

ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCES
SCHOOL OF ALLIED HEALTH SCIENCES
DEPARTMENT OF NURSING AND MIDWIFERY



ASSESSMENT OF OCCUPATIONAL STRESS, JOB SATISFACTION AND ASSOCIATED FACTORS AMONG NURSES IN EAST GOJJAM ZONE PUBLIC HOSPITALS NORTHWEST ETHIOPIA, 2016.

By: Dessalegn Haile (BSc.)

A Thesis Submitted to School of Graduate Studies, Addis Ababa University, College of Health Sciences, School of Allied Health Sciences, Department of Nursing and Midwifery for Partial Fulfillment of Requirements of Master's Degree in Adult Health Nursing.

June, 2016

Addis Ababa, Ethiopia

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Approval by the Board of Examiners

This thesis by **Dessaegn Haile** is accepted in its present form by the Board of examiners as satisfying thesis requirement for the Degree of Master of Science in Adult Health Nursing.

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List of Abbreviations/Acronyms

AAU: Addis Ababa University

CHS: College of Health Science

ENSS: Expanded Nursing Stress Scale

ETB: Ethiopian Birr

FDREMOH: Federal Democratic Republic of Ethiopia Ministry of Health

HSDP: Health Sector Development Programme

ILO: International Labor Organization

JSS: Job Satisfaction Survey

NIOSH: National Institute for Occupational Safety and Health

OR: Odd Ratio

SD: Standard Deviation

SPSS: Statistical Package of Social Sciences

Abstract

Background: Occupational stress and job satisfaction are reported to be interrelated. Occupational stress has been reported to affect job satisfaction among nurses, thus compromising nursing care and placing patients' lives at risk. Nursing has been identified and reported by a number of studies as a stressful occupation. Occupational stress is a serious condition for nursing professionals that is directly associated with impaired and inappropriate performance and working within clinical settings. The low job satisfaction among nurses results negative outcome that affect both quality and cost of patient care.

Objective: To assess the level of occupational stress, job satisfaction and associated factors among nurses in East Gojjam Zone Public hospitals Northwest Ethiopia 2016.

Method: Institutional based Cross-sectional study design was used. Sampling method was simple random sampling and data was collected from March 8 to 23, 2016. Source population of the study were all nurses who work at public hospitals in East Gojjam zone public hospitals and sample size was 181 nurses from the four hospitals. After nurses were proportionally allocated to size from the four hospitals. Data were collected through pretested self administered structured questionnaire. Both descriptive and inferential statistics were used to present the data

Results: Among the study participants 102(57.3%) of nurses were occupationally stressful. workload subscale was the most sources of stress for nurses. Sex and work experience of respondents were significantly associated with occupational stress. Overall average prevalence rate of job satisfaction of this study was 54.2%, which was at moderate level. The most highly satisfied subscale for study participants was nature of work. There was a significance mean difference of job satisfaction between age groups, between sex of respondents and between nurses who had children and nurses who had no children.

Conclusion and Recommendation: More than half of the nurses were occupationally stressful. The average job satisfaction of nurses was at moderate level. There was a very weak negative but none significant correlation between occupational stress and job satisfaction .The Amhara regional health bureau and study hospitals should develop stress reduction management programs and financial and non financial benefit packages should be balanced to increase job satisfaction among nurses.

Key Words: Occupational stress, Job satisfaction, Nurses.

1. INTRODUCTION

1.1. Background

Occupational stress and job satisfaction are reported to be interrelated. Occupational stress has been reported to affect job satisfaction among nurses, thus compromising nursing care and placing patients' lives at risk[1]. Healthcare sectors are exposed to considerable occupational stress and have little access to stress management facilities[2]. Nursing has been identified and reported by a number of studies as a stressful occupation[3].

The national institute for occupational safety and health (NIOSH) defines occupational stress as the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker[4]. In an organizational context, occupational stress is also known as job stress and/or work stress. These terms are often used interchangeably in organizations, but its meaning refers to the same thing[5]. According to International Labor Organization(ILO) work-related stress is the harmful physical and emotional response that occurs when the demands of the job do not match or exceed the capabilities, resources, or needs of the worker and nurses were among those groups who reported significantly raised rates of stress and depression and stress is caused by an imbalance between the perceived demands and the perceived resources and abilities of a person to cope with those demands [6].

Job satisfaction refers to the attitude and feelings people have about their work. Positive and favorable attitudes towards the job indicate job satisfaction. Negative and unfavorable attitudes towards the job indicate job dissatisfaction[7].

Occupational stress can lead to various negative consequences for the individual and the workplace. On the individual level physiological diseases (poor physical health) and psychological diseases (poor emotional (mental) health) and on the organizational level organizational costs were reported[2].Further more stress has a cost for individuals in terms of health, well-being and job dissatisfaction, as well as for organizations in terms of absenteeism and turnover, which in turn may impact upon the quality of patient care[3].

Job satisfaction causes a series of influences on various aspects of organizational life such as the influence of job satisfaction on employee performance, loyalty and absenteeism. For example

satisfaction of workers leads to departmental and organizational level improvements, the higher the degree of job satisfaction the higher is the level of employee loyalty and vice versa and when satisfaction is high, absenteeism tends to be low; when satisfaction is low, absenteeism tends to be high[7].

Econometric analyses showed that healthcare expenditures in the United States have increased nearly 50% for workers who perceive their jobs as stressful. Stress-related outcomes, including physical injuries at work and absenteeism, cost organizations as much as \$75 billion per year and have been shown to be directly related to high staff turnover, decreased productivity, and decreased job satisfaction[8].

1.2. Statement of the Problem

Individuals face stress in their personal and professional lives on a daily basis. There are multiple reasons that can cause stress and such reasons can change our current physical, psychological and behavioral responses, which ultimately results into negative outcomes, in personal lives as well as in job outcomes[9].

Nursing is, by its very nature, an occupation subject to a high degree of stress. This profession involves working with people who are themselves suffering a considerable degree of stress. Patients are often difficult, frightened and resentful, and nurses can find themselves responding with a growing sense of irritability and frustration and nurses will opt to quite the profession[10]. Nurses directly confront severe illness and death, and nursing is considered a highly stressful occupation compared with other professions[11].

Nurses are one of the professional groups that are perceived to be knowledgeable in health related issues. With all these perceived knowledge on stress and its attending issues, nurses still go through stress[12]. Nursing is generally perceived as demanding profession. Along with the increased demand and progress in the nursing profession, stress among the nurses has also increased[13]. For example study done in Delhi India showed that prevalence of stress among nurses was 87.4%[14]. And study conducted on Nurses in selected Jordanian Hospitals showed that occupational stress was present among 30% of the nurses[15]. More over study conducted in public Hospitals of Addis Ababa, Ethiopia 37.8% nurses reported experiencing occupational stress[16].

Occupational stress among the nursing professionals has now become a very crucial complication that can affect the physical and mental state of the professionals. occupational stress is a serious condition for nursing professionals that is directly associated with impaired and inappropriate performance and working within clinical settings .These issues will result in the poor performance at the workplace while working for the responsibilities[17].For example study conducted on burnout in relation to specific contributing factors and health outcomes among Nurses: a systematic review showed that work related stress was significantly and negatively related to job satisfaction. Nurses who experience higher stress levels were less satisfied with their jobs[18].

Excessive occupational stress has been associated with increased risk to physical and mental health, and decreased work ability and life quality of the employee[11]. For example According to NIOSH the potential adverse health effects of occupational stress includes psychological (irritability, job dissatisfaction, depression), behavioral (sleep problems, absenteeism) and physical (headache, upset stomach, changes in blood pressure)[4]. Study conducted in northwest England showed that nurses' health was adversely affected by higher levels of stressors which was related to lower job satisfaction [19]. Another study on a comparative study about the impact of stress on job satisfaction between Jordanian and Saudi nurses showed that stress was significantly associated with job satisfaction for Jordanian and Saudi nurses in which Jordanian and Saudi nurses' job satisfaction was reduced by stress[20]. Further more study in Uganda showed that there was a significant negative association between occupational stress and job satisfaction among nurses[1].

Job satisfaction of the nurses is a crucial indicator of good working environment and management of the institution. The low job satisfaction among nurses results negative outcome that affect both quality and cost of patient care. Although the cost of nurse job dissatisfaction has not been directly measured, the high cost of turnover rate has been well established. Moreover, poor patient outcomes increase the length of stay, increase resource utilization, and increase the cost of treatment. Dissatisfaction not only gives poor quality, but also less efficient care. Nurses who were not satisfied at work were also found to distance themselves from their patients and their nursing chores[21]. with this regard study done among hospital nurses in Kampala, Uganda showed that only 17.4% nurses reported satisfaction with their job[1]. Further more study done in Public Hospitals in Ethiopia Tigray region, almost half of Nurses were dissatisfied with their job[22].

In sub Saharan African countries like Ethiopia a human resource crisis exists due to resource-constraints, macroeconomic and governing factors. But according to health sector development programme (HSDP) IV final draft in Ethiopian there was no major gap with regard to shortage of nursing staff nationally and nurse to population ratio nationally showed that 1: 4,895[23]. Furthermore according to Amhara regional health bureau nurse to population ratio in Amhara region was 1:2,338 which implies there was no shortage of nurses within the region[24]. But, there are continuous complaints of nurses specially those who works in hospitals about work

overload and there was research data which supports work overload brings occupational stress in Ethiopia[16].

In addition to work overload there are different factors that bring occupational stress and dissatisfaction among nurses. For example a study conducted in Uganda, there was a finding that leads to nurses occupational stress like older age groups(40-49 years),50 years and above, and nurses with more than 20 years of experience reported the highest stress scores[1]. In the same way demographic characteristics, working situations, occupational roles and personal resources were associated with occupational stress. The nurse patient relationship was the most important factor associated with occupational stress in working situations[11].This indicate that even though the current data not clearly showed shortage of nurses in Ethiopia specifically in Amhara region, there are a Variety of conditions that causes occupational stress among nurses which in turn leads the nurses to dissatisfaction which affects nursing services.

With this regard there are limited studies conducted entitled on occupational stress, job satisfaction and associated factors among nurses nationally and specifically in East Gojjam zone public hospitals. Therefore, this study will come up on levels of occupational stress and job dissatisfaction among nurses and associated factors related with occupational stress job satisfaction among nurses in East Gojjam zone public hospitals.

1.3. Significance of the Study

Studies of potential sources and effects of occupational stress were conducted among nurses in the different parts of the world. However, stress is a complex phenomenon which results from interaction between an individual and the environment in which the person exists[1]. On the other hand Job satisfaction represents one of the most complex areas facing today's managers when it comes to managing their employees. Many studies were demonstrated an unusually large impact on the job satisfaction on the motivation of workers[7].

Therefore, from the personal observation of the principal investigator (PI) the results of this study might be used to guide policy makers and nurse managers to develop a stress prevention/management model related with job satisfaction specific to the east Gojjam zone. Prevention and management of occupational stress among nurses would not only improve their health but may improve job satisfaction, which in turn improves nursing care of the patients and reduce costs for the healthcare organizations as well as individual patients.

In addition, the results of this study would serve as a base line for further study with regard to similar studies in other areas of the country.

2. LITERATURE REVIEW

The focus of this chapter is to review literatures in different views of many scholars. For this reason variables are categorized into different groups; like stress, occupational stress among nurses, sources occupational stress, and job satisfaction among nurses.

2.1. Stress

According to the work foundation, stress is the psychological, physiological and behavioral response by an individual when they perceive a lack of equilibrium between the demands placed upon them and their ability to meet those demands, which, over a period of time, leads to ill-health[25]. And according to the Australian psychological society stress is often described as a feeling of being overloaded, wound- up tight, tense and worried. We all experience stress at times. It can sometimes help to motivate us to get a task finished, or perform well. But stress can also be harmful if we become over-stressed and it interferes with our ability to get on with our normal life for too long[26].

2.2. Occupational Stress among Nurses

A descriptive explorative study design conducted in Nepal among nurses showed that majority of the respondents (56%) had moderate stress followed by mild stress (34%) and severe stress (6%) where as very less number of respondents (4%) had no stress in their job setting[27]. Similarly study conducted on occupational stress amongst Nurses from two tertiary care Hospitals in Delhi India showed that prevalence of stress among nurses was (87.4%).But there was no significant difference in the distribution of job stress amongst married nurses and unmarried nurses[14].

Study conducted in hospitals of Udupi and Mangalore districts Karnataka, India, showed that there was a significant association between stress and professional qualification. Stress was experienced by the nurses who were qualified and significant association was also observed between stress and marital status stating that married subjects were more stressed than single[28].But study conducted on assessment of stress and burnout among intensive care nurses at a tertiary care hospital, India indicated that no significant relationship was found stress with age, sex, marital status, educational status of nurses and experience[29].

On the other hand recent study conducted on effect of type of Hospitals and Gender on the occupational stress level among Hospital Nurses in India showed that there was statistically significant difference between male and female nurses, female nurses show higher occupation

stress level, while male have lower occupation[30]. Similarly a study conducted on occupational stress among staff Nurses in India showed that there was significant association between stress level with age, professional qualification, number of children, family members and experience however, the result established that non- significant association between stress level and sex of the respondents and marital status[31].

A Study conducted on the effects of occupational stress on quality of life and associated factors among Hospital Nurses in Iran showed that the only demographic variable, affecting occupational stress is sex with a lower tension for male nurses[32]. Similarly study done in Isfahan, Iran showed that overall, 34.90 % of nurses reported their job was very or extremely stressful and supervisors and head nurses reported more occupational stress than nurses and Nurses' occupational stress ratings were associated with several demographic variables. There was a meaningful difference in stress among various ages. Older nurses with more years of experience had less occupational stress than their younger colleagues. Regarding marital status, the average occupational stress among married employees was higher than the single[33].

More recently a study done on stress among Iranian Nurses in critical wards showed that age, marital status, and the years of experience of nurses had significant association with the level of stress. However, sex and education showed no significant association with the level of stress. Older nurses (>33 years old) had lower stress than younger nurses. Married and widowed nurses had respectively about 2.5 times and two times higher stress than single nurses. In addition, nurses with longer experience showed lower stress level than nurses with one to five years of experience did[34].

Study done on perception of occupational stress and job satisfaction in Jordan revealed that most nurses were experiencing occupational stress. A significant difference in total occupational stress score across the all-educational level programs was found; although, nurses with a bachelor degree experienced less stress than those with associate degree or diploma. But no significant relationship was identified between the occupational stress and job satisfaction[35].

Study conducted in Benin city, Edo state, Nigeria showed that Age and sex were not statistically significant relationship with the types of occupational stress experienced by nurses but rank of nurses statistically significant relationship between the rank of nurses and the types of occupational stress experienced by nurses[36].

Study conducted in Kampala, Uganda the results indicated that nurses in Ugandan Hospitals experience moderate levels of occupational stress. The result also showed that nurses of all age groups experience high stress. The youngest age group was significantly less stressed than the old age groups. Nurses with no children had significantly lower occupational stress than those who had children[1].

Study conducted on work-related stress and associated factors among Nurses working in public Hospitals of Addis Ababa, Ethiopia: A Cross-sectional study showed that significant associations were found between nurses' stress with sex, marital status, and type of ward/unit. Female nurses were more suffer from work-related stress than males. But no significant associations were found between stress and work experience, child rearing or age[16].

2.3. Sources of Occupational Stress for Nurses

According to NIOSH in general, studies of nurses have found the following factors to be linked with stress: work overload ,time pressure, lack of social support at work (especially from supervisors, head nurses, and higher management) , exposure to infectious diseases ,needle stick injuries, exposure to work-related violence or threats ,sleep deprivation, role ambiguity and conflict ,understaffing, career development issues and dealing with difficult or seriously ill patients[4].

A study done on the development of expanded nursing stress scale showed that there were nine facets relating to sources of stress for nurses. These nine factors were divided into psychological, physical and social environment[37].

Study conducted on workplace stressors and coping strategies among public hospital Nurses in medan ,Indonesia showed the most frequently reported workplace stressor in that study was death and dying and the second most frequently reported workplace stressor was workload [38].Another study conducted on stressors and impacts on n urses ' job performance : A case study at one general public hospital , Jambi , Indonesia showed that the major sources of stress or stressors were workload, relationships with supervisors, and relationships with co-workers[39].

Another study on assessment of stress and burnout among intensive care nurses at a tertiary care hospital showed that inadequate supervisor support and workload were reported as significant predictors of stress among nurses[29]. A later descriptive study on stress and coping of nurses

working in selected hospitals of udupi and mangalore districts Karnataka ,India.showed that mean stress score was high for the nurses in the sub area of death and dying[28].More recently descriptive study design conducted in India Karad city of Krishna hospital showed that 50% nurses reported extreme occurrence of stress due to death and dying,49% of nurses reported frequent occurrence of stress due to conflict with the doctors, 68% of nurses reported frequent occurrence of stress due to inadequate emotional preparation , 34% of nurses reported frequent occurrence of stress due to conflict with peers, 52% of nurses reported frequent occurrence of stress due to supervisors and 59% of nurses reported frequent occurrence of stress due to workload [13]. Similarly Study done in Pakistan showed that the potent factors which cause enormous stress at work place among nurses was, excessive workload (97.1%)[40].

A study done on sources of occupational stress and coping strategies among nurses who are working in admission and emergency department in hospitals affiliated to shiraz university of medical sciences ,Iran showed that the identified stressors were: problem related to physical environment, work load, dealing with patients or their relatives , being exposed to health and safety hazards, lack of support by nursing administrators, a physician not being present in a medical emergency and lack of equipment[41]. Another recent study done on occupational stress and its related factors in nurses working in intensive care units of educational hospitals in Ahwaz , Iran showed that the major sources of occupational stress among nurses was work load[42].

Study in Poland and in northwest England showed that workload was reported stressful factors at work place among nurses in [19,43].

Study conducted on Jordanian nurses's job stressors and social support showed that death and dying was the strongest stressor and workload was the second strongest stressor perceived by Jordanian nurses. Conflict with physician, inadequate preparation, conflict with other nurses, lack of support from supervisors ,uncertainty concerning treatment were listed and identified as stressors by Jordanian nurses[44].Another study conducted on a comparative study about the impact of stress on job satisfaction between jordanian and saudi nurses showed that the stressful situations for Jordanian nurses were death and dying,workload,patients and their families but the least stressful situation was: problems with peers[20].

Study conducted on the effect of nurses' perceived job related stressors on job satisfaction in Taif Governmental Hospitals in Kingdom of Saudi Arabia. showed that the most stressful

subscales dealing with patients and their families and the second most stressful subscale was workload but the least stressful subscale was inadequate preparation[45]. Another study done in Saudi Arabia showed that the most stressful subscale was dying subscale and the least stressful subscale was inadequate emotional preparation[46].

Study conducted on occupational stress management among nurses in selected hospital in Benin city, Edo state, Nigeria showed that 28% accepted that unfriendly relationships with superior colleagues and subordinate is a cause of stress[36]. Another study done on work related stress among hospital-based nurses in sub-urban settings in Gombe state, Nigeria showed the two leading sources of stress among nurses. The first leading source of stress was workload and the second leading source of stress among the respondents was death and dying stressor[47]. Similarly in Ghana study done on causes of stress among nurses in the greater accra region showed that the most predominant cause of stress was the number of hours that nurses use to work followed by financial difficulties and the death of patients [12]. Further more study conducted on the causes of stress and job satisfaction among nurses at Ridge and Pantang Hospitals in Ghana revealed that workload, leadership/management styles, uncertainty concerning treatment or patient care uncertainty, professional conflict and emotional cost of caring have been the main sources of distress for Nurses for many years[48].

And in Ethiopia study conducted in Addis Ababa public hospital among nurses showed that the most frequently reported sources of stress at the workplace were workload (44.4%), patient death and dying (40.6%) and conflict with a supervisor and other nurses (37.2%)[16].

2.4. Job Satisfaction among Nurses

There are two approaches to the study of job satisfaction the global approach and the facet approach. The global approach treats job satisfaction as a single, overall feeling toward the job. The facet approach focus on job facets or different aspects of the job. The facet approach permits a more complete picture of job satisfaction. An individual typically has different levels of satisfaction with the various facets [49].

The phenomenon of job satisfaction and dissatisfaction is the function of two needs systems which are divided into two categories those deriving from the physiological needs, and those relating to the for psychological growth. Job aspects relevant to the physiological needs are

called extrinsic or hygiene factors and includes pay, supervision, fringe benefits, operating procedures, coworkers, and communication. Job aspects relevant to psychological growth needs are called intrinsic or motivator factors and includes nature of work, promotion and contingent rewards. Job satisfaction and dissatisfaction are separate and unrelated constructs rather than opposite ends of the same continuum. The motivation factors come from the nature of the job itself, not from external rewards or job conditions which can lead to satisfaction but their absence can lead only to lack of satisfaction and not dissatisfaction. The hygiene factors are related to the work environment which are external to employees and are controlled by another person rather than the person himself which can lead to dissatisfaction and at best they can produce only lack of dissatisfaction rather than satisfaction[49].

Study done on job satisfaction and burnout in Philippines showed that among the nine subscales of job satisfaction, nurse-respondents claimed to be dissatisfied to fringe benefits, promotion, pay, contingent rewards, operating conditions, and communication. Meanwhile, nature of work got the highest mean among the subscales of job satisfaction which gives an interpretation of slightly satisfied among the sample nurses and overall job satisfaction were dissatisfaction(12.5%), ambivalent(60.41%) and satisfaction (27.08%) [50].

Study conducted on effects of job stress on job performance & job satisfaction in female nurses in Pakistan showed that the excessive workload, unhealthy and dangerous work environment, insufficient resources ,people's suffering, lack of professional respect, lack of promotion chances, inadequate pay and benefits were the potent factors which result in the decline of job satisfaction[40]. Another study on level of job satisfaction among nurses working in tertiary care hospitals of Rawalpindi of Pakistan showed that 12.86% ,21.43%,28.57% nurses were highly satisfied ,satisfied and less satisfied with their job respectively [51].More over study done on factors influencing job satisfaction of nurses in public hospitals in Pakistan showed that 51.5% nurses satisfied with their job but 60% of nurses were dissatisfied with salary given by hospitals[52].

Study conducted on sources of occupational stress and coping strategies among nurses who are working in admission and emergency department in hospitals affiliated to shiraz university of medical sciences, Iran showed that majority (74.4%) of nurses reported that they were satisfied with their jobs[41].More over a study done on the effects of occupational stress on quality of life

and associated factors among hospital Nurses in Iran showed that large number of nurses who were satisfied or almost satisfied with working at their related ward, were classified in low-stress groups whereas dissatisfied nurses experienced more stress[32].

Study conducted in turkey showed that the average prevalence of job satisfaction among nurses was 58% among nurses and the highest satisfactory facets were 'nature of work ' 'supervisor support and coworkers, while fringe benefits and contingent rewards were the least satisfactory facets among nurses[53].

Study conducted on job satisfaction of nurses and identifying factors of job satisfaction in Slovenian hospitals showed that job satisfaction of nurses in Slovenian hospitals was at a medium level. More over nurses with a higher education have been shown to be more satisfied with their job than those with lower education level[54].

Study done in Jordan revealed that nurses were dissatisfied with their job due to hospital management and staff, and more than two-thirds of them were dissatisfied with the payment rate. On the other hand (42.1%) were satisfied with the responsibility given,(38.8%) were satisfied with their immediate manager, (35.5%) were satisfied with their fellow workers and (5%) had the least satisfaction with future promotion[35]. On the other hand a study done on organizational commitment and work satisfaction among Jordanian Nurses: a comparative study showed that nurses in intensive care unit & ward reported moderate work satisfaction (68.7% and 62.7%, respectively[55]. Farther more study done on Jordanian nurses ' job satisfaction and intention to quit showed that the average job satisfaction rate among nurses was 57%. In addition the result showed that the least satisfactory facets from the nine facets of JSS were contingent rewards and fringe benefits, while the most satisfactory facets were nature of work and supervision[56].

Study done in Riyadh city of Saudi Arabia showed that about 47% were ambivalent in their response to job satisfaction, while 18% and 35% were dissatisfied and satisfied respectively. This study also showed that there was a significant relationship between job related stress and job satisfaction while the socio demographic characteristics, experiences and workplace have no effects or relation with either perception of stress or job satisfaction[57].A previous study conducted on in Taif Governmental Hospitals in Kingdom of Saudi Arabia showed that slight job satisfaction among staff nurses was reported. In job satisfaction scale the majority of the nurses

have expressed the highest level of satisfaction regarding the people they work with and they have expressed the lowest level of satisfaction regarding the communication inside the organization and the duties that they have to do or accomplish at work[45]. More over study done on the impact of stress on job satisfaction for nurses in King Fahad Specialist Hospital-Dammam-KSA showed that in job satisfaction scale the majority of the nurses have expressed the highest level of satisfaction regarding the nature of work. The lowest level of satisfaction was regarding the operating condition inside the organization and there was a negative significant relationship between stress and job satisfaction among staff nurses [46].

A descriptive cross-sectional study done in Ekiti State, Nigeria showed that majority (67.1%) of the nurses had low degree of job satisfaction while only few nurses (3.1%) reported high degree of satisfaction with job. A significant positive strong correlation was found between overall work environment and the general job satisfaction of the nurses[58].More over study done on Job satisfaction among Nurses in public hospitals in Calabar,Cross River State Nigeria the level of satisfaction showed that majority of the respondents was moderately satisfied (82.4%) with their work, dissatisfied (5.80%) and very satisfied (11.80%).The results also showed a positive significant correlation between motivation factors and hygiene factors with total job satisfaction)[59].Furthermore a cross-sectional survey study conducted in Ridge and Pantang hospitals in Ghana revealed that there was a weak negative correlation between stress and job satisfaction among the nurses. This means as stress increases job satisfaction decreases[48].

Study done among hospital nurses in Kampala, Uganda showed that majority of respondents were ambivalent as to whether they were satisfied with their jobs or not 68%, and 15% reported dissatisfaction. And also the study showed that Job satisfaction levels among the age groups were shown to be statistically different. Nurses with youngest age group were statistically higher job satisfaction than the old age groups. These results also indicated that the difference in job satisfaction levels by level of nursing education was statistically significant. Registered Nurses reported the lowest job satisfaction whereas the enrolled Nurses reported the highest levels of job satisfaction with mean scores. In addition, a significant difference in job satisfaction was indicated among the years of nursing experience groups .Nurses with less years of nursing experience had more job satisfaction than those with more experience[1].

A cross-sectional study design with qualitative and quantitative study in Sidama zone public health facilities, south Ethiopia showed that most of nurses were satisfied with leadership relationship and work environment. But other staff nurses report as dissatisfied with promotion, professional training, and salary and benefit. Generally, 52.5% of nurses working in Sidama zone public health facilities were satisfied with their jobs. Overall job satisfaction was positively and significantly correlated with job satisfaction subscale. Age, institutions of work, sex, working unit, and work experience were significant predictor of job Satisfaction[60]. Study done on Job satisfaction of nurses and associated factors in public hospitals in Tigray region, northern Ethiopia showed that age of participants, work experience and shortage of staff were potent predictors of nurse's job satisfaction. Nurses with older age were more satisfied than nurses with younger age group. Nurses who had more experience in nursing were more satisfied than nurses who had less work experience[22].

2.5. Conceptual Framework

The conceptual framework has been constructed for factors related occupational stress and job satisfaction and the linkage between the occupational stress and job satisfaction among nurses by the principal investigator (PI) from the literatures. Based on the literatures factors related occupational stress are divided into psychological factor, physical factor, social environment factor, workplace factor and personal factors[1,16,28,30,37]. On the other hand factors related to job satisfaction are divided into intrinsic(motivator) factors, extrinsic(hygiene)factors, workplace factor, personal factors and occupational stress itself[20,49,58,59,60].

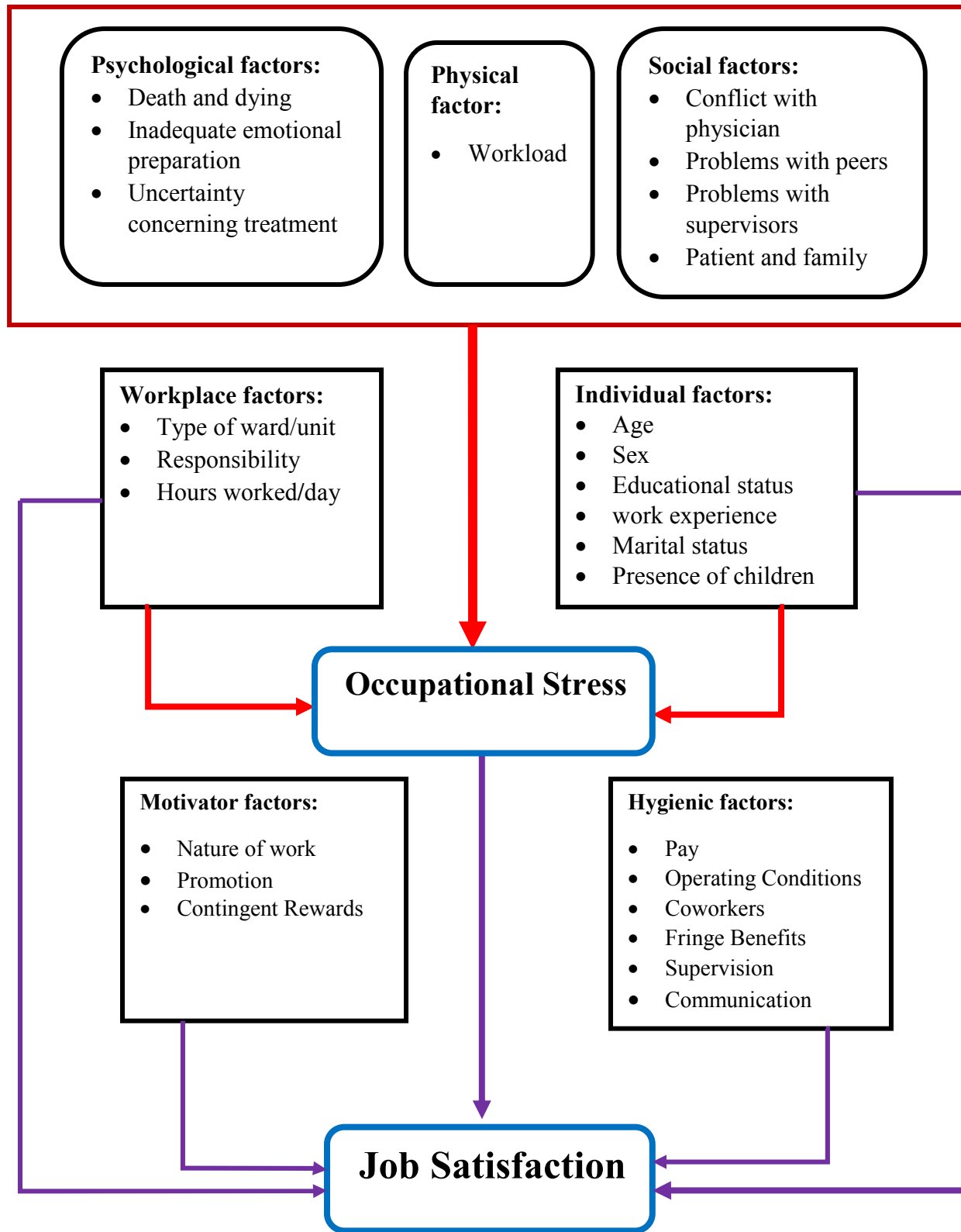


Figure 1: Conceptual framework for factors associated with occupational stress and job satisfaction among nurses, 2016.

3. STUDY OBJECTIVES

3.1. General Objective

- To assess the level of occupational stress, job satisfaction and associated factors among nurses in east Gojjam zone public hospitals northwest Ethiopia, 2016.

3.2. Specific Objectives

- To determine the level of occupational stress among nurses in east Gojjam zone public hospitals northwest Ethiopia.
- To determine the level of job satisfaction among nurses in east Gojjam zone public hospitals northwest Ethiopia.
- To identify factors associated with occupational stress among nurses in east Gojjam zone public hospitals northwest Ethiopia.
- To identify factors associated with job satisfaction among nurses in east Gojjam zone public hospitals northwest Ethiopia.
- To find out the association between occupational stress and job satisfaction in east Gojjam zone public hospitals northwest Ethiopia.

4. METHODS

4.1. Study Area

The study was conducted in East Gojjam public hospitals. East Gojjam is a one of zonal administrative zone in Amhara Regional state of Ethiopia. East Gojjam zone is bordered on the south by the Oromia Region, on the west by West Gojjam zone, on the north by South Gondar zone, and on the east by South Wollo zone. Debre Markos town is the capital city of East Gojjam zone which is found from 265Km from Bahirdar, the capital city of The Amhara Region and 300Km from Addis Ababa, the capital city of Ethiopia. East Gojjam zone has 18 woredas. Within the zone there are 100 health centers and 4 hospitals with in the four hospitals there are 284 nurses.

4.2. Study Design and Period

Institutional based cross sectional quantitative study design with structured self administered questionnaire was used and the study period was from March 8 -23, 2016.

4.4. Population

4.4.1. Source Population

All nurses in East Gojjam zone public hospitals.

4.4.2. Study Population

Individual randomly selected nurse's working in East Gojjam Zone public Hospitals during the study period.

4.5. Inclusion and Exclusion Criteria

4.5.1. Inclusion Criteria

- All staff nurses who were a fulltime employee of the hospital in the study for at least six months by the time of the study, in East Gojjam Zone public Hospitals.

4.5.2. Exclusion Criteria

- Nurses who were: free service workers, ill at the time of data collection and annual leave during data collection were excluded.

4.6. Sample Size and Sampling Procedure

4.6.1. Sample Size Determination

Sample size was calculated using single population proportion sample size calculation formula and the proportion was taken from the following literatures. Study conducted in Addis Ababa public hospitals Ethiopia showed that prevalence of stress among nurses was 37.8% [16]. On the other hand study conducted in Sidama Zone public health facilities, Ethiopia showed that 52.5% of nurses working were satisfied with their jobs [60]. The investigator, considered this two different prevalence of occupational stress and prevalence of job satisfaction and then insert on the formula. Lastly the one which had highest “n” value i.e. 52.5% of nurses satisfied with their jobs in Sidama Zone public health facilities, Ethiopia was taken with 95 % confidence of certainty. To determine the sample size, the formula for single population proportion was used:

$$n = \frac{(Z \alpha/2)^2 p (1-p)}{d^2}$$

n = sample size,

Z $\alpha/2$ = the standard normal variable at 1- α % confidence level (5% = 1.96)

P = estimated proportion of nurses job satisfaction = 52.5%

d = margin of sampling error tolerated (5%),

Therefore, based on the above single population proportion formula the sample size can be calculated as:

$$n = \frac{(1.96)^2 0.525(0.475)}{(0.05)^2} = \frac{0.957999}{0.0025} \quad n_1 = 384$$

But since total number of nurses available in the four hospitals is less than the calculated one i.e. 284 nurse, correction formulas was needed.

N = 284, n_1 = initial sample size = 384, n_2 = final sample size = ?

$$\text{Sampling correction formula} = \frac{n_1}{1+n_1/N} = \frac{384}{1+384/284} = 164$$

$n_2 = 164 + 10\%$ nonresponsive rate, the total sample size was **181**.

4.6.2. Sampling Procedure

In East Gojjam there were 4 hospitals namely Debre markos, Lumamie, Bichena and Shegaw motta hospitals with a total of 284 nurses. By simple random sampling **181** nurses were included in the study as the study participant. The distribution of nurses were taken by population proportion size from the four hospitals. Debre markos Hospital had a total of 191 Nurses, Lumamie Hospitals had a total of 12 Nurses, Bichena hospitals had a total of 16 Nurses and Shegaw Mota Hospital had a total of 65 nurses. To proportionate the number of study subject for each hospitals, the formula= $\frac{(n) \times (nf)}{N}$ was used. Where n=number of nurses in each hospitals, nf=total sample size and N=the total number of nurses in the four hospitals.

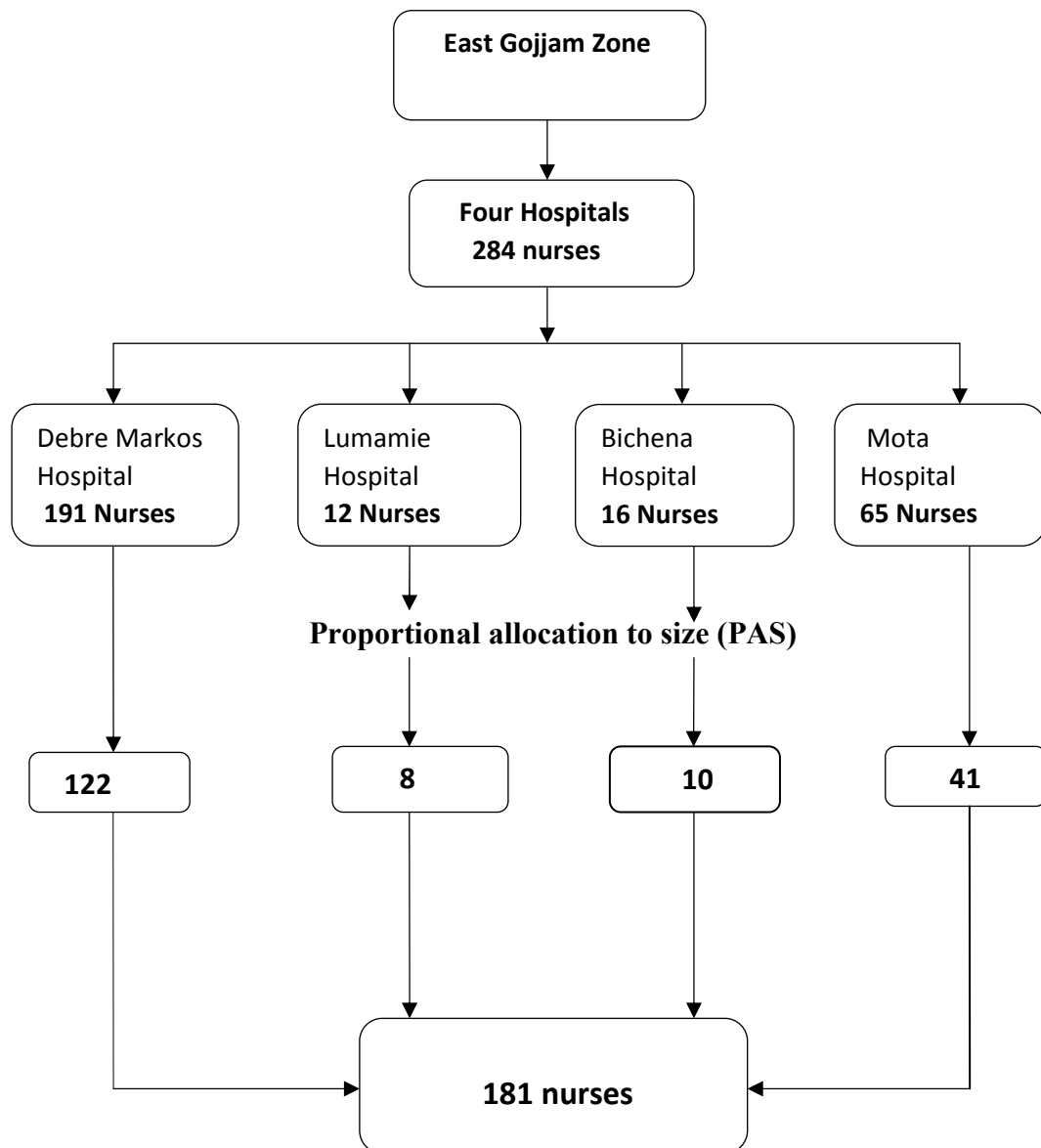


Figure 2: Schematic representation of sampling technique from the four Hospitals, 2016.

4.7. Data Collection Procedure

4.7.1. Instruments and Measurements

A structured self-administered questionnaire was used to collect data from study participants. Questionnaires were adopted from literatures with modification and contextualized into local context. It consists of three parts. Part one questionnaire begins with a section requesting selected demographics and work characteristics information and this section consisted of a checklist and fill in blank type questions. Part two modified expanded nursing stress scale (ENSS) which measures job related stress and part three job satisfaction survey (JSS) which measures job satisfaction.

Tool 1: Modified Expanded Nursing Stress Scale (ENSS)

Expanded nursing stress scale (ENSS) is a tool used to measure the level of occupational stress among nurses in hospital units. ENSS contained 57 items with nine subscales and all the items are related to physical, psychological and social working environment. Reliability of the instrument was established with an overall Cronbach's alpha score of 0.96[37]. For this study the investigator modifies the ENSS. One subscale i.e. Discrimination subscale with three items were not used in this study because of the non importance in our local context and it was not appropriate for measuring. And 4 items also not included from others sub scales. The subscales are: death and dying 7 items, inadequate emotional preparation 3 items, uncertainty concerning treatment 9 items, workload 8 items, conflict with physician 5 items, problems with peers 5 item, problems with supervisors 7 item and patient and family 6 items. Therefore ENSS consists of 50 items with eight subscales with response options in a likert-like format (1= never stressful, 2 = slightly stressful, 3 = moderately stressful, 4 =very much stressful).The higher the score, the more the respondent agreed that the situation was stressful. The summation of all the items were equal to the final stress score of each nurse and total scores were a range of between 50-200.

Tool 2: The Job Satisfaction Survey (JSS)

Job satisfaction survey (JSS) instrument was available for researchers free of charge for use for non-commercial purposes. The JSS aims at assessing the degree to which people like their jobs. In this study this instrument was used to assess the satisfaction level of nurses. The JSS instrument is a 36 item, nine-facet scale with each 4 item of self-report instrument which provides an overall job satisfaction score after assessing nine facets .The sub scales are: pay,

promotion, supervision, fringe benefits, contingent rewards, operating conditions, coworkers, nature of work and communication. The respondents agree or disagree on a 6-point continuum for each item, with 1 representing much disagreement, 2 disagree moderately, 3 disagree slightly, 4 agree slightly, 5 agree moderately, and 6 agree very much. Some items are worded positively while others are worded negatively. Negatively worded items are 302, 303, 305, 310, 311, 313, 316, 318,319,320,321, 323, 324, 326, 328, 329, 334,335 and 336 and the rest are positively worded. Therefore agreement for a positively worded item and disagreement with a negatively worded item indicates job satisfaction and vice versa. Reverse scoring therefore is necessary for the negatively worded items making 1 represent much agreement and 6 represent very much disagreement. The total satisfaction score of the 36 items ranging from 36-216. Reliability of the instrument was established with an overall Cronbach's alpha score of 0.91[61].

4.7.2. Personnel

Four health professionals one for each hospital from nearby health center were recruited for distributing and collecting the completed questionnaires from the nurses in the various wards/units based on previous experience of data collection in hospitals. Training was given for a half day on the purpose of the study, details of the questionnaire, and insuring confidentiality of the respondents. After getting written consent the facilitators were administer the questionnaire to the participants, collecting the questionnaire after the participants finished and submitting the filled questionnaire to the principal investigator timely.

4.7.3. Data Quality Control

Training and orientation was given to the supervisors for a half day to control the quality of the data. The original English version of the questionnaire was translated in to Amharic version and re-translated back to English to check for its consistency by language experts. To keep the quality of the data the Amharic version of the tools (questioner) was used for the data collection. In order to evaluate the clarity of the questions in the questionnaire and to ensure that the reactions of the respondents to the questions, the questionnaire was tested on 5% of similar population in the nearby health center and it was clear and appropriate. Daily close supervision at the end of every data collection was made; the questionnaire was reviewed and checked for completeness, accuracy and consistency by supervisors and principal investigator.

4.8. Data Processing and Analysis

After the data were collected, it was coded and entered into Epi data version 3.1. Then data were exported to SPSS version 23.00. Cleaning; recoding and reverse coding was done for negative statements (job satisfaction items) before starting analysis. Descriptive statistics (frequencies, percentages, mean and SD) were calculated for important variables. After doing assumption tests, binary logistic regression, correlation, independent sample T-test and one way ANOVA were used to determine association of independent variables to the outcome variable. Statistical significance was determined using p-value is <0.05 and 95% CI.

4.9. Study Variables

4.9.1. Dependent Variable:

- Occupational stress,
- Job satisfaction

4.9.2. Independent Variables:

- Psychological factors
- Physical factor
- Social factors
- Workplace factors
- Individual factors
- Motivator (intrinsic) factors
- Hygienic (extrinsic) factors

4.10. Operational Definition

- **Not stressful:** - below the average mean score of the ENSS.
- **Stressful:** score of average mean and above in the ENSS.
- **Job dissatisfaction:** score of mean average less than 3 out of 6 in the JSS.
- **Job satisfaction:** score of mean average 4 and above out of 6 in the JSS.
- **Ambivalent:** Score of mean average between 3-4 out of 6 in JSS.
- **Psychological factors:** refers to sources of stress which was measured by three variables: death and dying, inadequate emotional preparation and uncertainty concerning treatment in ENSS[37].

- **Physical factor:** refers to the source of stress which was measured by one variable: workload in ENSS[37].
- **Social factors:** refers to sources of stress which was measured by three variables: conflict with physician, problems with peers and problems with supervisors in ENSS[37].
- **Workplace factors:** refers to factors related to the employee work place which was measured by using the investigator developed demographic profile questionnaire.
- **Individual Factors:** refers to the personal characteristics of an employee which was measured by using the investigator developed demographic profile questionnaire.
- **Motivator (intrinsic) factors:** refers to nature of the job itself and measured by three variables: nature of work, promotion and contingent rewards in JSS[49,61].
- **Hygienic (extrinsic) factors:** refers to the work environment and measured by six variables: pay, operating conditions, coworkers, fringe benefits, supervision and communication in JSS[49,61].

4.11. Ethical Consideration

Ethical clearance and approval to conduct this research was obtained from research and ethical review board of department of nursing and midwifery, school of allied health science, college of health science, Addis Ababa University. After thoroughly discussing, the ultimate purpose and method of the study, permission was sought from the study hospitals. The study participants were informed about the objective and expected outcomes of the study and written consent was provided for guaranteeing their choice of participation or refusal. All the information was recorded anonymously and confidentiality was assured throughout the study.

4.12. Dissemination

The results of the study was presented and submitted to department of nursing and midwifery, school of allied health science, college of health science, Addis Ababa University. An attempt will be made to publish the findings of this study in widely accessible national or international journal.

5. RESULTS

5.1. Socio demographic Characteristics of respondents

A total of 181 eligible nurses were included in the study. Among this, about 178 nurses were voluntarily agreed to participate in this study, only 2 were not returned the questionnaires. This resulted in a response rate of 98.3%.

Out of 178 respondents, 102 (57.3%) were males. Moreover, the age of the participants included in this study ranged between 21 and 54 years with mean age of 28.77(SD= \pm 5.816) years. From the respondents, 165(92.7%) were orthodox and 170(95.5%) were Amhara. In addition 90(50.6%) were married and 65 (36.5%) had children (Table 1).

Table1: Socio demographic characteristics of nurses in East Gojjam Zone public hospitals, Ethiopia, 2016(n=178).

Variables	Category	Frequency	Percentage
Sex	Male	102	57.3
	Female	76	42.7
Age	\leq 25 years	50	28.1
	26-30 years	92	51.7
	>30 years	36	20.2
Religion	Orthodox	165	92.7
	Muslim	10	5.6
	Protestant	3	1.7
Ethnicity	Amhara	170	95.5
	Others*	8	4.6
Marital status	Single	88	49.4
	Married	90	50.6
Have children	Yes	65	36.5
	No	113	63.5

*Others= Oromo, Awi, Hadiya, Gurag

5.2. Work Characteristics of respondents

Most of participants (54.5%) were bachelor degree holder. Half percent of the participants were nurses with less than or equal to 4 years of work experience. Nearly all participants (93.3%) reported working eight hours standard shift on a typical day. Most of the participants had been working in inpatient departments. From all participants only 28(15.7%) participants had extra responsibility on the wards/units (Table 2).

Table 2: work characteristics of nurses in East Gojjam zone public hospitals, Ethiopia, 2016 (n=178).

Variables	Category	Frequency	Percentage
Level of education	Diploma	81	45.5
	Bachelor	97	54.5
Work experience	<5 years	89	50.0
	5-10 years	69	38.8
	>10 years	20	11.2
Work unit	Inpatient department	132	74.2
	Outpatient department	46	25.8
Extra responsibility	Yes	28	15.7
	No	150	84.3
Working hours/day	8 hours	166	93.3
	>8 hours	12	6.7

5.3. Occupational stresses

Occupational stress was assessed by the expanded nurse stress scale (ENSS). An overall internal consistency of the ENSS was assessed using Cronbach’s alpha coefficients and it was 0.95. ENSS consists eight subscales. Which were incorporated in three main domains: psychological, physical and social factors. Psychological factors includes death and dying, inadequate emotional preparation and uncertainty concerning treatment ;Physical factor includes only workload and social factors includes conflict with physician, problems with peers ,problems with supervisors, patient and family.

Psychological factors

Each sub scale was computed based on the 4 liker scale. Accordingly 70(39.3%) the respondents were very much stressful with death and dying subscale and only 4(2.2%) of the respondents reported that they were never stressful for death and dying with mean score of 2.99 out of 4.About 64(36%) of respondents were very much stressful for Inadequate emotional preparation subscales. Majority of the respondents 93 (52.2%) were moderately stressful for uncertainty concerning treatment. Among psychological factors death and dying was the first sources of stress (Table 3).

Table 3: The response of nurses to the psychological factors of ENSS, East Gojjam zone public hospitals, Ethiopia, 2016(n=178).

Subscales	Never	Slightly	Moderately	Very much	Mean
	Stressful	Stressful	Stressful	Stressful	
	N (%)	N (%)	N (%)	N (%)	
Death and dying	4(2.2)	14(7.9)	90(50.6)	70(39.3)	2.99
Inadequate emotional preparation	8(4.5)	106(59.6)	0	64(36.0)	2.83
Uncertainty concerning treatment	4(2.2)	11(6.2)	93(52.2)	70(39.3)	2.92

Physical factor

Only workload was considered as a physical factor in which 5(2.8%) respondents were never stressful, 3(1.7%) were slightly stressful, 65(36.5%) were moderately stressful and 105(59%) were very much stressful for workload subscales with mean score of 3.28 out of 4. Workload was the highest sources of stress for nurses based on the mean score.

Social factors

Half of the participants were moderately stressful for conflict with physician sub scale. About 82.6% of study participant were slightly stressful for problems with peers sub scale. Majority of study participants 102(57.3%) were moderately stressful and about 43(24.2%) were very much stressful for problems with supervisors subscale. Concerning patient and their family sub scale, about 70(39.3%) and 27(15.2%) study participants were moderately stressful and very much stressful respectively. Among social factors problems with supervisors subscale was the first sources of stress with mean stress level of 2.64 out of 6 (Table 4).

Table 4: The response of nurses to the social factors of ENSS, East Gojjam zone public hospitals, Ethiopia, 2016(n=178).

Subscales	Never	Slightly	Moderately	Very much	Mean
	Stressful	Stressful	Stressful	Stressful	
	N (%)	N (%)	N (%)	N (%)	
Conflict with physician	8(4.5)	37(20.8)	89(50.0)	44(24.7)	2.61
Problems with peers	7(3.9)	147(82.6)	0	24(13.5)	2.40
Problems with supervisors	4(2.2)	29(16.3)	102(57.3)	43(24.2)	2.64
Patient and their family	9(5.1)	72(40.4)	70(39.3)	27(15.2)	2.25

Generally from the aggregated mean stress level of each sub scale the three most sources of stress in this study were workload with average mean 3.28, death and dying with average mean 2.99 and uncertainty concerning treatment with average mean 2.92 respectively. The least source of stress sub scale was patient and their family with average mean 2.25 out of 4.

5.3.1. Occupational stress with selected demographic variables

Concerning sex of respondent about 45(44.1%) of male participants were stressful and 57(55.9%) of male respondents were not stressful. Regarding female participants about 57(75.0%) were stressful and 19(25%) of female participants were not stressful.

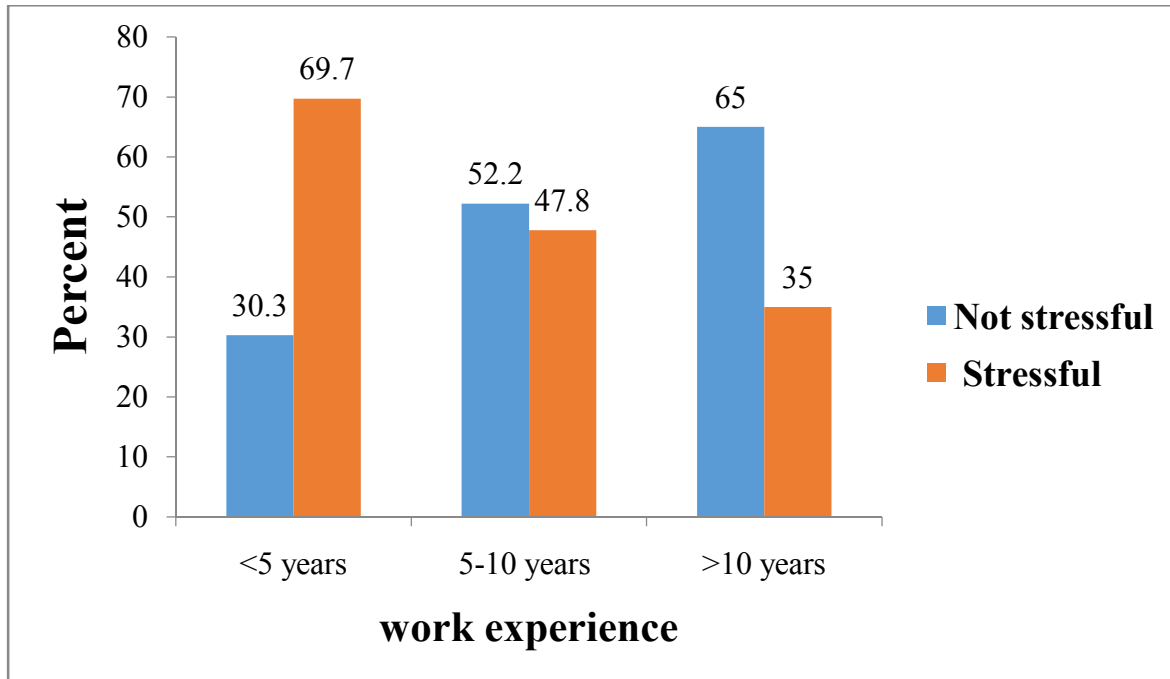


Figure 3 :Percent of occupational stress by work experience of nurses in East Gojjam zone public Hospitals, Ethiopia, 2016.

Related with work experience of respondents from those nurses who had less than 5 year work experience about 62(69.7%) of study participants were stressful and about 27(30.3%) of study participants were not stressful(Figure 3).

5.3.2. Level of occupational stress among nurses

Level of occupational stress was computed from the ENSS total score. Score of 50, 51-100, 101-150 and 151-200 was considered as never stressful, slightly stressful, moderately stressful and very much respectively. Based on this 4(2.2%), 10(5.6%), 104(58.4%), 60(33.7%) were never, slightly, moderately and very much stressful.

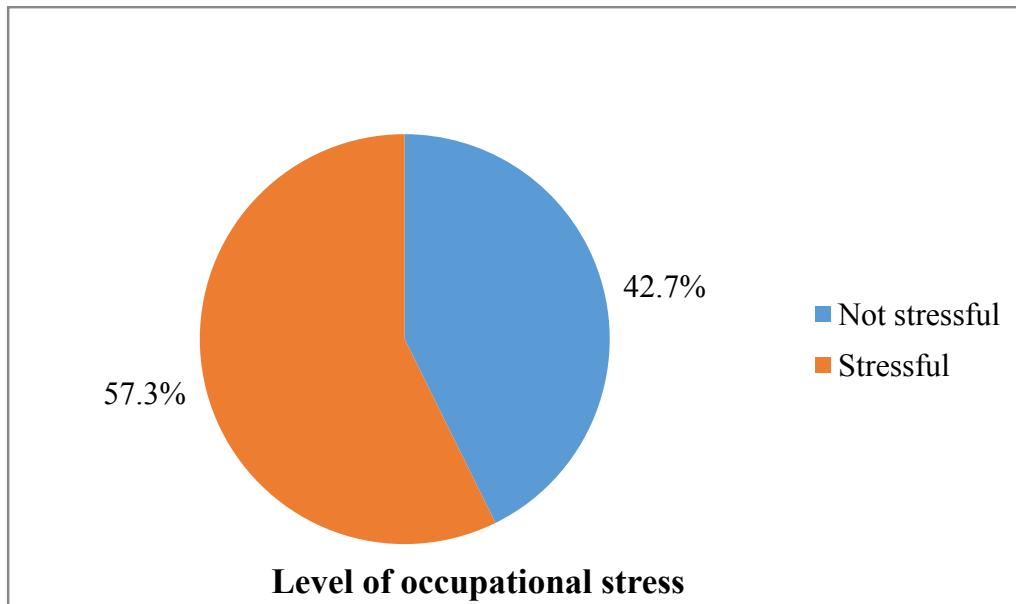


Figure 4: Overall level of occupational stress among nurses in East Gojjam Zone public hospitals, Ethiopia, 2016(n=178).

To determine the general overall level of occupational stress and to dichotomize the response, respondents having average score of below mean value were classified as 'not stressful', and those with average score of mean value and above were considered as 'stressful'. The total mean score was 138.91. Accordingly, 102(57.3%) of nurses were occupationally stressful (Figure 4).

5.4. Job satisfaction among nurses

Job satisfaction was assessed by job satisfaction survey (JSS). An overall internal consistency of the JSS was assessed using Cronbach's alpha coefficients and was 0.74. The JSS has nine facets which were divided as motivator factors and hygienic factors. The motivator factors were: promotion, contingent rewards and nature of work .Hygienic factors were payment, operating conditions, relation with co-workers, fringe benefits, supervision and communication.

The motivator factors

more than one third of participants 65(36.5%) were disagree very much, and only 2(1.1%) of participants were agree very much for promotion subscale. Concerning contingent rewards subscale, about 63(35.4%) of study participants were disagree slightly and only 7(3.9%) of study participants were agree very much. Nature of work, about 75(42.1%) of study participants were agree very much and only 4(2.2%) of study participants were disagree very much (Table 5).

Table 5: The response of nurses to the motivator factors of JSS, East Gojjam zone public hospitals, Ethiopia, 2016(n=178).

Subscales	Disagree	Disagree	Disagree	Agree	Agree	Agree
	very much	moderately	slightly	slightly	moderately	very much
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
Promotion	65(36.5)	26(14.6)	43(24.2)	27(15.2)	15(8.4)	2(1.1)
Contingent rewards	35(19.7)	22(12.4)	63(35.4)	34(19.1)	17(9.6)	7(3.9)
Nature of work	4(2.2)	5(2.8)	25(14)	26(14.6)	43(24.2)	75(42.1)

The Hygienic factors

Nearly one third of study participants, 58 (32.6 %) were agree slightly and one study participant was agree very much for payment subscale. Concerning supervision subscale about 46(25.8%) were agree moderately and 31(17.4%) were agree very much. For fringe benefit subscale, about 53(29.8%) were disagree slightly and agree slightly only 2 study participants were agree very much. Majority of the participants 104(58.4%) were disagree slightly and only one person was agree very much for operating condition. Related with relation with coworkers 74(41.6%) and 49(27.5%) study participants were agree moderately and agree very much respectively (Table 6).

Table 6: The response of nurses to the hygienic factors of JSS, East Gojjam Zone public hospitals, Ethiopia, 2016(n=178).

Subscales	Disagree very much	Disagree moderately	Disagree slightly	Agree slightly	Agree moderately	Agree very much
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
Payment	37(20.8)	23(12.9)	50(28.1)	58 (32.6)	9(5.1)	1(0.6)
Supervision	11(6.2)	15(8.4)	19(10.7)	56(31.5)	46(25.8)	31(17.4)
Fringe benefit	44(24.7)	21(11.8)	53(29.8)	53(29.8)	5(2.8)	2(1.1)
Operating condition	2(1.1)	12(6.7)	104(58.4)	47(26.4)	12(6.7)	1(0.6)
Coworkers	0	6(3.4)	10(5.6)	39(21.9)	74(41.6)	49(27.5)
Communication	9(5.1)	14(7.9)	38(21.3)	21(11.8)	33(18.5)	63(35.4)

5.4.1. Overall job Satisfaction of respondents

According to Spector JSS, The mean item response of ≥ 4 represents satisfaction for that particular item, whereas mean item response of ≤ 3 represents dissatisfaction. Mean scores item between 3 and 4 show ambivalence; thereby the percentage calculated by dividing the average on the maximum possible total (i.e. 6) indicates the satisfaction level for that item. This assumption, transferred to for each subscale and total satisfaction level of respondents by taking the average mean score of the items for each subscales and overall satisfaction of respondents.

Accordingly respondents reported low satisfaction for payment with average mean of satisfaction (2.51. i.e. $2.51/6=41.8\%$) promotion (36.3%), fringe benefits, contingent rewards and operating conditions. The most dissatisfied sub scale was promotion. Study participants were reported moderate satisfaction for supervision sub scale with average mean of satisfaction of 3.78 out of 6. However study participants were higher satisfaction for relationship with co-workers, nature of work and communication of which respondents were highly satisfied for ‘nature of work’ with mean score of 4.54 out of 6(75.7%)(Table 7).

Table 7: Subscales and overall average mean SD and satisfaction level of nurses at East Gojjam Zone public hospitals, Ethiopia, 2016.

Subscales	Average mean of satisfaction	SD	Average satisfaction (%)
Payment	2.51	1.12	41.8
Promotion	2.18	1.24	36.3
Supervision	3.78	1.38	63.0
Fringe Benefits	2.40	1.10	40.0
Contingent Rewards	2.63	1.29	43.8
Operating Conditions	2.83	0.76	47.2
Relationship with Co-workers	4.52	1.02	75.3
Nature of Work	4.54	1.38	75.7
Communication	4.03	1.62	67.2
Overall average	3.27	0.60	54.5

5.4.2. Level of job satisfaction

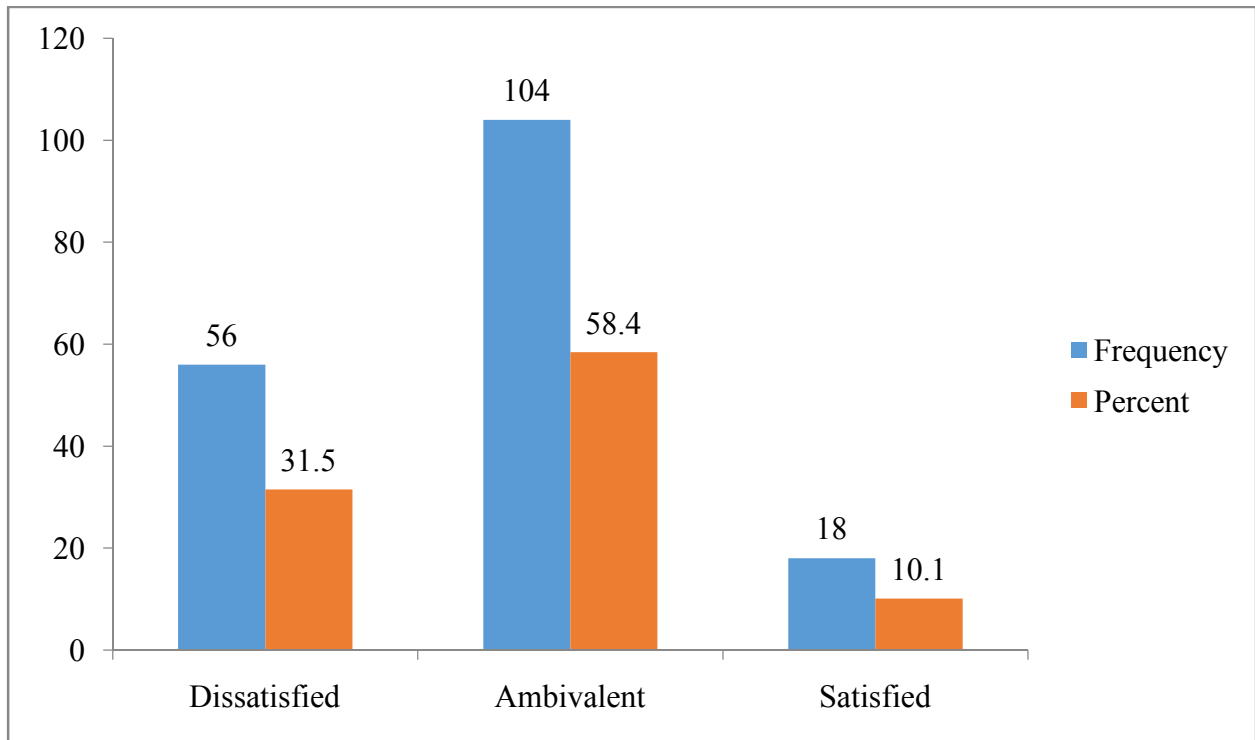


Figure 5: Level of job satisfaction among nurses in East Gojjam Zone public hospitals, Ethiopia, 2016(n=178).

According to Spector JSS, score of 36-108,109-143 and 144-216 was considered as dissatisfied, ambivalent and satisfied respectively with their jobs. Accordingly majority of respondents 104 (58.4%) were ambivalent (Figure 5).

In general the mean satisfaction level for all nurses was 3.27 out of 6 or 117.61 out of 216 and computed to be 54.5%. Therefore the average job satisfaction of nurses in east Gojjam zone public hospital was at a moderate level of satisfaction.

5.5. Factors associated with occupational stress

To elicit possible associations and to make inferences binary logistic regression was carried out. In binary regression analysis marital status, having child, level of education, extra responsibility, working unit and working hours were not significantly associated with occupational stress. However age, sex and work experience were found significantly associated with overall occupational stress with P –value <0.2.

Multivariate analysis for occupational stress

In multivariate model, adjusted odd ratio with corresponding 95% confidence interval and p-value is <0.05 retrieved from the multivariate model. AOR over 1 indicates a positive association i.e. risk factor for occupational stress and below 1 a negative association i.e. protective for occupational stress.

By adjusting potential confounders in multivariate backward logistic regression analysis sex and work experience were found to be significantly associated with occupational stress. Age was not significantly associated with occupational stress at p<0.05(Table 8).

Table 8: Bivariate and multivariate binary logistic regression of factors associated with occupational stress of nurses in East Gojjam Zone public hospital, Ethiopia, 2016 (N=178).

Variables		Occupational Stress		COR (95.0% C.I)	AOR (95.0% C.I)
		Yes	No		
Sex	Male	45(44.1)	57(55.9)	1.000	1.000
	Female	57(75.0)	19(25.0)	3.8(1.984-7.278)	5.402 (2.599-11.228)*
Age					
≤25 years		35(70)	15(30)	1.000	1.000
26-30 years		51(55.4)	41(44.6)	0.533 (0.257-1.108)	0.923 (0.376-2.266)
>30 years		16(44.4)	20(55.6)	0.343 (0.140-0.838)	1.458 (0.350-6.068)
Work experience					
<5 years		62(69.7)	27(30.3)	1.000	1.000
5-10 years		33(47.8)	36(52.2)	0.399 (0.208-0.768)	0.259 (0.122-0.546)*
>10 years		7(35.0)	13(65.0)	0.234 (0.084-0.653)	0.174 (0.056-0.536)*

COR=Crude Odds Ratio, AOD=Adjusted odds ratio, 1=Reference, *significant at p –value < 0.05, C.I- confidence interval

The Spearman's rank correlation coefficient (r_s) was tested to examine the relationships between overall occupational stress and eight stress subscales. Overall occupational stress was significantly and positively correlated with each stress subscale. The most strong correlation was between uncertainty concerning treatment and overall occupational stress with correlation coefficient ($r_s=0.665$) and others were moderately correlated (Table 9).

Table 9: Spearman correlation between overall occupational stress and subscales of stress at East Gojjam Zone public hospitals, Ethiopia, 2016.

	Variables	r	P
1	Over all occupational stress	1.000	0.01
2	Death and dying	0.576	0.01
3	Conflict with physician	0.549	0.01
4	Inadequate emotional preparation	0.497	0.01
5	Problems with peers	0.514	0.01
6	Problems with supervisors;	0.525	0.01
7	Workload	0.575	0.01
8	Uncertainty concerning treatment	0.665	0.01
9	Patient and family	0.397	0.01

5.6. Factors associated with job satisfaction

Independent sample t-test was performed for socio demographic variables to see the association with job satisfaction. Accordingly there was significantly difference mean score of job satisfaction between males and females of respondents. In the same way, there was a significantly difference mean score of job satisfaction between nurses had children and had no children at $p < 0.05$. But there was no statistically significant mean difference score of job satisfaction of demographic variables like marital status, level of education, extra responsibility, working hours/day, wok unit (Table 10).

Table 10: Independent t-test with selected demographic variables of nurses at East Gojjam Zone public hospitals, Ethiopia, 2016.

Variables		Job satisfaction	Mean difference	t	95% C.I	
		Mean (SD)			Lower	Upper
*Sex	Male	3.18(0.64)	-0.20	-2.196	-0.37	-0.02
	Female	3.38(0.52)				
Marital status	Single	3.20(0.56)	-0.14	-1.566	-0.32	0.04
	Married	3.34(0.63)				
*Having child	Yes	3.39(0.51)	0.20	2.195	0.02	0.38
	No	3.19(0.63)				
Level of education	Diploma	3.28(0.55)	0.03	0.314	-0.15	0.21
	Bachelor	3.25(0.63)				
Extra responsibility	Yes	3.42(0.50)	0.18	1.520	-0.06	0.43
	No	3.24(0.61)				
Working hours/day	8 hours	3.26(0.60)	-0.03	-0.163	-0.38	0.32
	>8 hours	3.29(0.54)				
Wok unit	Inpatient department	3.29(0.59)	0.09	0.844	-0.12	0.29
	Outpatient department	3.20(0.62)				

*significant at p -value < 0.05 , C.I- confidence interval, SD- standard deviation

One way ANOVA was performed to see the relation of job satisfaction with age and work experience. But only age of the respondents was significant at $P < 0.05$ where at least one group means differs from others group means [$F(2,175) = 3.476, p = 0.033$]. Then tukey post-hoc testing was carried out to identify the group mean difference in the specific age groups. Accordingly the mean satisfaction level of greater than 30 years old nurses (mean=3.45, SD=0.49) was higher than the mean satisfaction level of 26-30 years of nurses (mean= 3.16, SD=0.56) and significantly associated at $p = 0.036$ with a mean difference -0.29 and 95% confidence interval of -0.56 to -0.2. However there was no statistically significant mean difference between less than or equal 25 years nurses and 26-30 years of nurses or between less than or equal 25 years nurses and greater than 30 years old nurses.

Related with work experience there were no statistically significant differences between groups mean job satisfaction (Table 11).

Table 11: One way ANOVA between age groups and work experience of nurses at East Gojjam Zone public hospitals, Ethiopia, 2016.

Variables	Job satisfaction	
	Mean (SD)	ANOVA , p value
Age*	≤25 years	3.33(0.69)
	26-30 years	3.16(0.56)
	>30 years	3.45(0.49)
work experience	< 5 years	3.25(0.63)
	6-10 years	3.23(0.56)
	>10 years	3.49(0.58)

*=significant at 0.05, SD- standard deviation

The Pearson correlation coefficient (r) was tested to examine the relationships between overall job satisfaction score and nine job satisfaction dimension. Overall job satisfaction was significantly and positively correlated with each dimension. Strong correlation was seen between Promotion and total job satisfaction with correlation coefficient($r=0.625$) at $p=0.01$. All other dimensions were moderately correlated with total job satisfaction score (Table 12).

Table 12: Pearson correlations between general job satisfaction of nurses and subscales of job satisfaction in East Gojjam Zone public hospitals, Ethiopia, 2016.

	Variables	r	P
1	Overall job satisfaction	1.000	0.01
2	Payment	0.488	0.01
3	Promotion	0.625	0.01
4	Supervision	0.462	0.01
5	Fringe Benefits	0.575	0.01
6	Contingent Rewards	0.543	0.01
7	Operating Conditions	0.300	0.01
8	Relationship with Co-workers	0.328	0.01
9	Nature of Work	0.406	0.01
10	Communication	0.592	0.01

Finally to see the relationship between the two main study variable i.e. occupational stress and job satisfaction again person correlations was performed accordingly a statistically non significant a very weak negative correlation ($r = -0.083, p=0.268$) was revealed from the results between the two main study variables of occupational stress and job satisfaction among the nurses.

6. DISCUSSION

6.1 Occupational stress

The current study attempted to determine the level of occupational stress, job satisfaction and associated factors among nurses and assessed through the eight subscales of ENSS and the nine subscales of JSS.

The cross-sectional study revealed that the overall prevalence rate of occupational stress of this study was low (57.3%) compared to the previous study conducted on occupational stress amongst nurses from two tertiary care Hospitals in Delhi India from 87 nurses prevalence of stress among nurses was (87.4%)[14]. This difference might be due to relative small sample size in previous study and the tool difference. The current finding was high compared with study done in Isfahan, Iran (34.9%) of nurses reported their job was very or extremely stressful[33]. The difference might be the tool difference. It was also high compared with study in Addis Ababa Ethiopia the prevalence of stress among nurses was (37.8 %)[16]. This might be due to the fact that in this study the sample size was relatively small compared with that study done in Addis Ababa.

Descriptive analysis indicated that “workload” was the most and first source of stress for nurses. This was consistent with different studies in different countries. For example a study in Nepal showed that the first identified stressor among nurses was workload [27]. In Indonesia the major sources of stress was workload[39]. In Pakistan showed that the potent factors which cause enormous stress at work place among nurses was, excessive workload[40]. In educational hospitals in Ahwaz , Iran showed that the major sources of occupational stress among nurses was work load[42]. In Gombe state, Nigeria the first leading source of stress was workload[47]. And in Ethiopia, Addis Ababa public hospital among nurses showed that the most and first frequently reported sources of stress at the workplace was workload[16]. The possible explanation for this might be in most cases nurses were involved not only nursing activities but also other non nursing activities and the other reason might be due to shortage of nursing staff as it was reported in this finding.

The second source of occupational stress in this study was death and dying subscale. It was consistent with other studies[12,38,44,46,47]. The possible explanation might be due to cultural

and humanitarian compassionate of the study participants as it is emotional issues regarding patient's death/dying.

Many researches were conducted to investigate the demographic variables that affect occupational stress among nurses in different times and places. Many of the results were controversial in the significance association of variables. For example study conducted in India, there was no significant association found between occupational stress with age, sex, professional education, year of experience[13]. In this study many of the socio-demographic variables were not significantly associated with over all occupational stress. This might be the tool used strength. Only sex and work experience were significantly associated with over all occupational stress in multivariate logistic regression.

Accordingly female nurses were 5.4 times more likely stressful than male nurses and significantly associated with occupational stress (AOD=5.402, 95%CI [2.599-11.228]). This finding was consistent with study done in Addis Ababa public hospitals ,in India and Iran in which female nurses were more stressed than males nurse[16,30,32]. This might be females, most of the time they had multiple roles in the family and society in addition to the work. More over females in their nature might be compassion than males. But this finding was contradict with the findings in Iran, female nurses had 21% lower stress than male nurses[34]. This difference might be cultural and tool used difference.

Related with work experience those nurses who have had 5-10 years experience were 74.1% less likely stressful than those nurses who have had less than 5 years work experience and significantly associated with occupational stress (AOD=0.259[0.122-0.546]).And those nurses who have had greater than 10 work experience were 82.6% less likely stressful than those nurses who have had less than 5 years work experience and significantly associated with occupational stress (AOD=0.174[0.056-0.536]) This result was consistent with a study in Iran in which nurses with higher experience showed lower stress level than the nurses with one to five years of experience[34].In general less year experienced nurses were more stressed. This might be nurses greater than 10 years experience had adapted with stressors through time and developed tolerance of the stressful situation. However this result was inconsistent compared with a study in Addis Ababa[16],where no significance association was found between occupational stress and work experience. This might be organizational difference.

Marital status was not significantly associated with occupational stress and this was consistent with other studies[14,29].But it was inconsistent in another study in India and Iran[28,33,34],where married nurses were mores stressed than single nurses.

6.2. Job satisfaction

The cross-sectional study revealed that the overall average prevalence rate of job satisfaction of this study was at moderate level (54.2%) which was slightly consistent compared with study done in turkey with mean satisfaction level of nurses (58%)[53], in Slovenian hospitals job satisfaction of nurses was at a medium level[54], in Jordan with mean satisfaction level of nurses(57%)[56] and study done in Jordanian and Saudi nurses[20] with mean satisfaction of nurses was moderate level. The possible explanation for slight difference could be due socio economic and organizational difference. And when it was compared with study done Sidama zone public health facilities, south Ethiopia with overall job satisfaction of nurses (52.5%)[60], the current study is slightly high. This minimal difference could be due to study time and the tool used difference.

In this study age of the respondents was significant significantly associated with job satisfaction. The mean satisfaction level of greater than 30 years old nurses (mean=3.45) was higher than the mean satisfaction level of 26-30 years of nurses (mean= 3.16) and significantly associated at $p=0.036$. Even though the means plot didn't show increasing job satisfaction with increasing age group, older nurses showed more satisfied. This finding was consistent with study in Tigray region[22],where Nurses with older age were more satisfied than nurses with younger age group. This might be older nurse had no other option of jobs so that they were forced to like and satisfied with their current job. However this finding was inconsistent with study in Uganda[1] where younger nurses were more satisfied than older nurses.

The average mean scores for job satisfaction for males was 3.18, $SD=0.64$ and for females 3.38, $SD=0.52$). Thus, female's ratings of job satisfaction were significantly higher than male nurses at ($t= -2.196$, $p=0.03$).This was consistent with a study in Turkey[53],where female nurses slightly more satisfied than male nurses. The possible explanation might be nursing still perceived to be a job for females rather than males. However this finding contradicted when compared with study in Uganda[1] ,where no significance difference was seen between female and male.

Nurses who had children, ratings of job satisfaction (mean=3.40, SD=0.51) were significantly higher than nurses had no children (mean=3.20, SD=0.63) at ($t=2.2$, $p=0.03$). This might be, having children might increased personal responsibility which intern dues to the person to like his or her job.

Level of nursing education was not statistically significant in job satisfaction levels. This finding was contradicted with the finding in Uganda[1], where enrolled nurses were more satisfied than registered nurses and in Slovenian hospitals Nurses with a higher education were more satisfied with the job than with lower education[54]. The possible explanation might be in this study area, there was no clear cut job description based on level of nursing education. But this study was consistent with study done in India[21], where no significant association was found between satisfaction and educational level.

There was a positive significant correlation between motivator factors and hygiene factors (the sub scales of JSS) with total job satisfaction. This was consistent with a study in Cross River State Nigeria and Turkey[53,59], where positive and significant correlation was seen.

Respondents were dissatisfied for payment, promotion, fringe benefit, contingent rewards, and operating conditions. However they were highly satisfied for relationship with co-workers, nature of work and communication and this result was consistent with study done in Jordan and Turkey [53,56]. But this result was inconsistent related with communication with study done in Saudi Arabia[45], where respondents lowest level of satisfaction regarding the communication inside the organization.

From the nine sub scales nature of work was got the highest mean satisfaction score and this result was congruent with study in Saudi Arabia and Philippines[46,50]. This might be, even though average satisfaction level of nurse was moderate level still study participants like their profession.

A statistically non significant a weak negative correlation($r= -0.083$, $p=0.268$) was found between occupational stress and job satisfaction. this finding was slightly consistent with study in Ghana a weak but significant correlation($r= -0.225$)[48], and study in Saudi Arabia and Pakistan[40,46], where the correlation was negative and significant. However This finding was inconsistent with study done in India($r=0.006$) and Jordan[21,35], where no correlation found between stress and job satisfaction. The difference might be organizational and study time difference.

7. STRENGTHS AND LIMITATIONS OF THE STUDY

7.1. Strengths of the study

- The four public hospitals were included to make the study representative.
- The relationship between occupational stress and job satisfaction was evaluated.
- Different statistical testes performed

7.2. Limitations of the study

- Since the study was through questionnaire only it might be subjected to response set bias from the respondents
- Lack of qualitative study part
- Cross sectional design, making it difficult to draw causal relationships.

8. CONCLUSION AND RECOMMENDATION

8.1 .Conclusion

In this cross sectional study more than half of the nurses were occupationally stressful .Individual factors like sex of respondents and work experience were significantly associated with overall occupational stress score. Psychological factors (death and dying, inadequate emotional preparation and uncertainty concerning treatment); physical factor includes (workload) and social factors (conflict with physician, problems with peers, problems with supervisors and patient and family) had positive significant correlation with overall occupational stress among nurses. Physical factor (work load) was the main sources of stress among nurses. The least stressful sub scale was patient and their family.

Averagely, nurses were neither satisfied nor dissatisfied with their jobs i.e. moderate level of satisfaction. The sub scales in which, nurses indicated satisfaction were nature of work, relationship with co-workers and communication. However the sources of dissatisfaction were promotion, fringe benefits, payment, contingent rewards and operating conditions. Individual factors like age, sex and nurses having child were significantly associated with total job satisfaction score. The motivator factors (promotion, contingent rewards and nature of work) and Hygienic factors (payment, operating Conditions, relation with co-workers, fringe benefits, supervision and communication) had positive significant correlation with overall job satisfaction among nurses. There was a very weak negative but none significant correlation between occupational stress and job satisfaction.

8.2. Recommendation

To Amhara Regional Health Bureau

The Amhara Regional Health Bureau should collaborate with policy makers to develop stress reduction management programs for hospital based nurses. Furthermore the Bureau should give trainings, seminars and workshops for hospital based nurses related with stress reduction management program. Most importantly the Amhara regional health bureau better to concern nurses' job satisfaction by reviewing financial and non financial benefit packages to increase job satisfaction among nurses in hospital setting.

To the study hospitals

The hospital manager should recruit nurses to balance their numbers with the work load given in each hospital to reduce nurse's workload. In addition should give trainings for nurses about stress reduction program. The hospital manager should balance the benefit package and internal promotion to increase job satisfaction. The hospital manager should give emphasis for conducive environment for work, appropriate rewards and recognition for achievements among nurses.

To researchers

More studies should be conducted on a larger scale especially in a nationwide to identify sources of occupational stress and factors that enhance job satisfaction for the hospital based nurses.

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ANNEXES

Annex I: Participant Information Sheet English Version

Dear Respondent:

Good morning/Afternoon! My name is _____. I am working as a supervisor on behalf of principal investigator, in a study conducted by the College of Health science, department of Nursing and Midwifery Addis Ababa University. You are selected and included in the study as part of the sample population to complete the questionnaire designed by the researcher on occupational stress, job satisfaction and associated factors among nurses in East Gojjam Zone public hospitals. You will participate if you give me consent after you have understood the following information:

Objective of the study: To assess occupational stress and job satisfaction among nurses.

Design of the study: Cross-sectional study

What I will ask you: If you agree to participate in this study, I will conduct a self administered question about your socio-demographic characteristics and your opinion on occupational stress and job satisfaction.

Risks and benefits: The result of the study help programmers or policy makers to design intervention related to occupational stress and job satisfaction. In this way you may get benefit from the intervention policy. There is no payment and risk or discomfort as a result of participating in this study except that you lost your time.

Confidentiality; All information given by you will be kept strictly confidential. Any of your personal information will not register. The information obtained in this study will be used only for research purposes.

Taking part is voluntary: Your participation is voluntary basis and you are not obligated to answer any question you do not willing to respond. If you feel any discomfort with the question, it is your right not to respond and you have the right to withdraw from the study at any time you need. But your honest participation will contribute a lot to generate information to come up with important findings. To complete, it will take about 35-45 minutes.

Address of the principal investigator:

Name –Dessalegn Haile

Email – dessaleghaile@gmail.com

Phone- +251913429647

Annex II: Consent Form English Version

I, the selected participant of the study have read and understood the information sheet carefully. I understood the purpose, benefit, and what is required from me and what are the consequences of the study on me if I take part in the study entitled on assessment of occupational stress, job satisfaction and associated factors among nurses in east Gojjam Zone Public hospitals. I understood that personal information regarding me; like name will not register and all answers given by me should not be transferred to the third party without my permission. I also understand that I can decide whether or not to take part in the study or even withdraw from the study at any time so that I agree to participate in the study with my signature below.

The participant Sign _____

Supervisor: Name _____ Signature: _____ Date: _____

Thank you for your willingness!!!

Annex III: Questionnaire English Version

Questionnaire for nurses to study on occupational stress, job satisfaction and associated factors among nurses in East Gojjam Zone public Hospitals, 2016.

Part I: Socio-demographic Information (please put/circle the answer on the space provided)

Serial no.	Items	Response and categories
101	Hospital where you work	_____ hospital
102	Age	_____ year
103	Sex	1. Male 2. Female
104	Religion	1.Orthodox 2.Muslim 3.Protestant 4.Catholic 5.Other(specify)_____
105	Ethnicity	1.Amhara 2.Oromo 3.Tegre 4.Agew 5.Other(specify)_____
106	Marital status	1.Single 2.Married 3. Divorced 4. Widowed
107	Do you have children?	1.Yes 2. No
108	Level of education in Nursing	1. Diploma holder 2. Bachelor Degree 3. Master Degree
109	Work experience in nursing	_____ year/s
110	Currently have you extra responsibility given like head of the unit?	1. yes 2. No
111	Ward/unit where you work	1. Medical ward 2. Surgical ward 3. Obstetrics/Gynecology 4. Pediatrics ward 5. Others.....
112	How many hours do you usually work/day	_____ hours

Part two: Expanded Nursing Stress Scale (ENSS)

The statements you are about to read concerns about occupational stress .you are being asked for your opinion of each statements. Please rate by circling the number that corresponds to **how stressful** you feel from each item. There is no right or wrong responses for these responses

No	Items	Never stressful	Slightly Stressful	Moderately Stressful	Very much stressful
	Death and dying				
201	Performing procedure that patients experience as painful.	1	2	3	4
202	Feeling helpless in the case of a patient who fails to improve.	1	2	3	4
203	The death of a patient	1	2	3	4
204	The death of a patient with whom you developed a close relationship.	1	2	3	4
205	Physician (s) not being present when a patient dies.	1	2	3	4
206	Watching a patient suffer.	1	2	3	4
207	Talking to patient about death.	1	2	3	4
	Conflict with physician				
208	Criticism by a physician.	1	2	3	4
209	Conflict with a physician.	1	2	3	4
210	Disagreement concerning the treatment of a patient.	1	2	3	4
211	Making a decision concerning a patient when the physician is unavailable.	1	2	3	4
212	Having to organize doctors' work.	1	2	3	4
	Inadequate emotional preparation				
213	Feeling inadequately prepared to help with the emotional needs of a patient's family.	1	2	3	4
214	Being asked a question by a patient for whom I do not have a satisfactory answer.	1	2	3	4
215	Feeling inadequately prepared to help with the emotional needs of a patient.	1	2	3	4
	Problems with peers				
216	Lack of opportunity to talk openly with other personnel about problems in the work setting.	1	2	3	4
217	Lack of opportunity to share experiences and feelings with other personnel in the work setting.	1	2	3	4
218	Lack of an opportunity to express to other personnel on the unit my negative feelings towards patients.	1	2	3	4
219	Difficulty in working with a particular nurse (or nurses) in my immediate work setting.	1	2	3	4
220	Difficulty in working with nurses of the opposite sex.	1	2	3	4

	Problems with supervisors				
221	Conflict with a supervisor.	1	2	3	4
222	Lack of support from immediate supervisor.	1	2	3	4
223	Criticism by supervisor.	1	2	3	4
224	Lack of support from nursing administrators.	1	2	3	4
225	Being held accountable for things over which I have no control.	1	2	3	4
226	Lack of support from other health care administrators.	1	2	3	4
227	Criticism by nursing administrators.	1	2	3	4
	Workload				
228	Not enough time to provide emotional support to the patient.	1	2	3	4
229	Not enough time to respond to the needs of patients' families.	1	2	3	4
230	Not enough staff to adequately cover the unit.	1	2	3	4
231	Too many non-nursing tasks required, such as clerical work.	1	2	3	4
232	Not enough time to complete all of my nursing tasks.	1	2	3	4
233	Having to work through breaks.	1	2	3	4
234	Not enough equipment supply/not functioning well.	1	2	3	4
235	Making decisions under pressure.	1	2	3	4
	Uncertainty concerning treatment				
236	Inadequate information from a physician regarding the medical condition of a patient.	1	2	3	4
237	A physician ordering what appears to be inappropriate treatment for a patient.	1	2	3	4
238	Fear of making a mistake in treating a patient.	1	2	3	4
239	A physician not being present in a medical emergency.	1	2	3	4
240	Feeling inadequately trained for what I have to do.	1	2	3	4
241	Not knowing what a patient or a patient's family ought to be told about the patient's condition and its treatment.	1	2	3	4
242	Uncertainty regarding the operation and functioning of specialized equipment.	1	2	3	4
243	Being exposed to health and safety hazards.	1	2	3	4
244	Being in charge with inadequate experience.	1	2	3	4
	Patient and family				
245	Patients' unreasonable demands.	1	2	3	4
246	Unreasonable demands by Patients' families.	1	2	3	4
247	Being blamed for anything that goes wrong.	1	2	3	4
248	Being the one that has to deal with patients' families.	1	2	3	4
249	Dealing with abuse from patients' families.	1	2	3	4
250	Dealing with abusive patients.	1	2	3	4

Part three: Job satisfaction survey (JSS)

The statements you are about to read concerns about job satisfaction among nurses please circle the one number for each question that comes closest to reflecting your opinion about it.

序号		Disagree very much	Disagree moderately	Disagree slightly	Agree slightly	Agree moderately	Agree very much
	Payment						
301	Feels being paid a fair amount for the work I do.	1	2	3	4	5	6
302	Raises are too few and far between.	1	2	3	4	5	6
303	Feels unappreciated by the hospital when I think about what they pay me.	1	2	3	4	5	6
304	Feels satisfied with my chances for salary increase.	1	2	3	4	5	6
	Promotion						
305	There is really too little chance for promotion on my job.	1	2	3	4	5	6
306	Those who do well on the job stand a fair chance of being promoted.	1	2	3	4	5	6
307	People get ahead as fast here as they do in other places.	1	2	3	4	5	6
308	I am satisfied with my chances for promotion.	1	2	3	4	5	6
	Supervision						
309	My supervisor is quite competent in doing his/her job.	1	2	3	4	5	6
310	My supervisor is unfair to me.	1	2	3	4	5	6
311	My supervisor shows too little interest in the feelings of subordinates	1	2	3	4	5	6
312	I like my supervisor.	1	2	3	4	5	6
	Fringe Benefits						
313	I am not satisfied with the benefits I receive.	1	2	3	4	5	6
314	The benefits I receive are as good as most other organizations offer.	1	2	3	4	5	6
315	The benefit package we have is equitable.	1	2	3	4	5	6
316	There are benefits I do not have which I should have.	1	2	3	4	5	6

	Contingent Rewards						
317	When I do a good job, I receive the recognition for it that I should receive.	1	2	3	4	5	6
318	I do not feel that the work I do is appreciated.	1	2	3	4	5	6
319	There are few rewards for those who work here.	1	2	3	4	5	6
320	I don't feel my efforts are rewarded the way they should be.	1	2	3	4	5	6
	Operating Conditions						
321	Many of our rules and procedures make doing a good job difficult.	1	2	3	4	5	6
322	My efforts to do a good job are seldom blocked by red tape.	1	2	3	4	5	6
323	I have too much to do at work.	1	2	3	4	5	6
324	I have too much paper work.	1	2	3	4	5	6
	Co-workers						
325	I like the people I work with.	1	2	3	4	5	6
326	I find I have to work harder at my job because of the incompetence of people I work with.	1	2	3	4	5	6
327	I enjoy my coworkers.	1	2	3	4	5	6
328	There is too much bickering and fighting at work.	1	2	3	4	5	6
	Nature of Work						
329	I sometimes feel my job is meaningless.	1	2	3	4	5	6
330	I like doing the things I do at work.	1	2	3	4	5	6
331	I feel a sense of pride in doing my job.	1	2	3	4	5	6
332	My job is enjoyable.	1	2	3	4	5	6
	Communication						
333	Communication seems good within this hospital.	1	2	3	4	5	6
334	The goals of this hospital are not clear to me.	1	2	3	4	5	6
335	I often feel that I do not know what is going on with the hospital.	1	2	3	4	5	6
336	Work assignments are not fully explained.	1	2	3	4	5	6

Annex IV: Participant Information Sheet Amharic version

አዲስ አበባ ዩኒቨርሲቲ ጤና ሳይንስ ኮሌጅ የነርስና ሚድዋይሬሪ ትምህርት ክፍል

የተሳታፊዎች መረጃ መስጫ ቅጽ

እንደምን አረፈዱ/ዋሉ ስሜ _____ ይባላል። የመጣሁት በ አዲስ አበባ ዩኒቨርሲቲ በነርስና ሚድዋይሬሪ ትምህርት ክፍል ለሚጠናው የነርስ ሙያተኞችን የስራ ላይ ውጥረት(ጭንቀት)፣የስራ እርካታ እንዲሁም ተዛማጅ ችግሮችን በምስራቅ ጎጃም ዞን ባሉ ሆስፒታሎች ውስጥ በሚጠናው ጥናት በተመራማሪው በኩል አስተባባሪ ነኝ ።እርስዎ በዚህ ጥናት ተሳታፊ እንዲሆኑ ተመርጠዋል። ጥናቱ ውስጥ የሚሳተፉት የሚከተለውን መረጃ አንብበው እና ተረድተው ከተስማሙ ብቻ ነው።

የጥናቱ አላማ:የዝህ ጥናት ዋና አላማ የነርስ ሙያተኞችን የስራ ላይ ውጥረት(ጭንቀት) እና የስራ እርካታ መዳሰስ ነው ።

እኔ ከርስዎ የምፈልገው:ጥናቱ ውስጥ ለመሳተፍ ከተስማሙ ፤መጠይቁን አንብበው ስለ እርስዎ የማህበራዊና የስነ ህዝብ ሁኔታ፣ የስራ ላይ ውጥረት(ጭንቀት) እና የስራ እርካታን የሚመለከቱ መጠይቆችን እንዲሞሉልኝ ነው።

የጥናቱ ጥቅምና ጉዳት:የዚህ ጥናት ውጤት መንግስትና የመንግስት አካላት የነርስ ሙያተኞችን የስራ ላይ ውጥረት(ጭንቀት) እና የስራ እርካታን በተመለከተ ፖሊሲ እንዲቀርፁ ይረዳል። በመሆኑም እርስዎ ከሚቀረፀው ፖሊሲ ሊጠቀሙ ይችላሉ።ጥናቱ ውስጥ በመሳተፍዎ የሚከፈለዎት ክፍያ የለም።መጠይቁን ለመሙላት ከሚጠፋ ጊዜ በስተቀር የሚፈራ አደጋ ወይም ጉዳት አይኖርም።

ሚስጥራዊነት:የሚሰጡት መረጃ ሚስጥራዊነቱ በከፍተኛ ደረጃ የተጠበቀ ነው።የሚሰጡት መረጃ የሚውለው ለዚህ ጥናት ብቻ ነው። በመሆኑም ስምዎን በመጠይቁ ላይ አይሰፍርም (አይጻፍም)።

ተሳትፎዎ ፍቃድኝነት ላይ የተመሰረተ ነው:በጥናቱ ላይ ያለዎት ተሳትፎ በእርስዎ ፈቃድኝነት ላይ የተመሰረተ ነው።መመለስ የማይፈልጉትን ምልስ ይመልሱ ዘንድ አይገደዱም እንደሁም ከጥናቱ ውስጥ ለመወጣት ከፈለጉ በማንኛውም ሰዓት አቋቋሙ መወጣት ይችላሉ።፡፡ነገር ግን እርስዎ በታማኝነት የሚሰጡት መረጃ ለሚጠናው ጥናት እጅግ በጣም አስፈላጊና ትልቅ አስተዋጾ አለው። ፡፡ባጠቃላይ መጠይቁን ሞልቶ ለመጨረስ 35-45 ደቂቃ ይፈልጋል።

ጥናቱን በተመለከተ ጥያቄ ካለዎት

የአጥኝዉን በስልክ አድራሻ:-

ስም :ደሳለኝ ኃይሌ

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ስልክ : +251913429647

Annex V: Consent Form Amharic version

የስምምነት ቅፅ

እኔ የጥናቱ ተሳታፊ ሆኜ የተመረጥኩ የተሳታፊዎች መረጃ መስጫ ቅጽን በትንቃቄ አንብቤ ተረድቻለሁ። የነርስ ሙያተኞችን የስራ ላይ ውጥረት(ጭንቀት)፣የስራ እርካታ እንዲሁም ተዛማጅ ችግሮችን በምስራቅ ጎጃም ዞን ባሉ ሆስፒታሎች ውስጥ በሚል ርዕስ በሚጠናው ጥናት ለመሳተፍ የጥናቱን ዋና አላማ፣ጥቅም ስሜት እንዲሁም ከእኔ ምን እንደሚጠበቅ ተረድቻለሁ። የግል ስሜት እንደማይገኝ ስሜት የሰጠውት መረጃዎች ለሦስተኛ ወገን ተላልፈው እንደማይሰጡ ተረድቻለሁ።ጥናቱ ውስጥ ለመሳተፍ መወሰን እንደምችል ስሜት በፈለኩት ጊዜ ጥናቱን አቋርጬ መተወድ እንደምችልም ተረድቻለሁ።ስለዝህም ጥናቱ ውስጥ ለመሳተፍ ተስማምቻለሁ።ይህንንም በፍርማዬ አረጋግጣለሁ።

የተሳታፊው ፍርማ _____

የአስተባባሪው ስምፊረማ.....ቀን.....

ፈቃደኛ ስለሆኑ አመሰግናለሁ።

Annex VI: Questionnaire Amharic version

ክፍል 1: የማህበራዊና የስነ ህዝብ ሁኔታ

እባክዎ መልስዎን በክፍት ቦታው ወይም ቁጥሮችን በማክብብ ያስቀምጡ።

ተ.ቁ	ጥያቄዎች	ምላሾች
101	የምትሰራበት/የምትሰራበት ሆስፒታል	_____ ሆስፒታል
102	እድሜ	_____ ዓመት
103	ጾታ	1. ወንድ 2. ሴት
104	ሀይማኖት	1.ኦሪቶዶክስ 2.ሙስሊም 3.ፕሮቴስታንት 4.ካቶሊክ 5.ሌላ(ይገለጽ)_____
105	ብሄር	1.አመራ 2.አሮሞ 3.ትግሬ 4.አገው 5. ሌላ(ይገለጽ)_____
106	የጋብቻ ሁኔታ	1. ያላገባ/ች 2. ያገባ/ች 3. አግባብ የፈታ/ች 4. በሞት የተለየችበት/የተለየባት
107	የልጆች ብዛት (ካለ) በቁጥር	_____
108	የትምርት ደረጃ	1. ዲፕሎማ 2. የመጀመሪያ ዲግሪ 3. ሁለተኛ ዲግሪ
109	በነርስነት የስራ ልምድ	_____ በዓመት
110	በአሁኑ ሰአት ከሙያ በተጨማሪ የተሠጠህ/ሽ ኃላፊነት አለ? ለምሳሌ የክፍሉ ሀላፊ መሆን	1.አዎ 2. የለም
111	የምትሰራበት/የምትሰራበት ክፍል	1. የውስጥ ደዌ ምኞታ ክፍል 2. ቀዶ ጥገና ምኞታ ክፍል 3. የማህጸንና ጽንሰ ምኞታ ክፍል 4. የህጻናት ምኞታ ክፍል 5. ሌላ ክፍል(ይገለጽ)-----
112	በቀን ለምን ያክል ሰዓት ትሰራለህ/ሽ	_____ ሰዓት

ክፍል 2: የነርሶች የስራ ላይ ውጥረት መለኪያ

ከዚህ ቀጥሎ ያሉት ሀሳቦች የነርሶች የስራ ላይ ውጥረት (ጭነቀትን) ይመለከታል። ለእያንዳንዱ አረፍተ ነገር የእርስዎን አመለካከት ይጠየቃሉ። ትክክለኛ መልስ ወይም ያልሆነ የሚባል ነገር የለም። በመሆኑም ወደ ጎን ከተዘረዘሩት አማራጮች ስር ካሉት ቁጥሮች አንዱን ብቻ በማክበብ የራስዎን ሃሳብ ያስቀምጡ።

ተ.ቁ	ጥያቄዎች	ምን ያክል ያስጨንቅሁል/ያስጨንቅሻል?			
		ምንም እያስጨንቅኝም	ትንሽ ያስጨንቅኛል	በመጠኑ ያስጨንቅኛል	በጣም ያስጨንቅኛል
ሞትና ሞት አፋፍ ላይ					
201	ሀሙማኑን ህመም እንዲሰማቸው የሚያደረጉ የህክምና አገልግሎት መስጠት	1	2	3	4
202	ህመምተኛው መሻሻል በማያሳበት ወቅት እርዳታ መስጠት አለመቻል	1	2	3	4
203	የህመምተኛው ሞት	1	2	3	4
204	የቅርብ ግንኙነት የነበርህ/ሽ የህመምተኛ ሞት	1	2	3	4
205	ህመምተኛ ሲሞት የሀኪሞች በቦታው አለመኖር	1	2	3	4
206	ህመምተኛ በህመሙ ሲሰቃይ መመልከት	1	2	3	4
207	ስለ ሞት ለህመምተኛ ማውራት	1	2	3	4
ከሀኪሞች ጋር ግጭት					
208	በሀኪም መተቸት (መነቀፍ)	1	2	3	4
209	ከሀኪም ጋር መጣላት (መጋጨት)	1	2	3	4
210	የህመምተኛውን ህክምና አሰጣጥ በተመለከተ መግባባት አለመኖር	1	2	3	4
211	ሀኪም በሌለበት ሰአት ስለህመምተኛው (ታካሚው) ውሳኔ መስጠት	1	2	3	4
212	የሀኪሞችን ስራ ማዘጋጀት (ማደራጀት)	1	2	3	4
በቂ ያልሆነ የስነ ልቦና ዝግጁነት					
213	የህመምተኛውን ቤተሰቦች ስነ ልቦናዊ ድጋፍ ለማድረግ በበቂ ሁኔታ አልተዘጋጀሁም ብሎ ማሰብ	1	2	3	4
214	በህመምተኛው/ዋ አጥጋቢ ምላሽ መስጠት የማልችላቸውን ጥያቄዎች መጠየቅ	1	2	3	4
215	ለህመምተኛው ስነ ልቦናዊ ድጋፍ ለማድረግ በበቂ ሁኔታ አልተዘጋጀሁም ብሎ ማሰብ።	1	2	3	4
ከጓደኛ ጋር ያለ ችግር					
216	በስራ ላይ ስላሉ ችግሮች ከሌላ ሙያተኞች (የስራ ባልደረባ) ጋር በግልጽ ለመነጋገር አጋጣሚ አለመኖር	1	2	3	4
217	የስራ ልምድን ስሜትን ለሌላ የስራ ባልደረባ ለማካፈል እድሉ (አጋጣሚ) አለመኖር	1	2	3	4
218	በክፍሉ ውስጥ ላሉ ሌሎች ሙያተኞች (የስራ ባልደረባ) ለህመማኑ ያለኝን አሉታዊ ስሜት ለመግለጽ እድሉ አለመኖር	1	2	3	4
219	በተመደብኩበት ክፍል ውስጥ በተለይ ከአንዳንድ ነረስ/ነርሶች ጋር ለመስራት መቸገር	1	2	3	4
220	ከተቃራኒ ጾታ ነረሶች ጋር ለመስራት መቸገር	1	2	3	4

ከኃላፊዎች(ከተቆጣጣሪዎች) ጋር ያለ ችግር					
221	ከኃላፊ ጋር መጣላት	1	2	3	4
222	ከቅርብ ኃላፊ ድጋፍ አለመኖር	1	2	3	4
223	በኃላፊ መተቸት(መነቀፍ)	1	2	3	4
224	ከነርስ ኃላፊዎች(አስተዳደሮች) ድጋፍ አለመኖር	1	2	3	4
225	በማይመለከተኝ ነገር ተጠያቂ መሆን	1	2	3	4
226	ከሌሎች የጤና ኃላፊዎች(አስተዳደሮች) ድጋፍ አለመኖር	1	2	3	4
227	በነርስ ኃላፊዎች(አስተዳደሮች) መተቸት(መነቀፍ)	1	2	3	4
የሰራ ጫና					
228	ለህመምተኛው የሰነ ልቦና ድጋፍ ለማድረግ በቂ ጊዜ አለመኖር	1	2	3	4
229	ለህመምተኛው ቤተሰቦች ፍላጎት ምላሽ ለመስጠት በቂ ጊዜ አለመኖር	1	2	3	4
230	የክፍሉን ስራ በበቂ ሁኔታ ለመሸፈን በቂ ሰራተኛ አለመኖር	1	2	3	4
231	በጣም ብዙ የነርስ ስራ ያልሆኑ ሥራዎች እንደሰራ ይጠበቅብኛል	1	2	3	4
232	ሁሉንም የሙያ ስራዎችን ለመጨረስ በቂ ሰዓት አለመኖር	1	2	3	4
233	የእረፍት ሰዓትን ስራ ላይ ማዋል(ተገቢ እረፍት አለማግኘት)	1	2	3	4
234	በቂ የመገልገያ መሳሪያ አለመኖር ወይም ያሉት በተገቢው መንገድ አለመስራት	1	2	3	4
235	በጫና ውስጥ ውሳኔ መስጠት	1	2	3	4
ስለ ህክምና አሰጣጥ እርግጠኛ አለመሆን					
236	የህመምተኛውን የጤና ሁኔታ በተመለከተ ከህኪሙ በቂ መረጃ አለማግኘት	1	2	3	4
237	ህኪሙ ተገቢ ያልሆነ ህክምና ለህመምተኛው ማዘዝ	1	2	3	4
238	ህመምተኛውን ሲያከሙ ስህተት እሰራለሁ ብሎ መፍራት	1	2	3	4
239	ድንገተኛ የህክምና ችግር ሲከሰት ህኪም አለመኖር	1	2	3	4
240	መሰራት ለሚገባኝ ነገር የሰጠና እጥረት አለብኝ ብሎ ማሰብ	1	2	3	4
241	የህመምተኛውን ሁኔታ እና ስለሚሰጠው ህክምና ለህመምተኛውም ሆነ ለቤተሰቦቹ ምን እንደሚነገር አለማወቅ	1	2	3	4
242	ልዩ የሆኑ መሳሪያዎችን በተመለከተ አጠቃቀምና አሰራር እርግጠኛ አለመሆን	1	2	3	4
243	ጤናን አደጋ ላይ ለሚጥሉ ነገሮች መጋለጥ	1	2	3	4
244	ያለ በቂ ልምድ ኃላፊነትን መቀበል	1	2	3	4
ህመምተኛው እና ቤተሰቡ					
245	የህመምተኛው ምክንያታዊ ያልሆኑ ፍላጎቶች	1	2	3	4
246	የህመምተኛው ቤተሰቦች ምክንያታዊ ያልሆኑ ፍላጎቶች	1	2	3	4
247	ለማንኛውም ጥፋት ተወቃሽ መሆን	1	2	3	4
248	ከህመምተኛው ቤተሰቦች ጋር ውይይት ለማድረግ ኃላፊነትን መውሰድ	1	2	3	4
249	ከህመምተኛው ቤተሰቦች ጋር አስፈላጊ ባልሆኑ ጉዳዮች(መጥፎ) ነገሮች መወያየት	1	2	3	4
250	ከሚሳደብ/ከምትሳደብ ከሚያውክ/ከምታውክ ህመምተኛ ጋር መወያየት	1	2	3	4

ክፍል 3: የስራ እርካታ መለኪያ

ከዚህ ቀጥሎ ያሉት ሀሳቦች የነርሶች የስራ ላይ እርካታን ይመለከታሉ። በመሆኑም ወደ ጎን ከተዘረዘሩት አማራጮች ስር ካሉት ቁጥሮች የርሰዎን ሃሳብ ሊገለጽ የሚችለውን አንዱን ብቻ በማክበብ ያስቀምጡ።

ተ.ቁ		በጣም አልሰማም	በመጠኑ አልሰማም	በትንሹ አልሰማም	በትንሹ አሰማለሁ	በመጠኑ አሰማለሁ	በጣም አሰማለሁ
	ክፍያን በተመለከተ						
301	ለምሰራው ስራ ተመጣጣኝ ክፍያ እንደሚከፈለኝ ይሰማኛል	1	2	3	4	5	6
302	የክፍያ ጭማሪ በጣም ትንሽና የጭማሪ ጊዜውም ረጅም ነው	1	2	3	4	5	6
303	ስለሚከፍሉኝ ክፍያ ሳስብ በሆሰጥታሉ እውቅና እነዳልተሠጠኝ ይሰማኛል	1	2	3	4	5	6
304	በደመወዝ ጭማሪ እድል እርካታ ተሰምቶኛል	1	2	3	4	5	6
	የስራ እድገት						
305	የስራ(የሙያ) እድገት እድሉ በጣም ትንሽ ነው	1	2	3	4	5	6
306	ስራቸውን በጥሩ ሁኔታ ለሚሰሩ ተገቢ የሆነ የእድገት እድል ያገኛሉ	1	2	3	4	5	6
307	እንደ ሌሎች ተቋማት ከዚህም የእድገት እድሉ በፍጥነት ይሰራል	1	2	3	4	5	6
308	በእድገት እድሉ እርካታ አለው	1	2	3	4	5	6
	ኃላፊን በተመለከተ						
309	ሃላፊዬ ለተሰጠው ስራ ብቁና የሚመጥን ነው	1	2	3	4	5	6
310	ኃላፊዬ በኔ ላይ ሚዛናዊ አይደለም	1	2	3	4	5	6
311	ኃላፊዬ ለበታች ስራተኞች ስሜት የሚያሳየው ፍላጎት በጣም አነስተኛ ነው።	1	2	3	4	5	6
312	ኃላፊዬን እወድቃለሁ	1	2	3	4	5	6
	ገንዘብና ገንዘብ ንዝ ያልሆኑ ጥቅማጥቅሞች						
313	በማገኘው ጥቅማጥቅም አልረካሁም	1	2	3	4	5	6
314	በአብዛኛው ሌሎች ድርጅቶች እንደ ሚሰጡት ሁሉ እኔም የማገኘው ጥቅማጥቅም ጥሩ ነው	1	2	3	4	5	6
315	ያለው ጥቅማጥቅም ለሁሉም ተደራሽ ነው	1	2	3	4	5	6
316	ማግኘት ሲገባኝ ያላገኘኋቸው ጥቅማጥቅሞች አሉ	1	2	3	4	5	6

እውቅና እና ማበረታቻ							
317	ጥሩ ስራ ስሰራ ማግኘት የሚገባኝን እውቅና አግኝቻለሁ	1	2	3	4	5	6
318	የምስራው ስራ ምስጋና እንደማይሰጠው ይሰማኛል	1	2	3	4	5	6
319	ከዚህ ለሚሰሩት ያለው ማበረታቻ(ሽልማት) ትንሽ ነው	1	2	3	4	5	6
320	ጥረቴ ማበረታቻት መደርግ በነበረበት መንገድ እንዳልተደረገ ይሰማኛል	1	2	3	4	5	6
የመስሪያ ቤቱ ህግና አሰራሮች							
321	አብዛኛዎቹ ህግ እና አሰራሮች ጥሩ ሥራን ለመስራት ምቹ አይደሉም	1	2	3	4	5	6
322	ጥሩ ስራ ለመስራት ያሉኝ ጠረቶች አንዳንዴ በቢሮከራሲ ምክንያት ይደናቀፋሉ	1	2	3	4	5	6
323	ስራ ቦታ የምስራው ስራ በጣም ብዙ ነው	1	2	3	4	5	6
324	የወረቀት ስራዎች በጣም ይበዙብኛል	1	2	3	4	5	6
የስራ ባልደረባዎችን በተመለከተ							
325	አብረውኝ የሚሰሩ ሰዎችን እወዳቸዋለሁ	1	2	3	4	5	6
326	አብረውኝ የሚሰሩ ሰዎች ባላቸው የስራ ድክመት ስራዎን በጥንካሬ መስራት እንዳለብኝ ተገንዝቤአለሁ	1	2	3	4	5	6
327	በስራ ባልደረባዎቹ ደስተኛ ነኝ	1	2	3	4	5	6
328	ስራ ላይ ከፍተኛ የሆነ ንትርክና ግጭት አለ	1	2	3	4	5	6
የስራው ሁኔታ							
329	አንዳንድ ጊዜ የኔ ስራ እርባና እንደሌለው ይሰማኛል	1	2	3	4	5	6
330	ስራ ላይ የምስራቸውን ነገሮች ወድጆ እሰራለሁ	1	2	3	4	5	6
331	ስራዎን ስሰራ ጥልቀት ያለው እረካታና ደስታ ይሰማኛል	1	2	3	4	5	6
332	የእኔ ሥራ አስደሳች ነው	1	2	3	4	5	6
መረጃ በተመለከተ							
333	በሆስፒታሉ ውስጥ የመረጃ ልውውጡ ጥሩ ይመስላል	1	2	3	4	5	6
334	የሆስፒታሉ አላማ/ግብ ለኔ ግልጽ አይደለም	1	2	3	4	5	6
335	ሁልጊዜ የሚሰማኝ በሆስፒታሉ ውስጥ ምን እየተሰራ እንደ ሆነ አላውቅም	1	2	3	4	5	6
336	የስራ ድርሻዬ በደንብ አልተብራራልኝም	1	2	3	4	5	6

Annex VII: Instructions for interpreting JSS

Interpreting Satisfaction Scores with the Job Satisfaction Survey[®]

I am frequently asked how to interpret scores on the Job Satisfaction Survey (JSS). The JSS assesses job satisfaction on a continuum from low (dissatisfied) to high (satisfied). There are no specific cut scores that determine whether an individual is satisfied or dissatisfied, in other words, we cannot confidently conclude that there is a particular score that is the dividing line between satisfaction and dissatisfaction. Where there is a need to draw conclusions about satisfaction versus dissatisfaction for samples or individuals, two approaches can be used.

1. The normative approach would compare the target person/sample to the norms for the sample. My website provides norms for several different groups. One can reference the norms and describe given individuals/samples as being more satisfied, dissatisfied, or about the same as the norms. These norms are limited in three ways. First, there are a small number of occupations and organizations represented. Second, the norms are not from representative samples, but rather are an accumulation of mostly convenience samples people send me. In other words, they are a convenience sample of convenience samples. Third, the norms are mainly from North America—Canada and the U.S. Mean levels of job satisfaction varies across countries, so one should not assume these norms are representative of other countries, particularly those that are culturally dissimilar from North America.

2. The absolute approach picks some logical, if arbitrary cut scores to represent dissatisfaction versus satisfaction. Given the JSS uses 6-point agree-disagree response choices, we can assume that agreement with positively-worded items and disagreement with negatively-worded items would represent satisfaction, whereas disagreement with positive-worded items and agreement with negative-worded items represents dissatisfaction. For the 4-item subscales, as well as the 36-item total score, this means that scores with a mean item response (after reverse scoring the negatively-worded items) of 4 or more represents satisfaction, whereas mean responses of 3 or less represents dissatisfaction. Mean scores between 3 and 4 are ambivalence. Translated into the summed scores, for the 4-item subscales with a range from 4 to 24, scores of 4 to 12 are dissatisfied, 16 to 24 are satisfied, and between 12 and 16 are ambivalent. For the 36-item total where possible scores range from 36 to 216, the ranges are 36 to 108 for dissatisfaction, 144 to 216 for satisfaction, and between 108 and 144 for ambivalent.

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Annex VIII: Declaration

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

Principal investigator: Name: **Dessalegn Haile (Bsc.)**

Signature: _____

Name of the institution: **Addis Ababa University**

Date of submission: -----

This thesis has been submitted for examination with my approval as university advisor

Name of advisor: **Berhanu Dessalegn (Bsc, MPh)**

Signature _____

Date _____