

**JOB SATISFACTION AMONG HEALTHCARE PROFESSIONALS IN  
SELECTED PUBLIC HOSPITALS IN TRANS-NZOIA COUNTY, KENYA**

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## DECLARATION

This thesis is my original work and has not been presented for the award of a degree in any other University.

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## **DEDICATION**

I dedicate this thesis to my loving family for their continued support during thesis development.

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**LIST OF ABBREVIATIONS AND ACRONYMS**

<b>AMREF</b>	African Medical and Research Foundation
<b>GOK</b>	Government of Kenya
<b>HRM</b>	Human Resources Management
<b>HRIS</b>	Healthcare Incident Reporting Services
<b>KES</b>	Kenya Shillings
<b>KUERC</b>	Kenyatta University Ethical Review Committee
<b>MOH</b>	Ministry of health
<b>NACOSTI</b>	National Commission for Science, Technology, and Innovation
<b>SHRM</b>	Society for Human Resource Management
<b>UN</b>	United Nations
<b>UNICEF</b>	United Nations Children's Fund
<b>UK</b>	United Kingdom
<b>USA</b>	United States of America
<b>WHO</b>	World Health Organization

## DEFINITION OF OPERATIONAL TERMS

<b>Compensation and reward:</b>	All payments in all its forms used to reward employees and include contingent reward, recognition, pay, fringe benefits, and time-off (Chordiya, 2017).
<b>Determinants of job satisfaction:</b>	Factors that influence employee's feelings towards their job. They include working conditions, employment policies, social support, training and development, job characteristics, and work environment factors (Bello et al., 2018).
<b>Employee Designation:</b>	Official job titles that are given to healthcare professionals. In this study, healthcare professional job designations include medical officers, nurses, dentists, clinical officers, pharmacists, radiographers, orthopedic technologists, lab technicians, plaster technicians, Nutritionists, physiotherapists, midwives, public health officers and medical social workers, medical lab technologists, occupational therapists, and pharmaceutical technologists.
<b>Employment policy:</b>	This includes policies on reward and compensation, training and development & occupational health and safety (Douglas & Roberts, 2020).
<b>Job Satisfaction:</b>	A measure of Healthcare Professional's (s) contentedness with the job or aspects of working conditions, employment policies, social support, training and development, job

characteristics, and work environment factors? In this study, job satisfaction has been measured using a single global rating collapsed into a yes or no response question (Dhamija, 2018; Leopold et al., 2018).

- Social support:** The help that an employee gets from the supervisors and colleagues to effectively perform his/her duties and includes staff competence, appreciation, supervision, communication, and relationship with co-workers (Dhamija et al., 2018).
- Socio-demographic Characteristics:** Includes Age, Gender, Marital status, Level of Education, Years of service in Hospital, Years of service in the County, Designation.
- Training and development:** Training and development includes factors such as job evaluation, promotion, training opportunities, and job rotation that aim at improving the skills the competence of employees and includes
- Working conditions:** Physical, geographical location, as well as the immediate surroundings of the workplace (Blanz, 2017). In this study, working conditions include equipment and resources, lighting and ventilation, cleanliness, nature of work, and operating procedures.

## ABSTRACT

The major challenge facing hospitals worldwide is dissatisfaction among Healthcare Professionals. Job dissatisfaction can lead to an increase in the spate of industrial actions and poor quality service delivery. This research sought to assess the determinants of job satisfaction among Healthcare professionals in selected public hospitals in Trans Nzoia County, Kenya. The hospitals were Cherangany, Kwanza, Endebes, Saboti Sub-county hospitals, and Kitale County Referral hospital. The specific objectives included; to determine the level of job satisfaction, to determine whether there was a statistically significant relationship between socio demographic characteristics, work environment factors and job satisfaction, to explore the mediating effect of government policy on the relationship between work environment factors and job satisfaction and to explore determinants of job satisfaction among healthcare professionals in selected public hospitals in Trans-Nzoia County, Kenya. A facility-based cross-sectional study was conducted among 263 randomly selected healthcare professionals from all health cadres. Quantitative data were collected using self-administered questionnaires and analyzed SPSS v24 software. The bivariate analysis used a chi-square test for association at 95% CI. Significant factors ( $p < 0.05$ ) at bivariate analysis were subjected to Logistic regression (LR) to identify the predictors of job satisfaction. Chi-square analysis was used to determine the association between dependent and independent variables. Content analysis was done on the qualitative data and findings integrated into the report. The study established a 47.5% job satisfaction rate. From the Key informant interview, 80% of respondents stated that healthcare professionals in their institutions were dissatisfied with their jobs. There was a significant statistical association between socio-demographic characteristics, work environment factors, and job satisfaction. The variables that independently predicted overall job satisfaction were found to be year of service in the hospital (AOR= 0.132, 95% CI= 0.020-0.867,  $p = 0.035$ ), designation (AOR= 1.411, 95% CI= 1.411-1.02,  $p = 0.037$ ), contingent reward (AOR= 0.007, 95% CI= 0.000-0.87,  $p = 0.043$ ), pay (AOR= 419.558, 95% CI= 2.005-87803.14,  $p = 0.027$ ), fringe benefit reward (AOR= 459.68, 95% CI= 2.206-95792.65,  $p = 0.024$ ) time off (AOR= 9587.84 95% CI= 10.206-9007324.44,  $p = 0.009$ ), Job evaluation (AOR= 719.589, 95% CI= 3.587-144363.23,  $p = 0.015$ ), training (AOR=2193.54, 95% CI= 9.224-521630.56,  $p = 0.006$ ), staff competence (AOR= 275.586, 95% CI= 2.472-30723.09,  $p = 0.019$ ), appreciation (AOR=2193.54, 95% CI= 9.224-521630.56,  $p = 0.032$ ), supervision (AOR=118.826, 95% CI= 2.255-6260.744,  $p = 0.018$ ), communication (AOR=681.22, 95% CI= 3.270-141920.08,  $p = 0.017$ ), relationship with co-workers (AOR=1069.194, 95% CI= 3.818-299442.63,  $p = 0.015$ ), equipment and resources (AOR=1829.65, 95% CI= 6.809-491653.31,  $p = 0.008$ ) lighting and ventilation (AOR=476.53, 95% CI= 8.321-27289.24,  $p = 0.003$ ), nature of work (AOR=779.035, 95% CI= 8.548-71001.15, ( $p = 0.004$ ) and operating procedures (AOR=268.155, 95% CI= 2.537-28343.457,  $p = 0.019$ ). The key informants identified poor compensation, inadequate training and development opportunities, and occupational health and safety as the key determinants of job satisfaction. The study recommends that `Trans Nzoia County should adopt processes and tools for assessing the work environment, including satisfaction levels and comparing them, and identifying the best practices to apply across the system. The study proposes a comparative study on determinants of job satisfaction among healthcare professionals in private and public facilities to understand the dynamics and variations.

## CHAPTER ONE: INTRODUCTION

### 1.1 Background of the Study

Job satisfaction refers to people's feelings and attitudes about their work (Aklilu *et al.*, 2020; Abuhashesh *et al.*, 2019; Aklilu *et al.*, 2020). Chordiya (2017) describes job satisfaction as the overall feeling that people express about their work. Hence, job satisfaction is the degree to which employees like or dislike their work (Schill, 2017; Eirehail *et al.*, 2019). Even though dissatisfaction and satisfaction are not opposite factors, they are contingent on the nature of employment and employees' expectations (Chordiya, 2017). Therefore, negative attitudes towards the job indicate job dissatisfaction, while positive attitude indicates job satisfaction (Gedif *et al.*, 2018; Azash *et al.*, 2017).

Job satisfaction is closely linked to organizational performance, organization management, moral conflict, leadership, and motivation and varies across professions (Kemunto *et al.*, 2018; Agbozo *et al.*, 2017). Job satisfaction is influenced by autonomy, communication, pay, and organizational commitment (Eckardt *et al.*, 2017; Hee (2019). According to Karen (2017), management and friendly relationship contribute to higher job satisfaction, possibly because employees feel appreciated and their efforts recognized. In an organization where employees are satisfied with their jobs, there is generally more loyalty, reduced HR expenses, and voluntary turnovers (Chordiya, 2017; Al-Haroon & Al-Qahtani, 2019). While higher Job satisfaction levels depict that employees are committed to their jobs, lower job satisfaction levels indicate poor work environments

and lack of commitment for both the organization and the employee in improving working conditions Hee (2019).

According to a survey conducted by The World Economic forum in 2020 focusing on 34 countries, India had the highest employee satisfaction rate of 89%, followed by Mexico (85%), the United States (78%), China (74%), the UK (74%), Germany (71%) and France (68%). Japan had the lowest satisfaction rate of 42% of the surveyed countries. Some of the reasons contributing to a lower satisfaction rate among Japanese workers may include a poor work environment due to physical abuse, bullying, and low chances for a pay rise or bonus (World Economic Forum, 2020). A study done by Gedif et al. (2018) established a 54% overall level of job satisfaction among Healthcare professionals in Ethiopia. Another survey by Blaauw *et al.* (2016) showed a higher satisfaction level among Healthcare workers in Tanzania (82.6%) and Malawi (71.0%) as compared to South Africa (52.1%). Mathulu & Mbithi's (2016) study in Makueni District Hospital in Kenya established a job satisfaction level of 36% among nurses, which was relatively lower than the satisfaction level of Healthcare professionals in Homabay County Teaching and Referral hospital in Kenya. According to Ochieng (2018), nurses' satisfaction level from Homabay County Teaching and Referral hospitals was 60%.

Studies have examined the relationship between work environment, sociodemographic factors, and job satisfaction and established a significant relationship. For instance, a study conducted in India concluded that the working environment and sociodemographic factors influence both productivity and job satisfaction among nurses (Sing *et al.*, 2019). Similar findings were established by Bello *et al.* (2018) in Nigeria, who found out that

the healthcare setting and management practices are critical factors in improving work satisfaction. The researchers concluded that organizations should deliberately improve working conditions, pay, evaluation, and employees' policies to be satisfied.

Healthcare professionals refer to persons accredited by a professional body after completing a course and registered by a government to practice (WHO, 2017). WHO (2016) states that globally, there will be a shortage of approximately 13 million Healthcare professionals by the year 2035. If not addressed, a deficit will present severe ramifications for the health of millions of persons across the world. The public health sector in Kenya faces many challenges such as inadequate staff, poor remuneration, inadequate infrastructure, and general mismanagement of employees. Kenya loses an average of 20 medical practitioners monthly through brain waste or brain drain, and the emigration rate of physicians and nurses at 51% and 8%, respectively, to the UK (Ngure, 2016). After the devolution of Kenya's health sector in 2013, job satisfaction problems have significantly increased, with healthcare personnel citing neglect by the respective county governments (Ngure, 2016). In 2017, Trans-Nzoia County had 497 nurses, which is a decline from 625 nurses in 2013, meaning that one nurse serves 594 patients against the WHO recommendation of 1 nurse to 5 patients. Despite the importance of the work environment and management practices on job satisfaction, there is little effort toward evaluating the working environment for Healthcare workers to examine the determinants of job satisfaction (Ngure, 2016; Nafula & Wanyama, 2019). Therefore, the current study addressed the determinants of job satisfaction among Healthcare professionals in selected public hospitals in Trans Nzoia County in Kenya, thus enabling policymakers to appraise the Healthcare strategies and address Healthcare professionals' issues.

## 1.2 Problem Statement

Job dissatisfaction among employees has been shown to negatively affect productivity, quality of service, and efficiency (Abuhashesh *et al.*, 2019; Aklilu, 2020). In a healthcare setting, job dissatisfaction may lead to high turnovers, costly labour disputes, and health risks to patients (Nafula & Wanyama, 2019). Although job satisfaction level cannot be 100%, ideally, higher scores depict higher satisfaction level while lower scores show dissatisfaction, and scores above 70% are considered ideal (Spector, 1997). When healthcare professionals feel dissatisfied, they tend to lose interest in their work, which may increase medical errors, wastage of resources, and low quality of service delivery (Hee, 2019).

In Kenya, documented job satisfaction level among Healthcare professional's ranges from 26.7% in Busia County (Wamalwa, 2017), to as high as 60% Homabay County referral hospital (Ochieng, 2018). Mombasa, Kwale, and Kilifi counties reported a low job satisfaction level of 28.2% among nurses (Tengah & Otieno, 2019). In Makueni County, the job satisfaction level was 36% (Mathilu, 2016). However, this data is not segregated across different carders. Trans-Nzoia County might be experiencing a lower job satisfaction level because of the numerous industrial actions, complaints about the poor work environment and pay (Nafula & Wanyama, 2019).

There have been some attempts to improve the healthcare professional's overall work environment in Kenya and Trans-Nzoia. Some of the approaches include organizational commitment, decentralization of health functions, provision of equipment and resources, staffing, employing reward schemes, and improving work quality (MOH, 2019).

However, these interventions are yet to have significant impacts considering the job satisfaction level in trans-Nzoia County is still below 45% (Nafula & Wanyama, 2019). Literature in this area is still scanty considering that most previous studies, including the ones done by Nafula *et al.* (2019), Sikowo *et al.* (2016), and Wamalwa (2017), have concentrated on the influence of job satisfaction on organization commitment and employee job satisfaction and widely perceived, yet perennial issues of low remuneration and staff shortage. Identifying determinants of job satisfaction will help set the foundation for improving healthcare workers' job satisfaction and healthcare service quality.

### **1.3 Study Justification**

Kenya's health sector goal is to realize the utmost possible health standards (MOH, 2019). The government aims to provide equitable, affordable, and high-quality health services (MOH, 2017). The current study is informed by the Kenya Health sector priorities since it focuses on the healthcare professionals' job satisfaction that influences the quality and accessibility of health services. Most studies on the determinants of job satisfaction across Kenya have only focused on nurses and doctors and not in Trans-Nzoia County (Wamalwa, 2017). However, healthcare is effectively delivered in teams. Hence, this study includes other cadres such as dentists, clinical officers, pharmacists, radiographers, orthopedic technologists, lab technicians, plaster technicians, Nutritionists, physiotherapists, midwives, public health officers, and medical social workers, among others. Trans-Nzoia County was also selected for the study because the Job satisfaction level of its healthcare professionals was below 50%. Also, there have been controversies

on how different factors influence job satisfaction. By identifying the predictors of job satisfaction in Trans-Nzoia County, the government will have a basis for making informed decisions on staffing and motivation of healthcare professionals. Hence, this study will identify the predictors of job satisfaction across all health cadres in Trans-Nzoia County and generate knowledge to be used by academicians and health managers to influence policy.

## **1.4 Research Objectives**

### **1.4.1 General Objectives**

To assess the determinants of job satisfaction among healthcare professionals in selected public hospitals in Trans-Nzoia County, Kenya.

### **1.4.2 Specific objectives**

1. To measure the level of job satisfaction among healthcare professionals in selected public hospitals in Trans-Nzoia County, Kenya
2. To determine the socio-demographic characteristics (Age, Gender, Marital status, Level of Education, Years of service in Hospital, Years of service in the County, Designation) of Healthcare professionals in selected public hospitals in Trans-Nzoia County, Kenya
3. To determine whether there was a statistically significant relationship between sociodemographic characteristics and job satisfaction among Healthcare professionals in selected public hospitals in Trans-Nzoia County, Kenya.

4. To determine whether there was a statistically significant relationship between work environment factors and job satisfaction among Healthcare professionals in selected public hospitals in Trans-Nzoia County, Kenya.
5. To explore the mediating effect of government employment policy on the relationship between work environment factors and job satisfaction of healthcare professionals in selected public hospitals in Trans-Nzoia County, Kenya.
6. To identify the determinants of job satisfaction among healthcare professionals in selected public hospitals in Trans-Nzoia County, Kenya.

## **1.5 Hypothesis**

### **1.5.1 Null Hypotheses**

There is no association between socio-demographic characteristics, work environment factors, employment policy factors and job satisfaction among healthcare professionals in selected public hospitals in Trans-Nzoia County, Kenya. Null hypothesis was rejected if  $p < 0.05$  (Taherdoost, 2016).

### **1.6 Significance and Anticipated Output**

By identifying the specific determinants of job satisfaction (sociodemographic characteristics and work environment factors), various players such as the Ministry of health and the county government of Tans-Nzoia can efficiently and effectively address job satisfaction issues facing healthcare professionals. The study also made policy suggestions and recommendations for improving overall job satisfaction in Trans-Nzoia County and Kenya. More specific policy responses include training employees in relevant skills, hiring the right persons, enhancing performance-based compensation, providing

security, and nurturing effective and self-managed teams. To researchers, the current study offers baseline data on the current status of job satisfaction and determinants of job satisfaction among Healthcare Professionals in public health hospitals in Trans-Nzoia County.

### **1.7 Delimitation and Limitations**

There was a danger of double counting if a respondent works in more than one of the selected hospitals. Therefore, respondents only answered questions about the hospital where they were permanently employed or mainly based. More so, the research only considered limited human resource practices. The study was conducted when there was a looming industrial action to advocate for better pay. To minimize the impact of the strike on the generalizability of the findings, particularly satisfaction with pay, the respondents were objective in their responses. Also, the researcher ensured flexibility in scheduling interview appointments. The use of a single question to measure global satisfaction can be limited, primarily when individuals do not attribute equal importance to each of the facets and may not be equally inclusive. However, according to Spector (1997), the concept of job satisfaction has shifted from need fulfilment angle to job satisfaction as an attitudinal variable. It has been argued that there is no single measure because job satisfaction relates directly to the intricacies of the human feelings (Azash & Thirupalu 2017). Hence, a single questions can as well be an effective measure of global satisfaction and can replace the facets approach since emcons to understand their satisfaciton levels (Sinval & Marocco, 2020; Azash & Thirupalu, 2017). It would have

been more useful to collect data from different counties across Kenya; however, due to a shortage of resources, the researcher limited his study to Trans-Nzoia County.

## **1.8 Theoretical Framework and Conceptual Frameworks**

### **1.8.1 Theoretical Framework**

In the current research, Healthcare Professionals Job Satisfaction can be explained using Maslow's hierarchy of needs (Stefan *et al.*, 2020) and Herzberg's motivation theory (Alshmemri *et al.*, 2017).

#### **1.8.1.1 Maslow's Hierarchy of Needs Theory (1954)**

Maslow's theory encompasses five needs: safety needs (consistency and stability), physiological needs (sleep, water, air, and food), love needs, affiliate needs, Self-actualization needs, and self-esteem needs (confidence/respect) (Jonas, 2016). The theory postulates that the fulfilment of lower needs must occur before advancing to the next level of needs. Failing to meet esteem and safety needs may result in dissatisfaction and increased turnovers (Jonas, 2016). Therefore, Maslow's theory shows how compensation, job satisfaction, training practices, and work environment factors impact job satisfaction. However, Maslow's theory assumes that happy and satisfied workers produce more may be false to some extent since sources of happiness may vary from one employee to the other (Alshmemri *et al.*, 2017).

#### **1.8.1.2 Hertzberg Two Factor Theory (1968)**

This theory posits that each worker has dual arrays of needs, hygiene, and motivational needs (Reeve, 2016). Persons are satisfied with their jobs by factors when given

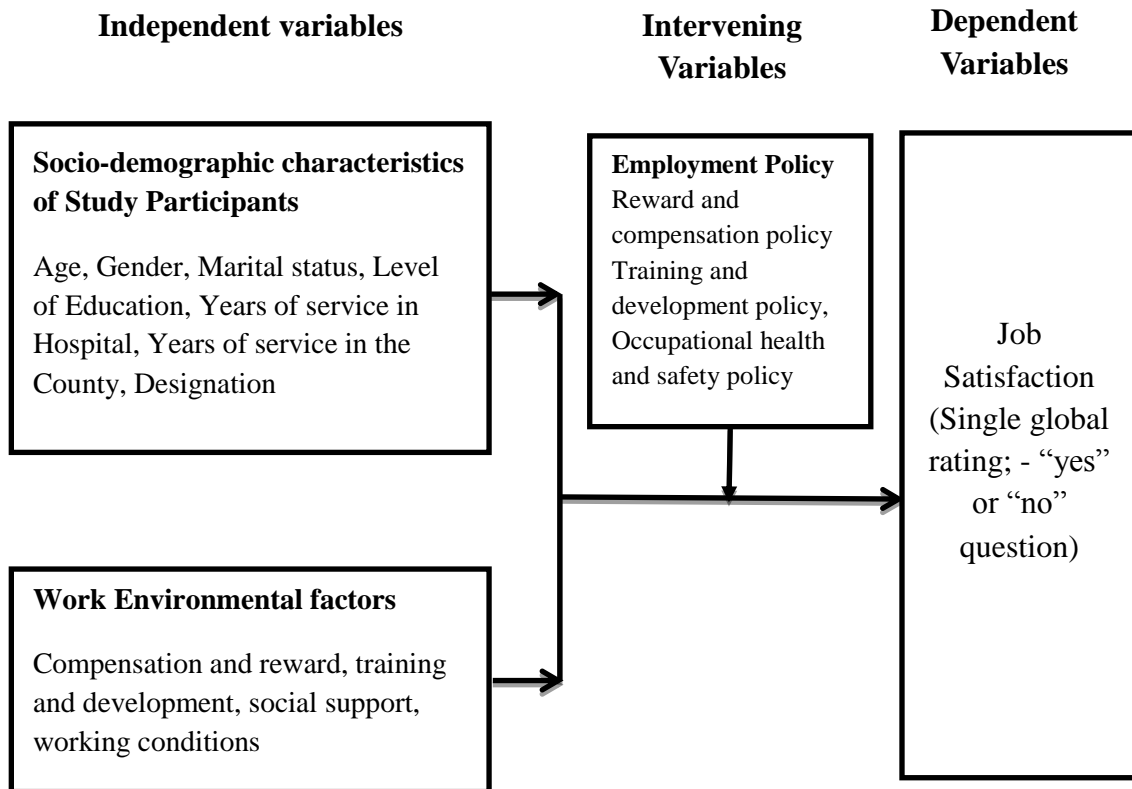
responsibility, recognition, impressive work, achievement, advancement, and development. Elements that make persons unhappy with their careers are called hygiene factors. Herzberg identifies the following dissatisfiers: supervision, company policy, work environment, social relations, compensation, security, and status.

### **1.8.2 Conceptual Framework**

The conceptual framework illustrated in Fig. 1.2 identifies four analytical dimensions: socio-demographic characteristics of study participants, government employment policy (Reward and compensation policy, Training and development policy, Occupational health and safety policy).

Work environment factors (Social support, working conditions, development and training and reward and compensation) are independent variables and job satisfaction, which is the dependent variable. Job characteristics include skills variety, task identity, autonomy, feedback, and task significance (Sever & Malbasic, 2019). Social support could be derived from staff competence, appreciation, supervision, communication, and relationship with co-workers (Dhamija *et al.*, 2018). Working conditions include equipment and resources, lighting and ventilation, cleanliness, work nature, and operating procedures. Training and development include evaluation, promotion, training opportunities, and job rotation (Agbozo *et al.*, 2017; Abuhashesh *et al.*, 2019; Yuen *et al.*, 2018). Compensation and reward include contingent reward, recognition, pay, fringe benefits, and time-off (Reeve, 2016; Dhamija *et al.*, 2018; Gedif *et al.*, 2018). Overall satisfaction focuses on employee's general internal state of dissatisfaction or satisfaction. Hence it describes a holistic feeling that depends on negative or positive experiences

emanating from job components such as pay and reward. This study's dependent variable was the Healthcare Professional's job satisfaction measured using a single global rating collapsed into a yes or no response question (Dhamija, 2018; Lepold *et al.*, 2018). The possible outcome is that Job satisfaction is strongly correlated with the work environment and sociodemographic characteristics (Aklilu *et al.*, 2020). The interaction between independent and dependent variables can be mediated by government policy factors, including reward policy, promotional policy, training, development policy, occupational health, and safety policy (Lepold *et al.*, 2018). Government policy on training and development, reward and compensation, occupational health, and safety significantly determines job satisfaction since it affects knowledge, attitudes, abilities, behavior, and skills that ultimately enhance satisfaction (Abuhashesh *et al.*, 2019; Yuen *et al.*, 2018)



**Figure 1.1: Conceptual framework**

**Adapted from literature review**

## CHAPTER TWO: LITERATURE REVIEW

### 2.1 Introduction

In this section, the author begins by presenting an overview of job satisfaction among healthcare professionals in the global context and then narrows down to the regional and Kenyan context. Critical analysis of socio-demographic characteristics, work environment factors, and government employment policy factors influencing health professionals' job satisfaction is also presented.

### 2.2 Job Satisfaction

Job satisfaction denotes to the workers' feelings and attitudes about their jobs (Wynen, 2019; Schill, 2017; Eirehail *et al.*, 2019). A positive attitude towards employment shows job satisfaction, while a negative attitude indicates dissatisfaction, (Aware, 2017). Although job satisfaction level cannot be 100%, ideally, higher scores depict higher satisfaction level while lower scores show dissatisfaction, and scores above 70% are considered ideal (Spector, 1997). When healthcare professionals feel dissatisfied, they tend to lose interest in their work, which may increase medical errors, wastage of resources, and low quality of service delivery (Hee, 2019). Job satisfaction concepts are multifaceted and interdependent, hence creating a holistic approach in addressing them (Eirehail *et al.*, 2019; Chordiya, 2017). Most researchers agree that employees with high job satisfaction levels have improved mental and physical health, job involvement, and improved quality of life (Boon *et al.*, 2019; Gobena, 2017; Chordiya, 2017; Hee, 2019).

The World Economic Forum report in 2020, which focused on 34 countries, established that India had the highest employee satisfaction rate of 89%, followed by Mexico (85%),

the United States (78%), China (74%), the UK (74%), Germany (71%) and France (68%) (World Economic Forum, 2020). The same report showed that Japan had the lowest satisfaction rate of 42% among its employees. The main reasons contributing to a lower satisfaction rate among Japanese workers included a bad work environment due to physical abuse, bullying, and low chances for a pay rise or bonus (Zhang, 2019; Camila *et al.*, 2019). In Iran, a study on the elements of job satisfaction among medical personnel reported low scores on factors such as coordination, autonomy, medical equipment, and appraisal system (Tasneem, Seyer & Zeki, 2018).

In Sub-Saharan Africa, although there are significant regional variations in job satisfaction levels among healthcare professionals, there is a more general dissatisfaction trend due to various factors related to poor work environments (Ugwa, 2016; Aware, 2017). For instance, a study conducted in Nigeria among doctors in Public hospitals identified contingent reward, pay, operating procedures, being married, job autonomy, and communication as the critical determinants of employees job satisfaction (Bello *et al.*, 2018). The study established a job satisfaction rate of 48% for nurses and physicians. In South Africa, Mbhele (2019) revealed that factors like recognition, promotion, training, and development significantly influence employee satisfaction. The study further concluded that employees were more dissatisfied by poor communication, poor leadership, unfair recruitment, and adversarial relationships. Gedif *et al.* (2018) established a 54% overall job satisfaction level among Healthcare professionals in Ethiopia. A study by Blaauw *et al.* (2016) showed a higher satisfaction level among Healthcare workers in Tanzania (82.6%) and Malawi (71.0%) as compared to South Africa (52.1%). Mathulu & Mbithi's (2016) study in Makueni District Hospital in Kenya

established a job satisfaction level of 36% among nurses, which was relatively lower than the satisfaction level of Healthcare professionals in Homabay County Teaching and Referral hospital in Kenya that was at 60% (Ochieng (2018).

The general conclusion among the studies in Africa is that even though socioeconomic and sociodemographic variables may not affect job satisfaction to a greater extent compared to work environment factors, factors such as age, marital status and gender may substantially affect how employees react to other work environment factors, and hence, job satisfaction (Gedif *et al.*, 2018; Azash *et al.*, 2017). Inadequate compensation may have contributed to the highest dissatisfaction levels among healthcare workers across Africa (Ugwa, 2016; Gile, 2018; Fetters, 2019).

### **2.3 Socio-demographic Characteristics and Job Satisfaction**

Research has established that demographic characteristics influence how employees react to work environment factors and, by extension, their overall job satisfaction (Temesgen *et al.*, 2018). Interaction between factors such as age, marital status and gender with environmental factors has a modifying effect on Job satisfaction (Kemunto *et al.*, 2018). For instance, younger Healthcare Professionals have higher job dissatisfaction rates than older Healthcare Professionals (Obura *et al.*, 2016). In Sub-Saharan Africa, as much as in other developing countries, Job satisfaction among younger employees is highly influenced by promotion possibilities, work shifts, relationships, task variety, and educational opportunities (Al-Haroon HI & Al-Qahtani MF., 2019).

A study conducted in the USA by Chung & Lippe (2020) and another done in India by Memon and Jena (2017) confirmed a strong relationship between gender and job

employee job satisfaction. Women show higher satisfaction scores than men. Similarly, in Kenya, Mocheche *et al.* (2017) study among secondary schools established that female teachers enjoyed relatively higher job satisfaction than their male counterparts due to the social support system they enjoy. Given the continuing gender inequalities in the workplace, it may sound paradoxical that women are relatively more satisfied with their job compared to men, yet more prone to voluntary turnover (WPWSG, 2017; Karim *et al.*, 2019). Studies on the effect of gender on job satisfaction have produced mixed results (Rahman *et al.*, 2020; Blanz, 2017). For instance, satisfaction among health workers in Ghana revealed less substantial differences between men and women (Karen, 2017; Ahmed *et al.*, 2016). The social and cultural dynamics could inform such findings in the area of study.

Moreover, research shows that an increase in education level significantly improves Healthcare Professionals' competitiveness in acquiring better-paying jobs, enhancing their job satisfaction rates (Ngure, 2016). However, high performers and supervisors tend to have higher satisfaction rates because they are more attached to organizations (Rand *et al.*, 2019). Also, a study by Karen (2017) shows that married (who have a stable income) have higher job satisfaction rates compared to single employees because the spouses may support each other financially and psychologically (Karim *et al.*, 2019; Ngure, 2016). Moreover, the Healthcare Professional's income level substantially affects their job satisfaction (Malik, 2016). Studies show that Healthcare Professionals who earn significant income are more satisfied at work (Rahman *et al.*, 2020). On the contrary, many low-income earners are always frustrated and looking for alternative means of revenue, evident signs of job dissatisfaction (Murante, 2017; Alshmemri *et al.*, 2017).

Job satisfaction also varies across different designation in relation to various work environment factors (Asumah *et al.*, 2019). A Study conducted by Sing *et al.* (2019) in India focusing on lab technicians, medical officers, staff nurses, pharmacists, and senior medical specialists and established varied job satisfaction rates among the cadres. On the pay facets, the highest satisfaction level was seen among Senior medical officers (86%), followed by junior medical officers (85%) and laboratory technicians (56%). Pharmacists and nurses were the least satisfied with the promotion facets, while most cadres were comfortable with supervision facets (between 87% to 95% satisfaction levels) (Singh *et al.*, 2019). In Kenya, job satisfaction levels have mainly been conducted among nurses and doctors, leaving out other vital cadres such as dental officers, clinical officers, pharmacists, radiologists, nutrition and dietetics, physiotherapists, public health officers, orthopaedics, medical social workers, occupational therapists, and lab technologists (Wamalwa, 2017; Ochieng, 2018; Tengah & Otieno, 2019; Mathilu, 2016).

Multilevel analyses show that job satisfaction reduces as tenure increases; however, as they age and transition from one employer to another, satisfaction levels tends to increase (Malik, 2016). These relationships could be mediated by job rewards (Murante, 2017). Similar findings were established by Karim *et al.* (2019) study in Bangladesh, which concluded that employee time and age in organizations bore a U-shaped association with job satisfaction. Satisfaction was relatively high when persons commenced their first job and deteriorated until they were between 30-35 years when it began to increase. The increase in job satisfaction was sustained for the subsequent work years (Alshmemri *et al.*, 2017). Probably, as persons gain more experience and maturity, they adjust work

expectations and ambitions to realistic levels that are more attainable hence easily satisfied (Abuhashesh *et al.*, 2019; Ahmed *et al.*, 2016; Alshmemri *et al.*, 2017).

Time plays a critical yet often under-examined role in organizational satisfaction (Gobena, 2017; Agbozo *et al.*, 2017; Abuhashesh *et al.*, 2019). In personal experiences, time can shape attitudes such as job satisfaction. Yet, the nature of the relationship between time and job satisfaction has yielded inconsistent findings over several decades, mainly due to the use of only two primary metrics of age and tenure (Aklilu, 2020). Tenure and age are similar during an individual's time in specific employment (Ali *et al.*, 2019; Blaauw, 2016). However, across different employment contexts, the two metrics may assume a divergent trajectory; age increases continuously, tenure starts over with each new job or organization. Thus this study focused on both the influence of tenure and age on job satisfaction to establish if both are diametrically or positively associated with job satisfaction.

## **2.4 Work Environment factors and job satisfaction**

### **2.4.1 Training and development**

The challenge of human resource management (HRM), especially in the rapid technology change, is to identify training and development practices, which would advance workers' commitment and job satisfaction (Boon, Hartog & Lepa 2019). Such methods may include training, skill development, equitable promotions, scholarships, and networking (Karen, 2017). A study conducted by Huang (2019) among healthcare professionals the United Kingdom (UK) established that training is a vital investment that an organization can make to influence employees' attitudes, such as job satisfaction. A similar study by McGrandle (2018) focusing on public service employees established that training,

relationships, employees' interests are by far the strongest predictors of job satisfaction. Training focuses on the systematic modification of behaviour through instruction, learning, experience, and education. Karen (2017) and Eirehail *et al.* (2019) suggest that training is essential in improving overall job satisfaction. The organization should endeavour to enhance employee skills to promote high performance and job satisfaction. These skills can be enhanced through job rotation, providing technical and non-technical training, job promotion, job shadowing, and coaching (Agbozo *et al.*, 2017).

However, training and development should be conducted regularly to ensure the adoption of appropriate practices and establish a learning environment that will contribute to employees' job satisfaction through proper skills development (Kumar & Papos, 2019; (Siriwardena & Morais 2019). Studies by Guo (2016) and Karen (2017) show that mentoring, promotion, job rotation, supervision, training, and skills development help Healthcare Professionals appreciate multiple facets of how life and work interconnect and develop new skillset increase resilience, employability and overall job satisfaction. Another study conducted by Okumu and Kiflemariam (2018) in Siaya County, Kenya established that training positively affects nurses' overall job satisfaction. The same study also states that supervisors' support through job evaluation may lead to healthcare professionals feeling valued. Nevertheless, fear to spend resources, inadequate resources, communication bureaucracy, failure to have adequate policies, and less support from management present challenges in implementing training programs (Haydar, & Halawi, 2018).

### **2.4.2 Working Conditions**

Factors such as workspaces (environmental variables) and personal characteristics are essential in influencing job satisfaction (Budie, B., Kemperman, A., & Minou, W., 2018; Atmaja, 2018). Inadequacy of equipment and resources, lighting, and ventilation, and cleanliness can result in a stressful work environment that leads to job dissatisfaction among employees (Budie *et al.*, 2018). According to Schill (2017), the work environment, also referred to as work conditions, pertains to the physical geographical location and the workplace's immediate surroundings such as temperature, hygiene, resources, noise, and ventilation. Unfavourable aspects of the work environment, such as poor ventilation and lighting, can adversely affect employees' physical and mental well-being, leading to job dissatisfaction (Keyton, 2017).

Studies by Karen (2017), Hee (2019), Mabaso *et al.* (2017) have established a direct link between workplace conditions and Healthcare Professionals' job satisfaction. Stressful working conditions, such as lack of autonomy, may result in job dissatisfaction, stress, and depression among workers (Sukdeo, 2017). On the contrary, when Healthcare Professionals are allowed to control their work, albeit to some extent, they establish ownership of the decisions they make and feel more motivated (Chordiya, 2017). Such autonomy results in increased willingness to stay in a given organization (Eckardt *et al.*, 2017). Bello (2018) recognizes that the work environment should ensure efficiency in working tools and equipment, office space, lighting and ventilation, privacy, effective communication, manageable workload, work hours, shifts, teamwork, and conflict resolution system.

A study conducted by Karen (2017) on the challenges faced by top managers worldwide established that upgrading equipment and facilities and guaranteeing that employees have access to the adequate working area can increase employee satisfaction. On the contrary, dilapidated and inefficient tools result in frustration and conflict over limited resources (Keyton, 2017; Mbhele, 2019). This explains the argument by Aware (2017) that rampant industrial actions and inadequate healthcare services by healthcare professionals in Kenya can be linked directly to the poor working conditions. However, if working conditions are “too favourable,” Mbhele (2019) argues that employees could take them for granted. Under such circumstances, the employees may not appreciate the working conditions and focus more on personal gains (Ahmed *et al.*, 2016; Bello *et al.*, 2018).

According to Blanz (2017), the Job characteristics Theory, as developed by Gregg Oldham and Richard Hackman, is widely used to study how job characteristics influences overall job satisfaction. The theory outlines five fundamental job characteristics; skills variety, task identity, autonomy, feedback, and task significance (Sever & Malbasic, 2019). Autonomy is the degree to which a given job allows freedom and independence in decision making. Although complete independence is not practical, providing time off and establishing clear operating procedures can improve autonomy and, consequently, job satisfaction (Abdullah, 2019; Karim *et al.*, 2019; Sukdeo, 2017; Keyton, 2017). Since there is no one combination of working conditions for the ideal job, organizations need to align and adjust each characteristic to influence maximum job satisfaction (Blanz, 2017). According to Theuri, Macharia & Kamau (2020), Kenya's public health sector should offer healthcare professionals with necessary work tools, equipments and conducive working environment to allow its employees to effectively execute their duties.

### 2.4.3 Social Support

Social Support refers to the help that an employee gets from the supervisors and colleagues to perform his/her work effectively and be categorized into work-related and personal social support (Giao *et al.*, 2020; Choi & Yuh 2017). This study focused on work-related social support since it is the one that directly affects job satisfaction (Ali *et al.*, 2019). A study by Almeida *et al.* (2019) conducted among Portuguese healthcare professionals established that social support from colleagues can enhance job satisfaction and decrease job stress. Another study conducted in South Africa among healthcare workers suggested that supportive supervision and management practices are essential to achieving high job satisfaction (Asumah, Agyapong & Owusu, 2019). Therefore, persons having social support at work attain a sense of identity and friendship, hence improving their job satisfaction levels (Choi & Yuh 2017; Ali *et al.*, 2019).

Social support, which can be measured through supervision level or support from competent staff, may also come from qualified staff members who help colleagues work effectively and become more satisfied with their jobs (Almeida, M., Orgambidez, A. & Santos, C., 2019). However, if an employee is not competent enough, he/she may stress other colleagues since they have to put more efforts in correcting his/her mistakes and doing their work (Budie, 2018; Desa *et al.* 2019). Hence, strategies based on healthy support networks are essential in enhancing job satisfaction if the hospital organizations provide structural settings that promote empowerment (Mukanzi & Senaji, 2017; Ali *et al.*, 2019). Therefore, social groups that encourage friendship and support at work encourage positive attitudes such as job satisfaction and contentment.

Effective communication at the workplace is essential in ensuring organizational objectives and social support (Desa *et al.*, 2019). A study conducted by Musah *et al.* (2018) in Malaysia's temporary work environments highlighted that effective communication helps in improving employee job satisfaction. Lantara *et al.* (2019) study of faculty staff in Indonesia proved a positive association between communication and job satisfaction. The researcher concluded that practical communication skills are vital for relationship building, effective interaction, and employee motivation. Similarly, poor communication and lack of appreciation can damage relationships, affecting productivity, morale, respect, self-confidence, physical health, and job satisfaction (Hee & Qin 2019; Andi 2019). Communication challenges in the Kenya health sector have been exacerbated by the county level's lack of strong institutions (Kimathi, 2017). Some healthcare professionals state that they do not receive objective feedback from their supervisors (Nafula & Wanyama, 2019). Feedback is the degree to which employees get clear direction and information about their work. Through practical evaluation and feedback, employees can see their performance and improvement areas (Hee & Qin 2019).

#### **2.4.4 Compensation and Reward**

Compensation is a human resource management function dealing with all types of reward is that employees get in exchange for working (Ali, 2019; Andi, 2019; Bello *et al.*, 2018). Hence, the term compensation may also refer to all its forms used to reward employees (Camila *et al.*, 2019; Choi & Yuh 2017). Compensation can be in terms of salaries wages or in the form of incentives provided to appreciate employees for their exemplary performance (Hakim, 2020; McGrandle, 2018). Compensation is a valuable tool for

motivating Healthcare Professionals because they want to be paid well for the job they perform both for their self-esteem and as useful means for a living (Murante, 2017; Musah, Ghazali & Isha, 2018). Globally, poorly compensated Healthcare Professionals tend to feel neglected and undervalued (Ahmed *et al.*, 2016; Atmaja, 2018; WHO, 2016). Hence, Healthcare Professionals tend to choose organizations that provide better compensation (Hee, 2019; Prasetio *et al.*, 2019). Therefore, organizations can use base wages and salaries given on an hourly, weekly, or monthly basis to motivate Healthcare Professionals.

Another study by Islam *et al.* (2018) established that factors such as contingent reward, recognition, pay, and fringe benefits are significant predictors of job satisfaction. The study found out that most employees are dissatisfied with job characteristics in the following order; compensation, reward and fringe benefits, and job design. According to the same study, there was a significant relationship between perception of compensation and low employee morale. Eirehail *et al.* (2019) study in Northern Cyprus concluded that factors such as contingent reward, recognition, time-off, training, pay, and supervision have a substantial effect on organizational commitment and job satisfaction competent employees.

## **2.5 The mediating effect of Employment Policy**

Policy plays a vital role in influencing employee reaction to the work environment (Eirehail *et al.*, 2019; Aware, N., 2017). Noor & Zainordin (2018) argues that work environment factors and employer priorities inform employment policies. In the public service, particularly public hospitals, government policies are vital tools in influencing

employee job satisfaction because they guide the implementation of work factors (Agbozo *et al.*, 2017; Ahmed *et al.*, 2016). In a work environment, four types of policies are relevant; recruitment, selection, training, development, reward, compensation and promotion policies (Abuhashesh, 2019; Wangechi *et al.*, 2018). However, due to time limitations, this study did not focus on recruitment and selection policies.

### **2.5.1 Reward and Compensation Policy**

Reward policy is a fundamental element that outlines how employees gain (monetary or non-monetary gains) by dedicating their effort to achieving organizational objectives (Bello *et al.*, 2018; Atambo, 2016). Previous studies have shown that reward mediates the relationship between work environment and job satisfaction (Ajusa, 2016; Abuhashesh, 2019). Employees expect monetary and non-monetary rewards from their employers as a return to their efforts (Blanz, 2017; Aware, N., 2017). A well-designed reward policy can improve employees' satisfaction in an organization (Eckardt *et al.*, 2017; Noor & Zainordin, 2018). For this to happen, there is a need to have an attractive reward policy to attract valuable employees and improve their job satisfaction (Chumba *et al.*, 2018).

According to the Kenya government employee policy, reward and sanction at the employee and managerial level are based on the extent of employee managers contribution to institution performance (GOK, 2016). The policy states that reward and sanction should be based on performance standards, fairness, natural justice, timeliness, equal opportunities, right of appeal, effective communication, coaching and mentoring, and professionalism. An employee who attains excellent performance may be considered for promotion, letters of commendation, bonus payment, paid vacation, contract renewal

or employee of the year award. Sanctions for poor performance include censure letter, cautionary letter, placement on a performance improvement plan, warning, separation, and non-renewal service (GOK, 2016).

However, various studies have shown that government institutions in Kenya fail to adhere to the reward policy, with some employees accusing their managers of favoritism, nepotism, and corruption (Wangechi *et al.*, 2018; Ajusa & Atambo 2016). For instance, a study conducted in Nyeri County established that financial incentive was a primary motivator towards employee job satisfaction followed by promotions (Mburu, 2016). Organizations should integrate a compensation strategy that is acceptable to the majority of employees and guided by merit. (Wangechi *et al.*, 2018). Wangechi *et al.* (2018), note that priority is primarily given to local ethnicities with the devolved governance system. The extent of such unfairness at the workplace is generally overlooked in the health sector and leads to unfair promotion and recognition and ultimately job dissatisfaction.

### **2.5.2 Training and Development policy**

For a training and development policy to be effective, organizations need to have a fair criterion for choosing employees to be trained (Noor & Zainordin, 2018). Health training in Kenya is done under two levels; pre-service and in-service (MOH, 2016). While statutory bodies regulate the pre-service training within the Ministries of Health and Education, different service training players are done both within the Ministry of Health and Non-Governmental Organizations (MOH, 2016). Despite the robust policy environment, there is a gap in coordination that will ensure quality and practical human resources training for health, particularly at national and county governments (Wangechi

*et al.*, 2018). Wangechi *et al.* (2018). The Kenya Training policy stipulates that training should be guided by professional ethics, efficiency, accountability, transparency, equality, and responsiveness (MOH, 2016). According to the policy, the county government's role includes developing training plans, approving employee training, and Promoting public, private partnerships to train healthcare professionals.

### **2.5.3 Occupational Health and Safety Policy (OHS)**

Occupational health and safety policy aim at protecting the health, welfare, and safety of persons engaged in employment (MOH, 2016). Thus it targets protection and promotion of employees' health, develops safe work environments, and enhances physical and mental health and hence job satisfaction (Tangah & Otieno, 2019). In Kenya, OHS has been an issue of growing importance over time. Since different tiers of Healthcare face various hazards, the ministry of health in Kenya recommends implementing OHS through a participatory program. However, health workers in Kenya still face a poor work environment that lacks adequate engineering controls and safety equipment (Wangechi *et al.*, 2018; Tangah & Otieno, 2019).

### **2.6 Summary of Literature Review and Existing Gaps**

From the literature review, it is evident that Job satisfaction level varies across countries and specific institutions. Low job satisfaction levels are influenced by work environment factors such as poor communication, poor leadership, unfair recruitment, and adversarial relationships. It is also evident that Job satisfaction is influenced by sociodemographic characteristics such as age, marital status and gender. Most studies on determinants of job satisfaction both regionally, locally, and in Trans-Nzoia County in Kenya have focused

on nurses and doctors (Sikowo *et al.*, 2016; Wamalwa, 2017). However, healthcare is effectively delivered in teams. Therefore, this study included other cadres such as dentists, clinical officers, pharmacists, radiographers, orthopedic technologists, lab technicians, plaster technicians, Nutritionists, physiotherapists, midwives, public health officers, and medical social workers, among others. Investigating the mediating effect of employment policy between job satisfaction and work environment factors generally lacks from the existing literature. By identifying the predictors of job satisfaction in Trans-Nzoia County, and the mediating effect of employment policy, this study will help stakeholders in the public health hospitals make informed decisions that improve healthcare professional job satisfaction and efficiency and effectiveness services.

## **CHAPTER THREE: MATERIALS AND RESEARCH METHODS**

### **3.1 Introduction**

This section explains how the study was conducted, the model of research utilized, and the techniques used to analyze the study results.

### **3.2 Research Design**

The research used a cross-sectional study design to enable an exhaustive explanation of the situation and minimize data collection bias (Setia, 2016). Qualitative and quantitative research approaches were used for triangulation (Boon, 2019). The study participants, who were randomly sampled from each department in the hospitals, responded to open and closed-ended questions.

### **3.3 Study Variables**

#### **3.3.1 Independent Variables**

- i. Socio-demographic Characteristics of the Study Participants (Age, Gender, Marital status, Level of Education, Years of service in Hospital, Years of service in the County, Designation).
- ii. Work environment management factors (Social support, working conditions, training and development, and compensation and reward).

#### **3.3.2 Intervening Variables**

Government employment policy (Reward and compensation Training and development and Occupational health and safety).

### **3.3.3 Dependent Variables**

The dependent variable of the research was job satisfaction measured using a single global rating question. The answers to the question, “All things considered, are you satisfied with your job?” required the respondents to answer “yes” or “no.”

### **3.4 Location of the Study**

The study was conducted in Trans Nzoia County in Kenya. According to the County Integrated Development Plan 2017, it borders Kakamega and Uasin Gishu to the South, Bungoma to the west, Elgeyo Marakwet east, Uganda to the Northwest, and West Pokot to the north. Trans Nzoia County has 2495.5 square kilometers, which is 0.42% of the entire landmass of Kenya (Trans-Nzoia County, 2017). It lies approximately between latitude  $00^{\circ} 37'$  and  $350^{\circ} 22'$  east of the Greenwich Meridian. The County has five sub-counties: Cherangany, Endebes, Kwanza, Kiminini, and Saboti (*Appendix 10*). It had an approximate population of 956,559 persons as of 2017 (Trans Nzoia County, 2017). There were approximately 74 health facilities in Trans-Nzoia County. There was one county referral hospital (Kitale County Referral hospital) and five Sub-County hospitals, namely, Cherangany Sub-County hospital, Endebes Sub-County hospital, Kwanza Sub-County hospital, Kiminini Sub-county hospital, and Saboti Sub-County hospital. Also, there were four private, ten mission/NGO dispensaries. As of 2019, the total number of Healthcare professionals in public health facilities was 959, out of which 103 were clinical officers, 45 were medical officers, and 490 were nurses. The doctor-patient ratio was 1: 18,257, while the nurse-patient ratio is 1:2153 (MOH, 2019).

### 3.5 Study Population

The Study population includes Healthcare professionals in the public hospital in Trans Nzoia County. Healthcare Professionals were categorized, as shown in Table 3.1. The key informants included medical superintendents from the six hospitals.

### 3.6 Inclusion and Exclusion Criteria

This study included all healthcare professional's cadres in government hospitals in Trans-Nzoia County, including the medical superintendents. They had worked for more than six months in the respective hospital facilities at the time of the research and consented to the study. The study excluded interns, volunteers, and those declining to consent to the study. The respondents (government employed) were working with public hospitals in trans-Nzoia County & deriving their salaries from the government.

### 3.7 Sampling Method and Sample Size Determination

#### 3.7.1 Sample size determination

The quantitative sample size was determined using Fisher *et al.* (1991) formulae,  $n = \frac{Z^2 p (1-p)}{d^2}$ . 95% confidence level with a 5% margin error was used. Hence the sample size was computed as;

$$n = \frac{Z^2 P (1-P)}{d^2}$$

Z=Standard Normal Deviation (1.96 for a 95% confidence level)

p= the proportion of the population having a particular characteristic; use of 0.5 produces the widest possible margin error (Taherdoost, 2016)

d= desired level of accuracy or sampling error for this case it will be set at 0.05

$$\text{Therefore: } n = \frac{1.96^2 \times 0.5 \times 0.5}{0.05^2} = 384$$

If the study population is less than 10,000

$$n_f = n / 1 + (n) / (N)$$

Where:

$n_f$  = preferred sample size when the study population not more than 10,000

$n$  = preferred sample size when the study population is greater than 10,000

$N$  = the estimate of the population size

$$n_f = 384 / 1 + 384 / 824$$

Since the study was less than 10,000, the finite population correction was calculated using the formulae:

$N_f = 384 / 1.466 = 263$ ; the sample size was 289 increased from 263 to take care of non-response.

Therefore,  $n_f = 384 / 1 + 384 / 824$ ;  $N_f = 384 / 1.466 = 263$ . The final sample size came to 289 after considering a 10% non-response rate (Table 3.1). The various cadres classifications were derived from the ministry of health classification matrix of healthcare professionals in Kenya (MOH, 2019)

### **3.7.2 Sampling Technique**

The five sub-county referral hospitals (Saboti, Endebes, Kwanza, Cherangani, and Kiminini) and one country referral hospital (Kitale County Referral hospitals) were purposively selected the majority of the curative and preventive health services in the County. The proportionate sampling strategy was used to allocate each cadre's sample size in the county and the respective hospitals. This ensured that each subgroup of the

population was adequately represented (Taherdoost, 2016). The target population in each of the hospitals was stratified, and then a computer-aided simple random sampling done in each of the strata to identify the respondents (UWEC, 2017). The Key informants were five medical superintendents who were purposively selected from the six hospitals after one informant declined the interview.

**Table 3.1. The proportion of Respondent Selected from Selected Hospitals in Trans Nzoia County**

<b>Category</b>	<b>Total Target Population</b>	<b>Sample Size Proportion (%)</b>	<b>Total Sample size</b>
Medical Officers	43	32.56	14
Nursing Personnel	490	34.08	166
Dental Officers	5	100.00	5
Clinical Officers	101	30.69	31
Pharmacists	21	38.10	8
Radiologists	5	100.00	5
Orthopedic Tech	7	100.00	7
Nutrition and Dietetics	20	30.00	6
Physiotherapists	11	63.64	7
Public Health Officers	14	64.29	9
Medical Social Worker	12	50.00	6
Medical Lab. Tech.	67	31.34	21
Occupational Therapists	11	54.55	6
Pharm Technologists	17	41.18	7
<b>Total</b>	<b>824</b>		<b>289</b>

**Source: Field Data and Trans Nzoia County Government (2019)**

**Table 3.2: Total Response Rate for Each Sub-County Hospital**

Designation	Name of Health Facility						Total Response Rate
	Cherangany Sub-county Hospital	Kwanza Sub-county Hospital	Endebes Sub-county Hospital	Kiminini Sub-county Hospital	Saboti Sub-county Hospital	Kitale County Referral Hospital	
Medical Doctor	1	0	1	4	0	8	<b>14</b>
Nursing Personnel	24	16	9	17	16	58	<b>140</b>
Dental Officers	0	0	0	0	0	5	<b>5</b>
Clinical Officer	5	3	3	5	5	9	<b>30</b>
Pharmacist	1	1	2	1	1	2	<b>8</b>
Radiologists	0	0	0	0	0	4	<b>4</b>
Orthopedic Technologist	0	1	0	0	0	6	<b>7</b>
Nutrition and Dietetics	1	1	1	1	1	1	<b>6</b>
Physiotherapist	2	1	1	0	1	2	<b>7</b>
Public Health Officer	2	1	2	2	1	1	<b>9</b>
Medical Social Worker	1	1	1	0	0	1	<b>4</b>
Medical Laboratory Technologist	3	3	2	2	4	2	<b>16</b>
Occupational Therapist	1	0	1	1	1	2	<b>6</b>
Pharm Technologist	1	0	0	2	1	3	<b>7</b>
<b>Total</b>	<b>42</b>	<b>28</b>	<b>23</b>	<b>35</b>	<b>31</b>	<b>104</b>	<b>88.25%(263)</b>

### 3.8 Construction of Research Instruments

The questionnaire had five sections covering; socio-demographic characteristics, job satisfaction level, satisfaction with work environment management practices, and satisfaction with employment policy, all adopted and modified from Spector's 1997 job satisfaction scale (*Appendix 2*). Sociodemographic characteristics had seven items; Age, Marital status, Level of Education, Gender, Years of service in Hospital, Years of service in the County, Designation. One of the approaches to measuring job satisfaction is to use a summation of job facets (Azash & Thirupalu, 2017). Critical elements in a job such as a

reward dimension, job stress, and job characteristics are identified and incorporated in the summation. The facet approach helps determine which parts of a job generates dissatisfaction or satisfaction (Leopold *et al.*, 2018). The second approach applied in this study was to use a single global rating collapsed into a yes or no response (Dhamija, 2018; Lepold *et al.*, 2018). The answer to the question, “Overall, do you think you are satisfied with your job?” is a reflection of the magnitude of the employee attitude towards his/her job and may consider more than mere satisfaction with each element in the package provided by the summation of job facets (Lepold *et al.*, 2018; Yuen, 2018). The concept of job satisfaction has shifted from need fulfillment to job satisfaction as an attitudinal variable (Spector, 1997). No single measurement exists because job satisfaction is related directly to the intricacies of human feelings (Azash & Thirupalu 2017). Lepold *et al.*, (2018) indicate that having a single question to measure global satisfaction can be as good as using several facets since employees generally understand their satisfaction levels and may not need a whole set of question to express the same. However, individuals may not attribute equal meaning or importance to each of the facets. To measure satisfaction with work environment practices, four domains consisting of a 19 item scale (Staff competence, Appreciation, Supervision, Communication, Relationship with coworkers, Equipment, and resources, Lighting and ventilation, Cleanliness, Nature of work, Operating procedures, Evaluation, Promotion, Training opportunities, Job rotation Contingent reward, recognition, Pay, Fringe benefits and Time off, were used (Rosário *et al.*, 2017; Suifan, 2019; Gile *et al.*, 2018; Pillai *et al.*, 2019). In a work environment, four types of policies are relevant; recruitment and selection, training and development and reward and compensation policy, promotion policy

(Abuhashesh, 2019; Wangechi *et al.*, 2018). However, due to limited resources, this study did not focus on recruitment and selection policies. The key informant interview guide was also developed to collect qualitative data (*Appendix 3*). While some question items were positively worded, others were negatively worded. Such question help guard against problems such as inattention, acquiescing by encouraging participants to pay close attention to items (Taherdoost, 2016).

### **3.9 Pre-test of the Study**

A pre-test study was conducted to fine-tune the data collection tools. Ikart, (2019), A pretest is effectively conducted when it included 5% of the sample size outside the study area. Also, a pre-test area/population should have similar characteristics to the study area/population. In person interviews were organized with a random sample of 12 respondents selected from the Likuyani Sub-county hospital in Kakamega County. Kakamega County was outside the study area but had similar socio-economic and demographic as Trans Nzoia County. Specifically, the researcher pretested the questionnaire items to determine length, duration, layout, the format of the questions, and suitable data analysis procedures.

Cronbach's alpha coefficient was computed to approximate the reliability of the instruments. According to Sekaran (2016), coefficients that are lower than 0.60 are weak, coefficients between 0.60 and 0.80 are suitable, while coefficients higher than 0.80 are good. The data collection tool was tested for reliability and found to have a Cronbach's Alfa test (0.887); hence, highly reliable for data collection. The results indicated that the items in the scales had sufficient discriminating power. The researcher selected and

trained research assistants conversant with the research area, the topic under study, and understood the local topography and language.

### **3.10 Data Collection Techniques**

According to Shanks & Bekmamedova (2018), data collection techniques include observations, interviews, questionnaires and relevant documents. This study used interviews and questionnaires. The research assistants distributed the self-administered questionnaires every morning to the respondents at their workplaces and collected them in the evening. Although there was a looming strike, the respondents were found at their workplaces. Key informant interviews (KII) were also conducted to collect qualitative data from the sampled hospitals' medical superintendents. The researcher booked appointments with respondents for KII sessions that lasted 30 to 45 minutes.

### **3.11 Data Analysis and Management**

Data was analyzed using SPSS V. 26. Preliminary analysis was done to describe key features of the data and to summarize the findings. Descriptive statistics were used to summarize data using tabulated descriptions, graphic descriptions, and statistical commentary. The descriptive statistics were run to determine the mean, frequencies, and spread of data to determine any violation of the assumptions underlying the Chi-square test. Job satisfaction was determined by computing the percentages from the single global rating scale collapsed into a yes or no response question (Appendix 2). The bivariate analysis used a chi-square test for association at 95% CI. Significant factors ( $p < 0.05$ ) at bivariate analysis were then subjected to Logistic regression (LR) to identify the predictors of job satisfaction in Trans-Nzoia County. The logistic regression (LR) model was used since it is valid for both categorical and continuous data (Yeboah and Abaye,

(2019). According to Yeboah and Abaye (2019), LR is effectively utilized in describing data and explaining the relationship between a dependent binary variable and ordinal, ratio, nominal or interval independent variables. In the present study, the dependent variable was dichotomous/binary. The process of analyzing qualitative data from Key informant interviews involved organizing the data by questions, coding the data into categories that are exhaustive, mutually exclusive, and specified, looking for patterns across categories/themes summarizing the findings, and integrating them into the report.

### **3.12 Ethical and Logistical Considerations**

Authorization was sought from the Ethics Review Committee at Kenyatta University (*Appendix 5*), graduate school Kenyatta University (*appendix 4*), National Commission for Science and Technology (*Appendix 6 & 7*), Trans Nzoia County Government (*Appendix 8*), Trans Nzoia County Director of Education (*Appendix 9*) and respective Hospital departments or study areas. The use of random sampling ensured that each respondent had a fair chance of selection. Involvement in the survey was voluntary, and respondents had a right to pull out at any stage. Before administering the data collection tools, the study's objectives were explained to the participants, and informed consent obtained (*Appendix 1*). Questionnaires were formulated in acceptable, non-offensive, non-discriminatory language. Respondent identifiers were not collected. Instead, initials and coding were used to ensure confidentiality and anonymity. There were no material benefits by the respondents from the study. However, they have the right to access the final report.

## CHAPTER FOUR: RESULTS

### 4.1 Introduction

This section presents the study findings. The results are grounded on data collected from the questionnaire survey from a sample of 263 Healthcare professionals and qualitative interviews with key informants. The chapter is organized as follows: Job satisfaction level, Socio-demographic characteristics of respondents, Satisfaction with work environment factors, sociodemographic characteristics and job satisfaction, work environment factors and job satisfaction, employment policy and job satisfaction, determinants of job satisfaction, and summary of key findings.

### 4.2 Job Satisfaction

A total of 125 (47.5%) Healthcare professionals expressed job satisfaction, while 138 (52.5%) expressed dissatisfaction (Table 4.2). Similarly, the key informants noted that job satisfaction was a significant challenge and that more than 50% of the employees were not satisfied with their current jobs.

**Table 4.1: Overall Job Satisfaction**

Category	Overall Satisfaction (N=263)
Agree	(47.5%) 125
Disagree	(52.5%) 138
<b>Total</b>	<b>(100.0%) 263</b>

### **4.3 Socio-demographic characteristics of Study Participants**

A total of 289 questionnaires, in hard copies, were distributed, and 263 (88.25%) returned by the respondents. Among the respondents, 59.7% (157) were females, and 40.3% (106) were males. Also, 22.7% (60) of the respondents were aged between 21 years and 30 years old, 43.3% (114) between ages 31 years and 40 years, 19.4% (51) between ages 41 years and 50 years, and 14.4% (38) between ages 51 years and 60 years. The majority of the respondents, 59.1% (156), were diploma holders. Other respondents had Certificate 6.1% (16), higher diploma 11.4% (30). Those who had graduate degrees and above accounted for 23.2% (60) of the total respondents. Most of the respondents, 76.4% (201), were married. The majority of the respondents, 50.2% (132), had worked for the current hospital for more than five years (Table 4.2). All the Key informant interviews were male and aged between 41 to 60 years old. All had higher diploma and above and had served in the current hospital for more than 5 years.

**Table 4.2: Socio-Demographic Characteristics of study participants**

<b>Socio-Demographic characteristics</b>	<b>Category</b>	<b>Total (N=263)</b>
Age	21-30	22.8% (60)
	31-40	43.3% (114)
	41-50	19.4% (51)
	51-60	14.4% (38)
Gender	Male	40.3% (106)
	Female	59.7% (157)
Level of education	Certificate	6.1% (16)
	Diploma	59.1% (156)
	Higher Diploma	11.4% (30)
	Degree and Above	23.2% (61)
Marital Status	Single	19.4% (51)
	Married	76.4% (201)
	Divorced	1.5% (4)
	Widowed	2.7% (7)
Years of service in the Hospital	Less than 1	5.7% (15)
	1 to 2	21.7% (57)
	3 to 5	22.4% (59)
	More than 5	50.2% (132)
Years of service in the County	Less than 1	6.8% (18)
	1 to 2	27.4% (72)
	3 to 5	16.3% (43)
	More than 5	49.4% (130)
Designation	Nursing Personnel	53.2% (140)
	Clinical Officer	11.4% (30)
	Medical Laboratory Technologist	6.0% (16)
	Medical Doctor	5.3% (14)
	Public Health Officer	3.4% (9)
	Pharmacist	3.0% (8)
	Pharm Technologist	2.7% (7)
	Physiotherapist	2.7% (7)
	Orthopaedic Technologist	2.7% (7)
	Occupational Therapist	2.3% (6)
	Nutrition and Dietetics	2.3% (6)
	Dental Officers	1.9% (5)
	Medical Social Worker	1.5% (4)
Radiologists	1.5% (4)	

The majority of the interviewees had worked in Trans Nzoia County for more than five years, 49.4% (130). The nursing personnel's 53.2% (140) was the majority followed by clinical officers 11.4% (30), Medical laboratory Technologists 6.1% (16), Medical Doctor 5.3% (14), Public Health Officer 3.4% (9), Pharmacist 3.0% (8), Physiotherapist 2.7% (7), Pharm Technologist 2.7% (7), Orthopedic Technologist 2.7% (7), Occupational Therapist 2.3% (6), Nutrition and Dietetics 2.3% (6), Dental Officers 1.9% (5), Medical Social Worker 1.5% (4) and Radiologists 1.5% (4).

#### **4.4 Satisfaction with Work Environment factors**

The study sought to establish the satisfaction rate with various work environment factors by the study participants. Satisfaction rate was highest for relationship with co-workers 82.5% (217), cleanliness 73.8% (194), operating procedures 64.3% (169) lighting and ventilation 61.2% (161), and job rotation 52.9% (139). However, most healthcare professionals were dissatisfied with the work environment factors of compensation and reward, training and development, social support, and working conditions (Table 4.3).

**Table 4.3: Satisfaction with Work Environment factors**

Work Environment Dimensions	Work Environment Factors	Satisfaction Rate(N=263)	
		Dissatisfied	Satisfied
Compensation & Reward	Contingent reward	63.9% (168)	36.1% (95)
	Recognition	73.0% (192)	27.0% (71)
	Pay	58.9% (155)	41.1% (108)
	Fringe benefits	68.1% (179)	31.9% (84)
	Time off	53.6% (141)	46.4% (122)
Training & Development	Job evaluation	57.0% (150)	43.0% (113)
	Promotion	62.0% (163)	38.0% (100)
	Training	45.2% (119)	54.8% (144)
	Job rotation	47.1% (124)	52.9% (139)
Social Support	Staff competence	25.5% (67)	74.5% (196)
	Appreciation	70.7% (186)	29.3% (77)
	Supervision	66.9% (176)	33.1% (87)
	Communication	55.5% (146)	44.5% (117)
	Relationship with co-workers	17.5% (46)	82.5% (217)
Working conditions	Equipment and resources	79.8% (210)	20.2% (53)
	Lighting and ventilation	38.8% (102)	61.2% (161)
	Cleanliness	26.2% (69)	73.8% (194)
	Nature of work	55.1% (145)	44.9% (118)
	Operation procedures	35.7% (94)	64.3% (169)

Similarly, most key informants (60%) stated that employees were not satisfied with work environment factors. The informants noted that the main reasons for dissatisfaction among employees included poor pay, inadequate training and development opportunities, and a general poor working environment. Over 50% of the informants blamed the national government for allocating little resources to the county government. Hence the hospitals lacked adequate equipment and facilities; some had dilapidated sanitary facilities, lighting and ventilation resources, and inefficient working tools leading to frustrations and conflict over employees' resources. Most key informants (70%) noted a need for improvement in overall communication and feedback. One of the informants stated that,

*“We are doing what is necessary to ensure that Healthcare Professionals work in a conducive environment where communication is effective. Providing time off is vital in helping the employees rest and also boosting their morale. However, some staff members need to be recalled from their leave to attend emergency medical matters due to our work's nature. We try to increase awareness on effective communication through seminars and on the job training.”*

The Key informants stated that training and development were done on a need and merit basis and involved job rotation, promotion, and evaluation. However, the lack of adequate resources was the main reason why most staff expectations were not met.

#### **4.5 Sociodemographic characteristics and Job satisfaction**

Table 4.4 shows a bivariate analysis between sociodemographic characteristics and Job satisfaction. The study established a significant relationship between the level of

education ( $p=0.012$ ), year of service in the hospital ( $p=0.08$ ), the designation of the healthcare professional ( $p < 0.001$ ), and job satisfaction. The level of satisfaction increased as one attained more education from certificate holders 4(25.0%), diploma holders 68(43.6%), higher diploma holders 14(46.7%) and 63.9% and degree holders 39(63.9%). Higher satisfaction was experienced by those who had stayed in the hospitals for below one year 10(66.7%), followed by those who had stayed for between 3-5 years 34(57.6%), then those who had stayed for more than five years 64(48.5%) and lastly those who had worked in the hospital for between 1-2 years 17(29.8%). Satisfaction level was highest among the radiologists 100% (4), followed by pharmacists 87.5% (7), Medical Lab Technologists 87.5% (14), medical doctor 78.6% (11), Physiotherapist 71.4% (5), Pharm Technologist 71.4% (5), Clinical Officer 70.0% (21), Occupational Therapist 66.7% (4), Nutrition and Dietetics 66.7% (4), Dental Officers 60.0% (3), Orthopedic Technologist 57.1% (4), Medical Social Worker 50.0% (2), Public Health Officer 33.3% (3) and Nursing Personnel 27.1% (38) respectively.

**Table 4.4: Socio-demographic characteristics and Job Satisfaction**

Socio-Demographic characteristics	Category	Overall Satisfaction		Total (N=263)	Bivariate Analysis
		Dissatisfied (n=138)	Satisfied (n=125)		$\chi^2$ (p-value)
Age*	21-30	51.7% (31)	48.3% (29)	22.8% (60)	2.116(0.549)
	31-40	57.0% (65)	43.0% (49)	43.3% (114)	
	41-50	49.0% (25)	51.0% (26)	19.4% (51)	
	51-60	44.7% (17)	55.3% (21)	14.4% (38)	
Gender*	Male	46.2% (49)	53.8% (57)	40.3% (106)	2.777(0.103)
	Female	56.7% (89)	43.3% (68)	59.7% (157)	
Level of education	Certificate	75.0% (12)	25.0% (4)	6.1% (16)	10.819(0.013)
	Diploma	56.4% (88)	43.6% (68)	59.1% (156)	
	Higher Diploma	53.3% (16)	46.7% (14)	11.4% (30)	
	Degree and Above	36.1% (22)	63.9% (39)	23.2% (61)	
Marital Status*	Single	45.1% (23)	54.9% (28)	19.4% (51)	1.432(0.698)
	Married	54.2% (109)	45.8% (92)	76.4% (201)	
	Divorced	50.0% (2)	50.0% (2)	1.5% (4)	
	Widowed	57.1% (4)	42.9% (3)	2.7% (7)	
Years of service in the Hospital	Less than 1	33.3% (5)	66.7% (10)	5.7% (15)	11.828(0.008)
	1 to 2	40(70.2%)	29.8% (17)	21.7% (57)	
	3 to 5	25(42.4%)	57.6% (34)	22.4% (59)	
	More than 5	68(51.5%)	48.5% (64)	50.2% (132)	
Years of service in the County*	Less than 1	38.9% (7)	61.1% (11)	6.8% (18)	1.940(0.585)
	1 to 2	56.9% (41)	43.1% (31)	27.4% (72)	
	3 to 5	51.2% (22)	48.8% (21)	16.3% (43)	
	More than 5	52.3% (68)	47.7% (62)	49.4% (130)	
Designation	Nursing Personnel	72.9% (102)	27.1% (38)	53.2% (140)	60.882(<0.001)
	Clinical Officer	30.0% (9)	70.0% (21)	11.4% (30)	
	Medical Laboratory Technologist	12.5% (2)	87.5% (14)	6.0% (16)	
	Medical Doctor	21.4% (3)	78.6% (11)	5.3% (14)	
	Public Health Officer	66.7% (6)	33.3% (3)	3.4% (9)	
	Pharmacist	12.5% (1)	87.5% (7)	3.0% (8)	
	Pharm Technologist	28.6% (2)	71.4% (5)	2.7% (7)	
	Physiotherapist	28.6% (2)	71.4% (5)	2.7% (7)	
	Orthopaedic Technologist	42.9% (3)	57.1% (4)	2.7% (7)	
	Occupational Therapist	33.3% (2)	66.7% (4)	2.3% (6)	
	Nutrition and Dietetics	33.3% (2)	66.7% (4)	2.3% (6)	
	Dental Officers	40.0% (2)	60.0% (3)	1.9% (5)	
	Medical Social Worker	50.0% (2)	50.0% (2)	1.5% (4)	
Radiologists	0.0% (0)	100.0% (4)	1.5% (4)		

\*=*Not significant*

#### **4.6 Work environment factors and Job satisfaction**

Table 4.5 shows a bivariate analysis between work environment factors and job satisfaction. Apart from promotion, all work environment factors were significant associated with overall job satisfaction ( $p < 0.001$ ). Hence the null hypothesis was rejected. One of the informants stated that,

*“The key challenge is that the cost of living has been rising, and the healthcare professionals, particularly the doctors and nurses, feel that they are not being remunerated well. We thought devolution would help but going by the number of strikes that we have had; the workforce seems demotivated.”*

**Table 4.5: Work environment factors and job satisfaction**

Dimensions	Variables	Category	Job Satisfaction (N=263)		$\chi^2$ (p-value)	
			Dissatisfied (n=138)	Satisfied (n=125)		
Compensation & Reward	Contingent Reward	Dissatisfied	67.3% (113)	37.2% (55)	40.79 (<0.001)	
		Satisfied	26.3% (25)	73.7% (70)		
	Recognition	Dissatisfied	68.8% (132)	31.2% (60)	75.57 (<0.001)	
		Satisfied	8.5% (6)	91.5% (65)		
	Pay	Dissatisfied	67.2% (129)	32.8% (63)	61.75 (<0.001)	
		Satisfied	12.7% (9)	87.3% (62)		
	Fringe benefits	Dissatisfied	68.7% (123)	31.3% (56)	59.295(<0.001)	
		Satisfied	17.9% (15)	82.1% (69)		
	Time off	Dissatisfied	70.2% (99)	29.8% (42)	38.363(<0.001)	
		Satisfied	32.0% (39)	68.0% (83)		
	Training & development	Employee job evaluation	Dissatisfied	73.3% (110)	26.7% (40)	60.92 (<0.001)
			Satisfied	24.8% (28)	75.2% (85)	
Promotion*		Dissatisfied	53.0% (134)	47.0% (119)	<b>0.648 (0.525)</b>	
		Satisfied	40.0% (4)	60.0% (6)		
Training opportunities		Dissatisfied	73.9% (88)	26.1 % (31)	40.20 (<0.001)	
		Satisfied	34.7% (50)	65.3% (94)		
Job Rotation		Dissatisfied	71.8% (89)	28.2% (35)	35.05 (<0.001)	
		Satisfied	35.3% (49)	64.7% (90)		
Social Support	Staff competence	Dissatisfied	59.7% (40)	40.3% (27)	1.88 (<0.001)	
		Satisfied	50.0% (98)	50.0% (98)		
	Appreciation	Dissatisfied	69.9% (130)	30.1% (56)	77.31 (<0.001)	
		Satisfied	10.4% (8)	89.6% (69)		
	Supervision	Dissatisfied	72.2% (127)	27.8%(49)	82.69 (<0.001)	
		Satisfied	12.6% (11)	87.4% (76)		
	Communication	Dissatisfied	80.1% (117)	19.9% (29)	100.72(<0.001)	
		Satisfied	17.9% (21)	82.1% (96)		
	Relationship with Co-workers	Dissatisfied	91.3% (42)	8.7% (4)	33.71 (<0.001)	
		Satisfied	44.2% (96)	58.8% (121)		
	Working Conditions	Equipment and Resources	Dissatisfied	64.8% (136)	35.2 % (74)	63.11 <0.001)
			Satisfied	3.8% (2)	96.2% (51)	
Lighting and Ventilation		Dissatisfied	87.3% (89)	12.7% (13)	80.83 (<0.001)	
		Satisfied	30.4% (49)	69.6% (112)		
Cleanliness		Dissatisfied	87.0% (60)	13.0% (9)	44.60 (<0.001)	
		Satisfied	40.2% (78)	59.8% (116)		
Nature of Work		Dissatisfied	72.4% (105)	27.6% (40)	51.53 (<0.001)	
		Satisfied	28.0% (33)	72.0% (85)		
Operating Procedures		Dissatisfied	67.0% (63)	33.0% (31)	12.41 (<0.001)	
		Satisfied	44.4% (75)	55.6% (94)		

\*=Not significant

The table 4.6 presents the suggestions by Key informants on how to improve healthcare professionals job satisfaction.

**Table 4.6: Suggestions by Key informants on how to improve healthcare professionals job satisfaction**

No.	Suggestion	Percentage (Frequency)
1	Provide adequate resources to improve workplace safety	80% (4)
2	Employ more staff to reduce workload among staff	100% (5)
3	Increase salaries and remuneration and including regular reviews, training and job promotion, rotation and evaluation	100% (5)
4	Investment in more hospital facilities and equipment	100% (5)

#### 4.7 Employment policy and Job satisfaction

The study established a significant relationship between employment policy (reward, training and development, and occupational health and safety) and job satisfaction ( $p < 0.001$ ) (Table 4.7).

**Table 4.7: Employment policy and Job satisfaction**

Variables		Dissatisfied (n=138)	Satisfied (n=125)	$\chi^2$ (p-value)
Reward Policy	Dissatisfied	68.7% (123)	31.3% (56)	59.30 ( $<0.001$ )
	Satisfied	17.9% (15)	82.1% (69)	
Training & development policy	Dissatisfied	74.0% (91)	26.0% (32)	42.88 ( $<0.001$ )
	Satisfied	33.6% (47)	66.4% (93)	
Occupational Health & Safety	Dissatisfied	87.3% (89)	12.7% (13)	80.83 ( $<0.001$ )
	Satisfied	30.4% (49)	69.6% (112)	

Similar findings were also established during the critical informant interview. The informants noted that excellent and progressive rewards, remuneration, training, development, and safety are essential in promoting job satisfaction. All informants thought that poorly compensated Healthcare Professionals tend to feel neglected and undervalued; hence, a progressive remuneration policy that allows promotion and regular salary reviews is necessary. A key informant stated that,

*“Staff feel that they are taking too long to move from one Job group to the other.”*

Another key informant noted that,

*“Reward and promotion, and sanction should be based on performance standards, fairness, natural justice, timeliness, equal opportunities, right of appeal, effective communication, coaching and mentoring, and professionalism. However, this is not always the case. Sometimes the healthcare professionals have unrealistic expectations.”*

The informants noted that healthcare professionals in the county still face a poor work environment that lacks adequate engineering controls, personal protective equipment, and safety equipment.

*“Sometimes, we lack personal protective equipment, drugs, and ergonomic tools for our staff; hence they feel neglected and not cared for by the government.”*

#### **4.8 Determinants of Job satisfaction in Trans-Nzoia County, Kenya**

Table 4.8 presents the Omnibus Tests of Model Coefficients results from the respondents' overall satisfaction binary logistic regression model. The model was significantly reliable (Omnibus test  $\chi^2= 324.387$ ,  $p < 0.001$ ) and could correctly predict 97.0% of respondents satisfied with their job.

**Table 4.8: Binary logistic regression model of overall satisfaction**

Omnibus Tests of Model Coefficients				Predicted			
	Chi-square	df	Sig.		Dissatisfied	Satisfied	% Correct
Step	324.387	22	.000	Dissatisfied	133	5	96.4%
Block	324.387	22	.000	Satisfied	3	122	97.6%
Model	324.387	22	.000	Overall	136	127	97.0%

Table 4.9 describes the binary logistic regression model of overall job satisfaction of the respondents'. The socio-demographic characteristics and work environment factors that were independently associated with overall job satisfaction of respondents were, year of service in the hospital (AOR= 0.132, 95% CI= 0.020-0.867), designation (AOR= 1.411, 95% CI= 1.411-1.021), contingent reward (AOR= 0.007, 95% CI= 0.000-0.866), pay (AOR= 419.558, 95% CI= 2.206-95792.649), fringe benefit reward (AOR= 459.676, 95% CI= 2.206-95792.649), time off (AOR= 9587.838 95% CI= 10.206-9007324.439), Job evaluation (AOR= 719.589, 95% CI= 3.587-144363.231), training (AOR=2193.538, 95% CI= 9.224-521630.562), staff competence (AOR= 275.586, 95% CI= 2.472-30723.087), appreciation (AOR=2193.538, 95% CI= 9.224-521630.562), supervision (AOR=118.826, 95% CI= 2.255-6260.744), communication (AOR=681.223, 95% CI= 3.270-141920.081), relationship with co-workers (AOR=1069.194, 95% CI= 3.818-299442.625), lighting and ventilation (AOR=476.530, 95% CI= 8.321-27289.235), nature of work (AOR=779.035, 95% CI= 8.548-71001.149) and operating procedures (AOR=268.155, 95% CI= 2.537-28343.457).

**Table 4.9: Description of Binary logistic regression model of overall satisfaction**

Variables in the Equation	B	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
					Lower	Upper
Education*	.546	1	<b>.407</b>	1.726	.474	6.279
Years of service	-2.028	1	.035	.132	.020	.867
Designation	.344	1	.037	1.411	1.021	1.949
Contingent Reward	-4.898	1	.043	.007	.000	.866
Recognition*	4.893	1	<b>.081</b>	133.306	.550	32287.990
Pay	6.039	1	.027	419.558	2.005	87803.135
Fringe benefits	6.131	1	.024	459.676	2.206	95792.649
Time off	9.168	1	.009	9587.838	10.206	9007324.439
Job evaluation	6.579	1	.015	719.589	3.587	144363.231
Training	7.693	1	.006	2193.538	9.224	521630.562
Job rotation*	2.779	1	<b>.057</b>	16.097	.917	282.438
Staff Competence	5.619	1	.019	275.586	2.472	30723.087
Appreciation	5.460	1	.032	235.092	1.611	34303.458
Supervision	4.778	1	.018	118.826	2.255	6260.744
Communication	6.524	1	.017	681.223	3.270	141920.081
Relationship with Co-worker	6.975	1	.015	1069.194	3.818	299442.625
Equipment &Resources	7.512	1	.008	1829.650	6.809	491653.309
Lighting & Ventilation	6.167	1	.003	476.530	8.321	27289.235
Cleanliness*	-.759	1	<b>.643</b>	.468	.019	11.610
Nature of Work	6.658	1	.004	779.035	8.548	71001.149
Operating Procedures	5.592	1	.019	268.155	2.537	28343.457
Policy on Training & Dev*	3.279	1	0.86	26.541	0.000	>10 <sup>18</sup>
Constant	-37.474	1	.002	.000		

*AOR=Adjusted Odds Ratio; \*=Not significant; CI=Confidence interval*

#### 4.9 Summary of Key findings

**Table 4.10: Summary of Key findings**

Sn.	Objective	Key findings
1	To measure the level of job satisfaction among healthcare professionals in selected public hospitals in Trans-Nzoia County, Kenya	47.5% of Healthcare professionals in Trans-Nzoia County, Kenya, expressed job satisfaction. The majority (80%) of the key informant interviews stated that their employees were dissatisfied with their jobs.
2	To determine the socio-demographic characteristics of Healthcare professionals in selected public hospitals in Trans-Nzoia County, Kenya	Among the respondents, 50.2% had worked in their current hospital for more than a year, the majority (53.2%) and females (59.70%).
3	To determine whether there was a statistically significant relationship between sociodemographic characteristics and job satisfaction of Healthcare professionals in selected public hospitals in Trans-Nzoia County, Kenya	The study established a significant association between sociodemographic characteristics (years of service in the hospital, designation) and job satisfaction ( $p < 0.05$ ). Hence the null hypothesis was rejected
4	To determine whether there was a statistically significant relationship between work environment factors and job satisfaction of Healthcare professionals in selected public hospitals in Trans-Nzoia County, Kenya	Contingent reward, pay, fringe benefits, time off, job evaluation, training, staff competence, appreciation, supervision, communication, relationship with co-workers, equipment and resources, lighting and ventilation, nature of work, and operating procedures were significantly associated with job satisfaction ( $p < 0.05$ ). Hence the null hypothesis was rejected. 60% of Key informants (60%) stated that

Sn.	Objective	Key findings
		employees were not satisfied with work environment factors
5	To explore the mediating effect of government employment policy on the relationship between work environment factors and job satisfaction of healthcare professionals in selected public hospitals in Trans-Nzoia County, Kenya	The study did not find an employment policy to mediate the relationship between the work environment and job satisfaction ( $p>0.05$ ). However, the key informants noted that excellent and progressive rewards, remuneration, training, development, and safety are essential in promoting overall job satisfaction.
6	To identify the determinants of job satisfaction among healthcare professionals in selected public hospitals in Trans-Nzoia County, Kenya	The determinants of job satisfaction in selected public hospitals in Trans-Nzoia County, Kenya are years of service in the hospital, designation, contingent reward, pay, fringe benefits, time off, job evaluation, training, staff competence, appreciation, supervision, communication, relationship with co-workers, equipment and resources, lighting and ventilation, nature of work and operating procedures (table 4.9)

## **CHAPTER FIVE: DISCUSSION, CONCLUSION, AND RECOMMENDATION**

### **5.1 Introduction**

In this chapter the researcher presents a discussion on the study's findings, a summary of the survey as guided by the research questions and objectives; the conclusion reached based on results and the recommendations for promoting Healthcare Professionals Job Satisfaction in the public health sector suggestions for further research.

### **5.2 Discussion of Major Findings**

#### **5.2.1 Overall Job Satisfaction**

The current study indicated a 47.5% satisfaction level among healthcare professionals, which compares favorably with the survey by Mathulu & Mbithi (2016) that established that most counties in Kenya have a satisfaction rate of below 50%. The satisfaction level was lower than that of Mexico public sector employees (85%), United States healthcare workers (78%), China government employees (74%), UK healthcare employees (89%), Germany healthcare workers (71%), and France public sector employees (68%) (World Economic Forum, 2020). The level was also lower than that of health care employees from Tanzania (82.6%), Malawi (71%) and South Africa (52.1%) (Blaauw *et al.* (2016), and Nigeria (50%) (Bello, (2018). However, the satisfaction level was higher than that of doctors and nurses from Makueni County (36%) in Kenya (Mathulu & Mbithi (2016). The possible explanation for the difference could be dynamics brought about by variations in setting, economic dynamics, cadres, employment policies, time, and

population. Another reason could be due to differences in the data collection tools for measuring the outcome variables.

### **5.2.2 Socio-demographic Characteristics**

The research established that most of the respondents were of the middle-aged category, suggesting that the Healthcare Professionals in Kenya's public health sector were youthful. The age distribution of Healthcare professionals in the current study was similar to that done by Ngure (2016) in Kenya's public health sector, which found out that most of the study participants were aged between 25 and 40 years. The Kenyan working population is mainly made up of youths (KIPPRA, 2016; Wairoto, Joseph, & Macharia, 2020). With the government focusing on promoting youth employment, the number of youths in the public health sector is expected to rise in the coming years (Kemunto *et al.*, 2018; Obura *et al.*, 2016). A majority of respondents were diploma holders. The high number of diplomas was attributed to the fact that most respondents were nurses who held diploma certificates. The findings compare favorably with the Ministry of Health (2017) study, which places nurses as the majority of healthcare professionals with diploma holders. The majority of the study participants were married, followed by singles, then widowed, and lastly divorced. Such a demographic profile is evident since most of the respondents were above middle age; hence, likely to be married (KIPPRA, 2016; UNFPA, 2020). Coincidentally, most Healthcare Professionals were aged between 25 and 40 years, an age bracket that most persons marry in Kenya. According to the World Bank collection of development indicators, Kenya's mean age at first marriage was recorded to be above 26 years old (Trading Economics, 2019).

The majority of the current study respondents were females, which could be explained by the nursing category's substantial weight, mostly female-oriented, both locally and globally (MOH, 2019; Kemunto *et al.*, 2018; Nafula *et al.*, 2019). For the other carders such as public health, physicians, dentist physiotherapists, laboratory technologists, and physiotherapists, men made up the majority category. The findings are in line with Kenya's Ministry of Health (2016) outcomes that showed that women are disproportionately represented in most medical fields that are considered "technical" or "upper-cadre jobs." All the respondents had post-secondary education due to the health ministry's strict educational requirement. Most Kenyans were also seeking knowledge due to increased awareness of its importance and increased competition in the professional job sector. The research outcomes on education level compared favorably with Obura *et al.* (2016) study conducted in Nairobi, Kenya, revealed that most Healthcare professionals had post-secondary education. Similar to the survey conducted by Bello *et al.* (2018) in Nigeria and Guo (2016) in China, the current study found out that most of the respondents were married.

### **5.2.3 Socio-demographic characteristics and Job Satisfaction**

The hospital's length of service was found to predict overall Healthcare professionals' job satisfaction independently in the current study. The outcomes were comparable to the studies by Sikowo *et al.* (2016), Temesgen, K. *et al.* (2018), Kemunto *et al.* (2018), and Karen (2017). Persons who had stayed in the hospital for less than two years had the highest satisfaction rate compared to those who had stayed for between one to five years. Generally, new employees in organizations are initially excited with their role and mostly

made up of young persons with relatively less financial responsibilities, thus explaining their higher job satisfaction compared to those who have stayed in the hospital for more than three years (Malik, 2016; Murante, 2017; Alshmemri *et al.*, 2017; Abuhashesh *et al.*, 2019). Satisfaction levels were also high among Healthcare Professionals who have stayed in the hospital for less than two years and those above 5-10 years. Such a trend could be due to the fact that there are high chances of gaining better pay and benefits as people age, leading to increased overall job satisfaction (Ajusa & Atambo, 2016; Douglas & Roberts, 2020). The accompanying risk-taking behaviour and the quest to seek better opportunities among middle-aged employees could explain such dynamics. Specifically, as one ages, the person tends to stick more in one place of work due to reduced risk-taking ability (Jimenez *et al.*, 2017; Kemunto, 2018).

In the present study, the designation was found to predict overall Healthcare professionals' job satisfaction independently. Satisfaction level was lowest among the nursing personnel (27.1%), followed by public health officers (33.3%), medical social workers (50.0%), and orthopaedic technologists (57.1%) (Table 4.4). The highest satisfaction rate was highest among the radiologists (100.0%) and pharmacists (87.5%). The satisfaction rate for other cadres is presented in table 4.4). The findings of the current research resonate with studies by Sing *et al.* (2019), Tengah & Otieno (2019), and Mathilu (2016), which concluded that job satisfaction varies across different designations as influenced mainly by the nature of work, pay, and prospects for career development. Sing *et al.* (2019) study in Punjab, India established that nurses were the least satisfied with the promotion facets, while most cadres were satisfied with supervision facets. Forty (40) hours per week is considered optimal working hours for employee, however this is affected by many other

factors including sociodemographic, pay and job characteristics (Ayele *et al.*, 2020). Low satisfaction levels among different carders could also be explained by age category, low salary grade, working for more than 40 hours a week, and employed in the dispensing unit (Ayele *et al.*, 2020). Hence hospital administrators should organize work to eliminate or mitigate unnecessary workloads and create a good working climate.

#### **5.2.4 Work Environment factors and Job Satisfaction**

The study finding revealed that work environment factors significantly associated with Healthcare professional's job satisfaction. Therefore, the null hypothesis was rejected. Time off, one of the compensation factors examined in the current study, improves Healthcare Professionals morale and increases productivity levels and improves overall job satisfaction (Abuhashesh *et al.*, 2019; Agbozo *et al.*, 2017; Aklilu *et al.*, 2020). Since working in busy healthcare facilities can lead to fatigue, providing time off whenever necessary may lead to a happy and motivated workforce, which is vital in sustaining job satisfaction (Al-Haroon *et al.*, 2019; Asumah *et al.*, 2019). The current study's findings resonate with Merga and Fufa (2019) research and Okumu and Kiflemariam (2018), which found out that those Healthcare Professionals who regularly took time off showed increased morale and heightened job satisfaction. Doctors who are satisfied with work hours are more likely to have higher overall job satisfaction than those who feel overworked (Bello *et al.* 2018; Lepold *et al.*, 2018).

The availability of training opportunities was also an aspect that significantly influenced overall job satisfaction. The study revealed that most of the study participants were dissatisfied with the inadequate training and professional development opportunities. The

findings were consistent with the one conducted by Merga and Fufa (2019) in Ethiopia among workers at public hospitals, which concluded that most public health respondents were dissatisfied with training opportunities available during their professional life. Training can increase self-esteem, self-confidence, and healthcare professionals (Boon, Hartog & Lepa 2019; Ajusa *et al.*, 2016; Agbozo *et al.*, 2017).

According to Nita (2017) and Nwrie *et al.* (2019), elements of the work environment need to be proper so that Healthcare Professionals will encounter minimal stress while executing their duties. However, the definition of “proper” is varied and is influenced by cultural practices, socio-demographic dynamics, and economic factors. Most of the respondents in the present study were not satisfied with communication and relationship with co-workers. Such a finding paints a picture of staff struggling to work as a team to advance organization-wide goals. According to the grand theory, excellent communication skills are vital for all Healthcare Professionals, especially those working with patients (Reeve, 2016). Poor communication and lack of appreciation can damage relationships, affecting productivity, morale, respect, self-confidence, physical health and job satisfaction (Hee & Qin 2019; Andi 2019). The current study's finding is not consistent with the conclusions from Wynen *et al.* (2019) study that established a moderately high satisfaction with communication. The lower cadre Professionals were comfortable to communicate with superiors and colleagues. The difference in the finding may be due to variations in dynamics between the study populations (Desa *et al.*, 2019; Agbozo *et al.*, 2017).

The findings were similar to other studies demonstrating that employees who perceive an empowering and fair leadership approach from superiors are more satisfied with their roles. For instance, a survey conducted by Bello *et al.* (2018) shows that workers who are given chances to make suggestions or ideas and work in environments that promote open communication or welcome different opinions are more satisfied than other workers. Hence offering opportunities for reflection on the use of good communication approaches is a predictor of job satisfaction. Such a strategy should design adequate feedback and communication lines that promote productivity and job satisfaction (Aware, 2017; Nafula & Wanyama, 2019). Moreover, Obura *et al.* (2016) conducted a study at Kenyatta National Hospital and reported low job satisfaction in the health system due to unhealthy professional relationships, poor communication, and inadequate equipment and supplies. KIPPRA (2016) report corroborates the present research and recommends improving the working environment by promoting effective communication, providing equipment and supplies, having proper lighting and ventilation, and managing conflicts. Hence Trans Nzoia county can sustain employee job satisfaction and improve productivity through effective work environment management practices.

According to a study by Dobrow *et al.* (2016), emotional support, respect, mutual trust, and reciprocal influences determine workplace relationships and create positive outcomes, including improving patient care. This implies that employees are powered by emotional support in an environment rife with positive workplace relationships, leading to a lower level of job stress (Mukanzi & Senaji, 2017; Ali *et al.*, 2019). However, a survey conducted in Vietnam among nurses by Tran *et al.* (2018) established an insignificant contribution of workplace relationship in promoting quality and job

performance. Such an outcome may be due to the fact that the nurses, particularly in Vietnam, have unique characteristics compared to other cadres and regions. Tran et al. (2018) state that the exchange of information is not highly valued among nurses since they are in charge of different care areas and tasks and follow their workshifts.

The present survey established a significant association between staff competence and overall job satisfaction. This meant that healthcare professionals felt more satisfied with their abilities and colleagues' ability to enhance their job satisfaction level. The present study's findings resonates with the study by Dharmanegara *et al.* (2016) in Denpasar in Bali Island, which established happier workers strengthen the effects of the work environment and job competence. Higher performing organizations achieve success by relying on competent and capable employees (Mukanzi & Senaji, 2017; Ali *et al.*, 2019). In the advent of incompetent persons, other skilled employees are overloaded with work or may need to correct errors done by incapable persons, leading to burnout and demotivation (Atmaja, 2018; Andi N., 2019; Blanz, 2017). Moreover, the present study established a significant relationship between lighting and ventilation, work, and overall job satisfaction. Similar studies demonstrate excellent frequencies of healthcare professionals' job satisfaction related to teamwork, lighting and ventilation, cooperation and coworkers (Abuhashesh, 2019; Guo, 2016; Jonas, 2016).

## **5.3 Conclusion**

### **5.3.1 Socio-demographic characteristics of study participants**

The study established that majority of the respondents (50.2%) had worked in their current hospital for more than a year. A larger proportion of the respondents were nurses

(53.2%) followed by clinical officers (11.4%). Medical social workers (1.5%) and radiologists (1.5%) were the least. Females (59.70%) made up the majority of the respondents.

### **5.3.2 Job Satisfaction level**

The current study concluded that only 47.5% of the Healthcare professionals in Trans-Nzoia County, Kenya, expressed job satisfaction while 138 (52.5%) expressed dissatisfaction. The majority (80%) of the key informant interviews stated that their employees were dissatisfied with their jobs. Job satisfaction level was lowest among the nurses and highest among the radiologists.

### **5.3.3 Socio-demographic characteristics and Job Satisfaction**

The study concluded that the years of service in the hospital and designation/cadre of healthcare professionals were significantly associated with overall job satisfaction among healthcare professionals in Trans-Nzoia County, Kenya.

### **5.3.4 Work environment factors and Job Satisfaction**

The study concluded that the following work environment factors were significantly associated with overall job satisfaction among healthcare professionals in Trans-Nzoia County, Kenya; contingent reward, pay, fringe benefits, time off, job evaluation, training, staff competence, appreciation, supervision, communication, relationship with co-workers, equipment and resources, lighting and ventilation, nature of work and operating procedures. Similarly, the majority of the Key informants (60%) stated that employees were not satisfied with work environment factors

### **5.3.5 The mediating effect of employment policy**

The quantitative study established that employment policy did not mediate the relationship between healthcare professionals' work environment and job satisfaction in Trans-Nzoia County, Kenya. However, the key informants noted that excellent and progressive policies on reward, remuneration, training, development and safety are essential in promoting overall job satisfaction.

### **5.3.6 Determinants of Job Satisfaction in Trans-Nzoia County**

The study established that the determinants of job satisfaction among healthcare professionals in Trans-Nzoia County, Kenya include years of service in the hospital, designation, contingent reward, pay, fringe benefits, time off, job evaluation, training, staff competence, appreciation, supervision, communication, relationship with co-workers, equipment and resources, lighting and ventilation, nature of work and operating procedures

## **5.4 Recommendations**

### **5.4.1 Study Recommendations**

To improve healthcare professionals job satisfaction, the study recommends:

- 1) The ministry of health and county government of Trans Nzoia to have regular job satisfaction surveys within the workplace to identify areas of improvement, highlight strengths, and capture the healthcare professionals' ideas and perceptions. Healthcare is effectively delivered in teams hence addressing job satisfaction of all healthcare cadres is vital.

- 2) The ministry of health and the respective county health management promote mentorship programs for new employees to improve their skills, competence confidence and overall job satisfaction. The process can involve goal setting and empowering the staff to work independently with the learned skills. Where possible, backstopping, job shadowing should be promoted. Employees can learn what is happening in other departments hence appreciate the process and make suggestions for improving efficiency and job satisfaction across departments. More targeted programs enhance women's enrollment in jobs that are considered male-dominated such as Dentists, pharmacist technologists, medical laboratory technologists, medical social workers, public health officers and physiotherapists.
- 3) The ministry of health and public service commission to consider re-evaluating the healthcare professional's compensation, contingent reward, pay, appreciation, fringe benefits and time off to make them competitive and in line with industry levels, through partnering with the national government, donors, private sector and the NGO's, the county government to consider providing adequate and diversified professional development opportunities for the healthcare professionals regularly and fairly. On the job training should preferably lead to certification or degrees that improve employees' professional knowledge and skills. Other strategies may include mentoring and providing study leaves. Also, it is essential to promote consensus building on the evaluation indicators. The indicators should be comprehensive, and the process should be fair and objective. Developing appropriate evaluation systems that effectively link individual performance and corporate goals and priorities is vital in ensuring a fair process based on achievements.

- 4) The respective hospitals can improve supervision by providing adequate resources, building supervisors' capacity to monitor performance, and strengthen their communication skills. Also, county health committees should incorporate team-building activities that promote collaboration and cooperation. Having regular team meeting, happy hours, team lunches, establishing a culture that supports open and honest communication and regular feedback can help improve team spirit and overall job satisfaction. Applying a cross-functional feedback approach can substantially add fairness to the evaluation system.
- 5) The county government to consider providing efficient, effective, and adequate equipment and resources, lighting and ventilation, clear work procedures, manageable workloads, conflict resolution systems, and proper office space to healthcare professionals. The county should also adopt processes and tools to assess the work environment, compare them, and identify the best practices to apply across the system.
- 6) The national government, ministry of health and county government of Trans-Nzoia should implement a bundle of human resources management policies that provide job security, supportive supervision, manageable workload, enhanced career development, professional development, incentives, and adequate working supplies and facilities and improved occupational health and safety policy. More specific policy responses include training employees in relevant skills, hiring the right persons, enhancing performance-based compensation, providing security, and nurturing effective and self-managed teams.

### **5.4.2 Recommendations for Further Research**

The study recommends the following:

1. A comparative study on job satisfaction determinants among Healthcare professionals in private and public facilities is necessary.
2. Since Trans-Nzoia may have challenges which may not exist in other counties due to varying social, economic, demographic and cultural factors, it is vital to conduct a cross-sectional survey in public hospital across Kenya
3. This study did not use Focused Group Discussion since some healthcare professionals were on strike, and gatherings were generally discouraged when the survey was conducted. Future use of focused group discussion that includes union representatives and eliminating the industrial action effect will provide crucial data that will offer additional insights into healthcare professional job satisfaction.
4. The current study found a weak association between age, gender, marital status, year of service in the county, promotion, education, recognition, job rotation and cleanliness. Further research should be done to help understand such an association among Healthcare professionals.

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## LIST OF APPENDICES

### Appendix I: Consent Form

Dear Respondent,

My name is **Fred Wangila Nyangori**. I am a Masters Student pursuing a degree in Health Management course at Kenyatta University. I am undertaking a study on the determinants of job satisfaction among Healthcare professionals in selected public hospitals in Trans-Nzoia County, Kenya. The information gained will be utilized by stakeholders, including the Ministry of Health, to improve, strengthen, and sustain the Healthcare system.

Therefore;

- You may inquire about anything regarding the study. Some questions will be intimate, embarrassing, or uncomfortable. Your involvement is voluntary, and you may withdraw from the research at any stage.
- You will answer the questionnaire questions. The information will be noted and analyzed for academic purposes.
- The interview will be conducted in a private setting and names will not recorded on the questionnaire. The questionnaire will be locked for safekeeping at Kenyatta University. Everything will be kept confidential, and participants have no financial or other personal benefits.

I wish to appeal your consent to involve in the current study that will form part of my coursework.

**Contact information**

If you have any questions, you may contact Fred Wangila, Dr. Kenneth Rucha or Dr. Peter Kithuka or Kenyatta University Ethical Review Committee Secretariat [chairman.kuerc@ku.ac.ke](mailto:chairman.kuerc@ku.ac.ke), secretary [kuerc@ku.ac.ke](mailto:kuerc@ku.ac.ke). [Ercku2008@gmail.com](mailto:Ercku2008@gmail.com)

**Respondent's Statement:** I have comprehended the information and the terms of my involvement. I have been provided with an adequate opportunity to seek explanations and be provided with a satisfactory response. Therefore, I willingly agree to partake in the research. I know that the data I will offer will be kept private and confidential and that I can decline to proceed with an interview at any time without penalties.

Signing or Thumbprinting \_\_\_\_\_

Date \_\_\_\_\_

**Interviewer Statement:** I ..... research assistant on behalf of **Fred Wangila**, ascertain that I have explained the procedures, benefits, and risks involved in the study in the language that he/she understands.

Signature..... Date.....

**Appendix II: Questionnaire**

Questionnaire No.....

**Background Information**

Sub-County.....

Name of the health facility where the respondent is **PERMANENTLY** employed.....

Interviewers name.....Date of interview.....

Time Interview Started..... Time Interview Ended.....

**Kindly tick (√) or circle in the provided spaces the correct response or supplies the needed information**

**Part A: Respondents Information (Q1-8)**

No.	Question	Coding Categories
Q1	How old are you?	20-30-1 31-40-2 41-50-3 51-60-4 Above 61-5
Q2	What is your sex?	Male 1 Female 2
Q3	What is your level of education (if other, please specify)	Certificate 1 Diploma 2 Higher Diploma 3 Degree 4 Masters 5 PhD 6

No.	Question	Coding Categories
Q4	What is your marital status (if other, please specify)	Single <b>1</b> Married <b>2</b> Divorced <b>3</b> Widowed <b>4</b> Separated <b>5</b>
Q5	How long have you been a Healthcare Professionals of this organization	Less than one year <b>1</b> 1-2 years <b>2</b> 3-5 years <b>3</b> More than five years <b>4</b>
Q6	How long have you worked in your current position?	Less than one year <b>1</b> 1-2 years <b>2</b> 3-5 years <b>3</b> More than five years <b>4</b>
Q7	What is your designation (if other, please specify)	Medical Doctor <b>1</b> Nurse <b>2</b> Dentist <b>3</b> Clinical Officer <b>4</b> Pharmacists <b>5</b> Radiographer <b>6</b> Orthopedic Technologist <b>7</b> Lab Technician <b>8</b> Plaster Technician <b>9</b> ECG/EEG Technologist <b>10</b> Nutritionist <b>11</b>

No.	Question	Coding Categories
		Physiotherapist <b>12</b> Midwife <b>13</b> Public Health Officer <b>14</b> Medical Social worker <b>15</b>

No.	Question	Coding Categories
<b>Q8</b>	How much do you earn in KES?	15,000-34,000- <b>1</b> 34,001-54,000- <b>2</b> 54,001-74,000- <b>3</b> Above 75,001- <b>4</b>

**Part B: Overall Healthcare Professionals Job Satisfaction (Q13)**

(Please tick where applicable)

Q9	Overall, are you satisfied with your job?	Yes	No

**Part C: Work environment factors and Healthcare Professionals Job Satisfaction (Q9-16)**Specify (tick  $\surd$ ) to what degree you agree with the following statements using the provided scale

	<b>Statement</b>	<b>Coding Categories</b>				
		1 Strongly Disagree	2 Disagree	3 Undecided	4 Agree	5 Strongly Agree
<b>Q10</b>	Healthcare Professionals are rewarded according to their skills and knowledge					
<b>Q11</b>	I am provided with time off whenever necessary					
<b>Q12</b>	When I do a good job, I get credit for it that I should receive					
<b>Q13</b>	I feel satisfied with my likelihoods for salary increase					
<b>Q14</b>	I feel appreciated by the organization when I think about what they pay me					
<b>Q15</b>	The benefits package we have is equitable					
<b>Q16</b>	I am satisfied with my chances for promotion					
<b>Q17</b>	I am provided with the training necessary for me to perform my					

	Statement	Coding Categories				
		1 Strongly Disagree	2 Disagree	3 Undecided	4 Agree	5 Strongly Agree
	job					
<b>Q18</b>	My work is evaluated based on a fair system of performance standards					
<b>Q19</b>	The work shifts are adequate and fair					
<b>Q20</b>	The job rotations are adequate and fair					
<b>Q21</b>	I am provided with all equipment, supplies, and resources to perform my job					
<b>Q22</b>	My supervisor shows adequate interest in the feelings of subordinates					
<b>Q23</b>	I like my supervisor					
<b>Q24</b>	I feel I can easily communicate with all members of this organization					
<b>Q25</b>	I feel that I belong to a team					

	Statement	Coding Categories				
		1 Strongly Disagree	2 Disagree	3 Undecided	4 Agree	5 Strongly Agree
Q26	I like my colleagues					
Q27	I feel that my colleagues like me					
Q28	The place I work is clean					
Q29	Many of the procedures and rules make doing work easier					
Q30	Communication is useful within this organization					
Q31	I work effectively because of the competence of the persons I work with					
Q32	The objectives of the department I work with are not clear to me					
Q33	The amount of work I am expected to finish each week is reasonable					
Q34	I often feel I know what is happening in the institution					
Q35	There are no fighting and bickering at my workplace (question reversed during					

	Statement	Coding Categories				
		1 Strongly Disagree	2 Disagree	3 Undecided	4 Agree	5 Strongly Agree
	analysis)					
<b>36</b>	Other training and development factors that should be put in place to improve job satisfaction					
<b>37</b>	Other work environment management practices that should be put in place to improve job satisfaction					

**Part C: Government employment policy and Healthcare Professionals Job Satisfaction (Q9-16)**

	<b>Statement</b>	<b>Coding Categories</b>				
		1 Strongly <b>Disagree</b>	2 Disagree	3 Undecided	4 Agree	5 Strongly <b>Agree</b>
<b>Q38</b>	Are you satisfied with the reward policy?					
<b>Q39</b>	Are you satisfied with the promotional policy?					
<b>Q40</b>	Are you satisfied with the training and development policy?					
<b>Q41</b>	Are you satisfied with the occupational health and safety policy?					

## **Appendix III: Key Informant Interview Guide**

### **Part A: Identification Panel**

Position/Qualifications

Sub County

### **Part B: Questions**

1. In your opinion, is job satisfaction a challenge to this organization? Overall, our employees satisfied?
2. Do you think employees are satisfied with the work environment factors in this institution? Why or why not
3. What is your understanding of the relationship between government human resource policies and employee job satisfaction?
4. What are the various human resources policies that your organizations have formulated and successfully implemented?
5. In your considered view, what extent has reward policy affected healthcare professionals “ job satisfaction in your organization? Are they satisfied with the policy?
6. How has promotional policy influenced healthcare professionals “ job satisfaction in your organization? Are they satisfied with the policy?
7. Explain how training and development policy has affected healthcare professionals “job satisfaction in your organization? Are they satisfied with the policy?

8. What are the effects of occupational health and safety policy on healthcare professionals "job satisfaction in your organization? Are they satisfied with the policy?
9. What should be done to improve Healthcare professionals' job satisfaction in this organization?

Would you be willing to grant us a (telephone) interview, if it would be further needed?

Thank you. I expect to complete this process over the next two months. I would be happy to share my research findings when the process is complete. Would you like to receive a copy?

Thank you.

## Appendix IV: Graduate School Approval



KENYATTA UNIVERSITY  
GRADUATE SCHOOL

E-mail: [dean-graduate@ku.ac.ke](mailto:dean-graduate@ku.ac.ke)

Website: [www.ku.ac.ke](http://www.ku.ac.ke)

P.O. Box 43844, 00100  
NAIROBI, KENYA  
Tel. 020-8704150

Internal Memo

FROM: Dean, Graduate School

DATE: 23<sup>rd</sup> July, 2018

TO: Fred Wangila Nyang'ori  
C/o Health Management and Informatics  
Department.

REF: P140/CTY/PT/20966/2010

SUBJECT: APPROVAL OF RESEARCH PROPOSAL  
=====

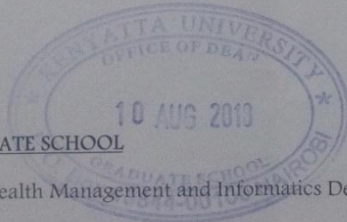
This is to inform you that Graduate School Board, at its meeting of 4<sup>th</sup> July, 2018, approved your Research Proposal for the M.Sc Degree entitled "Determinants of Job Satisfaction among Health Professionals in selected Public Hospitals in Trans-Nzoia County, Kenya".

You may now proceed with your Data collection, subject to clearance with the Director General, National Commission for Science, Technology and Innovation.

As you embark on your data collection, please note that you will be required to submit to Graduate School completed Supervision Tracking Forms per semester. The form has been developed to replace the Progress Report Forms. The Supervision Tracking Forms are available at the University's Website under Graduate School webpage downloads.

Thank you.

JULIA GITU  
FOR: DEAN, GRADUATE SCHOOL



CC. Chairman, Health Management and Informatics Department

Supervisors:

1. Dr. Kenneth Rucha Kibaara  
Department of Health Management and Informatics  
Kenyatta University
2. Dr. Peter Kithuka  
C/o Department of Health Management and Informatics  
Kenyatta University

JG/rwm

## Appendix V: Kenyatta University Ethics Review Approval



KENYATTA UNIVERSITY  
ETHICS REVIEW COMMITTEE

Fax: 8711242/8711575  
Email: [kuerc.chairman@ku.ac.ke](mailto:kuerc.chairman@ku.ac.ke)  
[kuerc.secretary@ku.ac.ke](mailto:kuerc.secretary@ku.ac.ke)  
Website: [www.ku.ac.ke](http://www.ku.ac.ke)

P. O. Box 43844,  
Nairobi, 00100  
Tel: 8710901/12

Our Ref: KU/ERC/ COND. APPROVAL/VOL.1

Date: 21<sup>st</sup> November, 2018

FRED WANGILA NYANG'ORI  
P.O Box 43844, 00100  
Nairobi.

Dear, Fred

APPLICATION NUMBER: PKU/902/I962 "DETERMINANTS OF JOB SATISFACTION  
AMONG HEALTH PROFESSIONALS IN SELECTED PUBLIC HOSPITALS IN  
TRANS-NZOIA COUNTY, KENYA"

1. IDENTIFICATION OF PROTOCOL

The application before the committee is with a research topic "**Determinants of Job Satisfaction among Health Professionals in Selected Public Hospitals in Trans-Nzoia County, Kenya**" received on 22<sup>th</sup> August, 2018 and discussed on 20<sup>th</sup> November, 2018

2. APPLICANT

Fred Wangila Nyang'ori

3. SITE

Trans-Nzoia County, Kenya

4. DECISION

The committee has considered the research protocol in accordance with the Kenyatta University Research Policy (section 7.2.1.3) and the Kenyatta University Ethics Review Committee Guidelines and **APPROVED** that the research may proceed **ON CONDITION** that you **incorporate its advice as below**

5. ADVICE/CONDITIONS

i) Community considerations;

Ok, But include recipient of inquiries i.e. Chair-KUERC, Supervisor (p27)

The above specific conditions must be fulfilled in writing before an approval can be granted.

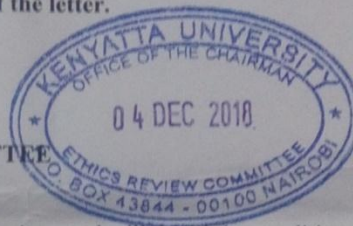
The manner of fulfilling these conditions should be outlined and submitted to Kenyatta University Ethical Review Committee.

When replying, kindly quote the application number above.

If you accept the decision reached and advice and conditions given please sign in the space provided below and return to KU-ERC a copy of the letter.



PROF. JUDITH KIMIYWE  
CHAIRPERSON, ETHICS REVIEW COMMITTEE



I, Fred Wangila Nyang'oro accept the advice given and will fulfill the conditions therein.

Signature..... Fred ..... Dated this day of..... 04 December ..... 2018.

cc. DVC-Research Innovation and Outreach

### Appendix VI: Research Permit

**THIS IS TO CERTIFY THAT:**

**MR. FRED WANGILA NYANGORI**  
**of KENYATTA UNIVERSITY, 937-30202**  
**MOI'S BRIDGE, has been permitted to**  
**conduct research in Transzoia County**


**Permit No : NACOSTI/P/18/49186/25699**  
**Date Of Issue : 23rd October, 2018**  
**Fee Received :Ksh 1000**

**on the topic: DETERMINANTS OF JOB SATISFACTION AMONG HEALTH PROFESSIONAL IN SELECTED PUBLIC HOSPITALS IN TRANS-NZOIA COUNTY, KENYA**

**for the period ending: 22nd October, 2019**

**Applicant's Signature**

**Director General**  
**National Commission for Science, Technology & Innovation**




**THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013**

**The Grant of Research Licenses is guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014.**

**CONDITIONS**

1. The License is valid for the proposed research, location and specified period.
2. The License and any rights thereunder are non-transferable.
3. The Licensee shall inform the County Governor before commencement of the research.
4. Excavation, filming and collection of specimens are subject to further necessary clearance from relevant Government Agencies.
5. The License does not give authority to transfer research materials.
6. NACOSTI may monitor and evaluate the licensed research project.
7. The Licensee shall submit one hard copy and upload a soft copy of their final report within one year of completion of the research.
8. NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice.

**National Commission for Science, Technology and Innovation**  
 P.O. Box 30623 - 00100, Nairobi, Kenya  
 TEL: 020 400 7000, 0713 788787, 0735 404245  
 Email: dg@nacosti.go.ke, registry@nacosti.go.ke  
 Website: www.nacosti.go.ke

**REPUBLIC OF KENYA**

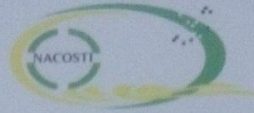
**NACOSTI**  
**National Commission for Science, Technology and Innovation**

**RESEARCH LICENSE**

**Serial No.A 21401**

**CONDITIONS: see back page**

## Appendix VII: National Commission for Science Technology and Innovation Approval



### NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,  
2241349,3310571,2219420  
Fax: +254-20-318245,318249  
Email: dg@nacosti.go.ke  
Website : www.nacosti.go.ke  
When replying please quote

NACOSTI, Upper Kabete  
Off Waiyaki Way  
P.O. Box 30623-00100  
NAIROBI-KENYA

Ref: No. **NACOSTI/P/18/49186/25699**

Date: **23<sup>rd</sup> October, 2018**

Fred Wangila Nyangori  
Kenyatta University  
Po Box 43844-01000  
**NAIROBI.**

#### RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *“Determinants of job satisfaction among health professional in selected public hospitals in Trans-Nzoia County, Kenya”* I am pleased to inform you that you have been authorized to undertake research in **Trans-Nzoia County** for the period ending **22<sup>nd</sup> October, 2019.**

You are advised to report to **the County Commissioner, the County Director of Education in Trans-Nzoia County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

  
**BONIFACE WANYAMA**  
**FOR: DIRECTOR-GENERAL/CEO**

Copy to:

The County Commissioner  
Trans-Nzoia County.

The County Director of Education  
Trans-Nzoia County.

## Appendix VIII: Trans Nzoia County Commissioner Approval



### THE PRESIDENCY

Telephone: 054 – 30020  
Fax No: 054 – 30030

MINISTRY OF INTERIOR  
AND  
COORDINATION OF  
NATIONAL GOVERNMENT

COUNTY COMMISSIONER'S OFFICE  
TRANS NZOIA COUNTY  
P.O BOX 11 - 30200  
KITALE

E-mail: [cctranszoiacounty@yahoo.com](mailto:cctranszoiacounty@yahoo.com)

When replying please quote

TNZC/CONF/ED.12/2/VOL.III/85

6<sup>th</sup> February, 2019

#### TO WHOM IT MAY CONCERN

#### RESEARCH AUTHORIZATION

This is to inform you that **Fred Wangila Nyangori** of **Kenyatta University** have been authorized by National Commission for Science, Technology and Innovation to carry out research on **“Determinants of job satisfaction among health professional in selected public hospitals in Trans Nzoia County, Kenya”** for a period ending **22<sup>nd</sup> October, 2019.**

Kindly accord him necessary assistance he may require.

**BIKEYO B.W.**  
**FOR: COUNTY COMMISSIONER**  
**TRANS NZOIA COUNTY**

COUNTY COMMISSIONER  
TRANS-NZOIA COUNTY  
P. O. Box 11 - 30200 KITALE

**Appendix IX: Trans Nzoia County Director of Education Approval**



REPUBLIC OF KENYA  
Ministry of Education  
State Department of Early Learning and Basic Education

Telegrams: .....  
Telephone: Kitale 054-31653 - 30200  
Fax: 054-31109  
Email: transzoiacde@gmail.com  
When replying please quote:

County Director of Education  
Trans Nzoia  
P.O. Box 2024 - 30200  
KITALE.

Ref. No. TNZ/CNT/CDE/R.GEN/1/VOL.II/171

Date: 7<sup>th</sup> February, 2019

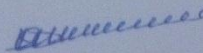
TO WHOM IT MAY CONCERN

**RE: RESEARCH AUTHORIZATION – FRED WANGILA NYANGORI**

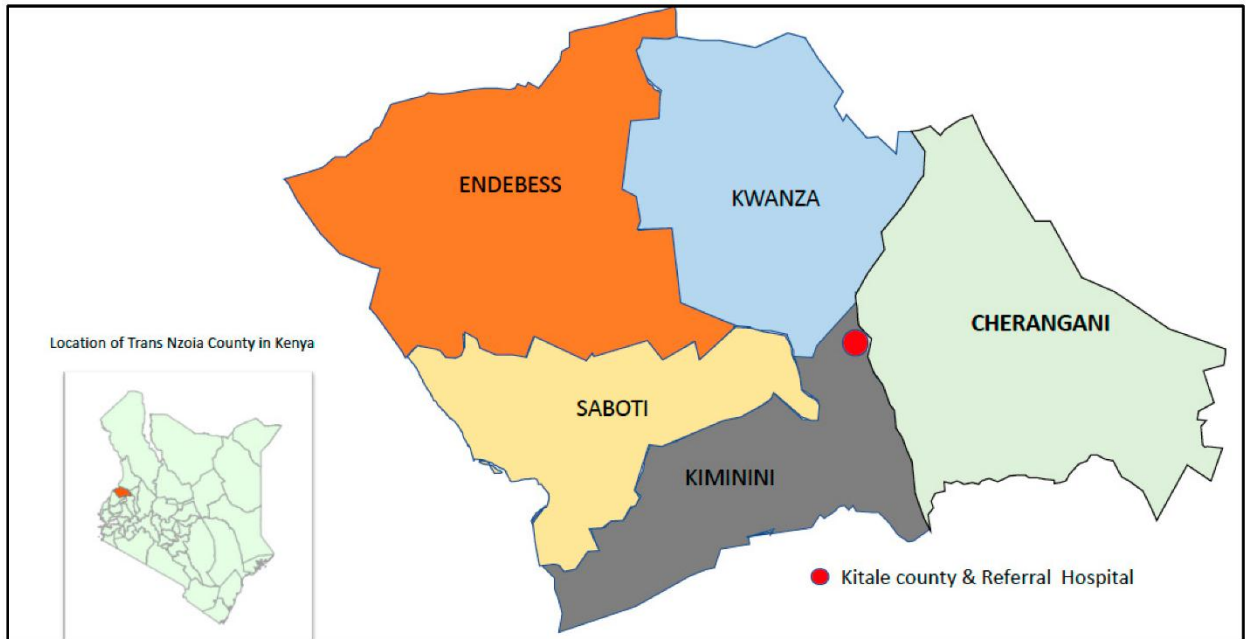
This office acknowledges receipt of a letter on the above subject Ref: NACOSTI/P/18/49186/25699 dated 23<sup>rd</sup> October, 2018

Fred Wangila Nyangori a student at Kenyatta University is authorized to carry out research on “Determinants of job satisfaction among health professionals in selected public hospitals in Trans-Nzoia County Kenya” for a period ending 22<sup>nd</sup> October, 2019

The purpose of the letter is to request you to accord him the necessary Assistance.

  
DR. S. W. MAINA (PhD)  
COUNTY DIRECTOR OF EDUCATION  
TRANS-NZOIA COUNTY.

**Appendix X: Location of the Study**



**Source: Trans Nzoia County Integrated Development Plan, 2013-2017(Trans Nzoia County, 2017)**