

**JOB SATISFACTION AND FACTORS INFLUENCING IT AMONG
NURSES WORKING IN JIMMA ZONE PUBLIC HOSPITALS,
OROMIA REGIONAL STATE, SOUTH WEST ETHIOPIA, 2014: A
CROSS SECTIONAL STUDY.**

BY

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**A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES
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JIMMA UNIVERSITY
COLLEGE OF PUBLIC HEALTH AND MEDICAL SCIENCES
DEPARTMENT OF NURSING

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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.

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DEDICATION

This study is dedicated:

- ♣ *To the soul of my mother who used to encourage me to work hard with a lot of patience and perseverance towards success.*
- ♣ *To my beloved brothers and sisters (Damtie Semachew, Enatenesh Semachew, Mitke Worku, Ybeltal Semachew and Alehegn Melesse) for their continuous support and encouragement for accomplishing this task.*
- ♣ *To my friends for all the intellectual exchanges we shared in achieving my goal.*

ABSTRACT

Back ground: *Efficiency and productivity of human resources depends upon many factors, and job satisfaction is one of the most important factors. Nurses' job satisfaction plays an important role in the delivery of high-quality health care. Nurses play a pivotal role in determining the efficiency, effectiveness and sustainability of health care systems. Recent studies show that nurses are highly dissatisfied with their jobs, which in turn results in lower morale and seriously affects the quality of healthcare service. There is paucity of studies addressing job satisfaction among nurses in public hospital setting, including Jimma zone.*

Objective: *To assess job satisfaction and factors influencing it among nurses in Jimma zone public hospitals, Oromia regional state, Southwestern Ethiopia, 2014.*

Methods: *Institution based cross-sectional study was conducted from March 10-April 10, 2014. Census was employed. A structured self-administered questionnaire based on a modified version of the McCloskey/Mueller Satisfaction Scale was used. Data was entered and analyzed using SPSS software. Mean satisfaction scores was compared by independent variables using an independent sample T-test and ANOVA. Bivariate and multivariable linear regression was done.*

Result: *A total of 316 nurses were included, a response rate of 92.67%. The overall mean job satisfaction was (67.43 ± 13.85). One third of the study participating nurses 33.5% (n = 106) had low level of job satisfaction. Working unit, mutual understanding at work, professional commitment and work load were significant predictor with the overall job satisfaction. Nurses were least satisfied from professional opportunities and extrinsic reward subscales while they were most satisfied from coworker relation.*

Conclusion& recommendation: *Thirty three percent of nurses had low level of job satisfaction. Professional commitment, workload, working unit and mutual understanding at work predicted the outcome variable. Nurses were least satisfied from professional opportunities and extrinsic reward. Thus, health care administrators, including nursing administrators, should consider the factors that contribute to job dissatisfaction and try to reduce them by implementing supportive strategies to increase job satisfaction.*

Key words:

Job satisfaction, Nurse, Nursing, Public hospital, McCloskey/Mueller Satisfaction Scale

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Contents	Table of Contents	Page
ABSTRACT.....		I
ACKNOWLEDGEMENT		II
List of tables.....		V
List of figures.....		VII
List of abbreviations & Acronyms.....		VIII
CHAPTER ONE: INTRODUCTION.....		1
1.1. Background of the study.....		1
1.2. Statement of the problem.....		2
CHAPTER TWO: LITERATURE REVIEW		4
2.1. Significance of the study.....		9
CHAPTER THREE: OBJECTIVES OF THE STUDY		10
3.1. General objective		10
3.2. Specific objectives		10
CHAPTER FOUR: METHODS AND MATERIALS		11
4.1. Study area and period.		11
4.2. Study Design.....		11
4.3. Population		11
4.3.1. Source population		11
4.3.2. Study population.....		11
4.3.3 Inclusion and exclusion criteria		11
4.4. Sample size determination		12
4.5. Data collection procedures and management		12
4.5.1. Data collection instrument.....		12
4.5.2. Personnel for data collection.....		13

4.5.3. Data quality control	13
4.6. Study variables.....	13
4.7. Operational definition and definition of terms	14
4.8. Data processing and analysis procedures.....	16
4.9. Ethical consideration.....	17
4.10. Dissemination plan	17
CHAPTER FIVE: RESULTS	18
CHAPTER SIX: DISCUSSION	41
CHAPTER SEVEN: CONCLUSION AND RECOMMENDATIONS	47
7.1. Conclusion	47
7.2. Recommendations.....	48
References:.....	49
Annexes	54

List of tables

Table 1: Number of participants in each hospital, Jimma zone public hospitals, south west Ethiopia, 2014.....	18
Table 2: Background characteristics of nurses in Jimma zone public hospitals, south west Ethiopia, 2014.....	19
Table 3: Descriptive result for nurse – physician communication related factors, Jimma zone public hospitals, South West Ethiopia, 2014.....	22
Table 4: Descriptive result for job stress related factors, Jimma zone public hospitals, South West Ethiopia, 2014.	23
Table 5: Descriptive statistics result for professional commitment, Jimma zone public hospitals, South West Ethiopia, 2014.	24
Table 6: Mean and percentage mean scores for overall satisfaction score and the summated scales (n=316), Jimma zone public hospital, south west Ethiopia, 2014.	25
Table 7: Frequency and percentage distribution of each item in the job satisfaction scale, Jimma zone public hospitals, south west Ethiopia, 2014.	27
Table 8: An independent sample t-test on job satisfaction of nurse’s according to hospital, sex, marital status, educational qualification and position/title in the hospital (n = 316), Jimma zone public hospitals, South West Ethiopia, 2014.....	28
Table 9: One-way ANOVA; overall job satisfaction of nurses in age group, work experience and salary Jimma zone public hospitals, south west Ethiopia, 2014.....	29
Table 10: One-way ANOVA; job satisfaction of nurses in different working units/wards, Jimma zone public hospitals, south west Ethiopia, 2014.	30
Table 11: An independent sample t-test between job satisfaction scales of nurses by hospital, sex, marital status, educational level and position, Jimma zone public hospital, south west Ethiopia, 2014.....	32
Table 12: One-way ANOVA; job satisfaction of nurses according to age group, Jimma zone public hospital, south west Ethiopia, 2014.....	33
Table 13: One-way ANOVA; job satisfaction of nurses according to work experience, Jimma zone public hospital, south west Ethiopia, 2014.....	34

Table 14: One-way ANOVA; job satisfaction of nurses according to working unit/ward, Jimma zone public hospital, south west Ethiopia, 2014.35

Table 15: Reasons for nurses to be satisfied in their work, Jimma zone public hospitals, south west Ethiopia, 2014.36

Table 16: Bivariate analysis for predictors of job satisfaction, Jimma zone public hospitals, south west Ethiopia, 2014.38

Table 17: Multivariable linear regression predicting Job satisfaction among nurses working in Jimma zone public hospitals, south west Ethiopia, 2014.39

List of figures

Figure 1: Conceptual frame work on job satisfaction and factors influencing it among nurses working in Jimma zone public hospitals, Oromia regional state, South West Ethiopia, 2014.....	8
Figure 2: Study participating nurse’s educational qualification, Jimma zone public hospital, and south west Ethiopia, 2014.	20
Figure 3: Study participants by their position, Jimma zone public hospitals, south west Ethiopia, 2014.....	20
Figure 4: Monthly salary distribution of the study participants, Jimma zone public hospital, South West Ethiopia, 2014.	21
Figure 5: Level of job satisfaction among nurses working in Jimma zone public hospitals, south west Ethiopia, 2014.....	25
Figure 6: Reasons for nurses to be dissatisfied in their work, Jimma zone public hospitals, south west Ethiopia, 2014.....	37

List of abbreviations & Acronyms

BSc -----	Bachelor of Science
CSA -----	Central Statistics Agency
ETB -----	Ethiopian Birr
FMOH -----	Federal Ministry of Health
JU -----	Jimma University
JUSH -----	Jimma University Specialized Hospital
ICU -----	Intensive care unit
MDGs -----	Millennium Development Goals
MMSS -----	McCloskey/Mueller Satisfaction Scale
OPD -----	Outpatient department
OR -----	Operation room
SPSS -----	Statistical Package for Social Sciences
SSA -----	Sub Saharan Africa

CHAPTER ONE: INTRODUCTION

1.1. Background of the study

Efficiency and productivity of human resources depends upon many factors, and job satisfaction is one of the most important factors (1). The term job satisfaction refers to the attitude and feelings people have about their work (2). Stamps defined job satisfaction as “the extent to which employees like their jobs” and Specter suggested that job satisfaction is “an attitudinal variable that represents the extent to which people like (satisfaction) or dislike (dissatisfaction) their jobs”(3). It also describes how content an individual with his or her job and also implies doing a job one enjoys, doing it well, being suitably rewarded for one's efforts. Job dissatisfaction may be there because of no proper working conditions, negative relationship between superior and subordinate, no proper remuneration (4).

Health care is a labor-intensive industry and the single-largest health care professional group within it are nurses (5). In recent years, a major target of the health care delivery system has been the provision of quality care to patients. A fundamental challenge, however, still remains how to achieve improved patient outcome. As key members of the health care team, nurses' job satisfaction plays an important role in the delivery of high-quality health care (6,7).

Nurse's perceptions of the satisfaction with their jobs have positive impacts on customer-perceived service quality in health care services. Such impacts are particularly important in government hospitals, where patients have a long-term relationship with staff and could be vulnerable to the poor quality of care (8). As the largest health care profession in the world,(9) there is no doubt that nurses are key to the achievement of the Millennium Development Goals (MDGs). They are often the only health professionals accessible to many people in their lifetime and addressing their satisfaction is so important issue (10).

In Ethiopia nurses are the backbone of the health care system. They play a vital role in promoting the healthcare programme of the country by contributing their own share for the achievement of MDGs(11).

As they experience like the rest of other nations, unless the Jimma zone public hospital nurses experience job satisfaction, they are likely to have high turnover rates, from work, decreased job performance reduced quality to patient and the community around them.

1.2. Statement of the problem

Every employee is different and will likely have different views which makes job satisfaction hard to research (12). Nurse's job satisfaction is a multidimensional phenomenon that is influenced by many variables (13). Job dissatisfaction has frequently been cited as the primary reason for a high turnover of nurses as well as increased rates of absenteeism both of which impede efficiency and effectiveness, which in turn pose a threat to a health care organization's capacity to provide good care as well as meet the needs of patients (14).

Nurses are the largest health care personal, the largest single component of hospital staff, and the primary provider of long-term care, they are the unifying force advancing quality health for all(5,9,10,15). And they play a role in determining the efficiency, effectiveness and sustainability of health care systems when they are satisfied in their job (16).

Nursing staffs in most medical institutions or private organizations in all corners of the world are the most undervalued staff members despite the fact that these are the people who take care of our loved ones around the clock when they are hospitalized (17). Many of the nurses even take on the responsibilities of the medical supervisors or the doctors in command, and this makes them a very important part of the medical system (17). Evidence indicates that the nursing profession in general is unable to attract adequate number of men and women due to salaries, shift schedule, and social perception of nurses (18).

Research findings showed that job satisfaction of employees in general, more specifically in nursing staff is on the decline worldwide (19). Job satisfaction among the personnel in the hospital, especially the nurses, still stands in a low level. Recent studies show that nurses are highly dissatisfied with their jobs, which in turn results in lower morale and seriously affects the quality of healthcare service the customers receive (20,21).

As cited by Krueger in 1996 "we believe that job satisfaction has a special implication for health care staff, especially nurses, because patients need competent, enthusiastic nurses on whom they count in hospitals. More efforts have been made to study on the level of nurse's job satisfaction and how to improve nurse's job satisfaction, but the factors influencing nurse job satisfaction has rarely been examined. The reasons may lie in that such kind of topic is too simple or even lack of worth. Yet, we do not think so. In order to improve nurse job satisfaction, the first thing to do is to find out what leads to nurse job satisfaction. This is the

right way to work something out” (20). Because it affects not only quality of nursing but also patients’ satisfaction, the level of employees’ job satisfaction is very important for health care institutions(20).

Currently employed health professionals specially nurses seem to be less satisfied due to many unidentified factors and hence there is a constant threat of attrition (1).

Nurses often work in unsatisfactory conditions with inadequate staffing and a shortage of basic supplies as cited by Friedrich. These things, among others lead to job dissatisfaction and encourage nurses to find employment elsewhere, often outside the field of nursing (22).

Research has indicated that gains in public health are found when countries can sustain at least 2.5 health workers per 1,000 populations as cited by Anand and Barninghausen. An assessment of 186 countries in 2007 found that at least 40% of countries do not meet this minimum even though there are estimated to be 13 million nurses worldwide as cited by Joint Learning Initiative(9). The density of health workers to population is much lower than the average for Sub Saharan Africa (SSA). The minimum level of health workforce (Medical doctors, nurses and midwives) density required to achieve MDGs in Africa has been estimated at 2.5 per 1000 population. The current 0.25 per 1000 in Ethiopia clearly indicates the challenges ahead (23).

According to the Federal Ministry of Health (FMOH) 2012 report, about 29, 950 nurses have been providing services throughout the country (11) which makes the nurse to population ratio 2.5 per 10,000 ,which is very far from the stated standards which is very low when we compare to the SSA countries, besides the challenges mentioned in the above paragraph, even now a days in our country, Ethiopia, a number of nurse personals leaving their working environments and their profession and they are trying to join other non-nursing fields of studies like;

From clinical nursing (diploma) they are joining health officer, medical laboratory technology, pharmacy technology and even to midwifery in diploma (from diploma to diploma).

From BSc nursing to the New Innovative Medical Education Initiative program (NIME), which is currently operated on 10 sites over the country, emergency surgery, master of public health, these are some to mention.

A number of studies have addressed job satisfaction among health care professionals. But Ethiopian studies are limited in assessing on factors affecting job satisfaction among nurses at the public hospital setting including Jimma zone. So, research is needed to explain what a nurse needs from the workplace in order to be satisfied.

CHAPTER TWO: LITERATURE REVIEW

A survey of 76,000 registered nurses (RN) probes elements of job satisfaction from hospitals across the country in USA was conducted. RNs report the highest levels of satisfaction with regard to interactions with other RNs, their professional status and career development opportunities. Moderate levels of satisfaction in interactions with doctors, nursing management, nursing administration, decision-making and pay. Maternal and pediatric RNs reported higher levels of job satisfaction than their counterparts working in medical-surgical, critical care, and emergency rooms (24).

A cross-sectional study was done on job Satisfaction among the nurse educators in the Klang Valley, Malaysia by using convenience sampling. The result showed that highest priority factors that determine their job satisfaction, sorted by highest mean rating were salary, working conditions followed by continuous professional development, Relationships with coworkers, work itself and responsibility, security on current position. And the 3 lowest ratings were achievement, followed by recognition (25).

A descriptive cross sectional study was carried out in a medical care center Northwestern Region of Turkey on job Satisfactions of nurses and physicians staffs. Payments and organization–related factors affect job satisfaction among nurses (26).

Since the study is done only in one health care institution with small sample size, it lacks generalization for the rest of population.

A study done in Australia on nurses' attitudes to work and work conditions showed that overall, the majority of nurses had high satisfaction from their job. Around 60% of nurses were dissatisfied with the pay and benefit. Almost two third were satisfied for professional opportunities and satisfied for interactions with other employee (27).

A descriptive cross-sectional study was conducted to assess the level of job satisfaction and determine the factors influencing job satisfaction among nursing professionals in a public sector tertiary care hospital of Islamabad. Nurses were selected purposively. Overall 86% respondents were least satisfied with their job. The work environments, poor fringe benefits, dignity, responsibility given at workplace and time pressure were reason for dissatisfaction(28).*Using purposive sampling may have the following downsides: Highly prone*

to researcher bias as judgments have not been based on clear criteria, whether a theoretical framework, expert elicitation, or other accepted criteria and the selection criterion is almost always subjective and small variation in sample will cause deviance in results.

Another cross-sectional descriptive study was conducted on level of job satisfaction among nurses in Islamabad. Study subjects were included in the study by using convenience sampling. The higher the salary package showed better satisfaction. Almost all respondents were found to be satisfied with the interaction with doctors. Majority of the nurses were satisfied with the interaction with paramedical staffs. Irrespective of their organizations, 37.14% were found to be least satisfied with their overall job (29).

A Descriptive study was carried out on job satisfaction among nurses in India. One hundred nurses were selected by using simple random sampling. More than half were moderately satisfied from their pay, 52% find the work to be excessive, and 48% have professional and competitive relationship with their colleagues. Most of the supervisors are very cooperative, 58% nurses were moderately satisfied with the working conditions(30).

A questionnaire survey on job satisfaction of nurses with multicultural backgrounds in Kuwait was conducted. Five hundred nurses were selected and stratified sampling technique was used. Nurses were found to be dissatisfied with professional opportunities and extrinsic rewards. But they were satisfied with praise and recognition, scheduling of duty, control and responsibility. The relationship of job satisfaction with marital status was positive and significant. However, a higher level of educational qualification showed inverse relationship with job satisfaction(6).

A cross-sectional study done on nursing staff teamwork and job satisfaction on 3675 nursing staff from five hospitals in USA. The result showed that those nurses in pediatric, maternity, psychiatric units and emergency departments had higher levels of satisfaction than medical and surgical unit staff but ICU nursing staffs were less satisfied with their occupation than those in medical and surgical units. Nursing staff with higher levels of education were less satisfied with their occupation and male are less satisfied than females(31).

A study done in Sri Lankan on the Impact of individual factors on job satisfaction of nursing officers in government hospitals. The result showed with the increase in age, job satisfaction increases, married nurses were found to be slightly more satisfied in their job than the unmarried. The level of job satisfaction was seen in those with increased work experience

while the lowest level of job satisfaction was seen in the group that had less than five years of service (8).

A survey research was conducted on the influence of sex, marital status, and tenure of service on job stress, and job satisfaction of nurses and physicians in a Nigerian federal health institution by using stratified random sampling technique; one hundred two nurses were recruited. The result showed that married nurses showed higher level of job satisfaction, males showed higher level of job satisfaction, those who have served for more than 10 years were more satisfied than those with lesser year's tenure (7).

A cross sectional study was conducted on factors influencing job satisfaction among registered nurses (RN): a questionnaire survey in Mashhad, Iran 421 RN were recruited by using stratified random sampling. The result showed that being young age, female and married were significantly associated with a higher level of job satisfaction (32).

A quantitative descriptive design was used to assess job satisfaction of registered nurses (RNs) in a community hospital in the Limpopo Province, South Africa. Nurses were selected and majority of them were dissatisfied about the working conditions. Workload and degree of fair remuneration were the most highly rated as dissatisfying. Having best friend at work and the chance to help other people while at work were rated positively by 88% and 76% of the participants respectively (33).

A cross sectional study was conducted on job satisfaction by selecting one hundred sixteen nurses in Italy. They were moderately satisfied with their jobs. The top overall areas of satisfaction were co-workers and interaction respectively and the highest dissatisfaction were extrinsic rewards and professional opportunities. Job satisfaction of nurses decreases with the increase in age of the respondents (3).

A national cross-sectional study was conducted on nurses' intent to leave and job satisfaction in Lebanon. One thousand seven hundred ninety three nurses were involved. The result showed that nurses were least satisfied with extrinsic rewards and professional opportunities but most satisfied with co-workers (34).

A cross-country study done on the main factors influencing nurse job satisfaction by using convenience sampling; 150 and 46 nurses from China and Sweden respectively. The result showed that both age and educational level are related to nurse job satisfaction. The youngest

nurses have the highest job satisfaction. Job satisfaction decreases sharply when nurses are in 30-39 (20).

A study conducted in China on the relationship among turnover intentions, professional commitment, and job satisfaction of hospital nurses by(35), on job satisfaction and its related factors: A questionnaire survey by(36) and a study of nurses' job satisfaction: The relationship to professional commitment and friendship networks by (37) all of them found that professional commitment had an effect on nurse's job satisfaction.

From the total retrieved literatures more than two-third (67%) was done on a sample population of less than 200 nurses. And also most of them used non probability sampling method (convenience) which is less likely to produce accurate and representative sample from the source population. Even though it is expensive and time consuming for large population the investigator in this study used census. As compared to other methods of data gathering methods, census can able to extract data that are equal to the exact attributes of the larger population so that greater confidence can be obtained in the representativeness.

Gaps in the Literature

There was a paucity of research on nurses in Ethiopia. This is most probably due to that limited Master degree level courses for nursing and hospital nurse administration personals being offered in the countries higher institutions/ universities and those who were graduated in Masters Level were not involved in *nursing related researches* or even if they tried their best in participating in nursing researches, they may not take an action in publishing their findings on scientific journals.

Conceptual frame work

The Conceptual frame work was developed by the principal investigator after reviewing relevant literatures on the subject matter.

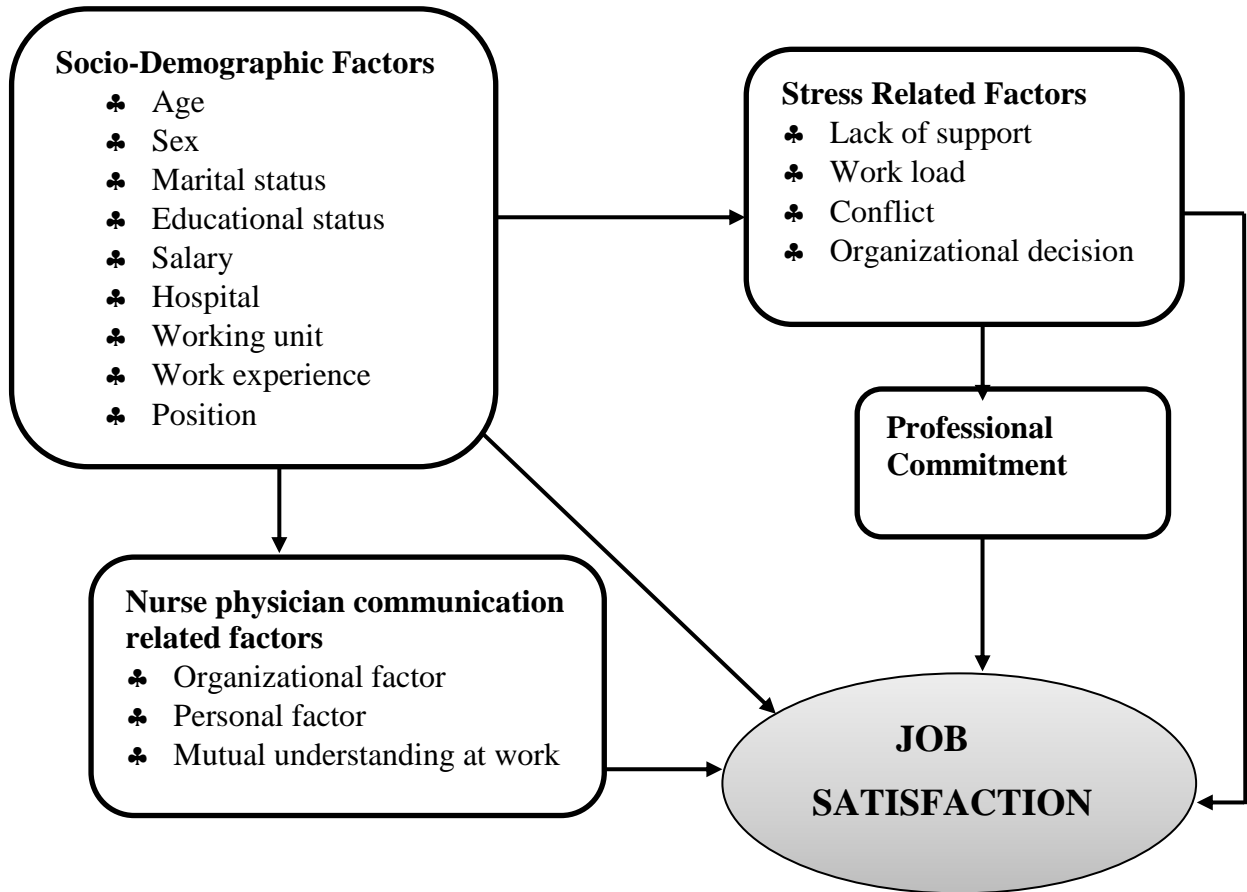


Figure 1: Conceptual frame work on job satisfaction and factors influencing it among nurses working in Jimma zone public hospitals, Oromia regional state, South West Ethiopia, 2014.

2.1. Significance of the study

Nurses, the largest constituent in any health care institute, the role played by them is so significant in maintaining the basic purpose of the government hospitals that the question of their satisfaction from their job can never be ignored (38).

Dissatisfied nurses not only give poor quality, less efficient care, but also there is evidence of a positive correlation between professional satisfaction and patient satisfaction. Nurses who were not satisfied at work were also found to distance themselves from their patients and their nursing chores, resulting in suboptimal quality of care (16).

If nurse leaders comprehend what makes nurses satisfied, they can make changes to facilitate nurse satisfaction and therefore improve patient satisfaction and also employee retention, both of which could lead to increased profits for the hospital. No matter how effective the recruitment efforts are; hospitals need the retention of valuable, experienced nurses to be successful in the healthcare system.

Given the paucity of studies addressing job satisfaction among nurses in public hospital setting, including Jimma zone, the information obtained from this study will hopefully assist in identifying factors influencing job satisfaction among nurses working in Jimma zone public hospitals and it will attempt to address the gap in the literature in this zone and the result can be applied in the areas of nursing management, nursing education, nursing practice and nursing research.

CHAPTER THREE: OBJECTIVES OF THE STUDY

3.1. General objective

- ♣ To assess job satisfaction and factors influencing it among nurses working in Jimma zone public hospitals, Oromia regional state, Southwestern Ethiopia, 2014.

3.2. Specific objectives

- ♣ To determine the level of job satisfaction among nurses working in Jimma Zone public hospitals, Oromia regional state, South West of Ethiopia, 2014.
- ♣ To identify factors influencing job satisfaction among nurses working in Jimma Zone public Hospitals, Oromia regional state, South West of Ethiopia, 2014.

CHAPTER FOUR: METHODS AND MATERIALS

4.1. Study area and period.

The study was conducted in all public hospitals found in Jimma Zone, Oromia Regional state. Jimma zone is one of the 18 zones of the Oromia Regional State found at 352 km from Addis Ababa, the capital city of Ethiopia, in the South western part of the country. Based on the 2007 Census conducted by the CSA, it has a total population of 2,486,155, an increase of 26.76% over the 1994 census, of whom 1,250,527 were male and 1,235,628 were female; with an area of 15,568.58 square kilometers (39,40)

In this zone there are three public hospitals namely, Jimma University specialized hospital (JUSH), Shenan Gibe (SGH) and Limmu Genet (LGH) hospital. The first two are situated at Jimma town where as the later one is in Limmu town which is 72 km 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 (41). It provides generalized service to in-patients and out-patients ideally on a referral from the two hospitals, community health centers and from different private clinics.

In this zone public hospitals; there were a total of 433 nurses; 377 from JUSH, 25 from Shenan gibe hospital and the rest 31 were from Limu genet hospital. The study was conducted from March 10-April 10, 2014

4.2. Study Design

- ♣ Institution based cross-sectional study was conducted.

4.3. Population

4.3.1. Source population

- ♣ All nurses working in Jimma zone public hospital.

4.3.2. Study population

- ♣ All nurses in Jimma zone public hospitals available at work.

4.3.3 Inclusion and exclusion criteria

Inclusion criteria

Nurses who had work experience of at least 6 months and above were included in the study.

4.4. Sample size determination

The total population of nurse in the three public hospitals were 433 from these 73 were under six months of experience and the remaining 360 were greater than six months of experience. Hence, the investigator conducted census.

4.5. Data collection procedures and management

4.5.1. Data collection instrument

The McCloskey/Mueller Satisfaction Scale (MMSS) was designed to assess nurse job satisfaction and it has been frequently used as a valid and reliable tool to measure this variable(42). The original scale is a 31-item, 5-point Likert scale that measures job satisfaction among nurses. From 1 "Very Dissatisfied" to 5 "Very Satisfied" with a neutral midpoint of 3. Recent research using the scale suggested elimination of the neutral response option to encourage participants to make a decision regarding their thoughts and feelings as opposed to indicating that they had no opinion(43). Therefore, response options in this study ranged from 1 (*very dissatisfied*) to 4 (*very satisfied*) (Annex III). Questions in this study was developed from a published study by using MMSS (44) and the Cronbach's alpha ranged from 0.86 to 0.96 with a total item alpha of 0.95. In the present study also, the Cronbach's alpha coefficient was 0.90. This suggested that all the MMSS subscales had adequate levels of internal reliability.

For the purpose of this study, 29 items of the 31 items of the MMSS were selected. Since they were not suitable for this study two items were avoided from the original scale so it makes the scale to have a total of 29 items.

The statements were randomly arranged by content areas throughout the scale so that the respondents would not be aware of the factor being tested.

The eight broad factors of the 29 items (Annex III) were: Extrinsic rewards subscale consisting of three items (201, 202 & 203), Scheduling sub scale consisting of five items (204, 205, 206, 208 & 209), Family and work balance sub scale consisting of two items (207 & 210), Co-worker sub scale consisting of two items (212 & 213), Interaction opportunities sub scale consisting of four items (214, 215, 216 & 217), Professional opportunities consisting of four items (218, 219, 225 & 226), Praise and recognition consisting of four items (211, 222, 223 & 224), Control and responsibility consisting of five items (220, 221, 227, 228 & 229).

Part I and Part II are socio demographic questionnaires and questions based on MMSS respectively.

Part III and Part IV were adapted from a study done in Iran on nurse-physician collaboration related factors which had an overall cronbach's alpha of 0.92 and in the present study also it showed 0.81 cronbach's alpha value. Part III: Personal and organizational factors were measured through nine items and Part IV: Mutual understanding at work measured by three items.

Part-V: Contains 14 questions which help to identify job stressors which were adapted from expanded nursing stress. In the present study it had 0.81 cronbach's alpha value.

Part VI: Contains 4 items which help to identify professional commitment which was adapted from Blau. It has 0.71 cronbach's alpha value.

Additionally two nurse job satisfaction measuring questionnaires and demographic questionnaire (Annex III) providing information about the characteristics of the participants were developed by the investigator. Since all nurses can read and understand English language, there was no need of translating it into local language.

Five percent of the questionnaire was pre-tested at Woliso Hospital to assess clarity, sequence, consistency, understandability and for total time it takes before the actual data collection. Then necessary comments and feedbacks were incorporated in the final tool and all of the instruments showed an acceptable cronbach's alpha value ($\alpha > 0.70$).

4.5.2. Personnel for data collection

A total of five diploma nurses, three for JUSH, one for Shenen Gibe hospital and one for Limu Genet hospital were recruited to distribute, facilitate and to collect the data. They trained and oriented by the principal investigator for one day on the questionnaire and the way of data collection.

4.5.3. Data quality control

The collected data were reviewed and checked for completeness and relevance by the facilitator/data collector and principal investigator. For each shift the questionnaire were distributed after the purpose of the study explained and told to return when they finish.

4.6. Study variables

Dependent variable: Job satisfaction

Independent variables

- ♣ *Socio demographic factors:*

Socio demographic factors includes: Age, sex, marital status, educational status, salary, working hospital, working unit/department, work experience and position.

- ♣ Professional commitment

- ♣ Job stress related factor (Work load, lack of support, conflict, organizational decision)

- ♣ Nurse physician communication related factors(Organizational factors, mutual understanding at work, personal factors)

4.7. Operational definition and definition of terms

Job satisfaction: Satisfaction perceived by the nurses about their job related to extrinsic reward, work scheduling, family and work balance, co- workers, interaction opportunities, professional opportunities, praise and recognition and control and responsibility subscales. Each item in each subscale were measured by a 4 point Likert scale having a total of 29 items in the overall job satisfaction and their sum score ranging from a minimum of 29 to maximum of 116. The higher the score, the more satisfied the nurses are. And level of job satisfaction was done using data driven tertile classification by rank order of overall job satisfaction score; the lower tertile rank corresponds to the low level, the middle tertile corresponds to moderate and the upper tertile indicate high job satisfaction level. Mean percentage score was computed for each subscale to weight their rank orders.

- ♣ **Extrinsic reward:** An award that is tangible or physically given to someone for accomplishing something and measured by salary, annual leave and sick leave and their sum score ranging from a minimum of 3 to maximum of 12. The higher the score indicating higher satisfaction from their extrinsic reward.

- ♣ **Work Scheduling:** It is about the nurse's work scheduling setting to be carried out during their work time and it is measured by 5 items and their sum score ranging from a minimum of 5 to maximum of 20. The higher the score indicating higher satisfaction from their work scheduling.

- ♣ **Family and Work Balance:** It is satisfaction with balance of time between work and family and measured by opportunity for part-time work and maternity leave time

received from the hospital and it is measured by 2 items and their sum score ranging from a minimum of 2 to maximum of 8. The higher the score indicating the nurse had higher satisfaction from this sub scale.

- ♣ **Co- workers:** satisfaction with nurse's co- workers at work place and measured by relation with nursing peers & physicians you work with and it is measured by 2 items and their sum score ranging from a minimum of 2 to maximum of 8. The higher the score indicating higher satisfaction from their coworker relations.
- ♣ **Interaction opportunities:** satisfaction of nurses with social communication and care delivered in the working hospital measured by 4 items and their sum score ranging from a minimum of 4 to maximum of 16. The higher the score indicating higher satisfaction from this subscale.
- ♣ **Professional Opportunities:** satisfaction with opportunities for advancement in nursing career which is given by the hospital measured by 4 items and their sum score ranging from a minimum of 4 to maximum of 16. The higher the score indicating higher satisfaction from this subscale.
- ♣ **Praise and Recognition:** Satisfaction with the amount of recognition and feedback received from nursing peers & superiors measured by 4 items and their sum score ranging from a minimum of 4 to maximum of 16. The higher the score indicating higher satisfaction from this subscale.
- ♣ **Control and Responsibility:** satisfaction with work responsibilities, autonomy and empowerment in the hospital that nurses are working and it is measured by 5 items. The higher the score indicating the nurse had higher satisfaction from control and responsibility in the hospital.
- ♣ **Professional commitment** one's attitude/agreement toward one's profession which was measured by 4 items and its sum score ranging from a minimum of 4 to a max of 16 and the higher the score, the higher committed to the profession.
- ♣ **Work load:** Work burden related to not enough staff to cover the unit, performing too many non-nursing tasks, not enough time to complete nursing tasks which was measured by 4 items their sum score range a minimum score of 5 and maximum of 20 indicating the higher the sum score the more the nurse stressed from workload.

- ♣ **Lack of support:** insufficient /inadequate help for nurses' particularly absence of opportunity to share experiences and to vent problems in their working unit/department was measured by 3 items and their sum ranges from minimum of 3 to maximum of 12 indicating the higher the sum the higher stress from lack of support.
- ♣ **Conflict:** Disagreement between health care providers particularly between nurse and nurse or nurse and physicians and was measured by 4 items and their sum ranges from minimum of 4 to maximum of 16 indicating the higher the sum the higher stress from conflict.
- ♣ **Organizational decision:** Activities deemed to be task of organization like shift rotation, working unit allocation and was measured by 3 items and their sum ranges from minimum of 3 to maximum of 12 indicating the higher the sum the higher stress from organizational decisions.
- ♣ **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 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 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.

4.8. Data processing and analysis procedures

The data was edited, coded and entered into Epi-Data version 3.1 and exported to IBM SPSS Statistics Version 20 for analysis. Percentage, frequency and mean were calculated.

Each item of the overall job satisfaction were measured by a 4 point Likert scale having a total of 29 items and their sum score ranging from a minimum of 29 to maximum of 116. The higher the score, the more satisfied the nurse.

First mean satisfaction scores was compared with independent variables using an independent sample t-test and one way ANOVA were used after checking the assumptions.

For the purpose of analysis dummy variables were created: working hospital into referral/teaching vs. district/non-teaching, marital status into single vs. ever married, working unit into inpatient vs. outpatient and title/position into clinical staff nurse vs. clinical staff nurse manager. After checking the assumptions Bivariate and multivariable linear regression was done to see the association between the predictor and the outcome variables. β coefficient was used to show independent predictors of satisfaction. Variables with P-value less than or equal to 0.25 in the bivariate analysis were included in the multivariable regression model and P-value of less than 0.05 was considered as statistical significance. Then results were summarized and presented by tables, charts and graphs.

4.9. Ethical consideration

Ethical clearance and approval letter to conduct the research was obtained from Jimma University College of public health and Medical sciences, institutional review board. Then a letter was secured from the university to respective hospital management to gain support for the study. Prior to administering the questionnaires, the aims of the study were explained to the participants and verbal consent was also obtained from study participant after explaining the objective of study. They were also be told that participation is voluntarily and confidentiality and anonymity ensured throughout the execution of the study as participants were not required to disclose personal information on the questionnaire.

4.10. Dissemination plan

Finally, the finding of the study will be disseminated to Jimma university school of public health and medical science, Department of nursing .The study result will be disseminated to the respective public hospitals in which the investigation was undertaken, hospital managers and nurse matrons through reports and giving awareness on the finding of the study. Efforts will also be made to publish on scientific journals.

CHAPTER FIVE: RESULTS

Among 341 questionnaires distributed, 321 respondents returned their questionnaires. From the total returned questionnaires, 2 were identified as invalid. In addition, 3 respondents failed to indicate their satisfaction levels on some items. As a result, 316 questionnaires were used for analysis in this study, giving a response rate of 92.7%.

Table 1: Number of participants in each hospital, Jimma zone public hospitals, south west Ethiopia, 2014.

Hospital	Available nurses During data collection	R	NR	RR
JUSH	291	271	20	93.1
SGH	23	20	3	86.9
LGH	27	25	2	92.6
Total	341	316	25	92.7

*JUSH = Jimma University Specialized Hospital, SGH = Shene Gibe Hospital and LGH = Limu Genet Hospital
R = Returned questionnaires & used for analysis, NR = Non response, RR = Response rate*

5.1 Socio demographic characteristics

Among 316 study participants 85.8% (n=271) work in Jimma university specialized hospital (JUSH), 6.3% (n=20) in Shenen Gibe hospital. The overall distribution showed that almost half of the respondents (49.4%, n = 156) were accounted by male nurses. The participant's age ranges from 21 to 58 with mean age of (27.87±6.81) years. The average length of service of the respondents was 5.17 with a minimum of 8 months to a maximum of 39 years and the average monthly salary was 1857 EBR with minimum of 1233 ETB and maximum 4820 ETB. Regarding marital status; 43.4% (n= 137) respondents were married and more than half were single (54.1%, n= 171). Concerning to respondents working units/ward; majority of them were assigned in surgical ward (20.9%, n=66), OPD (20.3%, n=64), least of respondents were in ICU (3.2%, n=10) and psychiatry ward (2.2%, n=7) respectively. Forty seven percent (n = 149) fall in the age category 25-29 of years. Whereas 4.4% of respondents (n = 14) were between

35 – 39 years old. Seventy seven percent (n = 244) of the respondents between half year to 5 years of service whereas 7.3% (n = 23) had work experience of more than 15 years (Table 2).

Table 2: Background characteristics of nurses in Jimma zone public hospitals, south west Ethiopia, 2014.

Socio-demographic characteristics of the respondents	n	%
Working Hospital		
Jimma University Specialized Hospital	271	85.8
Shenen Gibe Hospital	20	6.3
Limu Genet Hospital	25	7.9
Sex		
Male	156	49.4
Female	160	50.6
Marital status		
Married	137	43.4
Single	171	54.1
Divorced	7	2.2
Widowed	1	0.3
Working unit/ward		
Medical ward	53	16.8
Surgical ward	66	20.9
ICU	10	3.2
Major OR	20	6.3
Pediatrics ward	42	13.3
Gyn/obs (maternity)	22	7.0
Ophthalmology unit	12	3.8
Psychiatry ward	7	2.2
OPD	64	20.3
Chronic illness follow up clinic	20	6.3
Age in years		
<=24	106	33.5
25-29	149	47.2
30 - 34	20	6.3
35 - 39	14	4.4
>=40	27	8.5
Length of service in years		
6 month - 5 years	244	77.2
5 - 15 years	49	15.5
> 15 year	23	7.3
Total	316	100

Regarding educational qualification 62.3% (n=197) of study participant had diploma in nursing and all the rest were BSc holders (Fig 2).

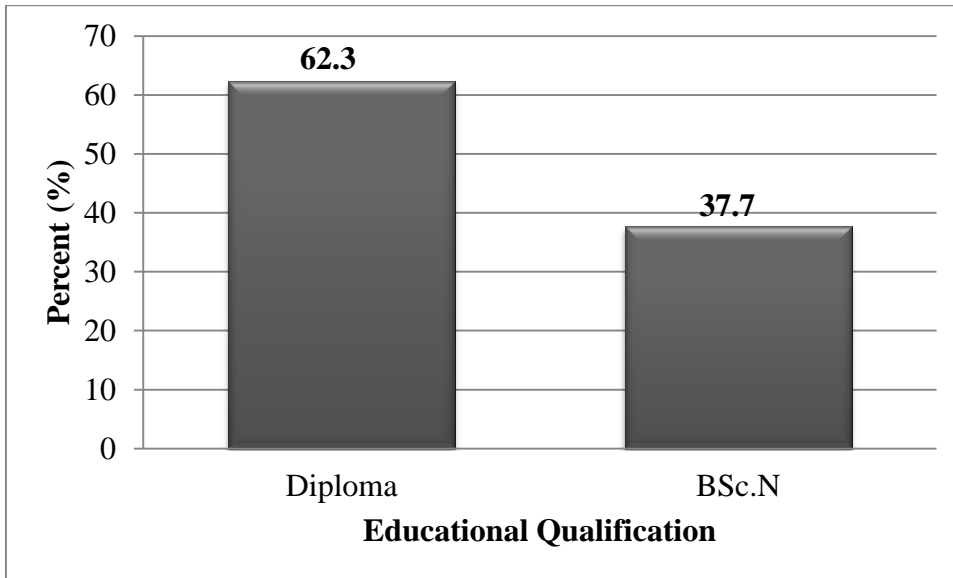


Figure 2: Study participating nurse’s educational qualification, Jimma zone public hospital, and south west Ethiopia, 2014.

Eighty nine present (n=281) reported working in clinical staff positions, compared to 8.9 % (n=28) in head nurses positions. The least reported position was the supervisors 1.3% (n=4) and matron 0.9% (n=3) (Fig 3).

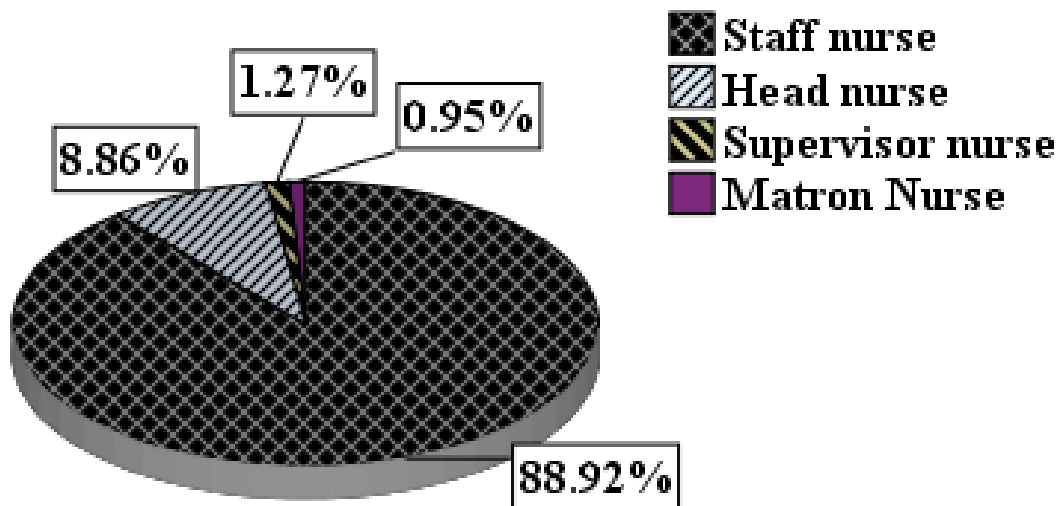


Figure 3: Study participants by their position, Jimma zone public hospitals, south west Ethiopia, 2014.

Almost forty one percent of the respondents (n = 129) earn 1427 and less in ETB per month, whilst 7% of the respondents (n = 22) earn >2251 ETB per month (Fig 4).

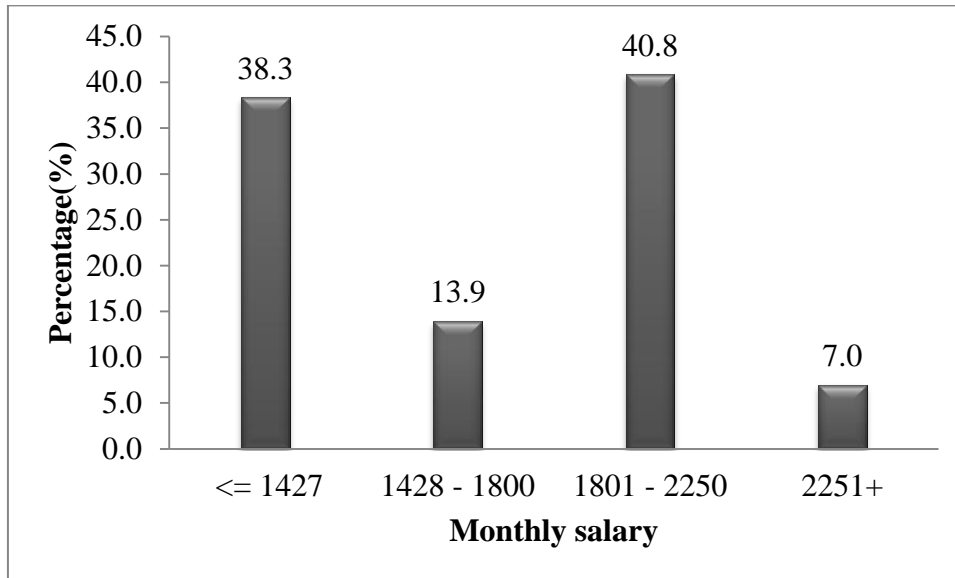


Figure 4: Monthly salary distribution of the study participants, Jimma zone public hospital, South West Ethiopia, 2014.

5.2 Descriptive statistics result of the predictor variables

5.2.1. Nurse-Physician Communication Related Factors:

Personal factor subscale had a minimum score of 3 and maximum of 15 with mean score of 8.94 ± 3.47 . Organizational factor sub scale had a minimum score of 6 and maximum of 30 with mean score of 21.43 ± 5.69 . And mutual understanding sub scale had a minimum score 3 and maximum 15 with mean 8.91 ± 2.86 (Table 3)

Table 3: Descriptive result for nurse – physician communication related factors, Jimma zone public hospitals, South West Ethiopia, 2014.

Personal factor	Min	Max	Mean	Std. Deviation
Physicians poor attitude to nurse’s work	1	5	2.97	1.32
Uncooperativeness at work	1	5	2.97	1.32
Negligence of duty	1	5	3.01	1.34
Organizational factors				
Differential treating of nurse and physician in the hospital	1	5	3.29	1.30
Absence of forum to discuss the issue of nurse-physician communication in the hospital	1	5	3.62	1.30
Lack of clarity in roles & responsibilities in the hospital	1	5	3.54	1.24
Lack of shared vision in the hospital	1	5	3.62	1.19
Frequent supply shortage in the unit	1	5	3.71	1.19
Malfunctioning of equipment in unit	1	5	3.65	1.22
Mutual understanding at work				
The nurse and physicians discuss mechanism to maintain patient safety	1	5	3.07	1.19
The nurse and the physicians take into account each other’s schedule when making plans to treat a patient together	1	5	2.79	1.15
Physicians and nurse listen to each other	1	5	3.05	1.13

5.2.2. Job related stress factors:

Workload subscale had a minimum score of 4 & maximum score of 16 with mean score of 8.57 ± 2.23 . Lack of support subscale had minimum of 3 & maximum 12 with mean score of 6.73 ± 2.24 . Conflict subscale had a minimum score of 4 & maximum score of 16 with mean score of 8.25 ± 2.69 . Organizational decision subscale had minimum of 3 & maximum 12 with mean score of 6.72 ± 1.94 (Table 4).

Table 4: Descriptive result for job stress related factors, Jimma zone public hospitals, South West Ethiopia, 2014.

Workload	Min	Max	Mean	Std. Deviation
Not enough staff to adequately cover the unit	1	4	2.43	0.94
Not enough time to complete all of my nursing tasks	1	4	2.10	0.91
Not enough time to provide emotional support to the patient	1	4	2.13	0.86
Not enough time to respond to the needs of patients' families	1	4	2.07	0.85
Lack of support				
Lack of opportunity to talk openly with other unit personnel about	1	4	2.41	1.01
Lack of opportunity to share experiences and feelings with other personals in the unit.	1	4	2.19	0.96
Lack of support of my immediate supervisor	1	4	2.13	1.04
Conflict				
Conflict with a physician	1	4	2.16	0.96
Disagreement concerning the treatment of a patient.	1	4	2.10	0.89
Conflict with a supervisor	1	4	2.15	1.06
Difficulty in working with a particular nurse in the unit.	1	4	1.95	0.97
Organizational decision				
Frequent relocation of unit of work.	1	4	2.10	0.95
Rotating work shift.	1	4	2.20	1.03
Centralization; low participation in decision making.	1	4	2.55	0.99

5.2.3. Professional commitment

Mean score for professional commitment was (9.46±2.59) with minimum score of 4 and maximum16 (Table 5).

Table 5: Descriptive statistics result for professional commitment, Jimma zone public hospitals, South West Ethiopia, 2014.

Professional commitment	Min	Max	Mean	Std. Deviation
If I could get another job different from being a nurse, I would not probably take it.	1	4	2.05	1.01
I spend a significant amount of time reading nursing-related journals	1	4	2.58	0.87
I definitely want a career for myself in nursing.	1	4	2.44	0.98
This is the ideal profession for a life work.	1	4	2.38	1.04

5.3. Respondents' level of job satisfaction

Descriptive statistics was used to compute the overall mean and overall job satisfaction percentage mean score. The highest potential score is 116, and the minimum potential score is 29. The higher score implies higher job satisfaction as cited by Mueller & McCloskey 1990.

Percentages mean score of job satisfaction was calculated by

$$\text{using: } \textit{Percentage mean score of job satisfaction} = \left(\frac{\textit{Actual computed mean}}{\textit{Maximum potential score}} \right) * 100$$

The overall mean satisfaction of the study participating nurses in this study was (67.43± 13.85) (min 29 and max 106) with percentage mean score of 58.13%. Out of the eight subscales, the highest level of job satisfaction was on the subscale of satisfaction from coworkers with percentage mean score of (69.8). While satisfaction from professional opportunities had the lowest percentages mean score of (44.9) (Table 6).

Table 6: Mean and percentage mean scores for overall satisfaction score and the summated scales (n=316), Jimma zone public hospital, south west Ethiopia, 2014.

Name of subscale	Mean	SD	Min (%)	Maximum (%)	Mean (%)
Satisfaction from extrinsic reward	6.31	2.21	25	100	52.58
Satisfaction from scheduling	11.61	3.41	25	100	58.04
Satisfaction from family and work balance	4.95	1.47	25	100	61.87
Satisfaction from coworkers	5.58	1.49	25	100	69.78
Satisfaction from interaction	9.87	2.61	25	100	61.69
Satisfaction from professional opportunity	7.20	2.41	25	100	44.99
Satisfaction from praise & recognition	9.74	2.74	25	100	60.90
Satisfaction from control & responsibility	12.17	3.31	25	100	60.94
Total satisfaction percentage score	67.43	13.85	25.00	91.38	58.13

Levels of job satisfaction was done by using data driven classification based (tertile classification by rank order of overall job satisfaction score); the lower tertile rank corresponds to the low level, the middle tertile corresponds to moderate and the upper tertile indicate the high job satisfaction level. One third (33.5%, n = 106) of the study participating nurses had low level of job satisfaction and 34.5% (n = 109) were moderately satisfied (figure 5).

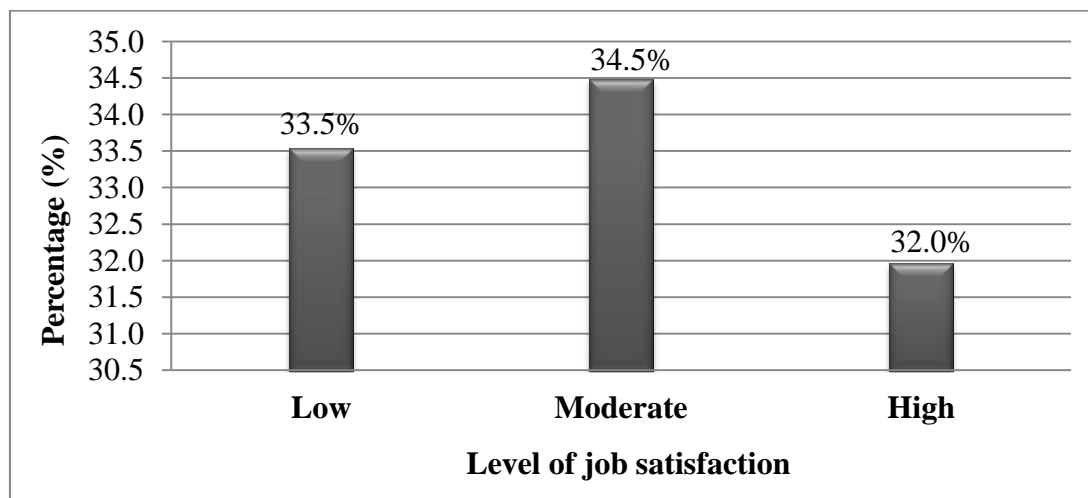


Figure 5: Level of job satisfaction among nurses working in Jimma zone public hospitals, south west Ethiopia, 2014.

Individual job satisfaction subscale scores were then demonstrated with Likert mean values. Mueller and McCloskey (1990) have not identified a clear-cut point in the scores that predict the level of job satisfaction. In this study, each item on the MMSS scale was rated on four-point Likert-type scale. A score of 4.0 indicates high satisfaction whereas a score of 1.0 indicates high dissatisfaction. The Likert overall mean score of the MMSS for Jimma zone public hospital nurses was (2.32±0.93), attained by calculating the average of the individual mean Likert scores for each item. In particular, for the distinct 29 items on the MMSS tool the scores ranged from a highest on “Interaction with nursing peer and the lowest on opportunities to write and publish.

The three highest job satisfaction ratings were: nurse to nurse relationship (Mean=3.00), followed by satisfaction with the nursing care given for clients (M=2.89) and maternity leave time given by the hospital (Mean=2.88). Conversely, the lowest three item satisfaction scores were: Pay/salary received as a nurse” (Mean=1.62), followed by opportunities to participate in nursing research (Mean=1.47), and opportunity to write and publish (Mean=1.29) respectively (Appendix VII).

Most of the respondents (n=189, 59.8%) were very dissatisfied from the pay/salary the received from the hospital as a nurse. Regarding compensation for working weekends & holidays, only 15 respondents (4.7%) were very satisfied and 36.7% (n=116) respondents were very dissatisfied from the opportunity for part-time work. More than three-fourth of the respondents (n = 244, 77.2%) were moderately satisfied or very satisfied on the relation from the nursing peers. Regarding the availability of medical equipment/supplies to deliver nursing care in the unit/ward, almost one-third of the respondents (n=103, 32.6%) were very satisfied (n=22, 7.0%) or moderately satisfied (n=81, 25.6%). When professional opportunity is concerned, almost two-third of the respondents (n=209, 66.1%) were very dissatisfied or moderately dissatisfied from the opportunities for further education/degree or post graduate study in nursing. Two-third of the respondents (n=210, 66.5%) were very dissatisfied from the opportunities to participate in nursing research and only 11.4% (n=36) were moderately satisfied and very satisfied from this item. When praise and recognition is concerned; 61.0% (n=193) of the study participating nurses were very dissatisfied or moderately dissatisfied on the recognition given for their work from their matrons and supervisors (Table 7).

Table 7: Frequency and percentage distribution of each item in the job satisfaction scale, Jimma zone public hospitals, south west Ethiopia, 2014.

Items	Very dissatisfied		Moderately dissatisfied		Moderately Satisfied		Very satisfied	
	n	(%)	n	(%)	n	(%)	n	(%)
Pay (Salary) you receive	189	59.8	69	21.8	46	14.6	12	3.8
Annual leave you receive from the hospital	69	21.8	104	32.9	116	36.7	27	8.5
Sick leave you receive from the hospital	77	24.4	83	26.3	119	37.7	37	11.7
Hours that you work in the hospital	73	23.1	63	19.9	129	40.8	51	16.1
Flexibility in scheduling your working hours	65	20.6	82	25.9	134	42.4	35	11.1
Your satisfaction in your shift rotation	51	16.1	72	22.8	143	45.3	50	15.8
Flexibility in scheduling your weekends off	117	37.0	84	26.6	88	27.8	27	8.5
Compensation for working weekends & holidays	126	39.9	85	26.9	90	28.5	15	4.7
Opportunity for part-time work	116	36.7	92	29.1	79	25.0	29	9.2
Maternity leave time given by the hospital	34	10.8	52	16.5	147	46.5	83	26.3
Interaction with your nursing peers	21	6.6	51	16.1	152	48.1	92	29.1
Interaction with the physicians you work with	47	14.9	86	27.2	134	42.4	49	15.5
Availability of medical equipment/supplies to deliver nursing care in your unit	113	35.8	100	31.6	81	25.6	22	7.0
satisfaction with the nursing care given to your clients	28	8.9	60	19.0	148	46.8	80	25.3
Opportunities for social contact with your colleagues after work	49	15.5	80	25.3	151	47.8	36	11.4
Opportunities for interact professionally with other disciplines	60	19.0	101	32.0	125	39.6	30	9.5
Opportunities for further education/degree or post graduate study in nursing	134	42.4	75	23.7	73	23.1	34	10.8
Opportunities to participate in morning rounds	73	23.1	86	27.2	112	35.4	45	14.2
Opportunities to participate in nursing research	210	66.5	70	22.2	28	8.9	8	2.5
Opportunities to write and publish	255	80.7	36	11.4	18	5.7	7	2.2
Recognition from your head nurse	46	14.6	84	26.6	135	42.7	51	16.1
Recognition for your work from superiors	95	30.1	98	31.0	98	31.0	25	7.9
Recognition for your work from peers	35	11.1	64	20.3	152	48.1	65	20.6
Encouragement and positive feedback from matron	100	31.6	93	29.4	86	27.2	37	11.7
Opportunity to make autonomous nursing care decisions	62	19.6	85	26.9	128	40.5	41	13.0
Opportunities for on job training	184	58.2	62	19.6	52	16.5	18	5.7
Responsibility in the unit/ward	40	12.7	69	21.8	134	42.4	72	23.1
Your control over conditions in your working unit	39	12.3	62	19.6	151	47.8	64	20.3
Consideration given to your opinion and suggestions for change in the work setting or office practice	58	18.4	88	27.8	128	40.5	42	13.3

5.4. An independent sample t test result for the overall job satisfaction.

An independent-samples t-test was conducted to compare the overall mean job satisfaction scores for some selected variables (hospital, sex, educational qualification and position/title of the nurses). There was statistically significant difference in mean scores for referral/teaching hospital (66.6±13.9) and district/non-teaching hospital (72.4±12.6); $t(314) = -2.59, p = 0.01$. Those nurses who were working in district hospital were more satisfied than nurses working in referral hospital (Table 9). In the present study, being male or female and being single or ever married had no effect on job satisfaction variation; $t(314) = -1.59, p = 0.112$ and $t(314) = -1.66, p = 0.09$ respectively (Table 8). When educational qualification is concerned diploma nurses (68.7±13.7) were more satisfied than BSc nurses (65.3±13.8); $t(314) = 2.08, p = 0.038$ (Table 8). Clinical staff manager nurses (71.4±12.6) were more satisfied than the clinical staff nurses (66.9±13.9); $t(314) = -1.96, p = 0.049$ (Table 8).

Table 8: An independent sample t-test on job satisfaction of nurse's according to hospital, sex, marital status, educational qualification and position/title in the hospital (n = 316), Jimma zone public hospitals, South West Ethiopia, 2014.

Hospital	Mean	SD	t	P
Referral/teaching	66.6	13.9	-2.598	0.01†
District/non-teaching	72.4	12.6		
sex				
Male	66.18	14.146	-1.593	0.112(NS)
Female	68.66	13.483		
Marital status				
Single	66.25	14.02	-1.661	0.09 (NS)
Ever married	68.83	13.56		
Educational qualification				
Diploma	68.69	13.718	2.08	0.038*
BSc	65.35	13.867		
Position in the hospital				
Clinical staff nurses	66.90	13.919	-1.96	0.049*
Clinical manager staff nurses	71.74	12.636		

*Significant at 0.05 level; † Significant at 0.01level; SD; Standard deviation; NS; Not significant.

5.5. ANOVA result for the overall job satisfaction

One way between group analysis of variance (ANOVA) was done in order to know whether there was mean difference in the nurse's overall job satisfaction in relation to their age, work experience, salary & working unit. The analysis does not show significance difference for the overall mean score of job satisfaction across the first three variables; $F(4,311) = 2.18, P = 0.07$; $F(2,313) = 2.34, P=0.09$ and $F(3, 312) = 0.649, p = 0.584$ respectively (Table 9).

Table 9: One-way ANOVA; overall job satisfaction of nurses in age group, work experience and salary Jimma zone public hospitals, south west Ethiopia, 2014.

Age	Mean	Std. Deviation	F	P
=<24 years	67.20	14.588	2.187	0.07
25 - 29 years	66.79	12.847		
30 - 34 years	62.90	16.325		
35 - 39 years	70.57	13.084		
>= 40 years	73.63	13.431		
Work experience				
6month - 5 years	66.74	13.607	2.347	0.097
5 - 15 years	68.20	13.726		
> 15 years	73.13	15.778		
Salary				
<= 1427	67.95	13.649	0.649	0.584
1428 - 1800	67.77	12.031		
1801 - 2250	66.34	14.871		
2251+	70.32	12.233		
Total	67.43	13.848		

Whereas there was a statistically significant difference between the groups of working units: $F(9,306) = 3.43, p = 0.000$. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for Gyn/obs (maternity) (72.4 ± 12.9) was significantly different from OPD (71.9 ± 13.3) and from Pediatrics ward (60.29 ± 14.7) (Table 10).

Table 10: One-way ANOVA; job satisfaction of nurses in different working units/wards, Jimma zone public hospitals, south west Ethiopia, 2014.

	<i>Working unit</i>	<i>n</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Between groups F</i>	<i>P</i>
1	Medical ward	53	67.08	9.225	3.43	0.000*
2	surgical ward	66	68.38	13.659		
3	ICU	10	70.00	10.242		
4	Major OR	20	61.10	18.061		
5	<i>Pediatrics ward</i> [†]	42	60.29	14.755		
6	<i>Gyn/Oby</i> [†]	22	72.41	12.875		
7	Ophthalmology unit	12	66.58	14.975		
8	Psychiatry ward	7	58.57	13.538		
9	<i>OPD</i> [†]	64	71.94	13.326		
10	Chronic illness	20	69.05	14.533		
	Total	316	67.43	13.848		

*Significant at 0.01; [†] indicates that there is a difference between these groups

5.6. Independent sample t test result for job satisfaction subscales.

An independent-sample t-test was conducted to compare the overall mean scores for all the sub scale of job satisfaction by using some variables (hospital, sex, educational qualification and position/title of the nurses). The result showed that there is no significance difference for half of job satisfaction subscales between referral & district hospitals (satisfaction from extrinsic reward, family & work balance, coworker and praise & recognition); $t(314) = -0.732, p = 0.465$, $t(314) = 0.734, p = 0.463$, $t(314) = -0.519, p = 0.604$ and $t(314) = -1.442, p = 0.150$ respectively.

But four of the rest job satisfaction sub scales were significant. Those nurses working in district hospitals were more satisfied from work scheduling (12.44 ± 2.78) than nurses from referral/teaching hospital (11.47 ± 3.48), $t(314) = -2.10, p = 0.04$. Working in district hospital had more interaction (11.3 ± 2.6) than working in referral hospital (9.6 ± 2.5). Over all nurses working in district hospital had better satisfaction from the rest two job satisfaction facets (Table 11).

Being male or female showed that there is no significance difference for satisfaction from scheduling, family & work balance, coworker relation, interaction, praise & recognition and from control & responsibility of job satisfaction subscales. But they showed statistically significant difference in extrinsic reward and from professional opportunities (Table 11).

Satisfaction from coworker and professional opportunities were found to be significant for marital status; Single respondents were more satisfied from their coworkers (5.77 ± 1.5) than ever married counter parts (5.37 ± 1.42) (Table 11).

When educational qualification is concerned; scheduling and professional opportunities subscales were statistically significant. Diploma nurses were more satisfied from work scheduling (11.9 ± 3.2) and also from professional opportunities (7.5 ± 2.4) (Table 11).

Regarding position or title in the hospital that nurses had; from the total eight subscales only praise & recognition and control & responsibility subscales were statistically significant. Clinical staff manager nurses were more satisfied from the two satisfaction subscales (9.6 ± 2.8 ; 10.7 ± 2.3) and (12.0 ± 3.28 ; 13.3 ± 3.32) respectively (Table 11).

Table 11: An independent sample t-test between job satisfaction scales of nurses by hospital, sex, marital status, educational level and position, Jimma zone public hospital, south west Ethiopia, 2014.

Job satisfaction scales	Grouping Variables	Mean	SD	t	p
Working Hospital					
Satisfaction from work scheduling	Referral	11.5	3.4	-2.09	0.04*
	District	12.4	2.8		
Satisfaction from interaction	Referral	9.6	2.5	-4.13	0.000**
	District	11.3	2.6		
Satisfaction from professional opportunities	Referral	7.1	2.4	-2.71	0.007**
	District	8.1	2.3		
Satisfaction from control and responsibility	Referral	12.0	3.3	-2.22	0.027*
	District	13.2	3.2		
Sex					
Satisfaction from extrinsic reward	Male	6.0	2.2	-2.23	0.027*
	Female	6.6	2.2		
Satisfaction from professional opportunities	Male	6.9	2.4	-2.07	0.039*
	Female	7.5	2.4		
Marital status					
Satisfaction from coworker	Single	5.8	1.5	2.41	0.017*
	Ever married	5.4	1.4		
Satisfaction from professional opportunities	Single	6.8	2.4	-3.24	0.001**
	Ever married	7.7	2.4		
Educational level					
Satisfaction from work scheduling	Diploma	11.9	3.2	2.20	0.028*
	BSc	11.1	3.6		
Satisfaction from professional opportunities	Diploma	7.5	2.4	2.86	0.004**
	BSc	6.7	2.3		
Position/title					
Satisfaction from praise & recognition	Clinical staff nurse	9.6	2.8	-2.23	0.026*
	clinical staff nurse manager	10.7	2.3		
Satisfaction from control & responsibility	Clinical staff nurse	12.0	3.3	-2.11	0.041*
	clinical staff nurse manager	13.3	3.3		

* Significant at 0.05 level, ** significant at 0.01 level, SD: Standard deviation.

5.7. ANOVA result for job satisfaction subscales

A one-way between-groups analysis of variance was conducted to explore whether there was mean difference in nurses' overall job satisfaction subscale in accordance with their age.

The result showed that, only professional opportunities and control & responsibility were significant; $F(4,311) = 4.926, p < 0.01$ and $F(4,311) = 2.510, p < 0.05$ respectively.

Post-hoc comparisons using the Tukey HSD test indicated that the mean score for 40 and above age group (8.70 ± 2.799) was significantly different from 24 and lesser years (7.18 ± 2.529), 25 to 29 years (6.99 ± 2.19), and from 30 to 34 years (6.10 ± 2.10) regarding to satisfaction from professional opportunity subscale. Whereas 40 and above age group (13.78 ± 3.40) was significantly different from 25 – 29 years age group (11.81 ± 3.22) from control & responsibility subscale (Table 12).

Table 12: One-way ANOVA; job satisfaction of nurses according to age group, Jimma zone public hospital, south west Ethiopia, 2014.

		Sum of squares	df	Mean squares	F	P
Satisfaction from professional opportunities	Between Groups	108.586	4	27.146	4.926	0.001
	Within Groups	1713.854	311	5.511		
	Total	1822.440	315			
Satisfaction from control & responsibility	Between Groups	107.937	4	26.984	2.510	0.042
	Within Groups	3342.836	311	10.749		
	Total	3450.772	315			

Mean difference in the nurses' job satisfaction subscales in accordance with their work experience also done. The result showed that, only satisfaction from professional opportunities was significant; $F(2,313) = 5.568, p < 0.01$. Professional opportunities for those who had work experience of greater than 15 years (8.70 ± 2.95) was significantly different from those who had between half year to 5 years of work experience (7.0 ± 2.32) (Table 13).

Table 13: One-way ANOVA; job satisfaction of nurses according to work experience, Jimma zone public hospital, south west Ethiopia, 2014.

		Sum of squares	df	Mean squares	F	P
Satisfaction from professional opportunities	Between Groups	62.607	2	31.304	5.568	0.004
	Within Groups	1759.833	313	5.622		
	Total	1822.440	315			

A one-way between-groups analysis of variance also was done to know whether there is mean difference in the job satisfaction subscales by working unit. The result showed that, four of the sub scales (satisfaction from interaction, satisfaction from professional opportunities, satisfaction from praise & recognition and satisfaction from control & responsibility) were significant; $F(9,306) = 2.684, p = 0.005$, $F(9,306) = 2.824, p = 0.003$, $F(9,306) = 3.861, p = 0.000$ and $F(9,306) = 2.444, p = 0.001$ respectively.

Post-hoc comparisons using the Tukey HSD test indicated that the mean score for nurses working in Gyn/Oby (maternity) (11.41 ± 2.08) was significantly different from Major OR ($8.75, \pm 2.92$), and from Pediatrics ward (9.07 ± 2.81) regarding to satisfaction from interaction subscale.

Nurses working in OPD (7.95 ± 2.49) was significantly different from Major OR (5.90 ± 2.05) and from Pediatrics (6.29 ± 2.25) in the professional opportunity given.

ICU (12.20 ± 1.87) was significantly different from Medical ward (9.26 ± 2.18), Major OR (8.20 ± 3.35), Pediatrics (8.81 ± 2.93) and from Psychiatry (7.43 ± 1.62) regarding praise and recognition in the hospital. Lastly OPD (12.72 ± 3.75) was significantly different from Pediatrics (10.55 ± 3.14) regarding control and responsibility in the hospital (Table 14).

Table 14: One-way ANOVA; job satisfaction of nurses according to working unit/ward, Jimma zone public hospital, south west Ethiopia, 2014.

		Sum of squares	df	Mean squares	F	P
Satisfaction from interaction	156.862	9	17.429	2.684	2.684	0.005
	1986.819	306	6.493			
	2143.680	315				
Satisfaction from professional opportunities	139.765	9	15.529	2.824	2.824	0.003
	1682.675	306	5.499			
	1822.440	315				
Satisfaction from praise & recognition	241.923	9	26.880	3.861	3.861	0.000
	2130.315	306	6.962			
	2372.237	315				
Satisfaction from control & responsibility	231.429	9	25.714	2.444	2.444	0.011
	3219.343	306	10.521			
	3450.772	315				

5.8. Respondent's reasons of satisfaction in their organization

Respondents were also asked for their reasons of their satisfaction (sources of satisfaction) in the hospitals in which they are working in. Over two-third of the respondents 68.4 % (n=216) said their main reasons for satisfaction in their work was satisfaction in helping clients. Surprisingly, only 8.9 % (n=28) of the respondents reported professional pleasure as their source of satisfaction. Insignificant amount of nurses suggested that refreshment training (0.7%, n=2), good working environment (0.3%, n = 1), no satisfaction at all (1%, n = 3) and there is no source of satisfaction except in helping clients (0.3%, n = 1) mentioned as their source of satisfaction (Table 15).

Table 15: Reasons for nurses to be satisfied in their work, Jimma zone public hospitals, south west Ethiopia, 2014.

Which aspect of your job gives satisfaction in the hospital you working in?		
	n	%
Professional pleasure	28	8.9
Satisfaction in helping clients	216	68.8
Clear criteria on reward distribution	8	2.5
Professional pleasure & Satisfaction in helping clients	41	13.1
Professional pleasure & Clear criteria on reward distribution	1	0.3
Satisfaction in helping clients& Clear criteria on reward distribution	11	3.5
All the three are causes to be satisfied	9	2.9
System missing	2	0.6
Total	316	100

5.9. Respondent’s reasons of dissatisfaction in their organization

Study participating nurses were also mentioned the main reasons that leads them to be dissatisfied. Almost twenty nine percent (n = 87) of nurses mentioned workload as their major source of dissatisfaction for their work, performance evaluation process followed by the hospital 19.6 %,(n = 59), most clients/patients do not sufficiently acknowledge nursing care 15.9% (n = 48) and lack of patient appreciation for work, lack of performance based evaluation. And also they stated; administration from nursing management (matron & supervisors) & other hospital management bodies, poor attitude towards nursing by other personals, supply shortage (water, medical equipment), salary & duty is not provided on time, poor work recognition from superiors and also supervisors do not know well what to be supervised, no training that concedes individualized capacity and some participating nurses stated being a nurse by itself is a source of dissatisfaction (figure 6).

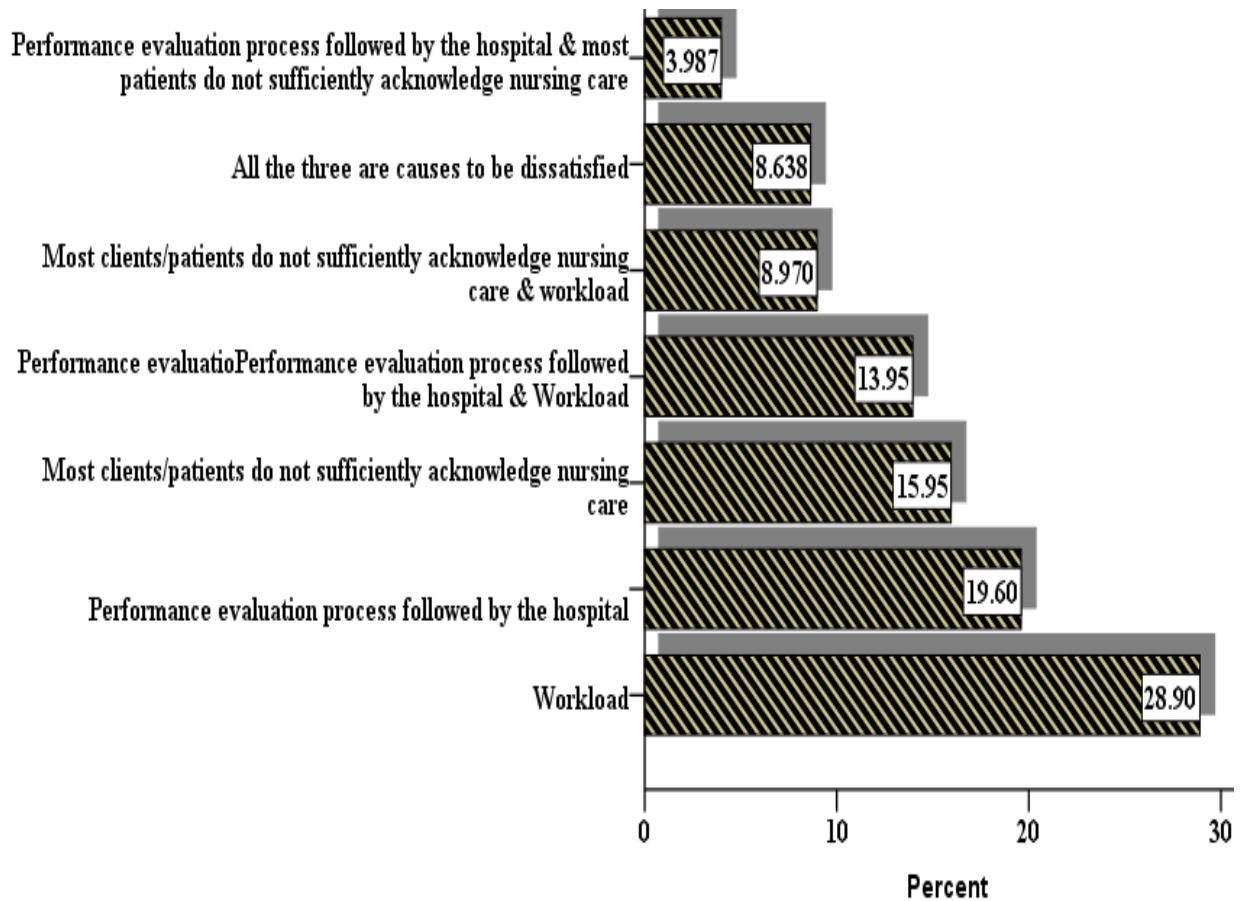


Figure 6: Reasons for nurses to be dissatisfied in their work, Jimma zone public hospitals, south west Ethiopia, 2014.

5.10. Bivariate analysis

In order to select candidate predictor variables for the multiple linear regression model, first bivariate analysis was carried out. From the total 17 predictor variables only one variable (monthly salary) was not found to be entered to the multivariable linear regression model (Table 16).

Table 16: Bivariate analysis for predictors of job satisfaction, Jimma zone public hospitals, south west Ethiopia, 2014.

	Coefficients ^a					
	Unstandardized Coefficients				95% CI for β	
	β	Std. Error	t	p	Lower Bound	Upper Bound
hospital	5.74	2.21	2.59	0.01**	1.39	10.08
Sex	2.48	1.55	1.59	0.11*	-0.58	5.535
Age	0.234	0.11	2.05	0.04**	0.009	0.458
Marital status	2.59	1.56	1.66	0.09*	-0.48	5.656
Work experience	0.28	0.12	2.30	0.02**	0.041	0.528
Educational qualification	-3.34	1.60	-2.08	0.03**	-6.48	-0.191
working unit	5.19	1.74	2.98	0.003**	1.77	8.625
position in the hospital	4.85	2.47	1.96	0.051*	-0.02	9.708
Monthly salary	-0.01	0.02	-0.45	0.65 (NS)	-0.004	0.002
Mutual understanding	1.05	0.26	3.95	0.000**	0.528	1.574
Personal factors	-0.56	0.22	-2.51	0.012**	-0.999	-0.122
Organizational factors	-0.42	0.13	-3.10	0.002**	-0.685	-0.153
Work load	-2.96	0.31	-9.60	0.000**	-3.56	-2.35
Lack of support	-0.68	0.34	-1.97	0.049**	-1.366	-0.002
Conflict	-0.957	0.284	-3.37	0.001**	-1.516	-0.398
Organizational decision	-0.88	0.39	-2.21	0.03**	-1.665	-0.095
Professional commitment	2.120	0.277	7.65	0.000**	1.574	2.665

^a *Dependent Variable: Job satisfaction*
* *Candidate variables for multiple linear regression model*
** *Variables significant at the bivariate regression analysis*
NS: *Not significant*

5.11. Multiple linear regression analysis result

To assess the relationship between those candidate predictor variables from bivariate regression with job satisfaction, multiple linear regressions was done. Even though thirteen predictor variables were significant ($p < 0.05$) in the bivariate model (Table 16), only three of them were found to be significant to predict the outcome variable (Job satisfaction) when they entered in to the multiple linear regression model in the first round. Then predictor variables with the largest p value were selected and then removed from the multiple linear regression analysis step by step till the final model was build.

Finally, after adjusting the biological factors/variables (age & sex) into the model; four predictor variables were able to predict the outcome variable. The overall model was significant ($F=32.42$, $p<0.001$) and the value of the adjusted $R^2 = 0.37$. Working unit ($\beta = 3.08$, $p = 0.032$), mutual understanding at work ($\beta = 0.78$, $p < 0.001$), and professional commitment ($\beta = 1.62$, $p < 0.001$) were significant and showed positive relationship with overall job satisfaction score. However workload showed a significant but inverse relationship with the overall job satisfaction score ($\beta = -2.66$, $p < 0.001$). The rest of the variables were not significantly associated with job satisfaction (Table 17).

Table 17: Multivariable linear regression predicting Job satisfaction among nurses working in Jimma zone public hospitals, south west Ethiopia, 2014.

	Coefficients ^a					
	Unstandardized Coefficients		t	p	95% CI for β	
	β	Std. Error			Lower Bound	Upper Bound
(Constant)	62.171	4.70	13.23	0.000	52.92	71.42
Working unit						
Out patient	3.08	1.45	2.13	0.032	0.23	5.93
In patient						
Mutual understanding at work	0.78	0.22	3.53	0.000	0.35	1.22
Professional commitment	1.62	0.25	6.61	0.000	1.14	2.10
Work load	-2.66	0.28	-9.54	0.000	-3.21	-2.11
Age (in year)	0.17	0.09	1.86	0.064	-0.01	0.36
Sex	0.29	1.25	.238	0.812	-2.17	2.77
^a Dependent Variable: Total satisfaction score						
Max VIF = 1.07, Adjusted $R^2 = 0.37$, CI = Confidence Interval						

Comparing the contribution of each independent variable, the largest beta coefficient was for working unit ($\beta = 3.08, p = 0.03$). This variable makes the strongest unique contribution to explaining the dependent variable (Job satisfaction), when the variance explained by all other variables in the model is controlled for. Workload was the second strong predictor for the outcome variable ($\beta = -2.66, p < 0.0001$). Professional commitment was the third strong predictor ($\beta = 1.62, p < 0.001$). The β value for mutual understanding at work was the lowest ($\beta = 0.78, p < 0.0001$), when compared from the rest significant predictors.

Overall the model explains 37 % of the variance in the outcome variable.

In this model, a unit increase in professional commitment score would result in the overall job satisfaction score to increase by 1.62 units and a unit increase in mutual understanding score would result in the overall job satisfaction score to increase by 0.78 units. A unit increase in workload score would result in the overall job satisfaction score to drop by -2.66 units. And those nurses who were working in OPD were 3.08 times more satisfied than those nurses working in inpatient unit holding the other variables controlled for.

CHAPTER SIX: DISCUSSION

This study aimed on determining the level and identifying factors influencing job satisfaction. The result indicated that Jimma zone public hospital nurses had an overall job satisfaction mean score (67.43 ± 13.85). And almost one third of the study participants (33.5%) had low level of job satisfaction which is supported by a study done in Islamabad showed that 37.14% had low level of job satisfaction (29). Whereas a study in Australia and California showed that nurses were highly satisfied with overall job (27,45). And another study done in India found that 77% of study participants had high, 21.3% moderate and the rest 1.7% had low level of job satisfaction (46). This may be due to better socio-economic status, better organizational policies including staff handling & better infrastructure in developed countries than developing county.

Even though results from this survey demonstrated that nurses generally had (67.43 ± 13.85) mean score, discrepancies were masked between levels of satisfaction with different subscales. The differences in satisfaction were identified in all aspect of the job satisfaction subscales: The highest dissatisfaction levels were from professional opportunities & extrinsic reward subscales whereas satisfaction from coworker was the highest level of satisfaction.

In this study nurses were most satisfied with their co-workers which is consistent with a study done in Lebanon, Jordan and USA (24,34,47). Whereas nurses were least satisfied from professional opportunities and extrinsic reward subscales this study is in line with a study done in Kuwait (6) showed that nurses were least satisfied from professional opportunities and extrinsic rewards. The finding also supported by a study done in Italy (3) showed that the top areas of satisfaction were coworker relation & the highest dissatisfaction were professional opportunities and extrinsic reward. But inconsistent with a study done in USA showed that nurses had higher satisfaction with regard to career development (24,34,47). This discrepancy may be due to opportunities for further education for those nurses in USA better due to economic advancements, organizational policies and administration differences. Career development and long term learning and training activities in nursing promote job satisfaction, increased retention of nurses and enable continued provision of quality care (48).

Most of the respondents (59.8%) were least satisfied from pay/salary which is consistent with a study done in Australia showed around 60% of nurses were least satisfied with their pay (27) and with a study done in Turkey (26).

It has been documented that praise and recognition eliminate barriers between managers and nurse. It can also motivate nurses and make them happy at work (44). Nurses had low satisfaction from their supervisors and matrons in this study which is supported by the open ended question they stated; administration from nursing management (matron & supervisors) as a source of dissatisfaction. This is inconsistent with a study done in India (30) the result showed that most of the supervisors and matrons were very cooperative. This discrepancy may be due to that nursing managements like matron and supervisors in India may have praising & recognition program for nurse's work, encouragement, and feedback and supervision mechanism that followed.

After adjusting many variables; working unit, professional commitment, mutual understanding at work and workload were found to be the final predictor of the outcome variable in this study.

The healthcare environment in which we work is constantly changing and evolving. Nurses in hospitals today provide care for an increasing number of acutely ill patients often with a number of chronic conditions and associated co-morbidities (49) and these cases are frequently managed at the inpatient unit that leads for nurses increased work burden and to be less satisfied. The finding of the preset study also revealed that nurses working at inpatient unit were less satisfied which is consistent to a study done in Jordan found that nurses working in inpatient units deal with more severely ill patients and with death and dying issues that makes them less satisfied (47). In addition this study revealed that nurses working in pediatrics ward were least satisfied which is in consistent to a study done in USA showed that nurses working in pediatrics ward reported higher levels of job satisfaction than their counterparts (24). This discrepancy may be due to that those nurses working in inpatient unit frequently manage those patients chronically ill and debilitating patients who needs long term care than cases which are seen in outpatient department.

As cited by Greenfield individuals with high levels of professional commitment are more likely to engage in activities that favor their organization(50). In the present study professional commitment was found to have an effect on nurse job satisfaction which is consistent with a study done in China (35–37). Their finding showed that professional commitment was a strong predictor for job satisfaction. Professionally committed nurses had the potential to produce benefits for both themselves and for their organization this leads increased satisfaction from their work as a result improved patient care will be engaged.

Strong professional communication and respect is a key to successful collaboration at work. The need for nurse - physician collaboration and having patient information is highly desired (51). In this study mutual understanding predicts nurse's job satisfaction positively. This is consistent with a study done in Iran (52) and with another study done in West Coast region (53) on Nurse-Physician relationships impacting on nurse satisfaction. When there is mutual understanding at work there is sense of recognition and feeling of respect between them, which further brings satisfaction at work.

Nursing workload arises from a variety of sources, inadequate staff is commonly reported (54). The present study also showed that workload predicted job satisfaction negatively which is consistent with a study done in US (38) and Taiwan (55) found that workload had significant negative relation to job satisfaction. And this finding also supported by the open ended question that many respondents reported that workload as a reason to be less satisfied.

The present study does not show a significant association between sex & the outcome variable which did not go in line with a study done in USA (31) the result showed that male were less satisfied than females and from the study conducted in Nigeria(7) the result showed that males showed higher level of job satisfaction. Statistically significance difference were not found between age and overall job satisfaction which did not go in line with a study conducted in Sir Lanka(8) the result revealed that as age increases job satisfaction increases too but a study done in Iran, China and Sweden showed that being young age were significantly associated with a higher level of job satisfaction(20,32).Another study which is done in Italy showed that job satisfaction of nurses decreases with the increase in age of the respondents(3).

Every employee is different and will likely have different views which makes job satisfaction hard to research (12). Truly, to a significant extent, job satisfaction is rooted in

individuals' personalities and each individual have different expectations from their organization regardless of their socio-demographic backgrounds (sex and age).

A higher level of training may lead to dissatisfaction if organizational constraints hinder the use or further development of acquired knowledge and abilities, while these nurses have higher expectations towards management (56). The present study also showed that BSc nurses were least satisfied than diploma holder nurses which is consistent with a study done USA (31) and Kuwait (6) showed that nursing staff with higher levels of education were less satisfied with their occupation.

Nurses contribute very important position in health care sector including helping sick people and for the treatment, recovery of acutely or chronically ill or injured people, health maintenance of the healthy, and treatment of life- threatening emergencies in a wide range of health care settings(30).In this study 69% of nurses stated that helping clients as a source of satisfaction at work which is consistent with a study done in South Africa (33) in which 76% nurses reported that the chance to help other people and a study done in Malawi (57) on factors influencing job satisfaction of nurses 73% respondents reported that helping the sick is source of satisfaction.

Implications

In the light of the increasing globalization and wide spread of disease burden; nurses are vital components of any health care organization to achieve the stated health related MDG. They are also an important human capital and it is essential to invest in their good fortune because the welfare of patients ultimately depends on the excellence of their work.

For nursing Management & policy

Nursing administration to give attention the job related aspects of a nurse's professional opportunities, extrinsic reward to increase nurse job satisfaction. The study showed that nurses with BSc and clinical staff nurses were least satisfied. This tells the administrator to pay attention to those categories before they are disappointed, which in turn affects patient care. They could use other information from this study to know what areas to target.

For nursing education

FMOH and nursing educators may consider this study when counseling potential nurses who are in the process of deciding which educational track they should choose.

For nursing Practice

Nursing practice could also be improved using the results of this study. Many nurses reported that they were most satisfied from the relationships with coworker. Taking this into account, nurses could improve their own satisfaction by increasing their peer interactions, working on their communication skills & mutual understanding, and making an effort to support their peers and make them feel appreciated. If an entire unit would try this; there should be a cyclic effect which could continue to increase the nurses' job satisfaction on the unit.

For nursing research

The finding of this study may help for other researchers as an input secondary data to conduct further researches on job satisfaction and related issues in nursing profession.

Strength and limitation of the study

Strengths

- ♣ The data was collected through census which gives large sample so that greater confidence can be obtained in the representativeness.

Limitations

- ♣ The information gained from participants is based upon their subjective perceptions it is therefore possible that they either over or under reported their level of satisfaction.
- ♣ The findings of the study may not be generalized to nurses in other health care facilities like health centers and private health institutions, as the different environment and circumstances may impact on job satisfaction.

CHAPTER SEVEN: CONCLUSION AND RECOMMENDATIONS

7.1. Conclusion

Fostering and maintaining a higher level of job satisfaction among nurses is considered vital not only to limit turnover and burnout among nurses, but also to ensure the delivery of quality care. Therefore, early assessment, detection and control of job dissatisfaction are considered essential.

- ♣ Nurses working in Jimma zone public hospitals were younger (27.87 ± 6.81) and there was almost equal distribution between male (49.4%) and female nurse (50.6%), 37.7% were BSc nurses.
- ♣ One third (33.5%) of study participants had low level of job satisfaction.
- ♣ Study participating nurses were least satisfied from professional opportunities including participating in nursing researches and from extrinsic reward. This further indicates Jimma zone public hospital nurses are looking for opportunities to participate in nursing researches. But they had high satisfaction from their coworker relation.
- ♣ Nurses were least satisfied concerning to satisfaction from recognition and positive feedback received from supervisors and matrons for their achievements and contribution.
- ♣ The final predictors of overall satisfaction were working unit, professional commitment and mutual understanding at work; all showed positive relationship whereas workload had negative relationship with nurse's job satisfaction.
- ♣ Most of the study participants stated their source of satisfaction as a nurse by helping clients whereas workload stated as a reason for being dissatisfied from work.

7.2. Recommendations

Based on the findings of this study, the following recommendations were proffered:

- ♣ Hospital nurse administrators had better to establish research committees, contracting nursing journals; Jimma zone health bureau, FMOH and professional association like Ethiopian Nurse Associations (ENA) have a duty to aid them by allocating research budget, research training and support should be considered.
- ♣ Hospital administrators, Jimma zone health bureau & FMOH have to facilitate professional opportunities for nurses.
- ♣ Nurses had the highest satisfaction from their co-worker relationships and teamwork. With this information, staff nurses could continue their own satisfaction by cultivating their peer relationships into supportive and encouraging ones.
- ♣ Health care administrators, especially nursing administrators, should consider the factors that contribute to job dissatisfaction and try to reduce/eliminate them by designing and implementing supportive strategies.
- ♣ Nursing administrators of each hospital would strengthen the existing ward/unit rotation. A rotation gives a nurse the opportunity to become familiar with a wide variety of conditions, skills, knowledge and appropriate ward rotations also enhance confidence and promote effective patient care in the clinical setting.
- ♣ Nursing management bodies and other hospital managers ought to establish a recognition program for rewarding nurse's good work and achievement in the hospital such as the best ward and best nurse of the month or by giving certificate of appreciation for their performance.
- ♣ Performance-based benefits for nurse's work at the grassroots level ought to encourage by hospital management bodies.
- ♣ Finally, further study is proposed to identify more additional factors which affect nurse job satisfaction at large scale.

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Annexes

Annex I: Letter of Information for the Study

Dear nurse:

I am writing to invite you to participate in a study entitled “**job satisfaction and factors influencing it among nurses in Jimma zone public hospitals, Oromia regional state, Southwestern Ethiopia, 2014**”. With the aim of identifying factors influencing job satisfaction among nurses in Jimma zone public hospitals, 2014. I am conducting this study in partial fulfillment of the requirements for master’s degree in Adult health nursing in Jimma University (JU). My proposal has been approved by my advisors Professor Tefera Belachew (MD, MSc, and PhD), dean of post graduate studies, JU and Mr. Temamen Tesfaye (BSc.N, MSc.N) lecturer in department of nursing, JU. I have also received ethical approval from JU College of public health and Medical science, institutional review board.

Your participation in this study is completely voluntary to complete the questionnaire. Your answers are confidential and your name is not required on any documents. No one other than me and my advisors will have access to the questionnaire at any time. You may refuse to answer any of the questions and you may choose not to participate.

There is no risk associated with participating in this study and also no direct benefits, however it is hoped that through this study the survey which will be distributed to you is designed to gain the best responses possible. The study will help me to gain a better understanding of factors affecting job satisfaction that are important to nurses who are working in public hospital setups.

If you agree to participate, please complete the consent form. If you have any questions or comments about the study, please feel free to contact me. My address, phone number and email address are available below.

Thank you very much for your cooperation with this study!

Ayele Semachew, BScN, MScN student in Adult health nursing, JU, 2014.

Phone number: 0913959205

Email: ayele.semachew@yahoo.com OR finoteayu12@gmail.com

Annex II: Consent Form for the Study

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 be obliged to continue and I will withdraw from it at any time. My answers are confidential and my name is not required on any documents. I understand no one other than the investigator and his advisors will have access to the questionnaire at any time. I understand that there is no risk associated with participating in this study and also no direct benefits, but the result may help him in obtaining the best information possible from nurses working in Jimma zone public hospitals.

So, I agree to this, provided that my privacy is guaranteed. I hereby give informed consent to participate in this study.

Name of the hospital _____

Signature of volunteer _____ Date _____

Annex III: QUESTIONNAIRE

JIMMA UNIVERSITY

COLLEGE OF PUBLIC HEALTH AND MEDICAL SCIENCE

DEPARTMENT OF NURSING

A QUESTIONNAIRE ON JOB SATISFACTION AND FACTORS INFLUENCING IT
AMONG NURSES IN JIMMA ZONE PUBLIC HOSPITALS, OROMIA REGIONAL
STATE, SOUTHWESTERN ETHIOPIA, 2014.

Instructions:

1. You are kindly requested to answer the following questions
2. Encircle the answer of your choice regarding each question.
3. For certain questions when additional information is needed, please write your answer on the space provided.
4. Please do not write your name on any page of the paper.

Part I: General information (socio demographic characteristic of the participants).

No.	Socio demographic questions	Coding categories
Socio-demographic factors		
101	Sex	0. Male 1. Female
102	Your Age in years	_____ years
103	What is your current marital status?	1. Married 2. Single 3. Divorced 4. Widowed
104	Length of service /Your working experience in the hospital (in years)	_____ Years
105	Your educational qualification	1. Diploma nurse 2. BSc nurse 3. MscN 4. Other(Specify_____)
106	Your current salary	_____
107	Which hospital you are working?	1. Jimma University Specialized Hospital 2. Shenen Gibe Hospital 3. Limu Genet Hospital
108	Working Unit/ward	1. Medical ward 2. Surgical ward 3. ICU 4. Major OR 5. Pediatrics ward 6. Gyn/obs (maternity) 7. Ophthalmology unit 8. Psychiatry ward 9. OPD 10. Chronic illness follow up clinic
109	What is your title? Or Position that you presently hold within the hospital	1. Staff nurse 2. Head nurse 3. Supervisor nurse 4. Matron nurse

Part II: Satisfaction questionnaire based on MMSS.

The following questions measures your job satisfaction levels and factors that contribute for being satisfied or being dissatisfied as a nursing personal in the hospitals you working in.

How satisfied are you with the following aspects of your current job?

Please **circle** 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	
201	Pay (Salary) you receive from your hospital as a nurse	1	2	3	4		
202	Annual leave you receive from the hospital	1	2	3	4		
203	Sick leave you receive from the hospital	1	2	3	4		
204	Hours that you work in the hospital	1	2	3	4		
205	Flexibility in scheduling your working hours	1	2	3	4		
206	Your satisfaction in your shift rotation	1	2	3	4		
207	Opportunity for part-time work	1	2	3	4		
208	Flexibility in scheduling your weekends off	1	2	3	4		
209	Compensation for working weekends & Holidays	1	2	3	4		
210	Maternity leave time given by the hospital	1	2	3	4		
211	Recognition from your head nurse for your work	1	2	3	4		
212	Interaction with your nursing peers/partners	1	2	3	4		
213	Interaction with the physicians you work with	1	2	3	4		
214	Availability of medical equipments/supplies to deliver quality nursing care in your unit	1	2	3	4		
215	Satisfaction with the nursing care given to your clients	1	2	3	4		
216	Opportunities for social contact with your colleagues after work	1	2	3	4		
217	Opportunities for interact professionally with other disciplines	1	2	3	4		
218	Opportunities for further education/degree or post graduate in nursing	1	2	3	4		
219	Opportunities to participate in morning rounds	1	2	3	4		
220	Opportunity to make autonomous nursing care decisions	1	2	3	4		
221	Opportunities for on job training/short term training	1	2	3	4		
222	Recognition for your work from superiors	1	2	3	4		
223	Recognition for your work from peers/ partners	1	2	3	4		
224	Encouragement and positive feedback received from your matron	1	2	3	4		
225	Opportunities to participate in nursing research	1	2	3	4		
226	Opportunities to write and publish	1	2	3	4		
227	Your responsibility in your unit/ward	1	2	3	4		
228	Your control over conditions in your working unit/ward	1	2	3	4		
229	Consideration given to your opinion and suggestions for change in the work setting or office practice	1	2	3	4		

230. Which aspect of your job gives **satisfaction** in the hospital you working in? (choosing more than one option is possible)

1. Professional pleasure
2. Satisfaction in helping clients
3. Clear criteria on reward distribution
4. Other (specify) _____

231. Which factor causes to be **dissatisfied** in the hospital you working in?

(Choosing more than one option is possible)

1. Performance evaluation process followed by the hospital
2. Most clients/patients do not sufficiently acknowledge nursing care
3. Workload
4. Other specify _____

Part-III: Nurse-physicians communication related factors

Instruction: There are statements about *personal and organizational factors*, and each statement has five alternatives with five point scale. Read each item and circle the number you choose.

5= Strongly agree 4= Agree 3=Not agree or disagree 2= agree 1= strongly disagree						
S.No	Factors	Strongly Agree(5)	Agree(4)	Neither agree or disagree(3)	Disagree (2)	Strongly disagree(1)
300	Poor attitude to work	5	4	3	2	1
301	Uncooperativeness at work	5	4	3	2	1
302	Negligence of duty	5	4	3	2	1
303	Differential treatment of nurse & physicians in the hospital	5	4	3	2	1
304	Absence of forum to discuss the issue of nurse- physician communication in the hospital	5	4	3	2	1
305	Lack of clarity in roles & responsibilities in the hospital	5	4	3	2	1
306	Lack of shared vision in the hospital	5	4	3	2	1
307	Frequent supply shortage in the unit	5	4	3	2	1
308	Malfunctioning of equipments in the unit	5	4	3	2	1

Part-IV: Mutual understanding between nurse & physicians

Instruction: There are statements about mutual understanding at work with five alternatives. Read each item & circle the corresponding number.

5= Always		4= Usually		3= Sometimes		2= Rarely		1= Never	
S. No	Scales	(5)	(4)	(3)	(2)	(1)	(5)	(4)	(3)
400	The nurse and physicians discuss mechanism to maintain patient safety	5	4	3	2	1	5	4	3
401	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	5	4	3
402	Physicians and nurse listen to each other	5	4	3	2	1	5	4	3

Part-V: 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	Never Stressful	Sometimes Stressful	Frequently Stressful	Always Stressful
500	Not enough staff to adequately cover the unit	1	2	3	4
501	Not enough time to complete all of my nursing tasks	1	2	3	4
502	Not enough time to provide emotional support to the patient	1	2	3	4
503	Not enough time to respond to the needs of patients' families	1	2	3	4
504	Lack of opportunity to talk openly with other unit personnel about problems in the unit.	1	2	3	4
505	Lack of opportunity to share experiences and feelings with other personnel in the unit	1	2	3	4
506	Lack of support of my immediate supervisor	1	2	3	4
507	Conflict with a physician	1	2	3	4
508	Disagreement concerning the treatment of a patient.	1	2	3	4
509	Conflict with a supervisor.	1	2	3	4
510	Difficulty in working with a particular nurse in the unit.	1	2	3	4
511	Frequent relocation of unit of work.	1	2	3	4
512	Rotating work shift.	1	2	3	4
513	Centralization; low participation in decision making.	1	2	3	4

Part VI: Professional commitment

The following questions are statements that represent possible feelings that individuals might have about **Commitment to their profession**, 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				
600	If I could get another job different from being a nurse, I would not probably	1	2	3	4
601	I spend a significant amount of time reading nursing-related journals or	1	2	3	4
602	I definitely want a career for myself in nursing.	1	2	3	4
603	Nursing is the ideal profession for life work	1	2	3	4

Annex VII: Rank order of the 29 MMSS items for Jimma zone public hospital nurses (n= 316), south west Ethiopia, 2014.

Item No	Rank order	Name of item	Mean	Std. Deviation
212	1	Interaction with your nursing peers	3.00	0.849
215	2	Satisfaction with the nursing care given to your clients	2.89	0.887
210	3	Maternity leave time given by the hospital	2.88	0.920
223	4	Recognition for your work from your coworkers/peers	2.78	0.898
228	5	Your control over conditions in your working unit/ward	2.76	0.915
227	6	Your responsibility in your unit/ward	2.76	0.949
206	7	Your satisfaction in your shift rotation	2.61	0.938
211	8	Recognition from your head nurse for your work	2.60	0.925
213	9	Interaction with the physicians you work with	2.59	0.924
216	10	Opportunities for social contact with your colleagues after work	2.55	0.888
204	11	Hours that you work in the hospital	2.51	1.02
229	12	Consideration given to your opinion and suggestions for change in the work setting or office practice	2.49	0.941
220	13	Opportunity to make autonomous nursing care decisions	2.47	0.951
205	14	Flexibility in scheduling your working hours	2.44	0.939
219	15	Opportunities to participate in morning rounds	2.41	0.996
217	16	Opportunities for interact professionally with other disciplines	2.40	0.901
203	17	Sick leave you receive from the hospital	2.37	0.978
202	18	Annual leave you receive from the hospital	2.32	0.910
224	19	Encouragement you received from your matron	2.19	1.012
222	20	Recognition for your work from supervisors	2.17	0.950

208	21	Flexibility in scheduling your weekends off	2.08	0.994
207	22	Opportunity for part-time work	2.07	0.991
214	23	Availability of medical equipment/supplies to deliver nursing care in your unit.	2.04	0.945
218	24	Opportunities for further education/degree or post graduate study in nursing	2.02	1.043
209	25	Compensation for working weekends & Holidays	1.98	0.936
221	26	Opportunities for on job training/short term training	1.70	0.941
201	27	Pay (Salary) you receive from your hospital as nurse	1.62	0.870
225	28	Opportunities to participate in nursing research	1.47	0.762
226	29	Opportunities to write and publish	1.29	0.675

Annex VIII: Questionnaire description

Parts	Item coding category	Number of questions	Subscale category
Part-I	Socio demographic characteristic of the participants: Item 101 – 109		-
Part-II	Part-II has eight sub scales with 29 items which measures job satisfaction based on MMSS.		-
	Item: 201, 202, 203	3	Extrinsic reward
	Item: 204,205,206,208 & 209	5	Scheduling
	Item: 207,210	2	Family/workplace balance
	Item: 212, 213	2	Coworker relation
	Item: 214,215,216 & 217	4	Interaction opportunities
	Item: 218,219,225 & 226	4	Professional opportunities
	Item: 211,222,223 & 224	4	Praise & recognition
	Item: 220,221,227,228 & 229	5	Control & responsibility
Part-III	Part-III&IV have 12 items Nurse-physician communication related factors		-
	Item: 300, 301 & 302	3	Personal factors
	Item: 303, 304, 305, 306, 307 & 308	6	Organizational factors
Part- IV	Item: 400, 401 & 402	3	Mutual understanding at work
Part - V	Job stress related factors		-
	Item: 500, 501, 502 & 503	4	Workload
	Item: 504, 505 & 506	3	Lack of support
	Item: 507, 508, 509 & 510	4	Conflict
	Item: 511, 512 & 513	3	Organizational decision
Part - VI	Professional commitment		-
	Item: 600, 601, 602 & 603	4	Professional commitment