Addis Ababa University

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Determinants of Job Satisfaction among health workforce in Menelik II Referral Hospital, Addis Ababa, Ethiopia

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A Thesis Submitted to the Department of Master of Business Administration, Addis Ababa University in Partial Fulfillment for the Requirement of MBA Degree in Business Administration.

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DECLARATION

I Melaku Temesgen Bayih, Registration number GSR/4356/09, do hereby declare that this thesis is my original work and that it had not been submitted partially; or in full, by any other person for an award of degree in any other university/institution.

Submitted by:

Full Name…….. Signature……..…… date……..

Approved by:

This thesis has been submitted for examination with my approval as university college supervisor.

Name of Advisor ……..……. Signature …… date…….

APPROVAL

I undersigned certify that they have read and hereby recommend to Addis Ababa University to accept the thesis submitted by Melaku Temesgen and entitled "Determinants of Job Satisfaction among health workforce in Menelik II Referral Hospital, Addis Ababa, Ethiopia" in partial fulfillment of the requirements for the award of a Master's Degree in Business Administration.

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Name of Internal Examiner …… Signature ……. date ...…….

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ABREVIATIONS AND ACRONYMS

CSA – Central Statistical Agency

EDHS – Ethiopian demographic and health survey

EFY – Ethiopian Fiscal Year

FMoH – Federal Ministry of Health

ABSTRACT

Health workforce job satisfaction is a crucial element of health care service provision. However, determinants of job satisfaction among health workforce are not well studied in referral hospitals using econometric models. The objective of this study was to identify the key determinants of job satisfaction among health workforce in Menelik II Referral Hospital, Addis Ababa, Ethiopia.

The study used a cross sectional survey design. Structured interview with 250 sample respondents were held, who were selected using probability sampling technique. Descriptive statistics and inferential statistics: ordered logistic regression was used to identify socio-demographic and work related determinants affecting job satisfaction of health work force and data analysis at institutional level.

The result show that most of the respondents are in a very satisfied and satisfied category of job satisfaction. In which, the distribution shows 14.69% and 29.8% of the total respondents are very satisfied and satisfied with their job respectively. On the other hand 24.08% and 4.08% of the respondents are unsatisfied and very unsatisfied with their job respectively.

Among the study variables included in this study age, family size, educational status, income, professional category, year of experience, participation in decision making and relationship with supervisors are significantly determining the job satisfaction of health work force in the study area.

Thus, in the process of human resource management and development policy making process, these variables should be considered by the health sector and concerned decision makers and policy makers of health institutions.

Key words: *Health workforce, Menelik II, Ordered logistic regression and Job satisfaction.*

CHAPTER ONE: INTRODUCTION

1.1. Background

Job satisfaction is an attitude that people have about jobs and their organization in which they perform their job. It has a great contribution for the success of organizations. The scarcity of healthcare professionals is one of the burning issues in almost every part of the world. Each and every health care personnel is crucial for the healthcare system and its insufficiency produce troubles for the working of the system (Barket, Azeem, Bhutto and Shaikh, 2017).

Job satisfaction is believed to be a key factor that it influences performance of individuals and organizations. Dissatisfied work force has a negative impact on performance of the facilities. Moreover, it is a pushing factor for migration of health workers, both from rural areas to the cities and out of the country (Pascal Z, et al 2005).

In Ethiopia, Human Resource Development has been a key component in the successive health sector development plans including HSDP III with the main objective of improving the staffing level at various levels as well as to establish implementation of transparent and accountable Human Resource Management (HRM) at all levels. With the aims of improving the overall HRH situation in the country the government has initiated Business Process Reengineering process that thoroughly analyzed the Human Resource for Health situation in the country (Health Sector Development Program IV, 2011).

Addis Ababa has 3,273,001 population and all of the residents are urban dwellers. There are 10 public and 19 private hospitals found in the city (FMoH, 2016). Menelik II Referral Hospital is among the 11 public hospitals in Addis Ababa City. The Hospital provides the health care services having professionals that include 59 physicians, 203 nurses, 123 other health professionals, and 250 administrative staff, making a total of 635 employees (Menelik II Hospital Report, 2019)

The purpose of this paper is therefore to research this gap and address the problem. Thus, the researcher is interested in this study aimed to identify the determinants of job satisfaction among health workforce in Menelik II Referral Hospital, Addis Ababa, Ethiopia.

1.2. Statement of the Problem

The quality of health care significantly depends on the satisfaction of the health workforce. Human resources are key components in any health care delivery system (Necochea, Badlani, and Bossemeyer, 2013). However, poor attention is given to satisfaction of health workforce in their job. The problem of job satisfaction exists in all job categories though the magnitude is higher in the health sector.

Health workers motivation and attitudes have significant ramifications for patient health outcomes. In low and middle income countries, low performance and suboptimal behaviors of health workers have often been reported as contributing factors leading to adverse health outcomes (Guedehoussou, 2016). Job satisfaction of health workersin developing countries in general and in Ethiopia in particular is very low (Yami, Hamza, Hassen, Jira, and Sudhakar, 2011). The health workforce is the back bone for the provision of quality health care and professional job satisfaction earns high dividends in Ethiopia (Aiken, Havens, and Sloan, 2000).

Studies were conducted on determinants of job satisfaction. Previous literatures show that different scholars show different demographic, socio-economic and professional development as well as personal profile determines job satisfaction. Among these, Kuburovic, Dedic, Djuricic, and Vladimir (2008) show that wages, equipment, the possibility of training and the opportunities for professional development affects job satisfaction. Whereas Jathanna, Melisha, Mary and Latha (2011) in their study identified that the personal profile determinants which were age, gender, work experience, marital status, having dependents affects job satisfaction in a positive direction. Enezi, Shah, Chowdhury and Amayatakul (2003) in their side found that remuneration, opportunity for continuing education, and work experience had a significant and positive relationship to job satisfaction. Ali and Wajidi (2013) in their study found that opportunities for career development, working time and promotional schemes have high associations with job satisfaction.

Mulugeta and Ayele (2015) identified age, profession, level of education, future intention; service year and participation in decision making were factors for job satisfaction. Tadesse, Mohamed and Mengistie (2015) indicate that opportunity to develop, time pressure and staff relation are factors. Lorberl and Savic (2012) show that job satisfaction was explained by age, years of employment, personal characteristics of leaders, and managerial competencies of

leaders. On the other hand, Parvin and Kabir (2011) show that salary, efficiency in work, fringe supervision, and coworker relation are contributing factors for job satisfaction.

There are inconsistencies in variables which need further investigation. Among these, some scholars see the social and demographic variables, other on economic and professional and managerial variables in their study. Furthermore, some empirical studies were descriptive (Jathanna, Melisha, Mary, and Latha, 2011), (Rashid, 2013), (Yami, Hamza, Hassen, Jira, and Sudhakar, 2011) to study job satisfaction and they are not applied data analysis models to measure job satisfaction, however job satisfaction is better to be analyzed using ordered logistic regression model of data analysis, which gives better understanding on the determinants of health workforce job satisfaction.

Therefore, these gaps initiated the need for further investigation of determinants of job satisfaction among health workforce in Menelik II Referral Hospital to contribute to the limited empirical literature using ordered logistic regression model of data analysis.

1.3. Objectives of the study

1.3.1. General Objective

The general objective of this study was to identify the determinants of job satisfaction among health workforce in Menelik II Referral Hospital, Addis Ababa, Ethiopia.

1.3.2. Specific Objectives

- ✓ To determine the satisfaction level of health work force in Menelik II Referral Hospital.
- ✓ To identify the determinant factors of job satisfaction in Menelik II Referral Hospital.

1.4. Research Questions

1. What is the satisfaction level of health work force in Menelik II Referral Hospital?
2. What are the determinant factors of job satisfaction in Menelik II Referral Hospital?

1.5. Significance of the study

Health workforce satisfaction is a serious problem in most of the health institutions. It is extensively affecting the quality of service that the community is receiving. This study will serve as a reference for decision making in the area of health work force satisfaction. It will help to identify the satisfaction level of health work force in the study area and determinant

factors that will affect the satisfaction of health work force. This gives a clue to policy makers, concerned government authorities and nongovernmental organizations on factors which influence the health work force satisfaction. That enables them to make informed decision as well as intervene in the problem.

1.6. Scope and Limitations of the study

This study has spatial and thematic delimitations. Spatially, the study would be conducted in Menelik II Referral Hospital of Addis Ababa City Government, Ethiopia. The primary focus of this study was on the satisfaction level and determinant factors of health work force satisfaction. Thematically, the study was delimited to assess the satisfaction level of health work force and to identify the determinants that affect health work force job satisfaction at the institutional level. This study was conducted in Menelik Referral Hospital, Addis Ababa, Ethiopia. However, it is difficult to generalize to health work force in Addis Ababa, Ethiopia because of sample size limitation

1.7. Ethical Considerations

Research clearance and Approval was obtained from Addis Ababa City Government Health Bureau. The study subjects were requested to give their consent after receiving adequate explanation about the purpose, significance, anonymity and how they could give their responses. They were also told about their rights to withdraw from the study, and not to answer questions whenever they felt uncomfortable. Oral informed verbal consent was obtained from every respondent.

CHAPTER TWO: LITERATURE REVIEW

In this part the researcher presents operational definitions, theoretical explanations and empirical findings related to health work force satisfaction with regard to the objectives and variables of this study. The first part deals with satisfaction theories. The second part of the review finds out empirical works that explain determinants of job satisfaction by giving emphasis on studies conducted in health institutions.

2.1. Operational Definitions

Job Satisfaction: In this study job satisfaction is defined as the extent to which an employee feels self-motivated, content & satisfied with his/her job. Job satisfaction happens when an employee feels he or she is having job stability, career growth and a comfortable work life balance. This implies that the employee is having satisfaction at job as the work meets the expectations of the individual.

Health workforce: in this study health workforce can be defined as "all people engaged in actions whose primary intent is to enhance health.

2.2. Theoretical literature

After understanding the definition of the concepts of Job Satisfaction certain major theories given by the experts are to be reviewed. This would enable the researcher to have an insight in to the major theories available on the area of study so as to draw a proper dimensions into the present study. In this part the theories given by Maslow, Herzberg, Alderfer and Stancy Adams are outlined below.

2.2.1. Abraham Maslow's Theory of Needs

Kanfer (1990) one of the most prominent and common theories of job satisfaction is Maslow's need hierarchy, which contends that human needs form a five-level hierarchy. Specifically, it asserts that the fulfillment of psychological needs, such as the pay and benefits offered by an organization, must meet the employee's overall expectations. Once the psychological needs of the employee have been met, the next level of needs is how safe the employee feels in his/her environment, which also implies a sense of job security and/or having good organizational policies. The next level of hierarchical needs is the feeling of belonging to the organization, which is manifested by a positive relationship between

colleagues and supervisors. Once the aforementioned needs have been met, the fourth level is the need to be appreciated and recognized within the organization. The final level is the self-actualization of the employee who is able to achieve his or her potential within the organization. Thus organizations trying to increase employee job satisfaction should begin by meeting these basic employee needs.

Maslow (1954) developed the most popular theories of motivation in 1935. He stated that individual have five needs, which he arranged in a hierarchy from the most basic level to the highest: physiological, safety, belonging and love, esteem and self- actualization. Physiological Needs: which refers to the most basic needs an individual has. This includes needs for food, clothing and shelter. Physiological needs dominate when all needs are unsatisfied. According to this theory, once these basic needs are satisfied, they no longer motivate. Safety Needs: These needs are otherwise called as security needs. These include protection from physiological dangers; economic security and the desire for an orderly, predictable environment. Belongingness and Love Needs: Man is a gregarious being and he wants to belong, to associate, to gain acceptance from associates, to give and receive friendship and affection. Social needs tend to be stronger for some people than for others and stronger in certain situations. Esteem Needs: Esteem needs are two fold in nature; self-esteem and esteem of others. Self-esteem needs include those for self-confidence, achievement, competence, self- respect, knowledge and for independence and freedom. The second groups of esteem needs are those that related at one's reputation, needs for status, for recognition, for appreciation and the deserved respect of one's fellows. Self-Actualization Needs: which reflect individual's desire to grow and develop to their fullest potential. Individuals often want the opportunity to be creative on the job. In other words, self-actualization needs refer to becoming what one is capable of becoming.

Another theory of job satisfaction is the dispositional approach, which states that an individual has a predisposition to being either satisfied or not, which remains more or less constant over time. This theory focuses more on personality traits of individuals, and therefore provides little opportunity for organizations to increase the level of work satisfaction among their employees, since satisfaction is believed to be entirely determined by personal traits (Guedehoussou, 2016).

On the other hand, (Wahba and Brickwell, 1974) the Maslow theory of motivation has many limitations and it has been difficult to verify with research. Although Maslow published his theory years ago, it was not until the mid-60s that his ideas began to be questioned with empirical research. The body of critics is growing and we must be content to summarize some of the major limitations. In the first, factor analysis techniques have been used to determine if Maslow's classification schemes of needs is correct and if there is indeed a hierarchy of needs. The results of these tests have failed to support Maslow's classification schemes for human needs, and these tests have failed to support the idea of a hierarchy of needs. Maslow's need categories appear to overlap but are not distinct and separate. Further, there is evidence for lower and higher order needs, but even these categories cannot be ascertained for sure. Second, as one need is satisfied does another rise to dominate as Maslow concluded? Stated another way the strength of a given need should diminish after gratification of the next higher order need should increase in strength. The evidence from various studies does not support Maslow in this regard.

Maslow provided no empirical substantiation to the Need Hierarchy. Researchers reviewed the evidence and concluded that, although of great societal popularity, need hierarchy as a theory continues to receive little empirical support (ibid).

2.2.2. Herzberg's Two Factor Theory

The other prominent theory of job satisfaction that is common and will be used in this study is the Herzberg two-factor theory. The Herzberg theory argues that job dissatisfaction and satisfaction are two separate and unrelated phenomena. He suggests that just because an employee is not dissatisfied does not mean that he or she is satisfied. It is known as the dual-factor theory because it argues that there are two sets of factors that either enhance satisfaction or hinder it. These are motivators or intrinsic factors, and de-motivators or extrinsic and hygienic factors. Intrinsic factors, when in place, create high motivation and high satisfaction for in the employee. These factors range from recognition to promotion and career advancement, and when met they elicit high levels of motivation and job satisfaction. On the other hand, hygienic or extrinsic factors such as pay, working conditions, company policy, and job security need to be present to prevent employee dissatisfaction, so that employees do not become demotivated. The presence of good hygienic factors is important because they move employees closer to a neutral position, and closer to satisfaction.

Herzberg maintains that making improvements to both of these factors leads to job satisfaction and might increase motivation (Herzberg, 1966).

Mausner and Snyderman (1959) view motivation compliments that of the other needs theory. They suggest that motivators - features of a job's content including responsibility, autonomy, self-esteem and self-actualization opportunities are factors that satisfy higher order needs, motivate a person to exert more effort, and hence encourage the person to perform better, hygiene factors that can meet physiological, social needs, including physical working conditions, salary, benefits, and other features of a job's context-satisfy lower order needs and prevent dissatisfaction. Unlike the other theories, the two factor theory focuses on increasing overall satisfaction rather than relying simply on meeting individual needs. Hygiene factors do not motivate because they do not encourage individuals to exert more effort. But hygiene factors must first be satisfied to bring the individual to a point of neutrality so that the motivators will have an effect.

Riley (2005) Herzberg's Two-Factor Theory divides motivation and job satisfaction into two groups of factors known as the motivation factors and hygiene factors. According to Frederick Herzberg, "the motivating factors are the six 'job content' factors that include achievement, recognition, work itself, responsibility, advancement, and possibility of growth. Hygiene factors are the job context factors, which include company policy, supervision, relationship with supervision, work conditions, relationship with peers, salary, personal life, relationship with subordinates, status, and job security.

2.2.3. Alderfer's ERG Theory

Similar to Maslow and Herzberg, Clayton Alderfer feel that there is value in categorizing needs and that there is a basic distinction between lower order needs and higher order needs. Alderfer identified three groups of core needs: existence, relatedness, and growth (ERG theory). Existence needs are concerned with survival or physiological well-being. The relatedness needs stress the importance of interpersonal, social relationships. The growth needs are concerned with the individual's intrinsic desire for personal development. Unlike Maslow and Herzberg, he does not contend that a lower-level need has to be fulfilled before a higher level need is motivating or that deprivation is the only way to activate a need. Under ERG theory the person's background may dictate that the relatedness needs will take precedence over unfulfilled existence needs and that the more the growth needs are satisfied,

the more they will increase in intensity. Overall, the ERG theory seems to take some of the strong points of the earlier content theories but is less restrictive and limiting. (Alderfer, 1972).

2.2.4. Expectancy Theory

Victor H. Vroom developed an approach to motivation, known as expectancy theory that attempts to explain behavior in terms of an individual's goals and choices and the expectations of achieving these goals (Vroom, 1964). It assumes that people can determine which outcomes they prefer and can make realistic estimates of their chances of obtaining them. Victor Vroom's model states that motivation is a function of expectancy, valence, and instrumentality. In other words,

Motivation = Expectancy x Valence x Instrumentality

(E x V x I)

This simple formulation identifies the three basic components of expectancy theory.

E, or expectancy, refers to a person's perception of the probability that effort will lead to performance.

V, or valence, refers to a person's perception of the value of the projected outcomes; that is, how much the person likes or dislikes receiving those outcomes.

I, or instrumentality, refer to a person's perception of the probability that certain outcomes, positive or negative, will be attached to performance.

In short, the strength of the motivation to perform a certain act will depend on the algebraic sum of the products of the valences for the outcome (which include instrumentality) times of the expectancies.

2.2.5. Equity Theory

Adams (1965) argues that a major input into job performance and satisfaction is the degree of equity or inequity that the people perceive in their work situation. Here an individual's perception of the fairness of rewards. he receives is an important factor of job satisfaction. Individual's subjective judgments about the equity or fairness of the reward play a key role. If the people feel, they are inadequately rewarded they may be dissatisfied. If they view reward as equitable they will probably continue at the same level of output. If people think that rewards are greater than what is considered equitably, they may be very much satisfied and they may work hard.

Huseman, Hatfield and Miles (2013) Equity theory proposes that individuals who perceive themselves as either under rewarded or over rewarded will experience distress, and that this distress leads to efforts to restore equity. The equity sensitivity construct suggests that individuals do not conform consistently to the norm norm of equity. Instead, individuals react consistently to specific, but different, preferences they have for the balance between their outcome/input ratios and that of a comparison other. Benevolents prefer that their outcome/input ratios be less than the comparison other's; Equity Sensitive, who adhere to the norm of equity, prefer balanced outcome/input ratios; and entitled prefer that their outcome/input ratios exceed the comparison other's. Furthermore, these general preferences for equity can be traced to internal standards that characterize the Benevolent as emphasizing own inputs exceeding own outcomes; the Entitled, own outcomes exceeding own inputs; and the Equity Sensitive, own outcomes equaling own inputs.

According to equity theory, it is the perception of equitability and in equitability. Equity theory focuses on two sides: the input and the outcome. An employee compares his or her job's inputs with an outcomes ratio. If the employee perceives inequality, he or she he will act to correct the inequity. The employee may lower productivity or reduce the quality of their job. Many times inequities can lead to an increase in absenteeism and even resignation of an organization (Greenberg, 1999).

Based on Ciarnien, Kumpikait, and Vienazindien (2010) job satisfaction refers to the extent to which employees gain enjoyment from their efforts at the work place. It is generally believed that higher job satisfaction is associated with better organizational and individual performance, commitment; increased productivity, lower absenteeism, and lower employee turnover.

Ronald (1990) in his book, A Literature Review of Selected Theories Dealing with Job Satisfaction and Motivation states that Job satisfaction, motivation, and reward systems are included in one area of organizational theory. The strongest influence in this area is motivation because it overlaps into both of the other two components. Motivation is such an important element in improving work productivity, every educational administrator needs to have a firm understanding of how it relates to job satisfaction and reward systems.

2.3. Empirical Literature

Alemshet, Leja, Alima, Challi, and Morankar (2011) in their study of job satisfaction and its determinants among health workers in jimma university specialized hospital, southwest Ethiopia identify that 46.2% of the health workers are dissatisfied with their job. The major reasons reported for their dissatisfaction were lack of motivation, inadequate salary, insufficient training opportunities and inadequate number of human resources.

Temesgen, Aycheh and Leshargie (2018) in their study entitled Job satisfaction and associated factors among health professionals working at Western Amhara Region, Ethiopia found that, the presence of health professionals' reference guide, alcohol drinking, workload, experience, educational status and profession types were identified as significant factors associated with health care professionals' job satisfaction level.

Kuburovic, Dedic, Djuricic, and Vladimir (2008) conducted a study on Determinants of job satisfaction of healthcare professionals in public hospitals in Belgrade, Serbia Cross-sectional analysis using statistical tests. The study showed that the degree of professional satisfaction of Serbian healthcare professionals was low. They indicate the determinants were wages, equipment, the possibility of continuous medical education/training and the opportunities for professional development. Healthcare professionals with university education were more satisfied with all the individual aspects of job satisfaction than those with secondary school and college education.

Jathanna, Melisha, Mary, and Latha (2011) in their study entitled Determinants of Job Satisfaction among Healthcare Workers at a Tertiary Care Hospital using Employee satisfaction survey questionnaire which was adapted from "Conducting Hospital Employee satisfaction Survey, Linda Powell, MSIPT, 2001" show that the personal profile determinants which were compared with overall job satisfaction were age, gender, work experience, marital status, dependent children and parents. It revealed that majority of the determinants studied were having positive impact on the job satisfaction. It is interesting to note that comparatively young employees with dependents were more satisfied with their job. According to this study, satisfaction correlates with the age of the staffs. The test of significance showed that age, gender, marital status, dependent children, dependent parents were highly satisfied with their job and significant co relation with their job satisfaction.

Enezi, Shah, Chowdhury, and Amatayakul (2003) conducted a study on the determinants of job satisfaction and effectiveness among health information administration professionals in Kuwait. The study was found that remuneration compatible with qualifications, opportunity for continuing education, and work experience had a significant and positive relationship to job satisfaction. They conclude that the provision of continuing education, availability of orientation and job description, effective supervision, and remuneration compatible with qualifications are facilitators of job satisfaction and organizational effectiveness.

Ali and Wajidi (2013) conducted a study to evaluate the factors which cause job satisfaction in public healthcare of Pakistan using descriptive analysis method. Their study was conducted with a sample of 200 healthcare professionals from the twin cities of Islamabad and Rawalpindi. They found that opportunities for career development, working time and promotional schemes of the organizations have high associations with job satisfaction whereas work environment was found to have low significance towards job satisfaction.

Mengistu and Bali (2015) conducted a study entitled Factors Associated to Job Satisfaction among Healthcare Workers at Public Hospitals of West Shoa Zone, Oromia Regional State, Ethiopia: A Cross Sectional Study. Findings of the study show that Age of respondents, profession, level of education, future intention, service year and participation in decision making were found to be significantly associated with job satisfaction.

Tadesse, Mohamed, and Mengistie (2015) undertake a study on the assessment of factors influencing job satisfaction among health care providers, federal police referral hospital, Addis Ababa, Ethiopia. Finding of the study indicates that the major predicators of job satisfaction were opportunity to develop, time pressure and staff relation.

Lorberl and Savic (2012) conducted a study on Job satisfaction of nurses and identifying factors of job satisfaction in Slovenian Hospitals. The study findings show that job satisfaction was explained by age, years of employment, personal characteristics of leaders, and managerial competencies of leaders.

Barket, Azeem, Bhutto and Shaikh (2017) conducted a study on determinants of job satisfaction among dentists working in teaching hospitals in Karachi, Hyderabad and Islamabad. The study found that Dentists were more satisfied with their job advantages, sufficient job opportunities, work mentally stimulating, status in the community and entrusted

with responsibility. According to the study majority of the sample (71%) were agreed to the point that they are satisfied with their job and they suggest that there is no association between socio-demographic variables and job satisfaction.

Parvin and Kabir (2011) in their descriptive study show that salary, efficiency in work, fringe supervision, and co-worker relation are the most important factors contributing to job satisfaction. The study also show that, work conditions, pay and promotion, fairness, job security, relationship with co-workers, relationship with immediate supervisor influences job satisfaction in pharmaceuticals companies.

Tran, Minh and Hinh (2013) in their study entitled factors associated with job satisfaction among commune health workers: implications for human resource policies using tobit-censored regression models, constructed using stepwise selection, determined significant predictors of job satisfaction including age, areas of work and expertise, professional education, urban versus rural setting, and sufficient number of staff.

Rashid (2013) conduct a study on the determinants of job satisfaction among nurses at the Muhimbili national hospital. The results also report that there is a statistically significant relationship between job satisfaction and age, marital status as well as work experience variables.

2.4. Conceptual Framework

Job satisfaction was measured as job satisfaction level of health workers and demographic, work related and satisfaction variables. Here the conceptual framework of this study is presented as follows.

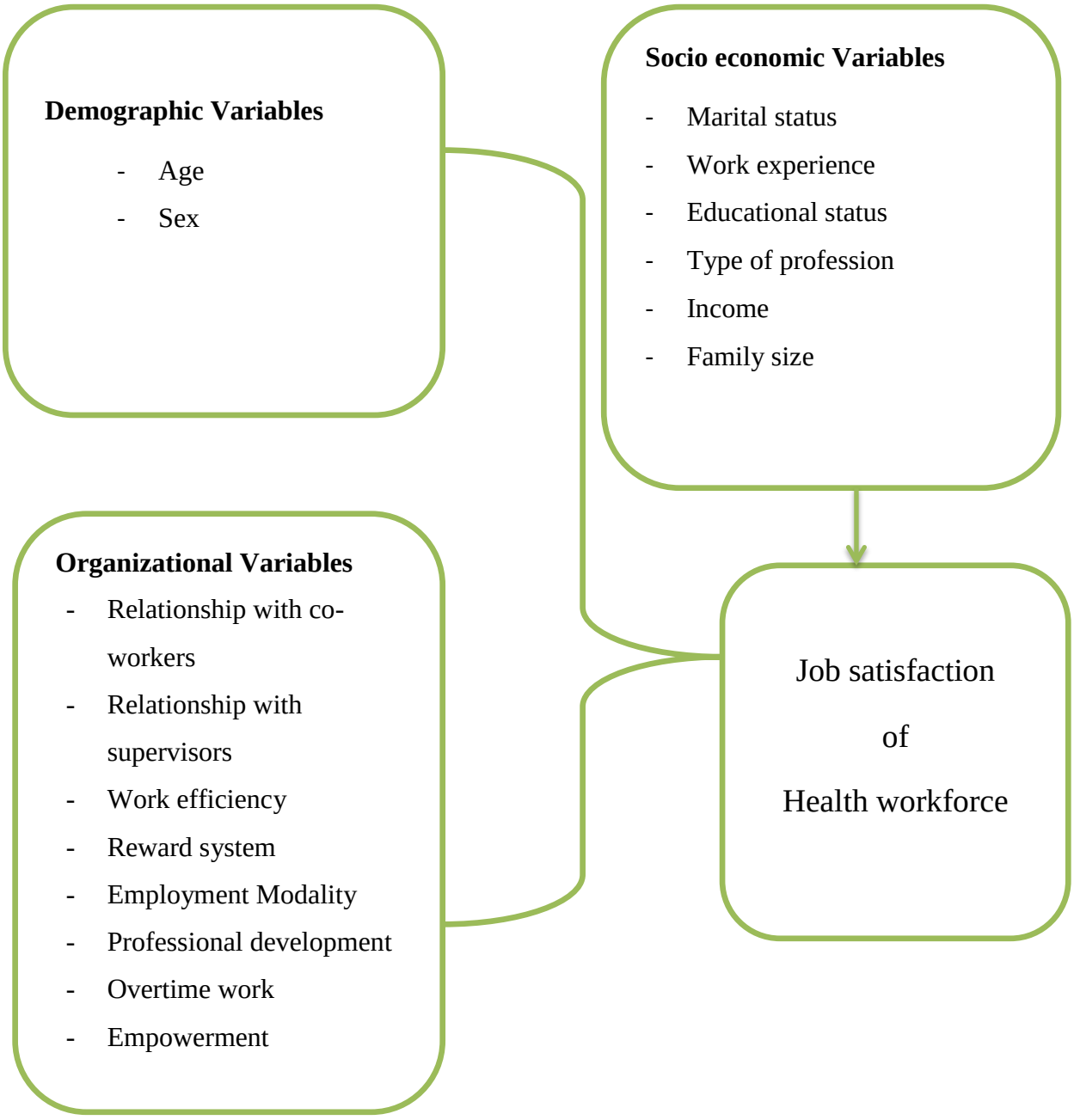

Figure 1: Conceptual Framework Developed from Literature, 2019

CHAPTER THREE: RESEARCH METHODOLOGY

This section encompasses the study area and methodological approaches that the researcher was used to achieve the study objectives. Here, the research design as broad blue print was include the sampling procedure, the data source and instruments, method of data analysis and interpretation, variables and model specification was presented here under in detail.

3.1. Description of the Study Area

The study was conducted in Menelik II Referral Hospital. The Hospital is a government hospital found in the capital city of Ethiopia in Addis Ababa. Addis Ababa City has 11 public hospitals.

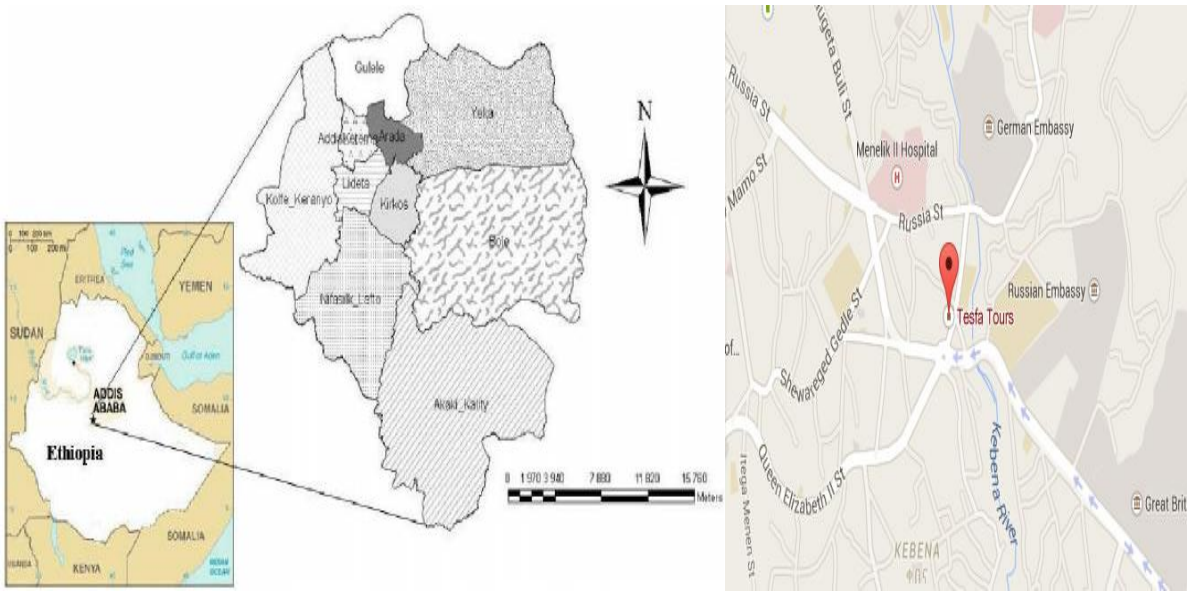

Figure 2: Map of the Study Area (Google Map)

The Hospital has various professionals in the clinical areas and administrative employees making a total of 670 permanent employees (Menelik II Hospital, 2019)

3.2. Research Design

This study was used explanatory survey research method since the problem was not well researched before; it was based on employee's survey as a unit of analysis. Therefore, a cross sectional survey research method was used to assess the job satisfaction level of health work force in the study area and to identify determinants that affect health work force job satisfaction.

3.2.1. Study Population and Sampling Frame

The study area, Menelik II Referral Hospital was selected purposively among the 11 Public Hospitals in Addis Ababa City because of its proximity to my residence and I know the area well. According to Menelik II Referral Hospital (2018) the hospital has 670 employees. Employees are the smallest sampling units for this study.

3.2.2. Sample Size and Sampling Techniques

Simple random sampling was used from the probability sampling techniques. According to Yamane (1967) a simplified formula to calculate sample sizes assuming a 95% confidence interval and p = 0.05 level.

$$n = \frac{\mathrm{N}}{1+\mathrm{N(e)2}} = \frac{670}{1+670(0.05)2} = 250$$

Where n is the sample size, N indicates the size of population, and e is the level of accuracy. According to Bhattacherjee (2012) systematic sampling technique involves a random start and then proceeds with the selection of every k^{th} employee from that starting point onwards (*k = N/n),* where *k* is the ratio of sampling frame size *N* and the desired sample size *n.* So, every 3^{nd} employee from the log book of employees was selected as a sample unit until the sample size will be reached.

3.3. Data Source and Instruments

The study used both primary and secondary data sources using a data collection instrument that was enabled to achieve the objectives of this study. The primary data was collected from sample employees. The study used structured questionnaire as a data collection instrument because it is the primary measuring instrument of survey research. The use of structured questionnaire has a close relationship with quantitative analysis.

The structured questionnaire was prepared in English and translated to "Amharic" which is the working language in the study area. This technique was used to collect cross sectional data from primary sources. The questionnaire was distributed to the sample respondents and collected by the researcher. The structured questionnaire was included socio-economic and demographic characteristics to collect primary quantitative data from the respondents. Secondary sources of data were the other source to collect data from published and

unpublished materials. Manuals, journals, institutional reports, previous researches, websites and regulations in relation with this study were reviewed.

3.4. Methods of Data Analysis

The collected data was analyzed using both the qualitative and quantitative methods. The qualitative analysis was used to present qualitatively collected data and some results from questionnaires asking about reasons and justifications. It was presented in the form of narrations and statements to support different findings of the study. On the other hand, the statistical analysis was taken form of descriptive and inferential statistics. The inferential statistics were used to understand determinants of job satisfaction among health workforce. Then the collected data entered, cleaned and analyzed using STATA.

3.5. Model Specification

The dependent variable in this study was measured as satisfaction level of employees and each value is given a category based on the value it takes. Taking into account the observed satisfaction level of health workforce on their job is ordinal variable; although the real distance between categories is unknown the categories follow a certain natural ordering, ranging from (1 to 5), where 1= Very Unsatisfied, 2= Unsatisfied, 3=Neutral, 4 = Satisfied and 5 = Very Satisfied. Thus, ordinal logistic regression model was applied using maximum likelihood estimation.

According to Gujarati (2004) in ordered logistic regression, the underlying score was estimated as a function of the predictor variables and a set of cut points. The probability of observing the outcome variable corresponds to the estimated linear function of age, sex, marital status, educational status, type of profession, income, family size, work experience, efficiency in work, relation with co-workers, relation with supervisors, reward system, job security, professional development plan, overtime work, empowerment plus random error, is within the range of the cut points estimated for the outcome:

$$y^* = x^T\beta + \varepsilon$$

Where, y^* is the exact but unobserved dependent variable

x, is the vector of independent variables.

β, is the vector of regression coefficients which we wish to estimate and ε is the error term.

Further, suppose that while we cannot observe y^* we instead can only observe categories of response (levels of satisfaction).

$$y = \begin{cases} 1 \ if \ y^* \leq \mu_1 \\ 2 \ \ if \ \mu_1 < y^* \leq \mu_2 \\ 3 \ if \ \mu_2 < y^* \leq \mu_3 \\ \quad . \\ \quad . \\ N \ if \ \mu_N < y^* \end{cases}$$

Where the parameters μ_i are the externally imposed end points of the observable categories.

The independent variables in this study are identified based on the existing empirical literatures and actual conditions in the study area which are useful to explain the dependent variable.

Table 1 : Socio-economic and demographic variables and expected signs

Variables	Definition of variables	Measurement
Dependent variable		
Job satisfaction	Health work force level of job satisfaction measured as five scale likert scale	Ordered
Independent variables		
Age	Age of the employee in years	Continuous
Sex	Sex of employee, 1=male, 0=female	Dummy
Marital status	Marital status of the employees indicating whether the employee is single, married,, divorced or widowed	Categorical
Educational status	Employees educational status	Categorical
Type of profession	Professional category of employee to indicate whether they are health professionals, technical assistants or administrative workers	Categorical
Income	Average Monthly income in ETB	Continuous
Family size	Number of household members	Continuous
Work experience	Number of years of employment	Continuous
Efficiency in work	The average efficiency score of the employee for the past one year	Continuous
Relationship with	The magnitude of employees relationship with	Ordered

supervisor	managers or supervisors	
Co-worker relation	Relationship among coworkers, measured as the magnitude of relationship with co-workers	Ordered
Reward system	Presence of recognition system for good performers (1 if yes, 0 if not)	Dummy
Job security	Reliability of the job (1 if permanent staff, 0 if not)	Dummy
Professional development	The presence of yearly plan for professional development to upgrade staff profession (1 if yes, 0 if not)	Dummy
Overtime work	Presence of paid overtime work (1 Yes, 0 No)	Dummy
Empowerment	Participation of employees in decision making of the institution (1 yes, 0 = No	Dummy

Source: Derived from literature review, 2019

CHAPTER FOUR: RESULTS AND DISCUSSION

This segment presents the thesis result and discussion of the study in line with objectives set in chapter one of this study. The first part of this chapter presents a descriptive statistics and qualitative results on respondents' background and work related characteristics. Then, the econometric results of the estimated model on job satisfaction of health workforce were presented and discussed with respect to the findings of previous studies.

4.1. Background Characteristics

4.1.1. Demographic and socio-economic characteristics

The study surveyed a total of 250 sample respondents through interview questionnaires which makes the response rate for the study was 245(98%). Five defaults from the expected sample size was found incomplete questionnaires. The results presented in this study are based on this number of sample respondents from the study area. Looking first in the demographic and socio-economic characteristics of the respondents, as presented in table 2 most of the respondents were male household heads contributing about 61.22% of the total sampled household respondents while the rest of the proportion belongs to female respondents. This implies that there is a male dominancy in the study area work environment.

Table 2: Sex of respondents

Sex of the respondent	Frequency	Percent
Female	95	38.78
Male	150	61.22
Total	245	100

Source: Primary field survey, 2019

Table 3: below show that, the total average age of respondents was 30.75 years with standard deviation of 8.24 from the mean age of the respondents. The result indicated that most of the respondents of the study were adults given the mean value of age with its average variation. When we see the disaggregation of responses by sex the average age of female respondents was 29.79 with a standard deviation of 9.10, while the average age of male respondents was 31.36 with a standard deviation of 7.61. Although there is little variation in age between male and female within group variability in age is higher as demonstrated by a large standard deviation.

Table 3: Mean age of respondents by sex

	Age		
Sex	N	mean	SD
Female	95	29.79	9.10
Male	150	31.36	7.61
Total	245	30.75	8.24

Source: Primary field survey, 2019

Looking to the marital status of the respondents, as presented in figure 3 below, most of the respondents were married contributing about 67.4% of the total sampled respondents. 13.9% of the respondents were single. On the other hand 8.6% of the respondents are divorced. Therefore, most of the respondents are married.

Figure 3: Marital status of study participants

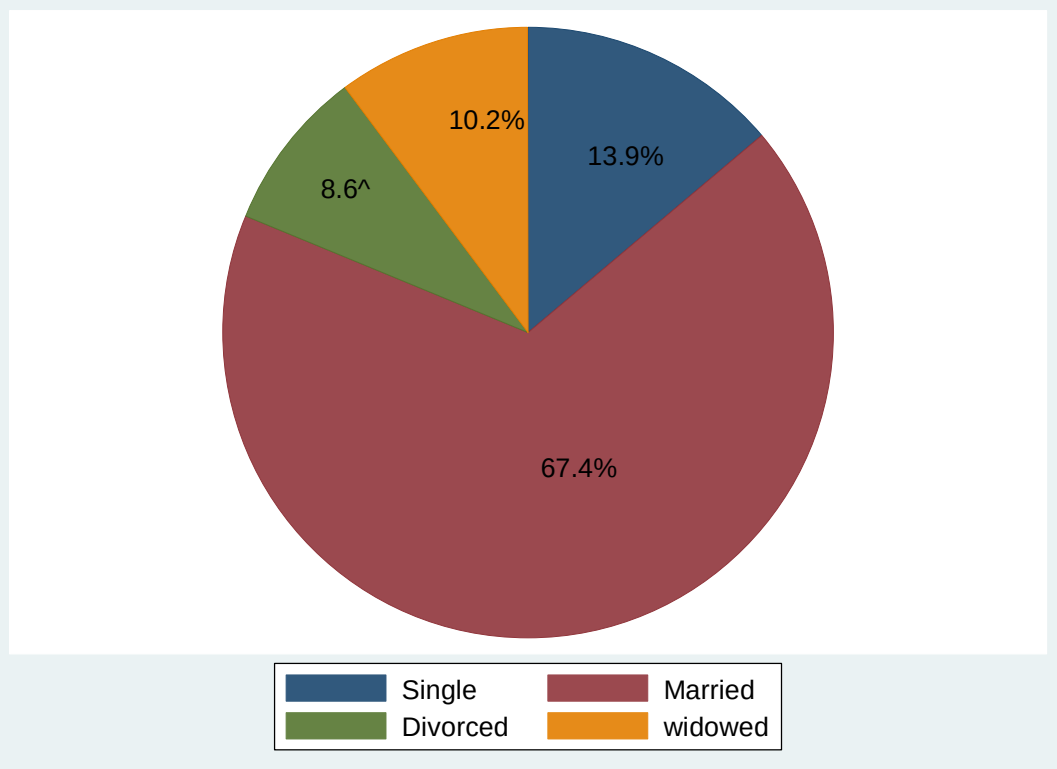

Table 4 show that, the total average family size of respondents was 4.38 individuals with standard deviation of 1.21 from the mean family size of respondents. The result indicated that most of the respondents have medium family size given the mean value of family size with its average variation. When we see the disaggregation of responses by profession the average family size of health professionals was 4.42 with a standard deviation of 1.26, while the

average family size of technical assistants was 4.18 with a standard deviation of 0.95. Although there is little variation in family size between health professionals and technical assistants within group variability in family size is higher as demonstrated by a large standard deviation.

Table 4: Mean family size of respondents by professional category

Profession	**Family Size**		
	N	mean	SD
Health professional	180	4.42	1.26
Technical Assist	38	4.18	0.95
Administrative	27	4.41	1.22
Total	245	4.38	1.21

Source: Primary field survey, 2019

The reported figure from Table 5 shows that 50.2% of the total respondents have an educational status of first degree level. Employees who have diploma and master level account a share of 14.69% each. 7.35% of them are medical doctorate level and the rest 6.53% of the respondents have medical specialty level of education. Like the overall distribution, the larger number of both females and males has first degree even though the distribution of respondents significantly differs based on their sex category in the organization. The result show that, males possess better educational status since the larger proportion of them holds first degree, medical doctorate and medical specialty level.

Table 5: Educational status of respondents by sex

Sex	Certificate	Diploma	First degree	Masters >	Medical Dr.	Specialists	Total
Female	4 (4.21%)	14(14.74%)	49(51.58%)	14(14.74%)	8(8.42%)	6(6.32%)	95(100%)
Male	12(8%)	22(14.67%)	74(49.33%)	22(14.67%)	10(6.67%)	10(6.67%)	150(100%)
Total	16(6.53%)	36(14.69%)	123(50.20%)	36(14.69%)	18(7.35%)	16(6.53%)	245(100%)
Pearson chi2(5) = 1.5924 Pr = 0.902							

Source: Primary field survey, 2019

Table 5 also illustrated the results from chi2 test of independence between educational status and sex of respondents. The result indicated that there is no significant interdependence between educational status and sex of respondents. This implies that sex is not a remarkable variable to predict level of education to a significant level.

Table 6 describes the income distribution of respondents with respect to sex. The result shows that the overall mean income of respondents is about 6,497.8 birr with a standard deviation of 2,174.4. This indicated clearly the presence of large proportion of medium income groups. The bigger standard deviation observed among the distribution also reflects the presence of considerable difference within group variability in income.

Table 6: Mean household income of the respondents with a test of mean difference by sex

Sex	**Income**		
	Obs.	Mean	Std. Dev.
Female	95	6,636.1	2,303.4
Male	150	6,410.3	2,091.8
Total	245	6,497.8	2,174.4
Mean difference		225.8	
T-test statistics		0.79	

Source: Primary field survey, 2019

On the other hand, Table 6 displays that female's experiences a little bit better distribution mean income of 6,636.1 birr than males having an average income of 6,410.3 birr. This may be because of females have additional source of income other than their employment wage. The test result from the independent two sample t-test also testifies the absence of significant mean difference in income between groups.

4.2. Health Workforce Job Satisfaction and Work Related Characteristics

In this part health workforce level of job satisfaction is described with respect to work related characteristics. Based on this, Table 7 shows employee's level of satisfaction by sex. Thus, 14.69% of the total respondents are very satisfied with their job. 29.8% of the respondents are satisfied level of agreement with their job. Whereas, 27.35% of the respondents are neutral. The distribution shows that, most of the respondents has satisfied level category in their job satisfaction. 24.08% and 4.08% of the respondents are unsatisfied and very unsatisfied with their job respectively.

The disaggregated distribution shows that, 31.33% of male respondents have satisfied level in their job and 3.33% of males are very unsatisfied. On the other hand, 35.79% of females are

neutral to express their level of agreement on their job. 27.37% of females are satisfied with their job and 5.26% of the female respondents are very unsatisfied with their job.

Table 7: Employee's level of satisfaction by sex with a qui-square test of interdependence

Sex	Employee's rating on their level of job satisfaction					
	Very Unsatisfied	Unsatisfied	Neutral	Satisfied	Very Satified	Total
Female	5(5.26%)	22(23.16%)	34(35.79%)	26 (27.37%)	8(8.42%)	95(100%)
Male	5(3.33%)	37(24.67%)	33(22.00%)	47(31.33%)	28(18.67%)	150(100%)
Total	10(4.08%)	59(24.08%)	67(27.35%)	73(29.80%)	36(14.69%)	245(100%)
	Pearson chi2(4) = 9.0919			Pr = 0.059		

Source: field survey, 2019

Table 7 portrayed the result from the chi2 test of independence between employee's level of job satisfaction status and sex of respondents. In this case, the results indicated that there is insignificant interdependence between employee's level of job satisfaction and sex of respondents. This implies that there is no significant relationship between variables to predict the outcome on the other variable to a significant level.

Table 8 shows employee's level of satisfaction by professional category. The result shows that, 33.33% and 17.22% of health professionals have satisfied and very satisfied level of satisfaction in their job. There is no health professional who responds very unsatisfied on their job. 31.58% of technical assistants are neutral to express their level of agreement on their job and 10.53% of technical assistants are very unsatisfied with their job. 40.74% of the administrative workers respond that they are unsatisfied with their job and there is no administrative worker who responds very satisfied with their job.

Table 8: Employee's level of satisfaction by professional category with a qui-square test

Employee's level of Satisfaction	Professional Category			
	Health professional	Technical assistant	Administrative	Total
Very Unsatisfied	0(0%)	4(10.53%)	6(22.22%)	10(4.08%)
Unsatisfied	41(22.78%)	7(18.42%)	11(40.74%)	59(24.08%)
Neutral	48(26.67%)	12(31.58%)	7(25.93%)	67(27.35%)
Satisfied	60(33.33%)	10(26.32%)	3(11.11%)	73(29.8%)
Very Satisfied	31(17.22%)	5(13.16%)	0(0%)	36(14.69%)
Total	180(100%)	38(100%)	27(100%)	245(100%)
Qui-square test	Pearson chi2(8) = 45.9115 Pr = 0.000			

Source: field survey, 2019

Table 8 furthermore illustrated the results from the chi2 test of independence between employee's level of job satisfaction status and professional category of respondents. In the case, the results indicated that there is a significant relationship between employee's level of job satisfaction and professional category of respondents is testified by a significant test statistics at 1% level. This implies that knowing the state of one of the variables enables us to predict the outcome on the other variable to a significant level.

The result reported in Table 9 portrays the employee's level of job satisfaction distribution of respondents with respect to their years of experience as a means. The result shows that the total average year of experience of very satisfied and satisfied respondents is 11.08 and 10.66 years respectively with a standard deviation of 6.04 and 6.29. Whereas, the mean year of experience of very unsatisfied respondents is 9.5 years with a standard deviation of 7.21. The result indicates that, when the year of experience increases the satisfaction level of employees increased. The presence of this situation could be because of the opportunity of employee's to get more economic and social benefits as their year of experience becomes longer.

The bigger standard deviation observed among the distribution also reflects the presence of extensive within group variability in year of experience.

Table 9: Employee's level of satisfaction and mean difference in years of experience

Employee's level of satisfaction	Years of Experience		
	N	mean	SD
Very Unsatisfied	10	9.50	7.21
Unsatisfied	59	10.75	5.23
Neutral	67	9.99	5.34
Satisfied	73	10.66	6.29
Very Satisfied	36	11.08	6.04
Total	245	10.5	5.760672
ANOVA test statistics	F= 0.34	Prob > F= 0.8522	

Source: Primary field survey, 2019

On the other hand, the test result from the independent two sample t-test also testifies the absence of significant mean difference in year of experience between groups.

Table 10 depicts the employee's level of job satisfaction distribution of respondents with respect to work efficiency. The result shows that the total mean work efficiency of respondents is about 75.8 with a standard deviation of 5.07. The relatively bigger standard deviation observed among the distribution also reflects the presence of sizable difference within group variability in work efficiency. The mean work efficiency of very satisfied respondents is 75.3 with s standard deviation of 4.75. on the contrary the mean work efficiency of very unsatisfied respondents is 76.9 with standard deviation of 3.74. This implies that work efficiency has weak relation with job satisfaction of employees. This may be because of poor attention of supervisors to measure their employees work efficiency and the other thing may be because of health workers job satisfaction may be gained from helping clients.

Table 10: Employee's level of satisfaction with a test of mean difference in work efficiency

Employee's level of satisfaction	Work Efficiency		
	N	mean	SD
Very Unsatisfied	10	76.9	3.74
Unsatisfied	59	75.1	5.43
Neutral	67	75.1	5.11
Satisfied	73	76.9	4.91
Very Satisfied	36	75.3	4.75
Total	245	75.8	5.07
ANOVA test statistics	F= 1.77	Prob > F = 0.1362	

Source: Primary field survey, 2019

On the table 10, above the test result from ANOVA test statistics also testifies the absence of significant mean difference in work efficiency between groups.

Employee's level of job satisfaction by modality of employment is another characteristic of respondents seen by the study. The resulting distribution indicated that 52.63% of the respondents in the non-permanent modality of employment respond that they are very unsatisfied with their job. In addition, the result show that there is respondent in a satisfied and very satisfied category among contract respondents. This may be because of the contract respondents feeling of job insecurity. On the other hand 32.3% and 16% of the permanent respondents were in a satisfied and very satisfied with their job respectively. There is also no respondent who responds very unsatisfied among permanent respondents, even though 25.22% of permanent staffs are unsatisfied with their job. This may be because of they are job secured but also they are in discomfort with other issues.

Table 11: Job satisfaction with a qui-square test by modality of employment

Level of job satisfaction	Modality of employment		
	Contract	Permanent	Total
Very Unsatisfied	10(52.63%)	0(0.00%)	10(4.08%)
Unsatisfied	2(10.53%)	57(25.22%)	59(24.08%)
Neutral	7(36.84%)	60(26.55%)	67(27.35%)
Satisfied	0(0.00%)	73(32.3%)	73(29.8%)
Very Satisfied	0(0.00%)	36(16%)	36(14.69%)
Total	19(100%)	226(100%)	245(100%)
Qui-square test		Pearson chi2(4) = 130.36	Pr = 0.000

Source: field survey, 2019

Table 11 also represented the results from the chi2 test of independence between respondents level of job satisfaction status and modality of employment category. In this case, the results indicated that there is a significant interdependence between employee's level of job satisfaction and modality of employment category of respondents is testified by a significant test statistics at 1% level. This implies that there is a significant relationship between the variables which enable us to predict the outcome on the other variable to a significant level.

Table 12 show employee's participation in decision making, which is another characteristic of respondents seen by the study. The result indicated that 91.02% of the respondents were not participating in decision making process of their organization. The rest 8.98% of the respondents are participating in decision making process.

Table 12: Employee's level of satisfaction with a qui-square test of interdependence by participation in decision making.

Participation in decision making	Freq.	Percent
No	223	91.02
Yes	22	8.98
Total	245	100

Source: field survey, 2019

The Table 12 shows that 22.54% of very satisfied respondents had very good relationship with their supervisors. On the other hand 28.57% of the very unsatisfied respondents have very bad relationship with their supervisors. The distribution show that, those respondents who have better relationship with managers has a relatively better satisfaction level and vice versa. This implies that, supervisors approach to their subordinates has a great contribution for the satisfaction of employees at work.

Table 13: Employee's level of job satisfaction with a qui-square test of interdependence by relationship with managers

Employee's level of satisfaction	Employee's Relationship with Managers					
	Very Bad	Bad	Moderate	Good	Very Good	Total
Very Unsatisfied	4(28.57%)	6(27.27%)	0(0.00%)	0(0.00%)	0(0.00%)	10(4.08%)
Unsatisfied	8(57.14%)	8(36.36%)	14(19.72%)	13(19.4%)	16(22.54%)	59(24.08%)
Neutral	2(14.29%)	6(27.27%)	30(42.25%)	15(22.4%)	14(19.72%)	67(27.35%)
Satisfied	0(0.00%)	2(9.09%)	19(26.76%)	27(40.3%)	25(35.21%)	73(29.8%)
Very Satisfied	0(0.00%)	0(0.00%)	8(11.27%)	12(17.9%)	16(22.54%)	36(14.69%)
Total	14(100%)	22(100%)	71(100%)	67(100%)	71(100%)	245(100%)
Qui-square test			Pearson chi2(16) = 95.86 Pr = 0.000			

Source: field survey, 2019

The result in the above table shows that, chi2 test of independence between employee's level of satisfaction status and employees relationship with managers. Here, the result indicated that there is a significant relationship between employee's level of satisfaction and employee's relationship with managers category is testified by a significant test statistics at 1% level. This implies that knowing the situation of one of the variables enables us to predict the outcome on the other variable to a significant level.

Table 14 shows that 22.5% of very satisfied respondents had very good relationship with their coworkers. On the other hand 12.5% of the very unsatisfied respondents have very bad relationship with their coworkers.

Table 14: Employee's level of satisfaction with a qui-square test of interdependence by relationship with coworkers

Employee's level of satisfaction	Employee's Relationship with Coworkers					
	Very Bad	Bad	Moderate	Good	Very Good	Total
Very Unsatisfied	1(12.5%)	1(6.3%)	1(2.1%)	1(0.97%)	6(8.45%)	10(4.1%)
Unsatisfied	5(62.5%)	4(25%)	14(29.8%)	20(19.4%)	16(22.5%)	59(24.1%)
Neutral	0(0.0%)	6(37.5%)	23(48.9%)	31(30.1%)	7(9.9%)	67(27.3%)
Satisfied	2(25%)	3(18.6%)	5(10.6%)	37(35.9%)	26(36.6%)	73(29.8%)
Very Satisfied	0(0.00%)	2(12.5%)	4(8.5%)	14(13.6%)	16(22.5%)	36(14.7%)
Total	8(100%)	16(100%)	47(100%)	103(100%)	71(100%)	245(100%)
Qui-square test			Pearson chi2(16) = 47.7670 Pr = 0.000			

Source: field survey, 2019

The result in the above table shows that, chi2 test of independence between employee's level of satisfaction status and their relationship with coworkers. Here, the result indicated that there is a significant relationship between employee's level of satisfaction and their relationship with coworkers is confirmed by a significant test statistics at 1% level. This implies that knowing the situation of one of the variables enables us to predict the outcome on the other variable to a significant level.

4.3. Determinants of Job Satisfaction among Health workforce

Employees are the markers of dignity in their organization. The way they behave and feel about their job is consistently linked to their efficiency in work thereby affecting the overall service delivery and performance of the institution. To this end, the study attempts to infer the main determinant of health work force level of job satisfaction based on the evidence from workforce in Menelik II Referral Hospital in Addis Ababa, Ethiopia. Satisfaction on the study has been measured using five scale likers scale running from very unsatisfied to very satisfied cases. Hence, ordered logistic regression model has been used to identify the main determinants of health workforce level of job satisfaction.

The specified model of satisfaction has been tested for the joint significance of variables to predict the outcomes of the dependent variable using Wald chi-square test. The result from the estimated model indicated that the variables included in the model jointly have explanatory power in the dependent variable with a test result of Wald chi2 (29) 188.79= and Prob. > chi2 0.000 as clearly depicted in Table 12. This implies the rejection of the null hypothesis that states the coefficient of predictor variables is not different from zero and the acceptance of the fact that at least one of the variables included in the model have coefficient significantly different from zero to explain the dependent variable level of satisfaction which also provides a bases for using the estimated model for analysis.

The result presented in Table 15 shows the significant predictors from the estimated model of satisfaction. Looking first to the demographic variables with association to the level of health workforce job satisfaction age is found to be positive determinant of employees' level of job satisfaction at 5% level of significance. This implies that as age increases by one unit or year the odds of health workers to be very satisfied with their job versus the combined satisfied, neutral, unsatisfied and very unsatisfied level of satisfaction increases by 1.087 times. This could be attributed to the work ethics the developed through in older ages and as a result of long experience in the area that enables them to have better positions and believes in their work thereby affecting the level of employee's satisfaction on their job.

On the other hand, looking to the other demographic variables family size revers results area observed where the variable is found to be associated negatively with the level of health workers satisfaction on their job at 1% level of significance. This indicated that an increase in family size of employees decreases the logs employees' odds of being very satisfied with their job versus the combined satisfied, neutral, unsatisfied and very unsatisfied level of

satisfaction decreases by 0.747 times, keeping all other variables constant. The condition could be partly associated with the presence of influence from two sides that includes shouldering social responsibility together with job stress which may induce and increase level of dissatisfaction with their job.

Table 15: Estimated model of determinants of health work force level of job satisfaction

Variables	Coefficient	Odds Ratio	P>z
Sex	0.688	1.989	0.016
Age	0.084	1.087	0.021
Marital Status			
Married	0.190	1.209	0.642
Divorced	-0.161	0.851	0.758
Widowed	-0.010	0.990	0.986
Family size	-0.292	0.747	0.007
Educational Status			
Diploma	-1.989	0.137	0.001
First degree	-1.750	0.174	0.000
Masters and above	-0.804	0.448	0.077
Medical doctor	-3.078	0.046	0.000
Medical Specialist	-2.477	0.084	0.000
Total Income	0.0003	1.000	0.000
Profession			
Technical Assistant	-0.377	0.686	0.352
Administrative	-1.738	0.176	0.000
Experience	-0.106	0.899	0.006
Employment modality	2.541	12.689	0.000
Efficiency	-0.001	0.999	0.982
Organizational Plan	0.590	1.803	0.042
Employee recognition	1.157	3.179	0.002
Overtime Work Payment	-0.295	0.744	0.393
Participation in Decision making	1.172	3.227	0.018
Relationship managers			
Bad	1.176	3.240	0.146
Moderate	2.724	15.245	0.000
Good	2.845	17.194	0.000
Very Good	3.072	21.594	0.000
Relationship Coworkers			
Bad	0.592	1.808	0.615
Moderate	-0.670	0.512	0.517
Good	0.506	1.658	0.624
Very Good	0.092	1.096	0.929
Number of obs.	245.000		
Wald chi2(29)	188.790		
Prob. > chi2	0.000		

One of the surprising results from the study is the association of educational status and health workers level of job satisfaction as clearly depicted in Table 15. The result revealed that educational status influences the level of health workers satisfaction with job negatively at 5% level. This implicates higher level of education decreases the likelihood of health workers satisfaction with their current job. Coming to the magnitude of influence, the result also shows that as the educational status of the employees is observed to be diploma, first degree, masters and above, medical doctor or medical Specialist the likelihood of very high level of satisfaction decreases by 0.137, 0.174, 0.448, 0.046 and 0.084 times respectively as compared to those with educational status of certificate or below. The fact is partly attributed to the level of expectation linked to the improved level of education of employs. This is to mean that when the educational level of health institution employees increases the standards in overall incentives to be provided as well as the job types the require to work increases which is barley meet by the institution in turn resulting higher level of dissatisfaction in health workforce and expected to have a pronounced level of influence on the level of service delivery as well.

Economic variables are also considered to play an important role on the level of employees' satisfaction on their job. To this end, the relationship of household income with the level of health workers satisfaction with their job has been considered by the study. The result presented in Table 15 indicated that income positively and significantly influences the employees' level of satisfaction with their job at 1% although the magnitude of influence is only marginal. This implies that a unit change in the employees' income results in a 1.00 times increase in the odds of employees level of satisfaction to be observed as very satisfied, citrus paribus. This result entails us improvement in income is linked only with a small or similar amount of increase in the level of satisfaction which could be linked to the fact that most of the employees experience little or small amount of income improvement in their work which result in only minimal level of satisfaction among employees.

Table 15 also presents the prediction level of health workers professional categories on employees' level of job satisfaction. The result clearly put in to light that the administrative category as compared to the heath professional category is the only significant one which is negatively related to the level of employees' satisfaction. This enables us to figure out that on job satisfaction level of administrative workers is lower than that of health professionals. In comparison with health professionals the likelihood of administrative workers to be very satisfied with their job decreases by 0.176 times keeping all other variables constant. This is

partly attributed to the low level of concern given by the heath institutions for administrative and supportive staffs' in-terms of incentive packages; work prestige and promotion which intern affect the level of on job satisfaction by employees.

The other work related variables considered by the study are years of experience as an employee and the type of employment modality- whether it is based on permanent or temporary bases. The estimated result from the model of satisfaction indicated that year of experience is negatively related to the level of satisfaction while being an employee of the heath institution using a permanent employment modality increases the likelihood of health sector employees' level of satisfaction with their job at 1% level. Related magnitude to each of the also implies that an increase in level of experience is attached to an associated 0.899 time decrease in the odds very high level of satisfaction which could be linked to the high level of demand in terms of benefit and prestige dammed by experienced professionals. On the other hand, employment modality is found to have greater magnitude of influence on health workforce level of satisfaction with their job. The result indicates that having employment with a permanent type of employment modality increases the propensity of very high satisfaction by 12.69 times. The prevalence of such relationship could be partly attributed to the fact that permanent type of employment modality increases the sense of security of workers in their job thereby affecting their level of satisfaction.

Moreover, participation in decision making activities of organizations is expected to enhance the involvement of workers in their work and the level of satisfaction. Table 15, also depicts the result of workers involvement in the institutions decision making and the level of satisfaction with their job. The result clearly demonstrates the variables are found to have positive relationship at 5% level. Involvement in decision making activities of the institutions increases the odds of very high level of satisfaction with job by 3.227 times among employees. This may be because of the sense of belongingness developed among workers which enhances their level of engagement and satisfaction as well.

Finally, the existence of smooth relationship among coworkers with supervisors and managers determines the overall working environment of an institution. To this end, the study examined how relationship with managers and or supervisors affects workers level of satisfaction with their job. The result entails us the level of health workforce satisfaction with their job increases as the relationship of workers with the supervisors and managers is moderate, good or very good. It indicated that when the health workforce relationship with

the supervisors and managers is moderate, good and very good the odds or probability to be highly satisfied with their job increases by 15.24, 17.19 and 21.59 times respectively. This could be partly attributed to the condition that existence of good and smooth relationship of workers with their supervisors the possibility to work in team and build better working environment improves which could be liked by most of the worker thereby playing a role in improving health workforce level of satisfaction with their job.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

5.1. Conclusion

Job satisfaction level of health workforce in an organization prominently determines the commitment of employees of the organization and the achievement of goals and objectives since all these determines the organizational working culture. Understanding it's determinants as well as the satisfaction level helps in setting appropriate intervention strategies to ensure organizational efficiency. This study was undertaken to better understand the determinants of job satisfaction among health workforce in Menelik II Referral Hospital, Addis Ababa, Ethiopia. With this admiration, the study has found different results and made a wide range of concluding remarks.

Thus, 14.69% and 29.8% of the total respondents are very satisfied and satisfied with their job respectively. On the other hand 24.08% and 4.08% of the respondents are unsatisfied and very unsatisfied with their job respectively. Moreover, 27.35% of the respondents rate themselves in a neutral category. From this distribution the study can conclude that, even though the percentage is under fifty, most of the respondents are satisfied and very satisfied in their job.

The study can conclude that age and income have a positive and significant relationship with job satisfaction of employees which could be attributed to long experience in the area enables them to have better positions and benefits as well professional development in their work and economic capabilities developed contributes positively to the level of employee's satisfaction on their job.

From the study we can conclude that, family size, educational status and year of experience are negatively affecting the level of health workers job satisfaction. These variables have inverse relationship with the dependent variable job satisfaction among health work force resulting from shouldering family stress and social responsibility together with high demand in terms of benefit and prestige by experienced professionals' expectation after increasing professional development induces dissatisfaction.

From the study finding on professional categories, we can conclude that, administrative category negatively determines the level of employees' job satisfaction. Here, the job satisfaction level of administrative workers is lower than that of health professionals. On the

other hand, employment modality and participation of health workers in decision making has greater magnitude of influence on health workforce level of job satisfaction because of the sense of job security and belongingness. Finally, the study can conclude that, the existence of smooth relationship with supervisors determines job satisfaction among health workers as well as the overall working environment of the institution.

5.2. Recommendations

Based on the findings of the study and concluding remarks the following recommendation are forwarded. Integrated effort is needed to improve the job satisfaction level of employees in the health sector.

The health institution should work towards the improvement of performance based incentive packages that improve the economic condition of health workforce. The packages should be enriched and expanded to retain the health workers in a relatively longer period serving the institution. This could be attached to providing or arranging living infrastructure, providing health and life insurances and the like.

The study provides a clue on the fact that educational status and family size were found to be negative determinants of health workforce job satisfaction. Looking to the educational concerns better educational development of the health workers could result higher expectation in incentives and better working environment. Hence, the institution should work target-fully to link pays with professional development, link the exact profession of the health worker with the appropriate job placement and create enabling and pleasant working environment for health workers to improve their level of satisfaction with their current jobs. On the other hand, the presence of moderate family size is expected to decrease the social pressure apart from work imposed on the heath workforce. Therefore, the study recommends that family planning efforts targeted to moderate family size with the capacity of workers to shoulder social and economic responsibilities should be implemented through promotion of effective and efficient utilization of family planning packages like use of contraceptives.

The other thing to consider is the creation of participatory environment and smooth relationship of workers and supervisors are found to be linked positively with the health workers level of satisfaction with their job. Recognizing this premise, it is recommended that creating consistent and workable mechanism for participation of workers in the decision making process of the institution and development as well as follow-up of the smooth

relationship of workers and managers improves the health institution workers level of satisfaction.

Further, unequally treatment and attention given based on the professional category of health workforce has been found to be one of the means for dissatisfaction of workers. Therefore, fair treatment and attention should be given to administrative workers like that of the health professionals and technical assistants in-terms of incentives and benefit packages and treatment in different perspectives of the institution so as to enable them to develop better motivation thereby experience higher level of job satisfaction.

REFERRENCE

- Adams J., S. (1965). Inequity in Social Exchange in L.Berrowitz, Advances in Experimental Social Psychology, New York, Academic Press.
- Alderfer P., C. (1972). Existence, Relatedness and Growth, Human Needs in Organisational Settings, New York, Free Press.
- Alemshet Y., Leja H., Alima H., Challi J., and Morankar S., (2011) Job satisfaction and its determinants among health workers in Jimma University specialized hospital, southwest Ethiopia.
- Ali, RM. and Wajidi, FA. (2013). Factors Influencing Job Satisfaction in Public Healthcare Sector of Pakistan, University of Karachi, Pakistan. Global Journal of Management and Business Research Administration and Management. Volume 13 Issue 8 Version 1.0 Year 2013. Online ISSN: 2249-4588 & Print ISSN: 0975-5853
- Annual Report, (2019). Menelik II Referral Hospital, Addis Ababa, Ethiopia.
- Barket, A., Azeem, M., Bhutto, N., and Shaikh, R., (2017). Determinants of Job Satisfaction among Dentists working in Teaching Hospitals in Karachi. Hyderabad and Islamabad. J Den Craniofac Res. Vol.2 No.1:8.
- Bhattacherjee A., (2012). Social Science Research. Principles, Methods, and Practices, D University of South Florida, Tampa, Florida, USA.
- Ciarnien, R., Kumpikait, V., and Vienažindien, M., (2010). Expectations and Job Satisfaction: Theoretical and Empirical Approach. 6th International Scientific Conference, May 13–14, 2010, Vilnius, Lithuania.
- Edgar Necochea, Manjushree Badlani, Debora Bossemeyer, Jhapiego, 2013.
- Enezi, N., A., Shah, M., A., Chowdhury, R.,I., and Amatayakul, M. (2003). Determinants of Job satisfaction and effectiveness among health information administration professionals in Kuwait.
- Federal Ministry of Health (2010). Health sector development program IV Final draft.
- Girum Sebsibie Teshome, Fikrte Woldesilasie Wolde Yohans, Elias Sebsibie Haile and Ergataw Kidane Alene (2018). Assessment of Customer Satisfaction in Menelik II Health Science College, Addis Ababa, Ethiopia, 2018. Journal of Health Education Research and Development.
- Greenberg, J. (1999). Managing behavior in organizations. Second edition. New Jersey: Prentice Hall.

- Guedehoussou, N., A. (2016). The Determinants of Job Satisfaction among Nurses, Midwives, and Auxiliary Nurses in Health Clinics. The Case of Benin, West Africa. Web: http://www.rand.org/pubs/rgs_dissertations/RGSD373.html.
- Gujarati, D. (2004). Basic Econometrics. Fourth Edition, United States Military Academy, West Point.
- Health Sector Development Program IV 11 to 15 Final drafts, October 2010. FDRE, Ministry of health.
- Herzberg, F., I. (1966). Work and the nature of man.
- Huseman, C., R., Hatfield, D., J., and Miles, W., E. (2013). A New Perspective on Equity Theory: The Equity Sensitivity Construct. The Academy of Management Review, Vol. 12, No. 2: Academy of Management Stable URL: http://www.jstor.org/stable/258531. Accessed: 29/08/2013 12:11
- Jathanna, R., Melisha, R., D., Mary, G., and Latha, KS. (2011). Determinants of Job Satisfaction among Healthcare Workers at a Tertiary Care Hospital. *Online J Health Allied Scs.* 2011;10(3):5 URL: http://www.ojhas.org/issue39/2011-3-5.htm
- Kalkidan Temesgen, Moges Wubie Aycheh and Cheru Tesema Leshargie (2018). Job satisfaction and associated factors among health professionals working at Western Amhara Region, Ethiopia.
- Kanfer, R. (1990). Motivation theory and industrial and organizational psychology. Handbook of industrial and organizational psychology, 1990. 1(2).
- Kuburovic, B., N., Dedic, V., Djuricic, S., Kuburovic, V. (2008). Determinants of job satisfaction of healthcare professionals in public hospitals in Belgrade, Serbia. Cross-sectional analysis.
- Lorberl, M., and Savic, BS., (2012). Job satisfaction of nurses and identifying factors of job satisfaction in Slovenian Hospitals.
- Maslow, A., (1954). Motivation and Personality, New York, Harper and Row
- Mausner, B., F., and Snyderman B., B. (1959). The Motivation to Work. New York, John Wiley and Sons.
- Mosammod Mahamuda Parvin and M M Nurul Kabir, (2011) Factors affecting employee job satisfaction of pharmaceutical sector. Australian Journal of Business and Management Research Vol.1 No.9
- Mulugeta Mekuria Mengistu and Ayele Geleto Bali (2015). Factors Associated to Job Satisfaction Among Healthcare Workers at Public Hospitals of West Shoa Zone, Oromia

Regional State, Ethiopia: A Cross Sectional Study. *Science Journal of Public Health.* Vol. 3, No. 2, 2015, pp. 161-167.doi: 10.11648/j.sjph.20150302.12

- Parvin, MM., and Kabir, MN., (2011). Job Satisfaction in Pharmaceuticals Companies
- Rashid, S., M. (2013). Determinants of job satisfaction among nurses at the Muhimbili national hospital.
- Riley, S. (2005). Herzberg's Two-Factor Theory of Motivation Applied to the Motivational Techniques within Financial Institutions (2005).Senior Honors Theses. 119. http://commons.emich.edu/honors/119
- Ronald L. (1990). A Literature Review of Selected Theories Dealing with Job Satisfaction and Motivation. LITERATURE REVIEW, Motivation Theories of Maslow, Herzberg, McGregor & McClelland
- Roopalekha Jathanna, Melisha RD, Geena Mary, Latha KS (2011)
- Tadesse, T., Mohamed, A., and Mengistie, A. (2015). Assessment of factors influencing job satisfaction amonghealth care providers, federal police referral hospital, Addis Ababa, Ethiopia.
- Tran, B.,X., Minh, H.,V., and Hinh, ND. (2013) Factors associated with job satisfaction among commune health workers: implications for human resource policies, Global Health Action, 6:1, 18619, DOI: 10.3402/gha.v6i0.18619.
- Vroom, H., V. (1964). Work and Motivation, New York, John Wiley and Sons.
- Wahba, A., M., and Brickwell, G., L. (1974). Maslow Reconsidered; A Review of the research on the Need Hierarchy theory - Proceedings of the Academy of management.
- Yamane Taro, (1967). Statistics: An Introductory Analysis. Second edition, New York, Harper and Row.
- Yami, A., Hamza, L., Hassen, A., Jira, C., and Sudhakar, M. (2011). Job satisfaction and its determinants among health workers in Jimma University specialized hospital, southwest Ethiopia. Ethiopian Journal of Health Science.

ANNEX

Structured Questionnaire

Introduction

I am Melaku Temesgen, a post graduate Student in Addis Ababa University, College of Business and Economics, Department of Business Administration. Now I am undertaking this study as a requirement in partial fulfillment of postgraduate degree in Business Administration (MBA). The study is conducted with a title, "Determinants of Job Satisfaction among health workforce in Menelik II Referral Hospital, Addis Ababa, Ethiopia"

This questionnaire is prepared solely for academic purposes. Thus, any information provided would be completely treated with strict confidentiality. You are respectfully requested to assist the researcher by providing truthful information.

Thank you very much.

Respondent Code: _____

I. Respondents Demographic and Socio Economic Characteristics

S.No	Questions	Options
1.1.	Sex	1. Male 2. Female
1.2.	Age in years	----------
1.3.	Marital status	1) Single 2) Married 3) Divorced 4) Widowed
1.4.	Family size (Number of individuals living in the household)	----------
1.3.	Educational status	1) Certificate or less 2) Diploma 3) First degree 4) Masters and above 5) Medical doctor 6) Medical Specialist

1.5.	Income of the household in Ethiopian Birr	Income from salary_____ Income from paid employment of other Family Member _____ Income from other sources (house rent, business involvement, etc.) _____

II. **Working Related Questions**

S.No	Questions	Options
2.1.	In what type of profession you are currently working?	1) Health professional 2) Administrative
2.2.	How many years of total experience do you have?	----------
2.3.	What is the modality of your employment contract?	1) Permanent 2) Non-permanent/Contract
2.4.	What is the average efficiency you have got during the past one year?	----------
2.5.	Is there any employee rewarding system in the organization?	1) Yes 2) No
2.6.	Does your organization have annual employee's professional development plan?	1) Yes 2) No
2.7.	Do you have the possibility to get paid overtime work in your institution?	1) Yes 2) No
2.8.	Do you participate in the decision making activities of your institution?	1) Yes
2.9.	How do you rate your relationship with your immediate supervisors?	1) Very Bad 2) Bad 3) Moderate 4) Good 5) Very good
2.10.	How do you rate your relationship with co-workers?	1) Very Bad 2) Bad

		3) Moderate 4) Good 5) Very good

III. **Level of Employees Job Satisfaction**

S.No	Questions	Options
3.1.	How do you rate your level of satisfaction on the current job you are involved?	1) Very Unsatisfied 2) Unsatisfied 3) Neutral 4) Satisfied 5) Very Satisfied

3.2. If your answer is 1 or 2, what makes you dissatisfied with your job?

._____

._____

._____

3.3. If your answer is 4 or 5, what are the reasons that make you satisfied with your job?

._____

._____

._____

Thanks for your response and time!!

አዲስ አበባ ዩኒቨርስቲ
የቢዝነስ እና ኢኮኖሚክስ ኮሌጅ
የጥናትና ምርምር መጠይቅ፣

መግቢያ

እኔ መላኩ ተመስገን እባላለሁ፣ በአዲስ አበባ ዩኒቨርሲቲ የቢዝነስና ኢኮኖሚክስ ኮሌጅ፣ የቢዝነስ አስተዳደር የድህረ ምረቃ ተማሪ ነኝ፡፡ የዚህ ጥናት አላማ በቢዝነስ አስተዳደር (MBA) ለድህረ ምረቃ ትምህርት ማሟያነት ነው፡፡ የጥናቱ ርዕስ ***"በዳግማዊ ምኒልክ ሪፈራል ሆስፒታል የጤናው ዘርፍ ሰራተኞች የስራ እርካታን የሚወስኑ ጉዳዮች"*** የሚል ነው፡፡

ይህ መጠይቅ የተዘጋጀው ለትምህርታዊ ዓላማ ብቻ ነው፡፡ ስለሆነም ማንኛውም የሚሰጡኝ መረጃ በሙሉ ለጥናቱ አላማ ብቻ የሚውል ሆኖ በሚስጥር ይያዛል፡፡ ስለሆነም ትክክለኛ መረጃ በመስጠት እንዲተባበሩኝ በአክብሮት እጠይቃለሁ፡፡

በጣም አመሰግናለሁ፣

የመልስ ሰጪ ኮድ----------

I. እባክዎ በመረጡት መልስ ላይ ክብ ምልክት በማድረግ እና አጭር መልስ ይስጡ፣

ተ.ቁ	ጥያቄዎች፣	አማራጮች፣
3.4.	ጾታ	1) ወንድ 2) ሴት
3.5.	ዕድሜዎ ስንት ዓመት ይሆናል	----------
3.6.	የጋብቻ ሁኔታ	1) ያላገባ/ያላገባች 2) ያገባች/ያገባ 3) የፈታ/የፈታች 4) ባሏ/ሚስቱ የሞተ
3.7.	የቤተሰብ/በት ውስጥ የሚኖሩ ግለሰቦች ብዛት	----------
3.8.	የትምህርት ደረጃ	1) የምስክር ወረቀት ወይም ያነሰ 2) ዲፕሎማ 3) የመጀመሪያ ዲግሪ 4) ሁለተኛ ዲግሪ እና ከዚያ በላይ 5) ጠቅላላ ሀኪም

		6) ስፔሻሊስት ሀኪም
3.9.	የቤተሰቡ ገቢ በኢትዮጵያ ብር፣	- ከደመወዝ ገቢ ---------- - ሌላ የቤተሰብ አባል ከሚከፈለው የቅጥር ገቢ-- - ከሌሎች ምንጮች ገቢ (የቤት ኪራይ ፣ የንግድ ስራ ተሳትፎ ፣ ወዘተ.) ----------

II. የስራ አካባቢ

ተ.ቁ.	ጥያቄ፣	አማራጮች፣
3.10.	1.7 አሁን በምን ዓይነት ሙያ ውስጥ ነው የሚሰሩት? 1) የጤና ባለሙያ 2) የቴክኒክ ረዳት 3) አስተዳደራዊ ስራ	1) የጤና ባለሙያ 2) የቴክኒክ ረዳት 3) አስተዳደራዊ ስራ
3.11.	ስንት ዓመት ጠቅላላ የስራ ልምድ አለዎት?	----------
3.12.	የሥራ ቅጥር ውልዎ ምን አይነት ነው?	1) ቋሚ 2) ቋሚ ያልሆነ/በኮንትራት
3.13.	ባለፈው ዓመት ውስጥ ያገኙት አማካይ የስራ አፈጻጸም ከመቶ ስንት ነው?	----------
3.14.	በተቋሙ ውስጥ የሰራተኞች ማበረታቻ መንገዶች አሉ?	1) አዎ 2) የለም
3.15.	ድርጅትዎ ዓመታዊ የሰራተኞች የሙያ ማሻሻያ ትምህርት ዕቅድ አለው?	1) አዎ 2) የለም
3.16.	በተቋሙ ውስጥ ክፍያ የሚፈጸምበት የትርፍ ሰዓት ሥራ አለ?	1) አዎ 2) የለም
3.17.	በተቋሙ ውሳኔ አሰጣጥ ሂደት ይሳተፋሉ?	1) አዎ 2) የለም
3.18.	ከቅርብ አለቃዎ ጋር ያለዎትን ግንኙነት እንዴት ይገልጹታል?	1) በጣም መጥፎ 2) መጥፎ 3) መካከለኛ

		4) ጥሩ 5) በጣም ጥሩ
3.19.	ከስራ ባልደረቦችዎ ጋር ያለዎትን ግንኙነት እንዴት ይገልጹታል?	1) በጣም መጥፎ 2) መጥፎ 3) መካከለኛ 4) ጥሩ 5) በጣም ጥሩ

III. የሰራተኞች የሥራ እርካታ ደረጃ፣

ተ.ቁ	ጥያቄዎች	ምርጫዎች፣
3.20.	እርስዎ አሁን በሚሰሩት ሥራ ላይ የእርካታዎን ደረጃ እንዴት ይገልጹታል?	1. በጣም አልተረካሁም 2) አልረካሁም 3) ገለልተኛ 4) ረክቻለሁ 5) በጣም ረክቻለሁ

1.18. መልስዎ 1 ወይም 2 ከሆነ ላለመርካትዎ ምክንያቶች ምንድን ናቸው?

* ----------

* ----------

1.19. መልስዎ 4 ወይም 5 ከሆነ በሥራዎ እንዲረኩ ያደርጉዎት ምክንያቶች ምንድን ናቸው?

* ----------

* ----------

ለሰጡኝ መልስ እና ጊዜ አመሰግናለሁ!

Ordered logistic regression

Number of obs	= 245
Wald chi2(29)	= 188.79
Prob > chi2	= 0.0000
Pseudo R2	= 0.3018

Log pseudolikelihood = -251.54364

Satisfaction	Coef.	Robust Std. Err.	z	P>|z|	[95% Conf.	Interval]
Sex	.6876307	.2860456	2.40	0.016	.1269916	1.24827
Age	.0838518	.0363418	2.31	0.021	.0126232	.1550805
Marital_Status						
Married	.1901322	.4087225	0.47	0.642	-.6109492	.9912137
Divorced	-.1607746	.5218089	-0.31	0.758	-1.183501	.8619521
widowed	-.0098786	.5598025	-0.02	0.986	-1.107071	1.087314
Family_size	-.2921716	.1088492	-2.68	0.007	-.5055121	-.078831
Edu_Status						
Diploma	-1.989351	.5846187	-3.40	0.001	-3.135183	-.8435194
First degree	-1.74954	.4181944	-4.18	0.000	-2.569186	-.9298945
Masters and above	-.80404	.4553307	-1.77	0.077	-1.696472	.0883917
Medical doctor	-3.077919	.6948737	-4.43	0.000	-4.439846	-1.715992
Medical Specialist	-2.476802	.6360114	-3.89	0.000	-3.723362	-1.230243
TotalIncome	.0002887	.0000666	4.34	0.000	.0001582	.0004193
Profession						
Technical Assistant	-.3770516	.405127	-0.93	0.352	-1.171086	.4169826
Administrative	-1.738365	.4601389	-3.78	0.000	-2.640221	-.8365092
Experience	-.1060626	.0385226	-2.75	0.006	-.1815654	-.0305597
Employ_modality	2.54071	.6866735	3.70	0.000	1.194855	3.886565
Efficiency	-.0007342	.0323557	-0.02	0.982	-.0641503	.0626818
Organizational_Plan	.5895596	.2892453	2.04	0.042	.0226492	1.15647
Employ_recognition	1.15664	.3784853	3.06	0.002	.4148226	1.898458
OvertimeWork_Pay	-.2954626	.3455492	-0.86	0.393	-.9727265	.3818013
Participation_Decision	1.171552	.494608	2.37	0.018	.2021379	2.140966
Relationship_managers						
Bad	1.175651	.8091524	1.45	0.146	-.4102582	2.761561
Moderate	2.724276	.6682257	4.08	0.000	1.414577	4.033974
Good	2.844586	.7034615	4.04	0.000	1.465827	4.223345
Very Good	3.072428	.7101122	4.33	0.000	1.680634	4.464223
Relationship_Coworkers						
Bad	.5919454	1.177232	0.50	0.615	-1.715388	2.899279
Moderate	-.6704018	1.033952	-0.65	0.517	-2.696911	1.356107
Good	.5055819	1.031314	0.49	0.624	-1.515756	2.52692
Very Good	.0920956	1.027742	0.09	0.929	-1.922241	2.106432
/cut1	.0581652	2.689453			-5.213065	5.329395
/cut2	4.663111	2.758587			-.7436203	10.06984
/cut3	6.651006	2.778836			1.204588	12.09742
/cut4	9.117131	2.810499			3.608654	14.62561

Ordered logistic regression — Number of obs = 245
Wald chi2(29) = 188.79
Prob > chi2 = 0.0000
Log pseudolikelihood = -251.54364 — Pseudo R2 = 0.3018

Satisfaction	Odds Ratio	Robust Std. Err.	z	P>|z|	[95% Conf.	Interval]
Sex	1.988997	.5689439	2.40	0.016	1.135408	3.484309
Age	1.087468	.0395205	2.31	0.021	1.012703	1.167752
Marital_Status						
Married	1.209409	.4943129	0.47	0.642	.5428354	2.694503
Divorced	.851484	.4443119	-0.31	0.758	.3062048	2.367778
widowed	.99017	.5542996	-0.02	0.986	.3305256	2.966296
Family_size	.7466404	.0812712	-2.68	0.007	.6031966	.9241961
Edu_Status						
Diploma	.1367842	.0799666	-3.40	0.001	.0434918	.4301938
First degree	.1738538	.0727047	-4.18	0.000	.0765979	.3945953
Masters and above	.4475173	.2037684	-1.77	0.077	.1833292	1.092416
Medical doctor	.046055	.0320024	-4.43	0.000	.0117977	.1797853
Medical Specialist	.0840114	.0534322	-3.89	0.000	.0241526	.2922216
TotalIncome	1.000289	.0000666	4.34	0.000	1.000158	1.000419
Profession						
Technical Assistant	.6858807	.2778688	-0.93	0.352	.3100301	1.517376
Administrative	.1758076	.0808959	-3.78	0.000	.0713455	.4332202
Experience	.8993684	.034646	-2.75	0.006	.8339637	.9699025
Employ_modality	12.68868	8.712978	3.70	0.000	3.303077	48.74319
Efficiency	.999266	.032332	-0.02	0.982	.937864	1.064688
Organizational_Plan	1.803194	.5215654	2.04	0.042	1.022908	3.178693
Employ_recognition	3.179234	1.203293	3.06	0.002	1.514102	6.675591
OvertimeWork_Pay	.7441873	.2571533	-0.86	0.393	.3780509	1.464921
Participation_Decision	3.226996	1.596098	2.37	0.018	1.224017	8.507648
Relationship_managers						
Bad	3.240253	2.621859	1.45	0.146	.6634789	15.82453
Moderate	15.24537	10.18735	4.08	0.000	4.114747	56.48493
Good	17.19444	12.09563	4.04	0.000	4.331124	68.26146
Very Good	21.59428	15.33436	4.33	0.000	5.368958	86.85349
Relationship_Coworkers						
Bad	1.807501	2.127849	0.50	0.615	.179894	18.16104
Moderate	.511503	.5288696	-0.65	0.517	.0674135	3.881055
Good	1.65795	1.709867	0.49	0.624	.219642	12.5149
Very Good	1.09647	1.126888	0.09	0.929	.1462788	8.218866
/cut1	.0581652	2.689453			-5.213065	5.329395
/cut2	4.663111	2.758587			-.7436203	10.06984
/cut3	6.651006	2.778836			1.204588	12.09742
/cut4	9.117131	2.810499			3.608654	14.62561