *= Indicate significant value at (p<0.05), **= indicate highly significant value.*

There was a positive relationship between nurses' Job satisfaction ($\beta =0.019$, $p=0.012$) and intention to stay in nursing profession, organizational commitment ($\beta =0.079$, $p<.001$) and intention to stay in nursing profession and Professional commitment ($\beta =0.166$, $p<.001$) and intention to stay in nursing profession.

There was a negative relationship between intent to stay in nursing profession and working Hospital ($\beta = -0.847$, $P = 0.005$), Nurse Physician Communication Organizational factor ($\beta = -0.037$, $P = 0.044$), and Job related stress ($\beta = -0.043$, $P < 0.001$).

Working at district hospital is negatively significant predictor of intention to stay in nursing profession ($\beta = -0.847$, $p = 0.005$). Being at district hospital or Working at district hospital decreases intention of nurses to stay in their profession by 0.847 times controlling the other variables constant.

Organizational factor is significant predictor of intention to stay in nursing profession ($\beta = -0.037$, $p = 0.044$) which indicates organizational factors like treating nurses and physicians differently by hospital managers, absence of open stage to discuss and solve problems related to nurse physician communication, ambiguity of role and responsibility among few nurses and physicians and absence of mutual understanding during nurse Physician Communication decreases intention of nurses to stay in their profession by 0.037 amount keeping the other variables constant.

Overall Job related Stress was statistically significant in predicting the outcome variable intention to stay in nursing profession ($\beta = -0.043$, $p < 0.0001$) with negative value of beta coefficient which indicates stress due to lack of support, work load, conflict and uncertainty regarding the treatment of the patient decrease intention of nurses' to stay in their profession by 0.043 amount.

Overall job satisfaction was positively and statistically significant predictor of intention to stay in nursing profession ($\beta = 0.019$, $p = 0.012$). As job satisfaction score increases by one unit, intention to stay also increases 0.019 times.

Organizational Commitment was strongly significant positive predictor of intention to stay in nursing profession ($\beta = 0.079$, $p < 0.0001$). As commitment score to once Organization increases by one unit, his/her intention to stay in his/her profession also increases 0.079 times.

Professional Commitment is also strongly and positively significant predictors of nurses' intention to stay in their profession ($\beta = 0.166$, $p < 0.0001$). When Commitment score to ones' profession increases by a unit, intention to stay also increases by 0.166 times keeping the other variables constant.

Working hospital, Professional Commitment and Organizational Commitment are strong predictors of intention to stay in nursing profession among nurses working at Jimma Zone Public Hospitals (Table 11).

Age, sex, marital status, position, working experience, educational qualification, working unit and salary were not significant predictors of nurses' intention to stay in nursing profession in this study.

UNIT SIX: DISCUSSION

Nurses' intent to stay

The total scores of intent to stay ranged from 3 to 12, with a mean value of (6.93 ± 2.43) . Regarding Questions about intention to stay in nursing profession among nurses participating in the study, there is 54%, 42.3% and 40% of respondent's agreement to stay for the first, the second and third questions with an average percentage value of 45.43% agreement for intention to stay among the study participants.

This result is nearly supported with the study done at McGill University Health Center, Montréal, and Québec, Canada Hospital in which response to the present feelings about continuing in the current profession for the next 3-5 and longer years, 50.4% agreed to stay in their profession(25).

The level of intention to stay in nursing profession is 57.75% in this study. This result is higher when compared with a study done on Thailand registered nurses which indicated the level of intention to stay in nursing profession were 22.4% ((30). The difference may be due to socio economic difference and alternative job for nurses in Thailand and Jimma zone nurses if they leave the profession. The finding is also relatively the same with Study conducted in London in which the finding revealed that, the majority of respondents (60%) indicated that they planned to stay for at least five years and longer(26) , but lower when compared with a study conducted in a Singapore hospital in which more than 70% of the nurses intended to stay in their profession(35). Differences might be related with professional & organizational commitment level, job satisfaction level, stress related with job and other factors among nurses in Jimma zone and Singapore.

On tertiale classification, level of intention to stay in nursing profession in this study 133(42%) of nurses have low levels of intention to stay, 95(30%) nurses have moderate level of intention to stay and 89 (28%) of nurses have high level of intention to stay. This indicates that, majority of nurses have low and moderate level of intention to stay in this study which is supported with study done among Chinese nurses who report low and moderate levels of intention to stay in their profession(44).

Differences in intent to stay were identified in this study between working unit and intent to stay. Nurses working in Outpatient department have higher intention to stay in the profession

compared to nurses working in inpatient department having $t(315) = 2.03$, $p = 0.043$ with a mean value of 7.39 ± 2.56 . This finding is not similar with study conducted on registered nurses in a Singapore hospital' (35). The difference may be due to differences in academic status of nurses working in specialized unit like ICU and surgical ward in our country and Singapore; those nurses working in specialized unit may have their own specialty so that their satisfaction level in terms of job, payment, recognition & other factors might be better.

Factors associated with Nurses' intent to stay in their profession

From the nine Socio-demographic characteristic variables only working hospital was found to have significant association with nurses' intent to stay in this study ($\beta = -0.847$, $P = 0.005$). Being at district hospital decreases intention of nurses' to stay in their profession. Nurses working at referral hospital have better intention to stay in the profession compared to those nurses working at district hospitals. The result is supported with the study conducted in Shanghai China in which nurses in tertiary hospitals have better intention to stay in their profession compared with those in primary and secondary hospitals(18).

The findings in this study also indicated that overall job satisfaction ($\beta = 0.019$, $p = 0.012$) is positively associated with nurses' intent to stay in their profession. This result is supported with a study conducted at University of Kansas (USA) in which positive relationship between nurses job satisfaction and intent to stay were identified(45). Also consistent with the study conducted among Japanese Nurses; result of the study revealed that intention to stay in the profession was higher among nurses who were more satisfied with work and working conditions(32), with study on Jordanian nurses indicated that, nurses who were satisfied in their jobs are more likely to remain in their jobs and their profession(29), with study conducted in Shanghai China which revealed that overall nurse job satisfaction and years of employment in the hospital were predictors of intention to stay in nursing profession(40), with a study conducted in Tanzania, Malawi, and South Africa which showed, turnover from the nursing profession is higher on those nurses who are dissatisfied with their job(46).

Organizational Commitment was strongly significant positive predictor of intention to stay in nursing profession in this study ($\beta = 0.079$, $p \leq 0.0001$). The finding is similar with the study done in Ontario Canada (40) and Jordan (27). In both study area those nurses who have better level of organizational commitment have better intention to stay in their profession. The similarity might

be due to the relationship between an individual's commitment to his/her organization and intention to stay in his/her organization where ever the country is.

Professional Commitment is also strongly and positively significant predictors of nurses' intention to stay in their profession ($p < 0.0001$). This result is consistent with the study done in Shanghai, and People's Republic of China in which Job satisfaction and occupational commitment are positively associated with nurses' intent to stay in their profession(44). Professional/occupational commitment is directly related to intention of nurses to stay in their profession which indicates committed workers are those workers who devote themselves to their profession and solve problems instead of leaving the profession. Also the result is supported with study done in South Africa in which better working relationships and professional commitment were associated with greater retention of nurses in their profession(47).

Organizational factor is significant predictor of intention to stay in nursing profession ($\beta = -0.037$, $p = 0.023$) which indicates those organizational factors like treating nurses and physicians differently by hospital managers, absence of open stage to discuss and solve problems related to nurse physician communication, ambiguity of role and responsibility and absence of mutual understanding in nurse Physician Communication decreases intention of nurses to stay in their profession. The finding is consistent with the study conducted in University of Toronto in which nurses wanted to stay employed in their profession when they felt that their work group was stable and dependable to each other, when they are trusted and respected each other with other team members particularly physicians(40). Also supported with study conducted in Canada which revealed that relationship with physicians had direct effects on intent to stay in nursing profession(12). The finding is also supported with study conducted across four states of Australia, in which nurses' intentions to stay in their profession were influenced by conflict, perceptions of autonomy, supervisor– subordinate relationship and interpersonal relationships at work(33). The result of study done in Gauteng Province of South Africa in which of nurses' decisions to stay with their current employers and their profession related with finances, safety and security, equipment and/or supplies, management, & nurse-physician relationship in patient care also support the finding of this study(20).

Job related stress was statistically strong significant predictor of outcome variable intention to stay in nursing profession ($\beta = -0.043$, $p < 0.0001$) which indicates stress from immediate

supervisor, not have enough time to provide emotional support to the patients and respond to the needs of patients' families, too many non-nursing tasks such as clerical work, disagreement with physicians concerning the treatment of a patient, Conflict with a supervisor, inadequate information from a physician regarding the medical condition of a patient, and a physician ordering what appears to be inappropriate treatment for a patient decreases intention of nurses' to stay in their profession. This finding is supported with the study done in Quebec Canada in which Satisfaction at work and satisfaction with administration are predictors of intent to stay(25), also with the study conducted among Thailand registered nurses(30), the study conducted among Jordanian hospital nurses in which results of the study indicated a negative relationship between job related stress and intention to stay in the profession; nurses who reported having more recognition for their performance and achievements experienced less level of job stress and have better levels of intention to stay in their profession(48). Study conducted in Krishna District India also support this finding in which majority of nurses reported there is frequent occurrence of stress associated with uncertainty concerning treatment, dealing with patient and families, workload, Conflict with doctors, Conflict with supervisors and Conflict with peers (49).

Strength and Limitation of the study

Strength

Data collection method was census which includes all participants that fulfill inclusion criteria.

Limitation

The finding of this study is limited to hospitals; so that the generalization of the finding may not be for health centers in Jimma Zone.

Due to limitation of literature on this topic in this country comparison of study results were done with other countries where the health institution setup, health policy and other factors may differ.

CHAPTER SEVEN: CONCLUSION AND RECOMMENDATIONS

7.1 CONCLUSION

The mean age of nurses in this study is 27.83 ± 6.8) with minimum age of 21 and maximum age of 58 years.

The overall level of intention to stay in nursing profession is 57.75%

Only less than one third of nurses have higher intention to stay in their profession.

Nurses working in Outpatient department have higher intention to stay compared to nurses working in inpatient department.

Working at district hospital decreases intention to stay in nursing profession or nurses working at district hospitals have low intention to stay in the profession.

Organizational commitment, professional commitment, job satisfaction, working hospital, organizational factor from nurse physician communication factors, and job related stress were identified as predictors of intent to stay in nursing profession.

Working hospital, professional commitment and organizational commitment were strong predictors of intention to stay in the profession.

Eventhough the finding of this study is comparable with other study results, still intention to stay is low which is only about 58%. Due to natural characteristics of nursing care, nurses cover larger area of work in the health care delivery system. The community needs quality nursing care which needs adequate nursing work force, the federal and regional government also plans to achieve health related millennium development goal which is very much unlikely if health institutions like hospitals, health centers have adequate nursing staffs. In contrast to these realities there is low intention to stay in this study and nurse to population ratio in our county very low; so having only this much level of intention to stay in the profession is in this study area is a big homework for managers on health sectors of Jimma zone, Jimma town, JUSH, Shenen Gibe Hospital and Limu Genet Hospitals.

7.2 RECOMMENDATION

The results of this study identified areas on which nursing policy makers, nurse managers and hospital administrative body should focus in order to improve nurses' intent to stay in their profession & improve quality of nursing care delivered to the consumers.

In particular, health office of Jimma Zone should plan to retain nurses at their working area in their profession especially for nurses working at district Hospitals.

Retention Strategies that focuses on creating organizational, professional commitment awareness should be implemented.

Those organizational Factors that affect nurse physician communication should be minimized. Staff nurses should contribute their parts to create an environment that strengthen collaborative client care by openly discussing the importance of communication to the better outcomes of client care.

Nurse administrators should develop better system that help to increase nurses job satisfaction occupational commitment & Professional commitment to improve nurses' intent to stay and retention.

Nurse administrators should have work to reduce factors that cause stress.

Ethiopian Nursing Associations (ENA) with Ministry of Health should support and encourage large scale study in order to have more representative finding on intention of nurses to stay in their profession & its consequences in the country and deal with the issue with the concerned bodies to retain those expensive and brilliant nurses leaving the profession.

ENA should support further study that includes nurses in different parts of the county to determine the overall level, generalize more and explore additional factors.

Implication for Practice and Policy

Different study confirmed that, knowing the level of intention to stay and its associated factors helps to strengthen the staff retention activities, prevent or minimize actual turnover, gain good quality nursing care, great patient satisfaction, minimum job related stress, better organizational and professional commitment and better and fast professional development.

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ANNEXES

Annex I: Letter of Information about the Study

Dear Nurses!

I am Msc student in the school of graduate studies of Jimma University in department of Nursing. I am conducting this study in partial fulfillment of the requirements for the Degree of Masters in Adult Health Nursing. My proposal has been approved by the Institution Review Board JUCPHMS , my 1st Advisor Professor Tefera Belachew, Dean of School of post graduate of public health & medical sciences, Jimma University and 2nd Advisor Mr. Wadu Wolancho Lecturer in School of Nursing Jimma University. I have also received ethical approval from the University to conduct this study. Dear my participant, I would be grateful if you would participate in this study by completing this questionnaire. It is hoped that the findings of this study would help both the nursing management and staff as to be more aware of the factors that affects intention of nurses to stay in nursing profession.

Be assured that the **information you provide** would be used for research purposes only and would be treated as **confidential** and **participation is completely voluntary**.

I have read the information on the title and aim of the study given above. The title and aim of the study was clear to me. I understood that participation in this study is completely voluntary and that if I want to withdraw from the study any time, I will not obliged to continue and I will withdraw from it at any time. I understand that there is no risk associated with participating in this study. So, I agree to this. Hereby I can give informed consent to participate to this study.

Name of unit you are working now _____

Signature of volunteer _____ Date _____

Principal Investigator: Admasu Belay Gizaw

Tel: No 09-25-27-05-12/09-17-92-09-11

Email: **admasu2004@gmail.com** or **admasbel24@mail.com**

Thank You for your cooperation!!!

Annex II: Questionnaire

Jimma University

College of Public Health and Medical Sciences

Department of Nursing

The following Questionnaires are used to assess nurse's intention to stay in nursing profession and its predictors in Jimma Zone public hospitals. The questionnaire has six parts please read all instruction at each part to choose and fill your answer.

Part I: Socio-Demographic information for nurses

Instruction: Please tick (✓) the number in front of the option you choose & fill in the blank space that best describe you on the right side of the table.

S. No	Items	Coding categories
100	Your gender	1. Male 2. Female
101	Your Working Hospital	1. JUSH 2. Shenen Gibe Hospital 3. Limu Genet Hospital
101	Your Age in years	_____
102	Marital status	1. Married 2. Single 3. Divorced 4. Widowed
104	Level of Education	1. Diploma in nursing 2. Bachelor degree in nursing 3. Masters degree in nursing
105	Your position that you presently hold within the hospital	1. Staff nurse 2. Head nurse 3. Supervisor

		4. Matron
106	The department/ward you are working at present?	1. Medical ward 2. Surgical ward 3. Pediatrics ward 4. Oby/Gyn ward 5. ICU 6. OR 7. Chronic illness 8. TB & ART clinic 9. OPD 10. Ophthalmology
107	Years of experience in the field of nursing	_____
108	Monthly income (salary) in birr	_____

Part II Commitment: The following questions are statements that represent possible feelings that individuals might have about **Commitment to their profession** and **Commitment to their Organization** with respect to your own feelings about these questions please indicate the degree of your agreement or disagreement with each statement by ticking (✓) on one of the four alternatives beside each statement from **1 to 4**.

		1=strongly disagree	2= Disagree	3= Agree	4= strongly agree
S. No	Items				
201	“If I could get another job different from being a nurse, I would not probably take it.”	1	2	3	4
202	“I spend a significant amount of time reading nursing-related journals or books.”	1	2	3	4
203	“I definitely want a career for myself in nursing.”	1	2	3	4
204	“I am very happy being a member of this Hospital.”	1	2	3	4
205	“Even if I had all the money I need without working, I would probably still continue to work in nursing profession.”	1	2	3	4
206	“I enjoy discussing about my Hospital with people outside it.”	1	2	3	4

207	“I like this profession too well not to give it up.”	1	2	3	4
208	“I really feel as if this Hospital’s problems are my own.”	1	2	3	4
209	“Nursing is the ideal profession for a life work for me.”	1	2	3	4
210	“I do not feel ‘emotionally attached’ to this Hospital.”	1	2	3	4
211	“I am not disappointed that I ever entered the nursing profession.”	1	2	3	4
212	“I am dedicated to this Hospital because I fear what I have to lose in it.”	1	2	3	4
213	“This Hospital has a great deal of personal meaning for me.”	1	2	3	4
214	“I feel that I owe this Hospital quite a bit because of what it has done for me.”	1	2	3	4
215	“If I wasn’t a member of this Hospital, I would be sad because my life would be disrupted.”	1	2	3	4
216	“My Hospital deserves my loyalty because of its treatment towards me.”	1	2	3	4
217	“I am loyal to this Hospital because I have invested a lot in it, emotionally, socially, and economically.”	1	2	3	4
218	“I feel I would be letting my co-workers down if I wasn’t a member of this Hospital.”	1	2	3	4
219	“I often feel anxious about what I have to lose with this Hospital.”	1	2	3	4
220	“I am loyal to this Hospital because my values are largely its values.”	1	2	3	4
221	“Sometimes I worry about what might happen if something was to happen to this Hospital and I was no longer a member.”	1	2	3	4
222	“This Hospital has a mission that I believe in and am committed to.”	1	2	3	4
223	“I feel it is ‘morally correct’ to dedicate myself to this Hospital.”	1	2	3	4

Part III intent to stay in nursing profession

The following questions are statements that represent possible feelings that individuals might have about their future career plan about **intent to stay in nursing profession** with respect to your own feelings about these questions please indicate the degree of your agreement or disagreement with each statement by ticking (✓) on one of the four alternatives beside each statement from **1 to 4**.

224	“I Plan to keep my job for at least 2 or 3 years in nursing.”	1	2	3	4
225	“I Plan to work at my present job for as long as possible.”	1	2	3	4
226	“Even if my job does not meet all my expectations, I will not quit doing as a nurse.”	1	2	3	4

Part IV: Job Satisfaction questionnaire

How satisfied are you with the following aspects of your current job? Please **circle or thick** the number that applies your current satisfaction level in front of each question/item.

1 = Very Dissatisfied	2 = Moderately Dissatisfied	3 = Moderately Satisfied	4 = Very Satisfied			
227	Pay (Salary) you receive from your hospital as a nurse		1	2	3	4
228	Annual leave you receive from the hospital		1	2	3	4
229	Sick leave you receive from the hospital		1	2	3	4
238	Recognition from your head nurse		1	2	3	4
239	Recognition for your work from superiors		1	2	3	4
240	Recognition of your work from peers		1	2	3	4
241	Amount of encouragement and positive feedback from your matron.		1	2	3	4
242	Interaction with your nursing peers		1	2	3	4
243	Interaction with the physicians you work with		1	2	3	4

244	Opportunities for further education/degree or post graduate study in nursing	1	2	3	4
245	Opportunities to belong to department and institutional committees	1	2	3	4
246	Opportunities for career advancement in nursing	1	2	3	4
247	Opportunities to participate in nursing research	1	2	3	4
	Control over what goes on in your work setting				
248	Your amount of responsibility	1	2	3	4
249	Your control over conditions in your working unit/ward	1	2	3	4
250	Your participation in organizational decision making in your hospital	1	2	3	4

Part- V: Communication between nurse & physicians in patient care

Instruction: There are statements about possible conditions affecting mutual understanding at work between nurse and physician communication, and each statement has five alternatives. Read each item carefully and circle the corresponding number that you agree.

5= Always,		4= Usually,		3= Sometimes ,		2= Rarely		1= Never	
S. No	Scales	5	4	3	2	1			
300	The nurse and physicians discuss mechanism to maintain patient safety	5	4	3	2	1			
301	The nurse and the physicians take into account each other's schedule when making plans to treat a patient together	5	4	3	2	1			
302	Physicians and nurse listen to each other	5	4	3	2	1			

Part-IV: Nurse-physicians communication factors

Instruction: Below there are statements about personal and organizational factors affecting nurse- physician communication. Read each item carefully and circle the number that indicate to what extent the listed factor affect nurse-physician communication in your organization.

5= Strongly agree, 4= Agree, 3=Not agree or disagree , 2= agree, 1= strongly disagree						
S.No	Factors	5	4	3	2	1
303	Poor attitude to work	5	4	3	2	1
304	Uncooperativeness at work	5	4	3	2	1
305	Negligence of duty	5	4	3	2	1
306	Differential treatment of nurse & physicians in the hospital	5	4	3	2	1
307	Absence of forum to discuss the issue of nurse-physician communication in the hospital	5	4	3	2	1
308	Lack of clarity in roles & responsibilities in the hospital	5	4	3	2	1
309	Lack of shared vision in the hospital	5	4	3	2	1
310	Frequent supply shortage in the unit	5	4	3	2	1
311	Malfunctioning of equipments in the unit	5	4	3	2	1

Part-VII: For each of statement below, please rate by circling the number (from 1 to 4) that best describes how often the stated condition makes you stressful.

1= Never Stressful

2= Sometimes Stressful

3=Frequently Stressful

4=Always /Very Frequently/ Stressful

S.No	Item	1	2	3	4
401	Not enough staff to adequately cover the unit	1	2	3	4
402	Not enough time to complete all of my nursing tasks	1	2	3	4
403	Lack of opportunity to talk openly with other unit personnel about problems in the unit.	1	2	3	4
404	Lack of opportunity to share experiences and feelings with other personnel in the unit	1	2	3	4
405	Lack of support of my immediate supervisor	1	2	3	4
406	Not enough time to provide emotional support to the patient	1	2	3	4
407	Too many non-nursing tasks required, such as clerical work	1	2	3	4
408	Not enough time to respond to the needs of patients' families	1	2	3	4
409	Disagreement with physicians concerning the treatment of a patient.	1	2	2	4
410	Conflict with a supervisor, matron,	1	2	3	4
411	Inadequate information from a physician regarding the medical condition of a patient.	1	2	3	4
412	A physician ordering what appears to be inappropriate treatment for a patient.	1	2	3	4
413	Not knowing what a patient or a patient's family ought to be told about the patient's condition and its treatment.	1	2	3	4