

**ASSOCIATION BETWEEN FORMAL CONTINUOUS PROFESSIONAL  
DEVELOPMENT, JOB SATISFACTION AND PERCEIVED JOB  
CHARACTERISTICS: THE CASE OF CLINICAL OFFICERS IN NAIROBI COUNTY**

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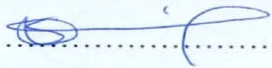
**A THESIS SUBMITTED TO THE COLLEGE OF HUMANITIES AND SOCIAL  
SCIENCES, UNIVERSITY OF NAIROBI, IN FULFILMENT FOR THE  
REQUIREMENTS FOR THE DEGREE OF MASTER OF PSYCHOLOGY (HEALTH)**

**APRIL, 2018**

## DECLARATION

I, Stella Wangari Waruingi, declare that this thesis is my own work and has not been presented before for any degree or examination in this or any other university.

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## **DEDICATION**

I dedicate this work to the late Capt. F.K.E Hinga who was like a father and a friend to me. I still hold fond memories of you. You believed in me when I said I was going back for my post-graduate studies when my baby was 4 weeks old. You were strong pillar and made me believe I could do it. When my name will be called-out among the list of graduands, I know you will smile from heaven and break into a dance with the angels.

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## ABBREVIATIONS AND ACRONYMS

ARVs	-	Anti Retroviral
CCC	-	Comprehensive Care Center
CO's	-	Clinical Officers
COC	-	Clinical Officers Councils
CPD	-	Continuous Professional Development
GOK	-	Government of Kenya
HIV	-	Human Immune-Deficiency Virus
IOM	-	Institute of Medicine
KHHPS	-	Kenya Health Human Resource
KMTC	-	Kenya Medical Training College
KHSSP	-	Kenya Health Sector Strategic and Investment Plan
MOH	-	Ministry of Health
MOMs-	-	Ministry of Medical Services
MOPHs	-	Ministry of Public Health
PPS	-	Probability Proportionate to Size
SCO'S	-	Specialized Clinical Officers
S.O.S	-	Scheme of Service
WFME	-	World Federation for Medical Education
WHO	-	World Health Organization

## ABSTRACT

Clinical officers are middle-level healthcare providers trained to offer health services at all levels in Kenya health system. This therefore necessitates them to provide quality, safe and evidence based care that meets their communities changing health needs. In light of this, they must become lifelong learners committed to update, maintain, develop and enhance their professional skills, knowledge and attitudes through Continuous Professional Development (CPD). Job satisfaction among them and their perception towards job characteristics is of importance as it has an impact quality of care they offer. The extent to which professional development training influences levels of job satisfaction and perception towards job characteristics is however still an area that has not been given prominence. The aim of the study was to find out the extent to which formal CPD training influences job satisfaction and perceived job characteristics among clinical officers in Nairobi County. Literature was reviewed in regards to the theoretical rationale (Two-Factor Theory) and empirical review on perceived job characteristics and job satisfaction based on; Pay, Promotion/Career progression, Relation with Co-workers, Supervision and working conditions. It also examined the training, licensing and practice of Clinical Officers in the Kenyan context, highlighting their Formal CPD framework. The study was conducted in Nairobi City County's Level II – Level III health facilities in the period from March 2017 to May 2017. Multi-stage sampling method was used to obtain a sample size of 113 participants from target population of 308 clinical officers. In each cluster, stratified sampling was used to select the health centers in relation to the population size. Finally, the clinical officers were randomly selected as respondents from each health facility selected. Sampling was without replacement and each element was sampled once. A self-administered data collection instrument consisted: Socio-demographic data, formal CPD frame work, attributes of job satisfaction and perception to job characteristics. Analysis of data collected done using SPSS version 23, utilizing descriptive as well as inferential statistics. The study findings indicated an association between CPD and job characteristics with a significance of 0.000. The overall job satisfaction was higher in the group that had attended formal CPD. Among the attributes of job satisfaction, formal CPD had the greatest influence on satisfaction with supervision ( $\beta=0.128$ ,  $t=1.225$ ,  $p=0.224$ ). CPD was a major predictor of perception towards skill variety and task significance.

## CHAPTER ONE: INTRODUCTION

### 1.1 Background

Health is a fundamental human right as entrenched in The Constitution of Kenya- 2010 and universally recognized. It is therefore imperative that the government, stakeholders in health (both non-governmental and faith based institutions) and the health professionals make an effort to make sure that this right is available and extended to all Kenyan.

Nairobi County is the capital of Kenya with estimated population of 3,781,732 with 3.8% growth excluding net migration (Kenya National Bureau of Statistics [KNBS], 2009). The ratio of clinical officer to population served is at 1:23,000 (IntraHealth, 2015). Therefore, their attitudes are of importance since it has an impact on quality of services they offer.

In the recent past, the healthcare system has experienced numerous challenges. The challenges are due to advancement in diagnosis and treatment technology, epidemiologic shift from communicable to non-communicable diseases, demographic transition characterized by an ageing population due to increased life expectancy, an enlightened society continuously demand for better services and an increase in medico-legal litigation especially in dispensation of the new constitution of Kenya. This therefore necessitates that all health professionals to provide quality care that is safe, timely, effective, efficient, patient-oriented and equitable in order to meet their communities changing health needs (World Health Organization [WHO], 2012). In light of this, the health professionals must become lifelong learners committed to update, maintain, develop and enhance their professional skills, knowledge and attitudes. One way to achieve this is through professional development training. Professional development training can be defined as part of a lifelong, systematic process of education activities that aim to maintain, update, develop and advance knowledge, skills, attitudes and competences to new responsibilities or changing roles. This ensures delivery of quality services while having the interest of the patient.

Unlike informal training, which is less structured and may happens in the context of the workplace including on-job training, professional reading and own experiences, formal continuing education is structured and happens in the confines of an educational environment. For health professionals, it mainly focuses on enhancing roles and competences, communication, medical ethics, research and administration ( (World Federation for Medical Education [WFME], 2003). Quality care is the degree to which health services an individual receives increase their

likelihood of achieving the desired outcomes and are within the best and current professional practices (Institute of Medicine [IOM], 1990).

In developing countries where resources are constrained, achieving and maintaining quality health services among health workers is of great concern (World Health Organization [WHO], 2006); Rowe *et al.*, 2005). In Kenya, previous studies indicate dissatisfaction among health workers. Some of the factors contribution to dissatisfaction is low pay, inadequate resources, staff shortage and long working hours (Mbindyo, 2012; Karanja, 2012; (Mbindyo P., Gilson L., Blaauw D., & English M, 2009). Premised on this, it informs the researcher to access the impact of professional development training on job satisfaction and job characteristics among clinical officers in Nairobi County.

This study focused on clinical officers only, an important health professional cadre in Kenya (GoK, 1990). Clinical Officers are referred to as the “backbone” of healthcare and frontline patient managers in both rural and urban settings (Ministry Of Health [MOH] Ministry of Public Health Services [MOPHS], 2009). Their training is three (3) year for diploma in clinical medicine and surgery after which they sit for a board exam. If successful, one proceeds for one (1) year internship supervised by a consultant in an accredited health institution. In the past few years, several institutions of higher learning have introduced a Bachelor’s degree in Clinical Medicine for both mature entry and basic level. The Clinical Officers Council (CoC) is the statutory body mandated to regulate the training, registration and licensing of clinical officers in Kenya (Clinical Officers Council [COC], 2017). The practice of Clinical Officers in Kenya is guided by their professional code of conduct that prescribes the primary role of a clinical officer as preservation of human life (Ministry of Health [MOH], 2012).

It is paramount that Clinical officers adhere to their professional code of conduct. This requires them to; refrain from unethical behavior, act professionally at all times, maintain confidentiality about patient information, treat patients and their visitors with respect and courtesy and provide patients with the right information and treatment (MOH, 2012). Some roles of clinical officers include providing curative, preventive and promotive health services at the health facility and community levels. The duties and responsibilities of a Clinical Officer change with seniority. Junior Clinical Officers offer services that are more patient oriented while senior officers are

involved in management, supervision and policymaking (Clinical Officers' Scheme of Service, 2009). The public sector still remains the major employer for Clinical Officers with approximately 3208 clinical officers working in government institutions (Health Sector- HRS 2014-2018), out the 11,185 registered Clinical Officer (Economic Survey, 2013).

The Clinical Officers' Council has a framework on formal Continuous Professional Development (CPD). To renew one's bi-annual practicing license, it is required that one accumulates not less than 60 CPD points. The Clinical Officer CPD document gives guidance on; institutions accredited to offer CPD points; activities alleageable to earn one point and how many points.

Previous studies have examined the performance, roles, quality of service and job satisfaction among clinical officers in Kenya (Mbindyo, 2012; Karanja, 2012; Mbindyo *et al.*, 2009). The perceptions towards job characteristics and how this perceptions and job satisfaction interacts with previous formal CPD has not been given prominence.

Work plays a major role in life as it remains a major source of individual identity (Judge *et al.*, 2003) and we are privately and socially defined by what we do (Hulin , 2001). A large percent of non-retired adults spend most of their waking hours at their workplace. It is the ultimate goal of every employee to work in a conducive environment. To have a job that they love, one that provides them with opportunity for self-development, allows them flexibility, and has security among others (Redmond, 2009: Judge et al, 2003)

In a review of studies done on different organizations and types of jobs, Judge and Church (2009) noted that nature of work itself was evaluated as the most important facet of the job (Judge & Church, 2009). This was in comparison to other facets like pay, promotions and relation with co-workers. Consequently, in another study, interesting work was listed as the most important job attribute while good pay was ranked fifth. Managers thought employees are desirous for pay and ranked it first and interesting work fifth (Kovach, 1995; as cited by Judge, T & Saari, 2004). A 'good job' may mean different things to different people since people tend to have varying perceptions about their work.

It is therefore in the interest of every organization to understand what would increase employee's job satisfaction and reduce dissatisfaction. Studies have demonstrated that these can be achieved

through job enrichment. Job enrichment is an intervention undertaken by an organization to redesign jobs aiming at making them more satisfying challenging and motivating, to the employee's (Judge & Saari, 2004). Job attitudes have an impact on employee behavior such as intention to leave employment, lateness, tardiness, calling in sick, among others. A negative attitude would lead to low productivity and poor quality of services (Judge & Saari, 2004). A study by Hackman & Lawler (1971) demonstrated that job characteristics have a direct impact on employees' attitude and behavior at their workplace (Hackman & Oldham, 1995, 1976).

A job characteristic model proposed by Hackman and Oldham (1980) defined job characteristic as those aspects of a job that leads to high levels of satisfaction, performance and motivation (Jex, 2002 p. 117; Redmond, 2012). The model identifies five fundamental job characteristics that define an inwardly motivating job. Task identity – extent to which one can see their work from start to completion; Task significance – extent to which ones work is termed as important; Skill variety – extent to which ones work allows one to perform different tasks; Autonomy – extent to which ones work allow task discretion; Feedback – extent to which an employee receives report on his or her performance. These core characteristics leads to three 'critical positive psychological state' namely; responsibility for outcomes, experienced meaningfulness and knowledge of results. When these three 'critical psychological state' are present in an individual, they lead to positive personal and work outcome which is; internal work motivation, high overall job satisfaction and effectiveness at work, low absenteeism and employee turnover (Judge T., Joyce E., & Bono E, 2000).

When task identity, task significance and skill variety is enriched, the employees experience an enhanced meaningfulness for their work. A job that poses high autonomy increases experienced responsibility for the work outcomes and finally, a job that gives feedback increases knowledge of work results by the employee. A job may meet the above described core characteristics but the employee(s) are not motivated or satisfied as would be expected. This may be due to individual perception of different job characteristics. As stated by Hackman and (World Federation for Medical Education [WFME], 2003); Lawler (1971), "it's not the objective characteristics of the job that affects employee's job attitude and behavior but how the individual perceives his/her job is the important determinant of the influence of the job on the individuals satisfaction" (Sims



H., Szilagyi A., & Keller R, 1976). Employees' perception of job characteristics therefore plays a key role in determining personal and work outcome.

In the field of Industrial/Organizational psychology, job satisfaction was noted as one of the most researched job attitudes with researchers affirming that attitude has the potential to direct, guide, influence and predict actual behavior (Judge *et al.*, 2012; Saari & Judge, 2004; Kraus, 1995). An attitude is “a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor”, (Eagly & Chalken, 1993, as cited in: Jex, 2002). Hoole and Vermeulen (2003) attributed job satisfaction with physical and mental wellbeing of employees. To the employee, low level of job satisfaction is a threat to their physical and mental health, quality of life, goal achievement and personal development. To the institution, low satisfaction among employees can result to tardiness, high burnout and absenteeism. This results in low productivity and affects other organizational outcomes (Hoole & Vermeulen, 2003). Job satisfaction among healthcare workers and for purposes of this study clinical officers is of importance as it has an impact of patient management outcomes like adherence to medication, patient satisfaction and quality of care (Mbindyo P., Blaauw D., & English M, 2013)(Mbindyo ; Mbindyo, 2012; Mbindyo *et al.*, 2009; Karanja, 2009).

Previous research finding on job satisfaction as a cause of high productivity is inconclusive and contradictory. Kalamawei, Sunny and Denye (2015) reported that when employees are satisfied they tend to be more productive at work, have high retention rate and care more about the quality of their work. Basset (1994) held a contrary opinion that happy employees may not necessarily be productive but argued that the satisfaction may indeed be as a result of improved productivity [as cited by Redmond, 2015]. Recent studies have supported the strong correlation between job satisfaction and performance especially among professionals. One such study was by Judge and colleagues (2001) who reviewed 301 studies on relationship of job satisfaction and performance [as cited by Judge & Saari (2004)]

While job satisfaction may simply refer to the extent which an employee(s) feels positive or likes their job, several definitions have evolved through the years, with several theorists formulating their own workable definition. For example, Jex (2002) defines job satisfaction as an attitude an employee's towards his or her job while Judge and his colleagues defines job satisfaction as

multidimensional psychological responses towards ones job (Judge *et al.*, 2009; Jex, 2002). Even though there are numerous other explanations and definitions, Locke (1976) advanced the most popular definition of job satisfaction. Locke postulated that job satisfaction is “a pleasurable or positive emotional state resulting from the appraisal of one’s job or job experiences” (Locke, 1976:1304, as cited by Jex, 2002 p. 116). What most of these versions share is job satisfaction is multifaceted psychological response towards one’s work and these responses have cognitive, emotional and behavioral component (Bernstein & Nash, 2008; Hulin & Judge, 2003; Judge *et al.*, 2012; 2009; Visser & Coetzee, 2005).

According to Bernstein & Nash (2008), cognitive component of job satisfaction refers to the evaluative aspect towards ones job. For example perceiving of a job as being mentally challenging and demanding while the emotional component is the affective aspect that refers to the feelings employees has towards his/her job such as anxiety, happy, boredom. Lastly, the behavioral component is the employee’s actions toward the job such as absenteeism, calling in sick, missed deadlines, tardiness and conflict with others. The cognitive and affective aspect are inextricably linked both in our physiology and biology since when we feel, we think about the feeling and when we think, we feel the thought ( Judge & Saari, 2004). The behavioral component however may be less informative regarding job satisfaction compared to affective and cognitive components. This is because ones attitude may not always be consistent with behavior (Jex, 2002). For example, an employee may report to be unhappy with his/her job but still does not leave employment or still reports to work early due to financial reasons or employment opportunities.

According to Jex, employees are likely to determine their level of job satisfaction by cognitively evaluating what the job is offering them in each facet; work itself, promotion, pay, supervision and relation with colleagues against their expectations from the job (Jex, 2002). If their personal expectations from the job are congruent with the outcome, then they can be said to be satisfied. Different employees place different levels of importance to a particular facet; employees exposed to same job characteristics may report different levels of satisfaction. He further notes that a number of factors determine these perceptions; employee’s skill, amount of time put to the job and the available employment opportunities. In view of this, the study examined the five (5) facets of job satisfaction; Pay, Promotions, Supervision, Working conditions and Relation with

co-workers in relation to clinical officers attending or not participating in professional training. In the second part, it investigated whether the perception towards the different attributes of job characteristics was different between those clinical officers who attend professional development training and those who did not.

## **1.2 Statement of the problem**

Clinical officers are middle-level healthcare providers trained to offer health services at all levels in Kenya health system (MOH, 2009). Research conducted on the level of job satisfaction among healthcare providers in Kenya has reported that most of them are dissatisfied with their work (Mbindyo *et al.*, 2013, Mbindyo, 2012; Karanja, 2012). This state of affairs has affected the quality of services provided (Mbindyo *et al.*, 2013; Karanja, 2012).

Studies on job satisfaction and job characteristics among health care workers have reported dissatisfaction with pay, opportunities for trainings, working conditions, staff shortage among others (Brenda, 2012; Mbindyo *et al.*, 2009; WHO, 2010; World Health Report, 2006). This dissatisfaction with the job has been found to negatively influence the quality of service even where the health provider is skilled (Mbindyo, 2012; Geleto *et al.*, 2015; Li *et al.*, 2014; Dieleman *et al.*, 2003; Gobena, 2017).

In order to improve the quality health services, the Government of Kenya has instituted formal continuous professional development (CPD) courses. Prior research on the effectiveness of the CPD at improving the quality of service provided reported a positive relationship in that it improved the quality of services given by the healthcare providers (Giri *et al.*, 2012; Ndege, 2006).

These studies however focused mainly on the quality of services given to the client as a result of CPD, but did not address the question of whether the healthcare providers became more satisfied with their job after undergoing CPD training. Similarly, studies have been conducted about job satisfaction among health workers in Kenya (Mbindyo *et al.*, 2013, Mbindyo, 2012; Karanja, 2012; Imhoff & Mathauer, 2006) but they did not address the impact of CPD training on the job satisfaction among health workers. Further, job satisfaction has been documented to have an interaction with the workers' perception of the characteristics of their job (Vanda *et al.*, 2014; Young *et al.*, 2014; Judge *et al.*, 2000; Szilagy & Keller, 1976) yet research on job satisfaction in

Kenya for example (Gachie, 2016; Mbindyo *et al.*, 2013; Mbindyo *et al.*, 2012) among others is yet to clearly establish this link.

On the account that CPD has been reported to improve the quality of service provided (Giri *et al.*, 2012; Ndege, 2006) it was therefore important to find out whether the participation in the CPD had any impact on the level job satisfaction, the perception towards job characteristics and whether the job satisfaction and job characteristics impacted each other as a result of the CPD experience among the clinical officers in Nairobi county.

### **1.3 Purpose of the study**

The purpose of the study was to find out the extent to which formal CPD training influences job satisfaction and perception towards job characteristics among clinical officers in Nairobi County.

### **1.4 Research questions**

- (i) What is the association between formal continuous professional development training and levels of satisfaction with different attributes of job satisfaction among Clinical Officers in Nairobi County?
- (ii) What is the relationship between formal continuous professional development training and perception towards different attributes of job characteristics among clinical officers in Nairobi County?
- (iii) What is the influence of formal CPD experience on the association between job satisfaction and the perception towards job characteristics among Clinical Officers in Nairobi

### **1.5 Objectives of the study**

The specific objectives of this study were to;

- (i) investigate the relationship between participation in formal CPD and job satisfaction among Clinical Officers in Nairobi County
- (ii) determine the association between formal CPD and perception towards job characteristics among Clinical Officers within Nairobi County

- (iii) establish the association between job satisfaction and perception towards job characteristics as a result of having gone through formal CPD among Clinical Officers within Nairobi County.

### **1.6 Hypotheses**

**H1:** There is a relationship between formal CPD training and job satisfaction among Clinical Officers in Nairobi County

**H1:** There is a relationship between formal CPD training and perception towards job characteristics among Clinical Officers in Nairobi County.

**H1:** Formal CPD has an influence on the association between job satisfaction and perception towards job characteristics among Clinical Officers in Nairobi County.

### **1.7 Significance of study**

The findings of the study aimed at informing policy makers, managers and supervisors within the health sector on how formal CPD trainings interact with subjective job characteristics and job satisfaction. This would have great impact on improving the performance, motivation and job satisfaction among clinical officers. It will also guide on which specific aspects of clinical officers' job needs to be enriched in order for them to provide safe, quality and evidence based health services.

In the recent past, the Country has witnessed an increase in frequency of industrial unrest among the healthcare workers where monetary incentives have been used to solve the impasse but can only run for a short- term. The management in health sector must realize that what determines if the healthcare workers are satisfied or no satisfaction are intrinsic to work itself and may not result from the piece-meal incentives. Using job enrichment, as a continuous management tool would have a greater long lasting impact with a more satisfied workforce.

According to the Two-Factor theory, formal CPD, Job satisfaction and job characteristics could be said to be intertwined, that is, one of the major roles of formal CPD is to enhance skills, knowledge and competencies. This enhances the motivator factor by preparing the professionals for more responsibilities in addition to contributing to their career growth and personal development which in-turn leads to high levels of satisfaction. Consequently, the hygiene factors are enhanced

from better relation with co-workers and pay rise that may result from CPD training contributing to reduced dissatisfaction.

The data collected will also inform policy makers to put in place clear policies and structures on development of CPD not just as a requirement for relicence but its role in satisfaction with specific aspects of a job and perception towards job characteristics. The data will also allow room for further exploration on the interaction of formal CPD and perception of job characteristic and job satisfaction and how this information can how this information can be leveraged to achieve other outcomes.

### **1.8 Justification of the study**

Health is a fundamental human right and thus every Kenyan has a right to accessible, affordable and quality health services. Following this, it is the duty of every health professional to offer quality and evidence based services. For clinical officers to be able to deliver safe, quality and evidence based services, there is need for them to continuously develop themselves professionally in order to update, maintain, develop and advance their knowledge, skills and attitudes. This can be achieved by participating in CPD activities. The CPD trainings help enhance their competences, improve their communication skills and increase their personal and interpersonal effectiveness that results to improved healthcare outcomes and experiences for the community.

While a lot of emphasis has been placed on the outcome (quality services, performance and patient satisfaction) from the clinical officers, it would be important to asses if actually prior professional development has an effect on Clinical Officers job satisfaction and their subjective evaluation of job characteristics. The study therefore strived to examine the relationship between formal CPD training, satisfaction with different aspects of job satisfaction and perception towards job characteristics among the Clinical Officers.

Theoretically, the Two- Factor theory by Frederick Herzberg, (1959) is applicable. The theory proposes that presence of motivators in the workplace increases the level of satisfaction, while absence of hygiene factors in the workplace can lead to dissatisfaction. According to the Two-Factor theory, CPD, Job satisfaction and job characteristics could be said to be intertwined i.e, one of the major role of CPD is to enhance skills, knowledge and competencies. This enhances

motivator factor by preparing the professionals for more responsibilities in addition to contributing to their career growth and personal development which in-turn leads to high levels of satisfaction. Consequently, the hygiene factors are enhanced from better relation with co-workers and pay rise that may result from CPD training contributing to reduced dissatisfaction

### **1.9 The Scope of study**

The study area is Nairobi County, which is an urban setting and the capital city of Kenya. There are more opportunities for training programs as compared to rural set-up. The urban aspect makes the cost of living high with limited resources thus clinical officers opt to working on part-time basis (locum) to supplement their income. This may affect the generalization of the findings as the results can only be inferred to clinical officers working in urban settings with almost similar standards like Mombasa and Kisumu vis-a-vis peri-urban areas like Meru, Nyeri, Siaya among others. Another scope of the study was the population, which had almost similar exposure in terms of same employer, the human resource management aspect and working conditions. This affects inferring the study findings to clinical officers working in the private sector and faith-based organizations. The clinical officers on internship or those who had been in employment for less than 3 years were excluded from the study.

### **1.10 Limitation of the Study**

The study focuses on the subjective rather than the objective evaluations of job characteristics and attributes of job satisfaction. Job characteristics explored in this study are; task identity, task significance, skill variety, autonomy and feedback. The study examines whether clinical officers who have undergone formal CPD have a different perception towards job characteristics and if they have different levels satisfaction with Pay, promotion, supervision and relation to co-workers as compared to those who have not attended professional development training in the last two (2) years.

The major challenge was assessing the subjective rather than objective aspect of job characteristic where the respondents give a score that may reflect on them positively. Another challenge is that majority of the target population work in the outpatient department which is characterized by long patient queues. The respondents felt the questionnaire had many items

considering their work demands. This could have led to some filling the questionnaire without paying much attention that affects the overall score.

Lastly, the nature of work shift posed a challenge in reaching the target population. The researcher had difficulties since some were on night duties while others were away on leave, administrative duties or gone for a transfer.



## **CHAPTER TWO: REVIEW OF LITERATURE**

### **2.0 Introduction**

This chapter reviews previous literature done in areas of perceptions towards job characteristics and job satisfaction. The chapter has 3 sections with the first section looking at training, licensing and practice of Clinical Officers in the Kenyan context. It also highlights their Formal CPD framework. The second section reviews previous studies exploring the perception of job characteristics and job satisfaction based on; Pay, Promotions, Relation with co-workers, Supervision and working conditions. The third section focuses on theoretical grounding of job satisfaction and job characteristics and describes the conceptual framework applied in this study. It also presents the gap in the study.

### **2.1 Overview of clinical officers' in Kenya**

The section will highlight an overview of clinical officers training, professional regulation, their formal CPD framework and where they are placed in the Nairobi City County Health Sector organogram.

#### **2.1.1 Training of clinical officers' in Kenya**

Clinical Officers is one of the cadres in the Kenya health system that plays distinct and important roles in delivery of health services and therefore expected to offer services of the highest standards (MOH, 2005). They offer among others curative, preventive, primitive and rehabilitative services, which initially was a preserve of physicians, (IOM, 2012). They are referred to as frontline patient managers since patients visiting a primary health care ( Level II – Level IV) facility are more likely to come into contact with a clinical officer for management before referral to a specialist if need be. In Level V and referral hospitals, the Clinical Officers work in specialized clinics. There is however, growing concern on the quality of care offered by Clinical Officers, their performance, competences and their attitudes (Karanga, 2009; Mbindyo, 2012). A desk review CO's from the County Chief Clinical Officers' and the human resource officer indicates several cases touching on CO's conduct were reported to this offices. Some of the cases are; reported about hours spent at work ( reporting to work late or leaving before official time), rampant cases of breach of professional ethics; soliciting money from patients for services that that ought to be offered at no charge, requesting for unnecessarily laboratory/radiological tests for monetary gains; and poor communication skills. From an

interaction with some clinical officers, they reported lack of motivation and low levels of job satisfaction due to poor remunerations, high workload, poor/lack of supervision, working conditions and poor career progression among others. They expressed that the management does not understand what they go through while working before labeling them as poor performers.

In Kenya, clinical officers' minimum qualifications are a diploma in Clinical Medicine and Surgery. The entry point is post-secondary education with a minimum of C+ (plus). One undergoes a three (3) year full time training in an approved institution. After the training one sits for a final qualifying examination and later a board exam coordinated by the Clinical Officers Council (COC) followed by a one (1) year supervised internship at a government or a faith based hospital. During internship, the young professionals are supervised and mentored by consultants. The interns rotate in the medical, pediatrics, surgical, obstetric and gynecological wards for a period of three months each. Following successful completion of internship, the clinical officer is eligible for licensing to practice.

Training in clinical medicine enables a CO to work independently or with a medical officer /physician while expected to offer quality services to the client/patient. Among some of the responsibilities of a CO are; History taking, examination, diagnosis and prescribing, ordering and interpretation on laboratory and radiological results, offering specialized services, community services like health education and promotion, disease surveillance and data collection.

A clinical officer may specialize in any of the following areas; Anesthesia, Pediatrics, Orthopedics, Ear Nose and Throat, Epidemiology, Dermatology, Psychiatry, Ophthalmology and Cataract surgery, Reproductive health and Lung and Skin after undergoing an additional 2 to 3 years full residency higher diploma to become specialized clinical officer (SCO). While medical doctors have access to government scholarship for postgraduate studies, Clinical officers who wish to advance their studies cater for their fee. However, even after specializing, they do not get promotions or salary increment. This has contributed to clinical officers being disgruntled with the human resource management of their affairs.

In the past, the Kenya Medical Training College (KMTC) solely did the training of clinical officers. Recently there has been an expansion of KMTC branches and accreditation of several

government, private universities and faith based colleges to offer clinical medicine at diploma and degree level (COC, 2012). This has led to a high number of clinical officers' graduating every year with the major concern being the competence of grandaunts produced by different colleges (Karanga, 2012). According to KMTC training curriculum, its main objective is to "Train Clinicians who are able to provide quality health care services, offer leadership and engage in health research" (KMTC, 1998; GoK, 2004).

### **2.1.2 Registration, Licensing and Practice of Clinical officers'**

The Clinical Officers Council (COC) of Kenya is the statutory body mandated under Clinical Officers Act 2017 of the laws of Kenya to regulate the training, registration and licensing of clinical officers in Kenya (COC, 2017). The practice of Clinical Officers in Kenya is guided by the Clinical Officers' professional code of conduct which state the primary role of a clinical officer as that of preservation of human life (MOH, 2012).

The clinical Officers' are to adhere to their professional code of conduct which requires them to; refrain from unethical behavior, act professionally at all times, maintain confidentiality about patient information, treat patients and their visitors with respect and courtesy and provide patients with the right information and treatment (MOH, 2012). The COC handles disciplinary cases of clinical Officers' regarding professional misconduct. A clinical officer can be deregistered if found guilty of gross violation of professional code of conduct or license may not be renewed if he/she does not meet the required CPD points.

In the government health facilities, clinical officers are deployed from a dispensary (in urban setting) or health Centre up to level IV hospitals mostly working in the outpatient department and special clinics. Most health facilities face various challenges like lack of laboratory and radiology facilities, inconsistence supply of drugs and non-pharmaceutical commodities, inadequate staffing, poor working conditions while serving a large population. This has led to lack of motivation and dissatisfaction among the health workers.

The duties and responsibilities of a clinical officer in public service is guided by the scheme of services with the current one revised in 2014 (Clinical Officers Scheme of Service, 2014). The scheme of service outlines what is expected of a clinical officer with duties and responsibilities

of a junior officer being more clinical and oriented to patient management. Senior level duties change to managerial, policy making and supervisory (Scheme of Service, 2014). The entry point for junior clinician into public service is job group H. This has resulted to clinicians feeling discontentment since they feel their diploma take a total of four (4) years and should be considered for degree entry job group K. The argument takes premise where medical doctors are considered to have spent 6 years in college thus started at a much higher job group than other degree holders.

The Economic Survey, (2013) reported that there were 11,185 registered clinical officers in Kenya( both general and specialized) compared to 8092 medical doctors of which 3208 and 1080 were working in government health institutions respectively (MOH; Health Sector HRS 2014-2018). This demonstrate the huge gap between NPCs and physicians. The survey also indicated that the doctor population ratio in 2012 was at 17:100,000 while that of clinical officers' was 28:100,000. The WHO recommendation is 20:100,000 doctor patient ratio (WHO, 2010). Despite the huge staffing gap, a large number of clinical officers remain unemployed with some opting to go into private practice while the lucky ones get employed by private/faith based organizations.

According to KHSSR (2013-2017), at the level of care, there are 55 medical officers and 397 clinical officers at the primary care, this indicate that more people have access to clinical officers compared to a medical doctor at the lower level. The picture is the same in County hospitals where there are 342 medical doctors and 583 specialized clinical officers and 770 general. While we have witnessed increased recruitment of health workers to public service, studies have shown that this does not necessarily translate to improved service delivery or enhanced individual performance (Mbindyo, 2012). Having more clinical officers to bridge the patient to physician ratio seem attractive and economically viable, but the question is, does high numbers translate to effective and efficient service delivery.

In many instances, clinical officers continue to be treated as a substitute to physicians. The perception towards the nature of their work and job characteristics that may have a direct impact on their output has not been addressed with the importance it deserves. For example, in the outpatient at a health Centre, clinical officers' are expected to attend to all patients turning up to

seek services irrespective of their number. This leads to burn out and frustration and in turn the clinical officer is regarded as working only to clear the queue. Their low remuneration, poor working conditions and career progression continue to be some factors that affect their job satisfaction.

### **2.1.3 Clinical Officers Formal CPD Training Framework**

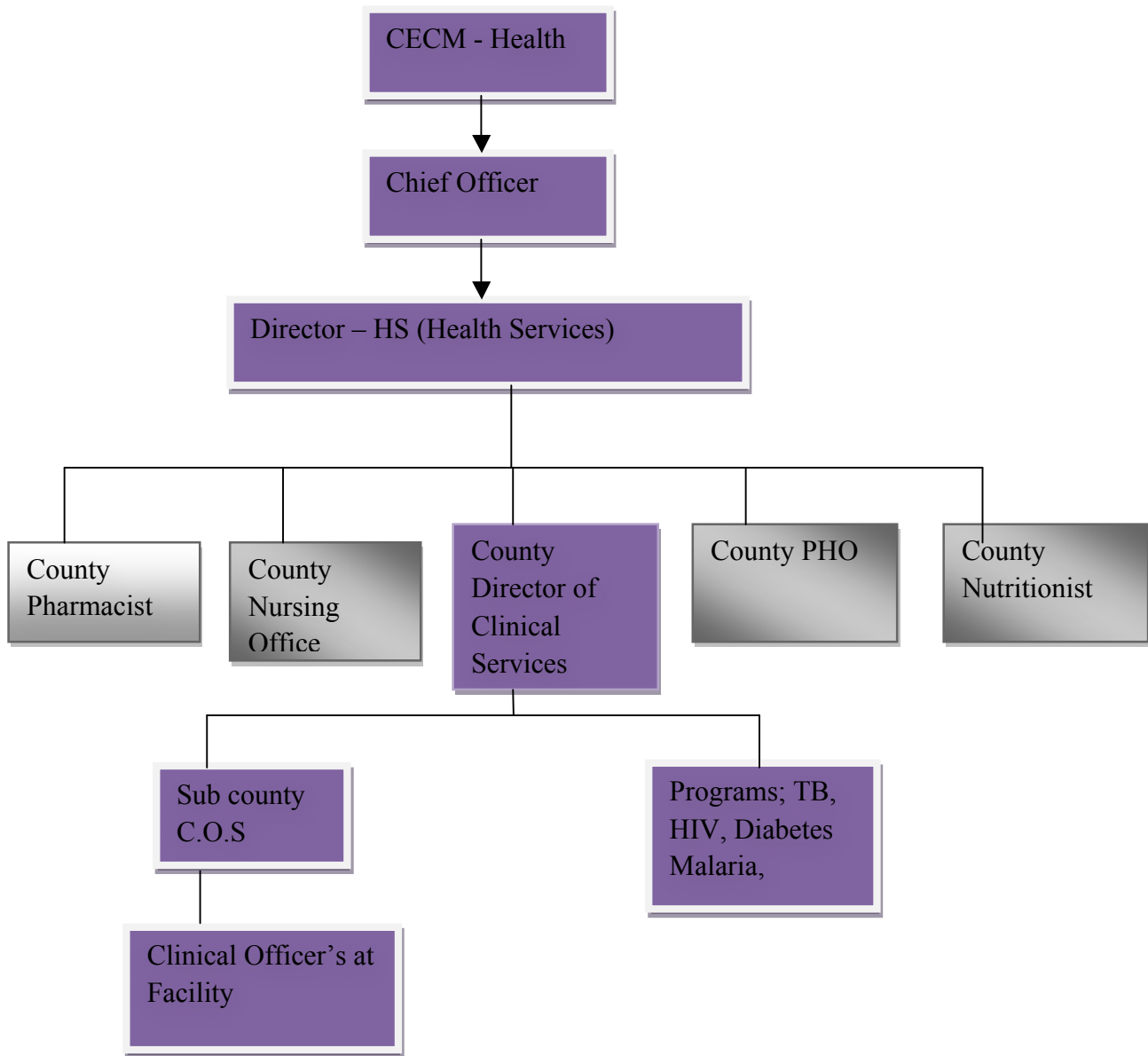
The field of clinical medicine is one of the professions in Kenya which requires one to have a practicing license by law and one of the prerequisite for renew is attaining 60 professional development points (COC, 2017). This means that for a clinician to retain his/her practicing license, it is mandatory they undergo continuous professional development training. Within the health profession, CPD it is mostly referred to as Continuous medical education (CME).

Scholars have argued that, for healthcare workers to continue offering safe, quality and evidence based services, it is paramount that they continuously develop their professional skills, knowledge and attitudes (Giri *et.al.*, 2012: Ndege, 2006). The debate whoever, on whether mandatory CPD for licensure improves performance and professional growth is still inconclusive (Giri *et. al.*, 2012: Ndege, 2006). A look into studies implies that CPD among health professionals in different countries vary widely. In some countries, CPD it is a mandatory requirement for licensure e.g. Kenya, Uganda and Singapore. Others use intensive to encourage employees to undertake training e.g. Belgium and Norway. While others leave it up to the professional associations to regulate professional development training among (Ndege, 2006: Muula *et al.*, 2004: Garratini, 2010: as cited by Giri *et. al.*, 2012)

Premised on this, Clinical Officers Council (COC) came up with a framework that guide on formal professional development training. The framework is anchored on three pillars, which include: 1) Setting up of educational standards for; Curative, Preventive, Promotive and Rehabilitation Services; 2) Facilitation of Monitoring and 3) Evaluation of what professional do: (COC, Kenya Workforce, 2016). The CPD framework has provided guidelines on formal CPD for the clinical officers in areas of training, research and publications, research supervision, workshops and seminars among others (see Appendix III). A training program taking more than one year earns the most points (30), while for workshop and seminars the framework awards more points when the clinician is a facilitator than a participant.

### 2.1.4 The Organogram of Clinical Officers in Nairobi

The organogram below demonstrate the management structure for clinical officers' in Nairobi County. The target population who work in dispensaries and health Centre's are under the clinical Officer in – charge of Sub-County.



(Courtesy of Human Resource Management Department - Health Services, 2016)

### 2.2.0 Formal Professional development Training and Job Satisfaction

Job satisfaction is conceptualized as the sum of all facets (Locke, 1976 as cited by; Bernal *et.al.*, 1998), following this, the researcher reviewed previous work done on professional training and

satisfaction with the different facets of job satisfaction: Pay, promotions, supervision, relation with co-workers and Working conditions as opposed to overall job satisfaction.

Training for health care worker serves different purpose; apart from being a human resources development tool, it helps them improve their skills and competences that enables them cope better with their work and increase their interest and commitment towards work (Mathauer & Imhoff, 2006). Training has an impact on overall job satisfaction as it leads to increased employees pay, work autonomy and feeling of achievement (Khan *et al.*, 2011). The debate about dissatisfaction among over-trained employees is live with some scholar posing that, there is need to match skill requirements and training (Khan *et al.*, 2011). Many scholars have studied on training and overall job satisfaction but the influence training has on satisfaction with different aspects of a job has not been given prominence. This posed as challenge while reviewing literature for this study.

### **2.2.1 Formal Professional development and satisfaction with Pay**

Work plays an important role in our lives and to some extent, it sustains our living for it is through paid employment that we pay our utility bills, buy food and afford a decent life. While most people spend their adults lives in paid employment, debate on whether pay as an extrinsic motivator contributes to the feelings we have about our job or our happiness has continued to be an area of interest to scholars (Judge *et al.*, 2000).

It is evident that salaries of healthcare workers in developing countries are way below the minimum wage. The *World Health Report* (2006) highlighted that different aspects of remuneration (pay itself in comparison to others in the same job, regularity of pay and other incentives) has an influence of on behavior of healthcare workers like migration from African countries citing poor remuneration a major reason and absenteeism (WHO, 2006). Low-income countries have applied different strategies to improve salaries of the health workforce in public sector such as removing them from civil service structure to increasing their pay as is the case in Uganda and Tanzania (WHO, 2006). Kenya has also made tremendous stride in improving salaries of health workers by awarding incentives in form of extraneous, non-practicing, health and emergency call allowances to doctors, clinical officers and nurses among other health workers. However, despite the pay rise, the working conditions remain unchanged which may still contribute to low levels of job satisfaction (Mathauer & Imhoff, 2006).

In a study by Young *et al.*, (2014) in the USA, where they analyzed data collected through online survey of working adults. The study had the objective of examining the relationship between salary and satisfaction involved 79 participants. It explored the correlation between salary and job satisfaction, Emotional Intelligent and life satisfaction. Instruments administered were Job Diagnostic Survey and Bar-On Emotional Quotient. The Hypotheses was tested using multiple regression analysis. One of the hypotheses that were of interest to this study was: Job satisfaction relates positively to salary. The results indicated that job satisfaction had a significant, negative relationship with salary. Salary demonstrated to be a negative predictor of life satisfaction. Where else we would expect salary to contribute positively to job satisfaction, it seems not the case. The study however, used a small sample that would make it hard to infer to the general working population. The study did not also investigate how other factors like career development and training relates to satisfaction with pay.

Judge and his colleagues, (2001) reviewed a meta-analysis of 86 studies about relationship of pay and job satisfaction. The review included studies that had measured the said relation and had an estimated sample size of 18,460. From the meta-analysis, they demonstrated that there was a positive weak correlation between level of pay with job or pay satisfaction while individuals who earn large amounts being slightly satisfied than those earning much less. One of the weaknesses of studies was that how much one earns is appraised as satisfying or not by evaluating what others are earning.

One of the studies that examined the relationship between professional training and satisfaction with pay was a research conducted in Britain using data from Workplace employees Relation Survey (WERS) of 2004 (Jones *et al.*, 2008). The survey had around 2,300 and 22,500 employees. They randomly selected a sample of 25 participants who were required to answer a set of questions. One of the analyses the research did that is relevant to this study is on satisfaction with pay between groups who had attended training and those who had not. Those who had attended training were more satisfied than those who had not attend with means of 2.92 and 2.76 respectively. One of the conclusions of the study was that there was a positive relationship between attending a training and satisfaction with pay ( $r = 0.334$ ).



This supports a study by Basir and Wahjono (2014) conducted in Malaysia at the Agricultural Agency on effectiveness of training on job satisfaction while using job performance as a mediating variable. The study had 222 participants from target population of 1, 597. Data was collected using questionnaires and analyzed using SPSS. The study concluded that there was a positive relationship between training and job satisfaction ( $r= 0.467$ ). However, the study failed to conceptualize job satisfaction as a sum of all facets.

### **2.2.2 Formal Professional development and satisfaction with Promotion**

Promotion is one of the human resource management tools used in different organizations with promotional opportunities being associated with higher levels of job satisfaction (Lindorff, 2010). In the context of formal employment, promotion can be defined as the procedure of elevating an employee from their current grade to higher position with higher responsibilities within the organization (Gachie, 2016). The public sector is viewed as having better promotional opportunities and thus having lower employee turnover (Lindorff, 2010). For any organization to have an effective and appealing career development system, there should be a promotion policy that applies merit with equal opportunities for ascending to higher ranks (Gachie, 2016; Bohlader, 2001).

Trainings differ in duration and while some may not qualify for inclusion in the curriculum vitae and used as ground for consideration, others do. The Clinical Officers scheme of service, (2014) recognizes higher diploma in any of the specialized fields and a bachelor's degree in clinical medicine as one of the parameters for promotion. It would be the interest of the researcher to investigate if there is a relationship between attending a professional training and satisfaction with promotion.

The question as to whether there is a relationship between job satisfaction and promotion opportunities has been catered for by several scholars who have demonstrated a positive relationship between job satisfaction and promotion opportunities (Khan *et al.*, 2012; Mustapha & Zakaria, 2013; Gachie, 2016; Nguyen *et al.*, 2003; Bashir & Wahjono, 2014; Khan & Aleem, 2014). However, the question on the relationship between professional development training and satisfaction with promotion is still debatable since few studies have examined promotion as a facet of job satisfaction in relation to training.

Mustapha and Zakaria (2013) conducted a study whose main objective was to determine the influence promotion opportunities has on job satisfaction. The study population was 320 lecturers working in public universities in Kelatar, Malaysia. Data was collected using a questionnaire and SPSS used for data analysis. The study showed a positive co-relation between promotion opportunities and training ( $r= 0.590$ ,  $p= 0.000$ ).

This is similar to a study carried out by Khan and colleagues in Pakistan in 2012. The study aimed at determining the impact of job satisfaction on employee's performance. It involved health care workers working at autonomous health facilities in Pakistan. 200 participants took part in the research and they involved included: doctors, nurses, and administration and accounts personnel. The research concluded that different facets of job satisfaction: pay, promotion, supervision, relationship with co-workers and working conditions had a significant relationship with job satisfaction and performance.

### **2.2.3 Formal Continuous Professional development and satisfaction with Supervision**

The influence of supervision on job satisfaction has been highlighted from previous scholars with supervision playing an important role in problem solving (Khan *et al.*, 2011). Khan also notes that when supervisors recognizes achievements of their subordinates, it lead to job satisfaction.

Generally, supervision is one of the human resources management tools used to communicate an organizations goal, reinforce good practice and correct any weakness can have an impact on job satisfaction levels of workers. However, this can only be achieved when the supervision is consistence, supportive rather than a fault finding and punitive exercise, aimed at solving specific problems and educational ( WHO, 2006) and feedback given in good time (Mathauer & Imhoff, 2006). Among the healthcare professionals, support supervision plays a significant role as it help improve self-efficacy, promote a sense appreciation and update knowledge (Mathauer & Imhoff, 2006; WHO, 2006).

Manongi and colleagues highlighted the influence of supervision on delivery of quality services among health care workers in a study conducted in the Kilimanjaro region, Tanzania. The study

explored experiences of health care workers in public primary health care facilities on motivation to work, job satisfaction and their frustrations (Manongi *et al.*, 2006). The aim was to identify key areas to be improved with possible impact on delivery of quality services. The study was carried out in three districts of northern Tanzania and involved multi-cadres cadres of health workers in public facilities. Data was collected using focused group discussion from 64 participants. Key areas were on promotion, career progression and supervision, data was further interrogated with interviews from District Medical Officers from respective districts.

The study concluded that while financial incentives are important, it is not sufficient in motivating workers. For healthcare workers, they prioritized support supervision, career progression and promotion opportunities as major motivators to delivery of quality services.

The issue of influence of CPD on satisfaction with supervision was however not given prominence by scholars.

#### **2.2.4 Formal Professional development and satisfaction with Relation with Co-workers**

One of the areas that professional development training focuses on is enhancing the participant's communication, organization and administration skills (Giri *et al.*, 2012, Ndege, 2006). It would be expected that with the enhanced skills, one would be a better team player. Schermerhorn and colleagues highlighted relation with co-workers among the factors that influence job satisfaction (Schermerhorn *et al.*, 2015).

#### **2.2.5 Formal Professional development and satisfaction with Working Conditions**

The working environment is important both in terms of physical structures to ergonomics. For a clinical officer to work optimally, the bare minimums should be met. Environmental factors such as lighting, temperature, noise, ventilation and space are determiners of job satisfaction (Khan *et al.*, 2011). Availability of diagnostic kits, supply of pharmaceutical and non-pharmaceutical commodities, referral and linkage plays a key role for a clinician to be able to arrive at a diagnosis, proper and timely management of patient and assess to specialized services. All this improve patient management outcomes and satisfaction. It is not therefore surprising that working condition has been fronted as one of the most significant factors of job satisfaction and strong predictor of how satisfied an employee is with the job (Khan & Aleem, 2014).

### **2.3.0 Effect of the Age, Gender, Education level and Job Grade on Job Satisfaction**

The confounding variables addressed in this study are Age, Gender, job grade and Education level. The researcher reviewed previous literature that examined the effect of the mentioned variables on job satisfaction.

#### **2.3.1 Effect of Age on Job Satisfaction**

There are conflicting findings and opinions on the relationship of age and job satisfaction among employees while some studies said to be biased due to a small sample size or use of employees in the same occupation and organization. Five different types of relationship have been reported; Positive linear, Negative linear, U-shaped, Inverted U-shaped or U-inverted J-shaped and no significant relations (Bernal *et al.*, 1998). In overall job satisfaction, observed age differences has been observed greater compared to those associated with other factors like gender, income, education or ethnic background (Clark, 1993; Waever, 1980; as cited by Clark *et al.*, 1996). In the early years of employment, one is young, energetic and the assumption would be they have less responsibly thus they may report high levels of job satisfaction due to the financial freedom that comes with employment. Clark and colleagues poise that morale goes down within the first five years of work and it's at lowest during the late twenties and early thirties after which it raises steadily. This supports the U-shaped relation indicating that older people reports higher levels of satisfaction than younger people.

In another study in Great Britain, Clark and others (2006) examined if job satisfaction and age had a U-Relation. The study used data collected during first wave (1999) of the Britain Household Panel Survey (BHPS) and investigated 5,192 participants aged 16 to 65+ years. The instruments used were interviews at the participant's home where they responded to questions on: composition of their households, family background, personal employment characteristics and finances, history and attitudes, feelings of happiness and general mental health. Job satisfaction was assessed in three forms; satisfaction with pay, overall job satisfaction and work itself. Participants responded to how they feel satisfied or dissatisfied with the seven specific facets of their job in a scale of 1 to 7. Administering a General Health Questionnaire assessed mental health. Data was analyzed using factor analysis indicating high levels of overall job satisfaction among respondents in their early years, which decreases with age and later raises to

its maximum 60 years and above. The data posted a weak relation with women alone as compared to men who reported as being satisfied

### **2.3.2 Effect of Gender on Job Satisfaction**

Women have shown to be more satisfied with their work compared to their male counterparts. This could be explained in terms of their low expectations from their jobs as a result of low positions they have traditionally held in the labor market (Nguyen *et al.*, 2003). Different studies have attempted to explain the relationship between gender and job satisfaction and some explore the possibility of age, working shift and education level as having a role in determining the relationship. Galdeano (2003) however, conducted an empirical study to explore this relationship while accounting for potential biases that may influence gender like personal and job characteristics, selection criteria in a study and reliance on single method of inference.

The data used in the study was collected from 1-8 waves of British Households Panel Survey (BHPS), covering the period 1991-1998 in Great Britain. The study used three selection step criteria to form the final sample size 33,857; 1) Individuals aged 18 - 65 years were included 2) Self- employed individuals were excluded, 3) Exclusion of Individuals who had one or more variables used in the analyses were missing. Overall Job satisfaction was used where participants were asked to score how satisfied or dissatisfied they were with specific facets of their job in a scale of 1 to 7. Another two measures of job satisfaction were used for satisfaction with pay and work itself. Data was analyzed and different estimation method applied; Parametric Estimation Methods and Propensity score Methods. The study concluded that there was a significance positive effect of being female and job satisfaction.

### **2.3.3 Effect of Education level on Job Satisfaction**

In a longitudinal study conducted in the period, 1972 to 2008 by the National Opinion Research Center indicated of a positive correlation between education level and job satisfaction. The participants of the research were individual's aged twenty five (25) years and above who were on full time or part-time employment during the period of the study. The survey observed high levels of satisfaction at 58% of those who were college graduates, 50% of the one's with some college education while those with high school diploma were 40%.

### **2.3.4 Effect of job grade on Job Satisfaction**

In the public service, the job grade is generally determined by the years of service. This is due to the fact that, the minimum qualification of a profession has a starting job grade and one progress from a junior officer to senior officer with years of services. A clinical officer enters service at job group H and may exist at job group T that is senior most for the cadre (Clinical Officers scheme of Service, 2014). For one to progress from the junior to most senior, one need to have serviced a minimum of 30 years.

Working Tenure is also be used to explain job satisfaction differences. In general, employees who have stayed longer in an organization have a higher level of job satisfaction, because they are more likely to have control over their jobs, perform less routine tasks and have more friends in their immediate work units. (Agho *et al.*, 1993).

### **2. 4.0 Formal CPD Training and Perception towards Job Characteristics**

Job characteristics are those aspects of a job that leads to high levels of satisfaction, performance and motivation (Jex, 2002 p. 117; Redmond, 2012). The Job Characteristics Model proposed by Hackman & Oldham (1980) identified five fundamental characteristics of a job that defines an inwardly motivating job. First is the Task identity, which is the extent to which one can see their work from start to completion. Second is task significance, which is the extent to which ones work is termed as important. Thirdly is the Skill variety, which is extent to which ones work allows one to perform different tasks. Fourth is Autonomy that is the extent to which ones work allows the incumbent to make decision pertaining their work and lastly is Feedback, which is extent to which an employee receives report on his or her performance. These core characteristics leads to three ‘critical positive psychological state’ namely; responsibility for outcomes, experienced meaningfulness and knowledge of results. When these three ‘critical psychological state’ are present in an individual, they lead to positive personal and work outcome which is; internal work motivation, high overall job satisfaction and effectiveness at work, low absenteeism and employee turnover (Judge *et al.*, 2000).

When task identity, task significance and skill variety is enriched, the employees experience an enhanced meaningfulness for their work. A job that poses high autonomy increases experienced responsibility for the work outcomes and finally, a job that gives feedback increases knowledge

of work results by the employee. A job may however, meet the above described core characteristics but the employee(s) are not motivated or satisfied as would be expected. This may be due to individual perception of different job characteristics. As stated by Hackman and Lawler (1971), “it’s not the objective characteristics of the job that affects employee’s job attitude and behavior but how the individual perceives his/her job is the important determinant of the influence of the job on the individuals satisfaction” (Sims *et al.*, 1976). Therefore, employees’ perception of job characteristics plays a key role in determining personal and work outcome.

While numerous research work has been done on job characteristics and its effect on job satisfaction, few have explored the specific attributes and to the best of my knowledge of any that relates the influence of professional development training with each aspect of job characteristic. Moreover, most studies investigate the objective perspective of job characteristic while this study explores the subjective aspect. Consequently, this leads to scanty literature. The literature reviewed below is on relationship between professional training and perception towards: skill identity, skill variety, task significance and Feedback. Also the effect of Age, Gender, education level and job grade on perception towards job characteristics. Due to the few studies the researcher will not look at the above relations in isolation.

Studies on job characteristic have been conducted but in the context of relation with job satisfaction and in a macroscopic way. One of such study is by Khan and colleagues who supported the a positive correlation between work itself and job satisfaction (Khan *et al.*, 2011). Researchers indicated that job satisfaction was adversely influenced by factors like low autonomy, promotion opportunity and lack of security (Guest, 2004; Silla *et al.*, 2005: [as cited by Khan, 2011]).

#### **2.4.1 Effect of Gender, Education level , Age and Job grade on Perception of Job Characteristics**

Women continue to experience obstacles in their working environment due to traditional gender ideologies. A man’s social status and achievement is determined by his education level and type of work while a woman’s rewards and achievement have been isolated in the family realm (Pleck 1977, 1985; Hochschild, 1989; Windle & Dumencil, 1997); as cited by Schieman, 2002. This could explain their low expectations from their jobs as a result of low positions they have traditionally held in the labour market ( Nguyen *et al.*, 2003). In spite women occupying

jobs that are low in autonomy and more routine, they still report more positive job attitudes [Hudson, 1989: as cited by Schieman, 2002]

In the recent past, education and occupation achievements have become expected and normative of women. More women are achieving higher education, holding lucrative positions in the labor market which translates to better socioeconomic status. While different studies give mixed findings on the same, gender influences on the socioeconomic status, work and wellbeing cannot be ignored. Where higher socioeconomic status and good working conditions may have a positive impact on the personal and social aspects of both men and women. Education and working conditions however, may have different structural implications and psychosocial meaning for men and women due to gender influences on work-family demand [Wiley 1991; Simon 1995:as cited by Schieman, 2002].

A study was conducted by Schieman (2002) on the Socio-economic Status, Job Conditions and Well-being: Self- concept explanation and Gender- contingency in Toronto Canada. The aim of the study was to examine what role mastery and self esteem play in relation to job conditions gender, socioeconomic status and well-being. He defined mastery as the ability to be in control of situations and the results in everyday events. He argued poised that self-esteem and sense of mastery have an impact on the physical and emotional well-being of an individual and can be used as resources to cope or avoid stressful situation.

The study involved 1,393 participants aged 18-55 who were employed in paid labor force. Data was collected through face-to-face interview over one year (1990-1991). Data was collected using five research instruments and analysed using ordinary least square regression, pearson correlations and one-tailed test. The findings deduced from this study that is relevant to my work is; There is a positive correlation between gender and subjective job characteristics where jobs that offer greater autonomy help women manage demands from both work and out of work domains while jobs that are not routine and are interesting with a challenging aspects enhance a woman's coping ability with home demands. Consequently, a man's identity may be threatened if they engage in routinized and nonautonomized work especially when their education level is not taken into account.



## **2.5 Relationship between Job satisfaction and Job Characteristics**

The relationship between job satisfaction and perceived job characteristics has extensively been studied. Hackman and Oldham's (1980) Job Characteristic Model proposed job satisfaction an important outcome of an intrinsically enriched job. According to the model, when specific aspects of a job like task identity, task significance and skill variety are enriched, the outcome is positive psychological state such as an increased sense of responsibility and meaningfulness that in turn leads to job satisfaction (Hackman & Oldman, 1980). Nguyen and others (2003) noted that a domain of job characteristics as autonomy is related to job satisfaction where the autonomous a job is, the greater the satisfaction.

One of the earlier studies conducted on the relationship between job satisfaction and job characteristics were by Loher and colleagues, (1985). It was a meta-analysis of 28 studies that aimed to determine the relationship between job satisfaction, job characteristics and employees' outcome. The study went on further to interrogate whether the relationship between job satisfaction and job characteristics is controlled by growth need strength. The study was split into those who's sample were undertaking the same task (N=12) and those performing different tasks (N=16). Job diagnostic survey was used across most of the studies as a measure of job characteristics but there was no instrument was consistently used to measure job satisfaction. The meta-analysis concluded that there was a correlation between job satisfaction and job characteristics index at .39 with the correlation between job satisfaction and each of the task characteristic ranging from .32 and .42 for task identity and autonomy respectively with the growth need strength acting as a moderator. Even though the study contributed greatly towards the area of job satisfaction and job characteristics, there is need to look at more empirical studies and other studies done in developing countries.

In a study by Vawda and Steyn (2014) in South Africa, the researchers sort to determine what influence different aspects of a job has on job satisfaction, depression and stress among white collar workers. They involved 215 respondents in managerial positions for at least 3 years. Three instruments were used in the study; The Job Diagnostic Survey which the participants completed the two parts of the shortened version namely, Job Dimensions Measure that assessed the different aspects of a job. The second part comprised of the General Satisfaction Measure which assessed the overall job satisfaction of an employee. The Becks Depression Inventory was

administered to assess depression while the Perceived Stress Scale assessed stress levels. Data was analyzed using Pearson product moment co-efficient and linear. The results of the study indicated that job characteristics correlated positively and significantly with job satisfaction.

Other studies have also indicated a significant positive correlation between job characteristics and job satisfaction (Ferris & Fried, 1987; Judge *et al.*, 2000; Qaisar *et al.*, 2012; Young *et al.*, 2014) and this study hope to have the same findings.

In a study by Steyn and Vawda (2014) in South Africa, the study investigated the influences of job characteristics on job satisfaction, depression and stress among South African white collar workers. The involved 215 participants who were in managerial positions for at least 3 years. The participants voluntarily consented to participate in the study. Three instruments were used in this study; Job Diagnostic Survey, the participant's filled two parts of the shortened version – the Job Dimension Measure which assessed job characteristic dimensions (skill variety, task identity, skill significance, autonomy and feedback) and the General Satisfactions Measure which assessed the overall degree to which an employee is satisfied or happy with their work. The Becks Depression Inventory and Perceived Stress scale were also administered. The study findings indicated a positive significant correlation of job characteristics with job satisfaction while they correlated negatively with stress and depression.

Kalamawei and colleagues (2015) in Nigeria conducted a study that aimed at determining the level and factors that affect job satisfaction among physicians and nurses. The study was conducted in Federal Medical Centre Yenagoa, Nigeria and involved 240 participants (58 physicians and 182 nurses). The participants completed a structured questionnaire that was used to assess the five (5) domains of job satisfaction:- Salary, benefits, duties, promotions and pay. The study indicated factors like autonomy, recognition for work, relation with co-workers, and supervision as major sources of job satisfaction. To conclude, job satisfaction and job characteristics are positively correlated and have been reported in other studies (Wang *et al.*, 2015; Budor, 2002; Fried & Ferris, 1987).

## **2.6 Theoretical framework**

The study adopted the Two-Factor theory that was developed by Fredrick Herzberg (1959).

### **2.6.1 Herzberg Two-Factor Theory**

The Two- Factor theory was conceptualized by Frederick Herzberg (1959) a behavioral scientist. The theory states that, while the presence of motivators in the workplace increases the level of satisfaction, absence of hygiene factors in the workplace can lead to dissatisfaction. He wanted to understand employee's attitudes and motivation at the workplace. He therefore conducted studies whose objective was to find out which factors were responsible for satisfaction and dissatisfaction at the workplace. From the studies he established that those factors that cause satisfaction which he labeled as 'Motivators' were different those causing dissatisfaction which he called 'Hygiene factors'.

He argued that, while hygiene factors are important as they avoid dissatisfaction, they by themselves do not lead to satisfaction. He defined Motivators as the six 'job contents' which include in order of highest to lower importance as achievement, recognition, work itself, responsibility, advancement and growth (Schermerhorn *et al.*, 2005). Hygiene factors described as 'job context', which include company policy, supervision, working conditions and relation with co-workers/boss (Schermerhorn *et al.*, 2005). Herzberg acknowledged that while the factors causing satisfaction are different from those causing dissatisfaction, they cannot be termed as extreme opposite of each other but rather should be treated as separate entities caused by different facets of work.

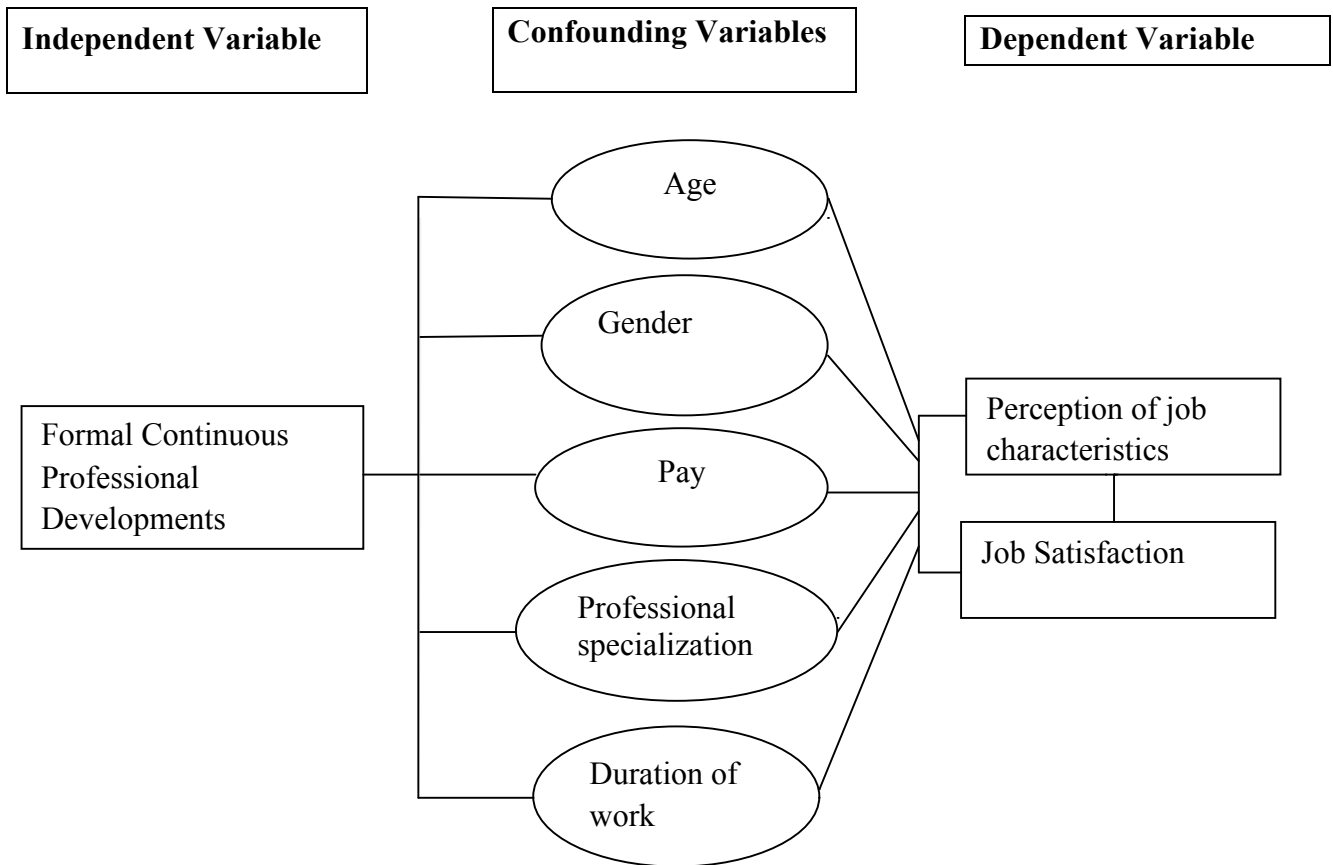
In relation to this study, motivators and hygiene factors are paramount as job satisfaction/dissatisfaction among the clinical officers has an impact on delivery of quality services. The attributes of job satisfaction account for hygiene factors that if enhanced, would contribute to reduced dissatisfaction while aspects of job characteristics constitute the Motivator factors. Presence of motivators leads to increased levels of satisfaction.

In the recent past, the Country has witnessed an increase in frequency of industrial unrest among the healthcare workers where monetary incentives have been used to solve the impasse but can only run for a short- term. The management in health sector must realize that what determines if the healthcare workers are satisfied or no satisfaction are intrinsic to work itself and may not

result from the piece-meal incentives. Using job enrichment, as a continuous management tool would have a greater long lasting impact with is more satisfied workforce.

According to the Two-Factor theory, CPD, Job satisfaction and job characteristics could be said to be intertwined i.e. one of the major role of CPD is to enhance skills, knowledge and competencies. This enhances motivator factor by preparing the professionals for more responsibilities in addition to contributing to their career growth and personal development which in-turn leads to high levels of satisfaction. Consequently, the hygiene factors are enhanced from better relation with co-workers and pay rise that may result from CPD training contributing to reduced dissatisfaction.

## 2.7 Conceptual Framework



## CHAPTER THREE: RESEARCH METHODOLOGY

### 3.0 Introduction

This chapter discusses the research study design that was adopted, sampling method used, study area and target population, research instruments, data collection procedure, data analysis as well as presentation. Ethical considerations is also outlined.

### 3.1 Research Design

The study adopted a mixed method design that involved both quantitative and qualitative approaches. The quantitative method was analytic, cross-sectional in design that analyzed the dependent variables between those who had undergone formal CPD training and those who had not. Qualitative method was from key informants. Data was collected using questionnaires and guided interviews from key informants.

### 3.2 Target Population

The target population was 304 clinical officers working in Nairobi City County's dispensaries and health Centre's on permanent employment for duration of at least three years. The normal duration for promotions is three years, and thus the eligible population must be have been promoted or due for promotions.

#### Table 1: Distribution of Clinical Officers in Nairobi County

The table illustrates the distribution of clinical officers within the Nairobi City County Sub-Counties and the respective health Centre's and dispensary in terms of the total number in a facility versa vie those that were sampled.

Nairobi County Health facilities				
	Stratums (Sub- Counties)	No/o health Facilities	No/o CO's	No. of CO sampled
1	Makadara	5	44	20
2	Langata	4	26	10
3	Westland	5	30	17
4	Kasarani	5	40	16
5	Dagoreti	6	36	9
6	Kamukunji	3	15	5
7	Ruaraka	6	47	13
8	Embakasi West	4	25	7
9	Embakasi East	2	12	8
10	Starehe	8	29	8
<b>Total</b>			<b>301</b>	<b>113</b>

### 3.3 Sample Size

A sample size of 113 clinical officers was used from a population of 304.

..... *Equation 1*

Where

N=Total population size

t =confidence interval (for 95 percent confidence interval t = 1.96),

p=possibility of an event to occur (50%),

q = the possibility of event not to occur (50%),

d =the acceptable error rate during sampling (0.05)

The approach used to determine the sample size for the hospitals and clinical officers in each subgroup/stratum which is proportionate stratification where the sample size of each subgroup/stratum is proportionate to the population size of the subgroup/stratum.

### 3.4 Sampling procedure

Multi-stage sampling was applied to select the sample. Firstly, the sample was clustered into 10 Health Administrative Sub-counties and 60 level II and III health facilities within Nairobi County. Thereafter, the health facilities were selected using probability proportionate to size i.e. the health facilities with more clinical officers had a higher probability of being selected. Consequently, every clinical officer in the selected health facility had an equal chance of being selected.

#### 3.4.1 Quantitative data

Nairobi county public health facilities (dispensaries & health centers) were clustered into the Sub-Counties formerly administrative districts (see appendix IV). These constituted 10 clusters, which were homogenous and mutually exclusive. Every element in the population was assigned to only one cluster and was treated as an independent population.

In each cluster, stratified sampling was used to select the hospitals/health centers and it was in relation to the population size. Finally, clinical officers were randomly selected as respondents from each health facility selected. Sampling was without replacement and each element sampled once.

### **3.4.2 Qualitative data**

Since it dealt with descriptions of data that can be observed but not measured, the key informants were constituted of Sub-County clinical officers and health administrators. Then key informants were selected using purposive sampling method.

## **3.5 Research instruments**

### **3.5.1 Quantitative data**

The research instrument used to collect quantitative data was in form of standardized questionnaire (see Appendix I). Piloting was done at level III and IV health facilities to test the validity and reliability of the research instrument and those who participated were not involved in the actual study. A change on grammatical structuring of the questionnaire was done with the help of linguistic professional to make the questions communicate clearly to the participants.

The questionnaire was divided into four (4) sections. **Section A** recorded demographic information while **Section B** captured information pertaining CPD. In this section, both open and closed questions were used. The unstructured questions gave the respondent the freedom to respond according to the information required, in their own words.

**Section C** had a set of 36 questions which evaluated attributes of job satisfaction and responses were in a Likert scale of 1- 6, with one (1) being strongly disagree and six (6) strongly agree. Satisfaction with pay was evaluated using nine (9) items No. 1, 4,13,19,22,23,28,29 and 32. Promotion was evaluated with five (5) questions No. 2, 10, 11, 20, and 23. Supervision was assessed with five (5) set of questions (No. 3, 9, 12, 21 and 30). Relation with co-workers was assessed with four (4) questions No. 7, 16, 25 and 34. Finally, thirteen (13) questions was used to evaluate satisfaction with work itself (No. 5,6,8,14,15,17,18,24,26,27,31,35,36).

The last part **Section D** had eighteen (18) questions that assessed perceptions of job characteristics. Skill variety was assessed by a set of four (4) questions No. 1, 3, 4 and 5 while task identity was evaluated by question No. 7. Task identity had 6 items (No. 6, 8, 9, 11, 12, 17). Autonomy was scored using four (4) items No. 2, 13, 16 and 18. Finally, feedback had 3 items in No. 10, 14 and 15.



### **3.5.2 Qualitative data**

Key informant interview guide was used (see appendix II). The key informants were drawn from the sub-county clinical officer in-charges and health administrators. The results were analyzed for the common theme.

## **3.6 Data collection procedure**

### **3.6.1 Quantitative data**

The researcher with the help of assistants administered the questionnaires to the sampled clinical officers in Nairobi County public health facilities (Dispensaries & Health Centers). The research assistants were taken through basic training on administration of questionnaire.

### **3.6.2 Qualitative data**

The researcher interviewed the clinical officer's experts and administrators who in their day-to-day activities are in charge of the welfare of the clinical officers. They had an in-depth understanding of the job satisfaction and job characteristics of the clinical officers.

## **3.7 Data analysis and presentation**

The section explains procedure used to analyze and present both qualitative and quantitative data.

### **3.7.1 Quantitative data**

Both descriptive as well as inferential statistics was analyzed. Descriptive statistics such as the measures of central tendencies, dispersion and frequency distribution was used to summarize the data and to describe the distribution of the sample.

Similarly, the inferential statistics such, Pearson's correlation, multiple regression as well as t-test was used to infer the sample results to the population. Pearson's correlation co-efficiency was used to analyze the relationship of CPD and perception towards job characteristics and job satisfaction (Objective I and II). T-test was used to test for independency of mean objective I, II and III while multiple linear regression was used to analyze the association's between professional training, confounding variables and the different attributes of job satisfaction and job characteristics respectively. Analyzed quantitative data was presented using tables, graphs and charts

### **3.7.2 Qualitative data**

Qualitative data was analyzed in relation to the themes that were emerging from the quantitative data regarding job characteristics and job satisfaction among the health workers. This data was used mainly to compliment quantitative data.

### **3.8 Ethical considerations**

The researcher ensured and maintained confidentiality through the study to meet National as well as international standards of a research evaluation by protecting respondents' identity and participation. Their contacts remained strictly between the researcher and research assistants only to minimize anticipated harm to the subjects. The study involved clinical officers only and patients or any other health profession did not participate.

The researcher vowed to take individual responsibility and consequences of the research for whatever may arise. Clear information and explanation was given to all respondents' on their freedom to participate or withdraw voluntary at any stage of the study. The authority to conduct research was obtained from relevant authorities. Besides these basic research ethics requirements, the study took to uphold the highest ethical and professional standards.

## CHAPTER FOUR: RESULTS

### 4.0 Introduction

The chapter contains the presentation of results and their interpretation. It begins with the presentation of the response rate, the demographic characteristics of the respondents and then the next section then presents the inferential results, in relation to the research objectives which were to:

1. examine the relationship between Formal Continuous Professional Development (CPD) training and perception of job characteristics among clinical officers in Nairobi County
2. investigate the relationship between formal continuous professional development (CPD) training and overall job satisfaction among clinical officers in Nairobi County
3. establish the association between job satisfaction and perception towards job characteristics as a result of having gone through formal CPD among Clinical Officers within Nairobi County

### 4.1 Response rate

The total respondents were 113 were successfully reached during the interviews stage of the research.

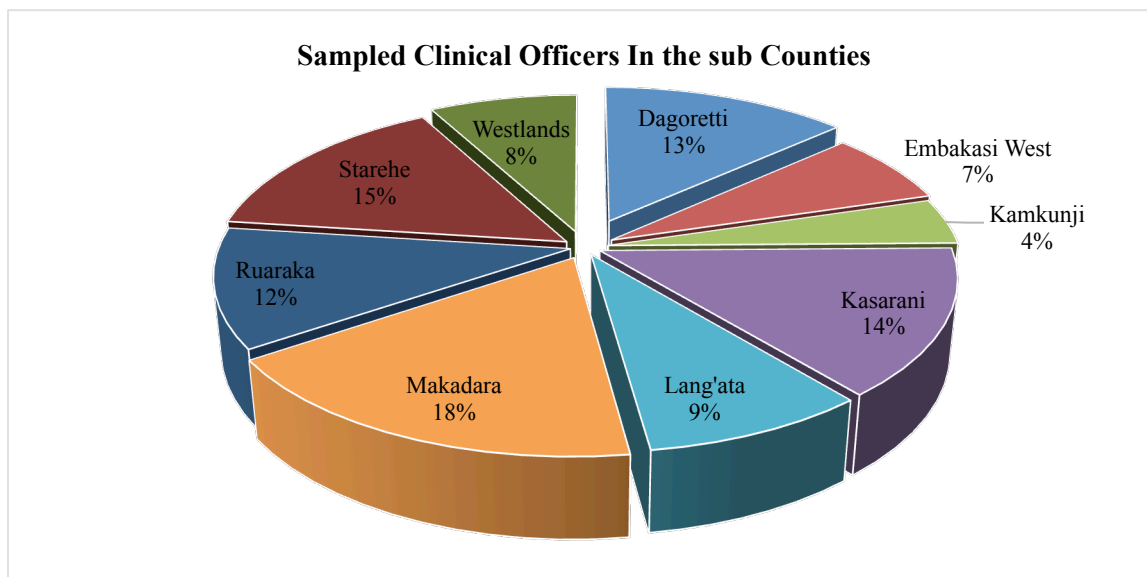


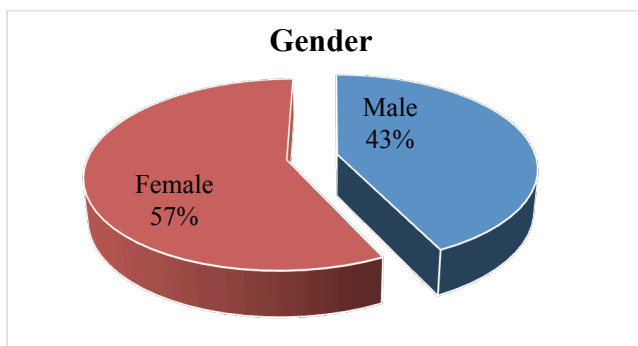
Figure 1: Response rate

The response rate shows that 18% (n=20), 9% (n=10), 14% (n=16), 4% (n=5), 7% (n=8), 13% (n=15), 8% (n=9), 15% (n=17) and 12% (n=13) of the respondents were from health facilities within Makadara, Langata, Kasarani, Kamukunji, Embakasi West, Embakasi East, Dagoreti, Westland's and Ruaraka Sub Counties respectively.

## 4.2 Demographics

Demographics give the quantifiable characteristics of a given population that is the study size, structure, and distribution of these populations. The responses are as stated below.

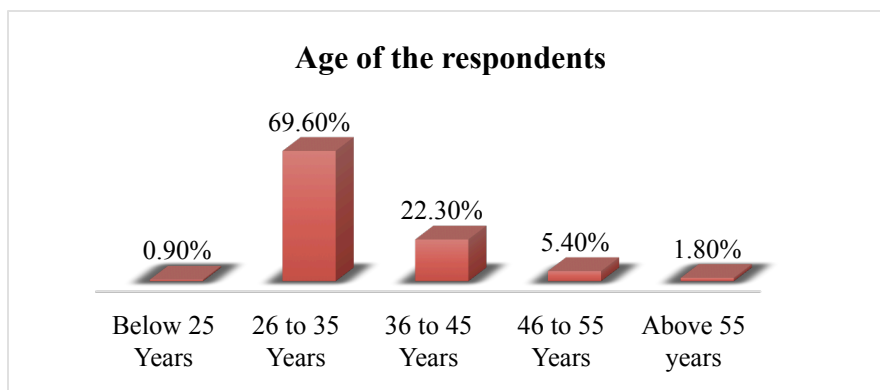
### 4.2.1 Gender of the respondents



**Figure 2: Gender of the respondents**

Figure 2 shows that from the total number of the respondents, 43% are male whereas 57% are female. This implies that majority of the respondents are female

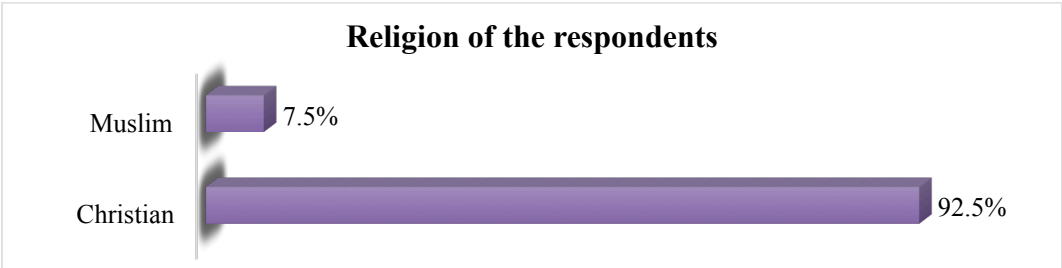
### 4.2.2 Age of the respondents



**Figure 3: Age of the respondents**

Figure 3 shows that 69.6% of the respondents were between 26 to 35 years of age, 22.3% were between 36 to 45 years, 5.4% were between 46 to 55 years, 0.9% have ages between below 25 years and 1.8% those above 55 years. This indicates that majority of the respondents were between ages of 26 to 35 years.

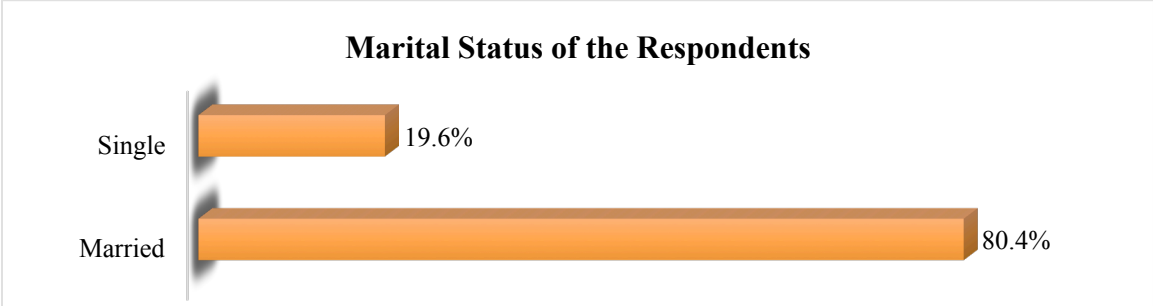
**4.2.3 Religion of the respondents**



**Figure 4: Religion of the respondents**

Figure 4 shows a bigger proportion of respondents 92.5% were Christians and Muslims were minority respondents representing 7.5%.

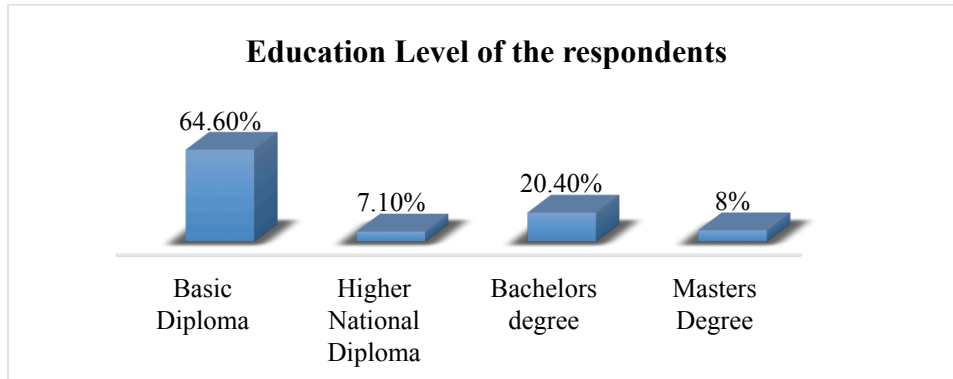
**4.2.4 Marital status of the respondents**



**Figure 5: Marital status of the respondents**

Figure 5 shows that most of respondents 80.4% were married and the clinical officers who were single were the minority of the respondents representing 19.6%.

#### 4.2.5 Education level of the respondents



**Figure 6: Education level of the respondents**

Figure 6 shows that 64.6% of the respondents had a basic diploma level of education, 7.1% had a higher national diploma, 20.4% had a bachelor's degree, while 8% had a master's degree. This implies that majority of the clinical officers have attained high level of education of a basic diploma.

#### 4.2.6 Departments the respondents work in

**Table 2: Departments the respondents work in**

Departments	
Outpatient	77.9%
Special Clinic	10.6%
Program	1.8%

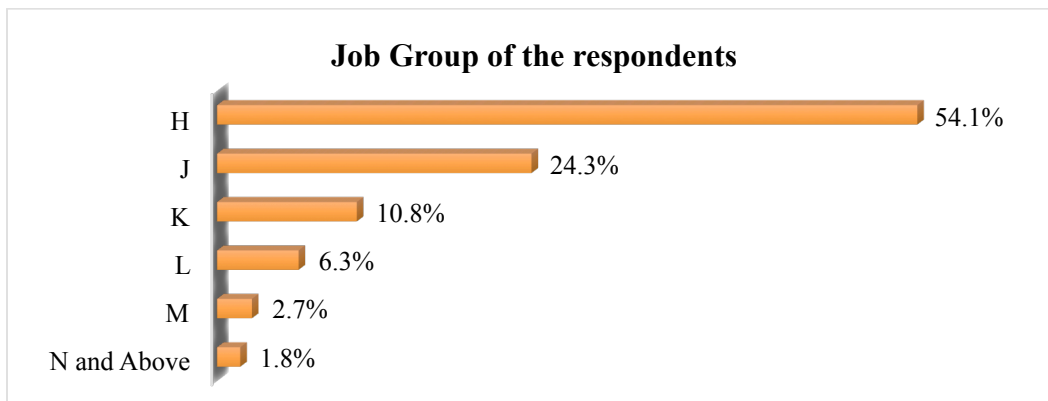
Table 1 shows that 82.7% of the respondents were from outpatient departments, 10.7% were from the special clinic and 6.7% were on a program. This implies that majority of the clinical officers were in the outpatient department.

Further, the specific departments that the clinical officers who are on special clinic and on the program are as shown in the table below:

**Table 3: Specification of the departments**

Department	Specification of the department
Special Clinic	HIV Clinic (CCC)
	Geriatrics
	Anesthesia
	Teaching
	Reproductive health
	E.N.T
	Skin Clinic
Program	Malaria program
	USAID

**4.2.7 Job group of the respondents**



**Figure 7: Job group of the respondents**

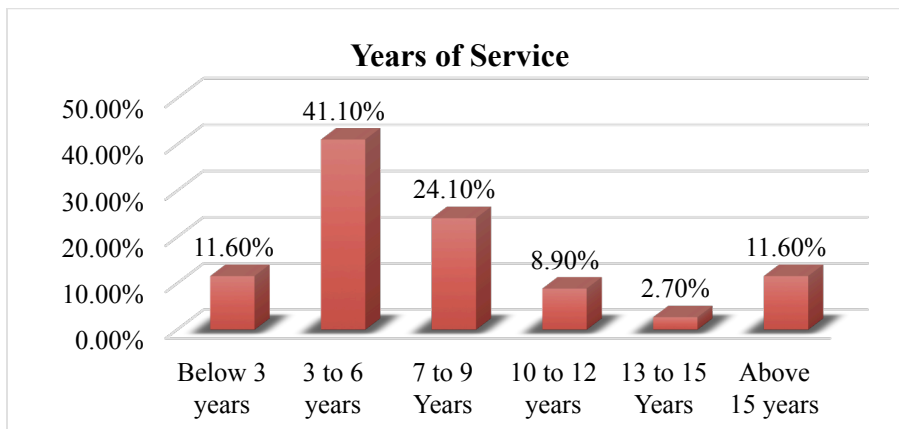
Figure 7 shows that 1.8% of the respondents were of job group N and above, 10.8% from job group K, 2.7% were of job group M, 6.3% had a job group L, and 24.3% had a job group J whereas 54.1% were of job group H. This implies that majority of the clinical officers were in Job group H

**Table 4: Length of working in the current Job group**

Length of working in the current Job group		
Between 2 and 3 Years	29	26.6%
3 to 6 Years	64	58.7%
7 to 9 Years	10	9.2%
Above 10 Years	6	1.5%

Table 3 shows that 26.6% of the respondents have been in their current job groups for between 2 and 3 years, 58.7% have been in the current job group for between 3 to 6 years, 9.2% have been in the current job group for between 7 to 9 years and 1.5% have been in their current job groups for more than 10 years. This implies that majority of the clinical officers have been in their current job groups for 3 to 6 years.

#### 4.2.8 Years of service of the respondents



**Figure 8: Years of service of the respondents**

Figure 8 shows that 11.6% of the respondents were below 3 years in service, 41.1% having between 3 years to 6 years, 24.1% having between 6 years to 9 years, 8.9% having between 9 years to 12 years, 2.7% having between 12 years to 15 years and finally 11.6% having above 15 years of service. This implies that majority of the clinical officers had worked for between 3 years to 6 years

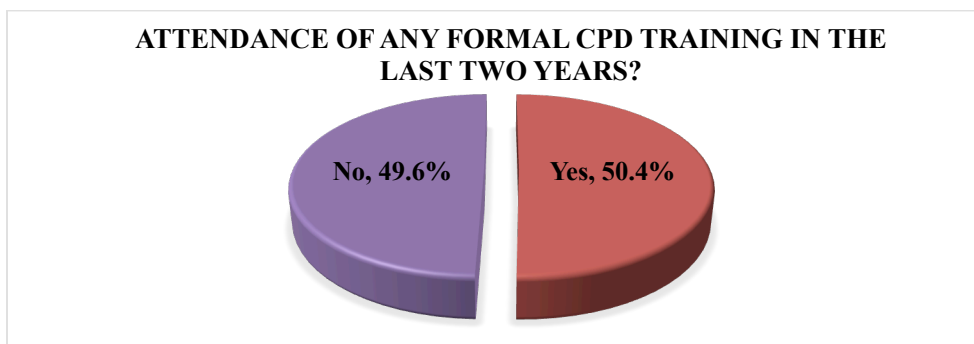


### 4.3 Formal continuous professional Development Trainings (CPD)

Formal professional development training is structured continuing education that is held in formal educational environment for health professional focusing on enhancing roles and competences, communication, medical ethics, training, research and administration. Among the clinical officers in Nairobi County, we sought to find out if they have attended any Formal CPD training in the last two years and the responses were as below:

#### 4.3.1 Attendance to development training

The respondents were asked if they have attended a formal professional training in the last two years

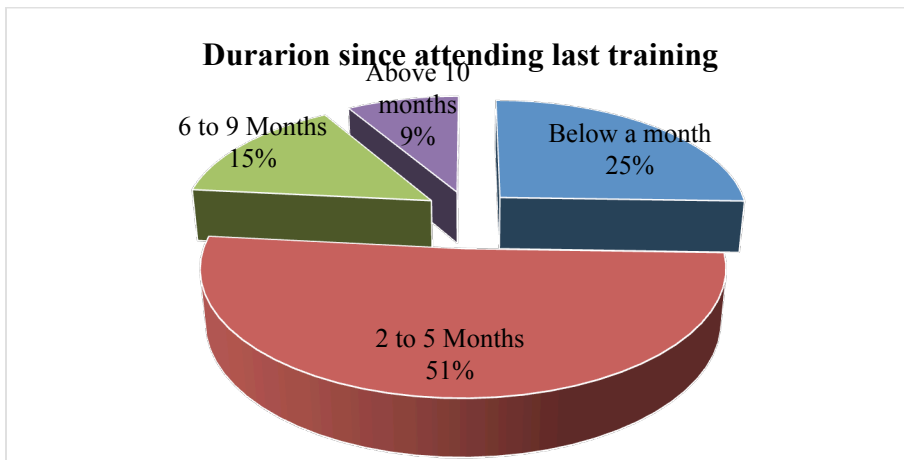


**Figure 9: Attendance of formal CPD training in the last two years**

Figure 9 shows that most of the clinical officers 50.4% have attended the formal CPD training and the clinical officers who have not attended the formal CPD training were the minority of the respondents representing 49.6%.

#### 4.3.2 Duration since attending last training

Similarly, those who said Yes, responded to how long ago they had attended the training as follows:

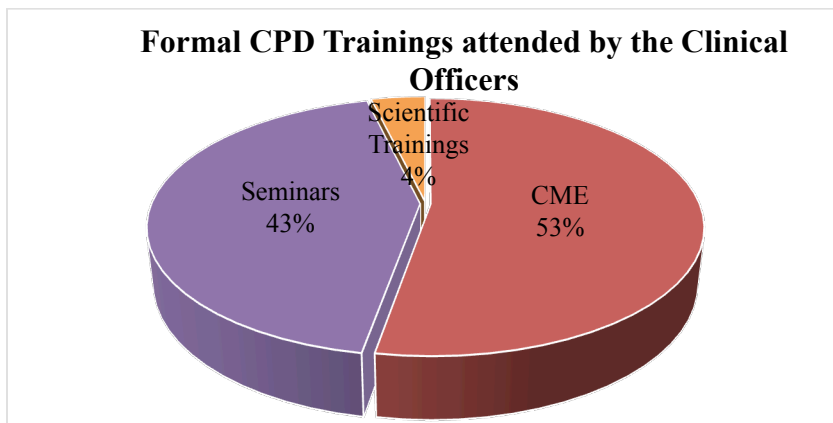


**Figure 10: Length of the CPD training**

Figure 10 shows that majority of the clinical officers 51% attended a training 2 to 5 months ago, followed by those who attended a month and below ago at 25%, then those who attended between 6 to 9 months ago at 15% and the least 9% being the clinical officers who attended the formal CPD training 10 months and above ago.

#### 4.3.3 Types of trainings

The type of the formal CPD training they attended is as below:



**Figure 11: The Formal CPD trainings that the Clinical Officers attended**

Figure 11 show that 52.8% of the respondents attended the CMEs, whereas 43.4%, 3.85 attended seminars and scientific conference respectively. However, some clinical officers had not attended any training in the last 2 years.

Their responses for not attending were as below:

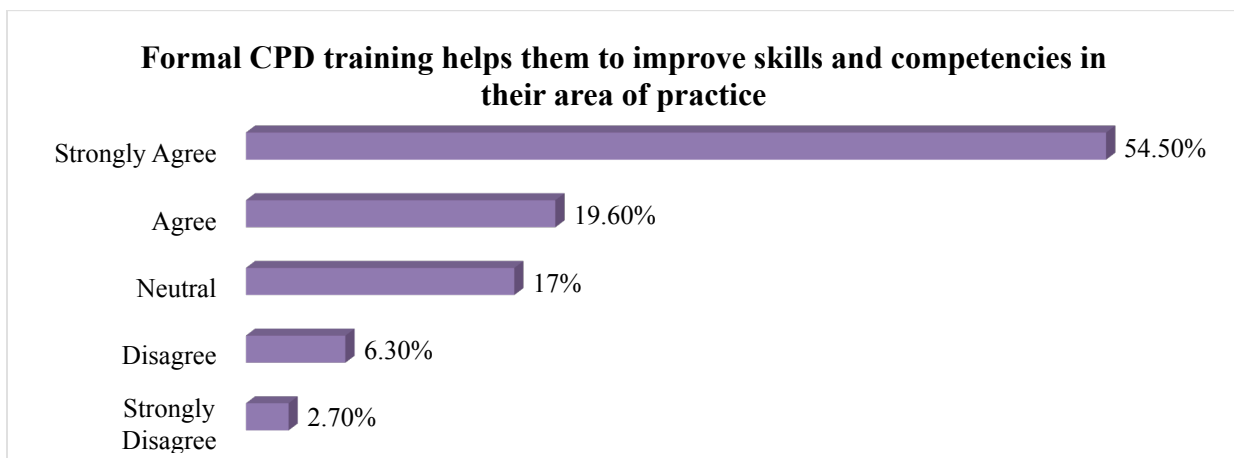
- i. Lack of adequate space for attendance
- ii. No training offered
- iii. Did not get a chance
- iv. Not been provided with a chance and most training goes for a shorter period of less than a week
- v. There has not been a relevant training available

#### 4.3.4 Motivations for participating in a development training

One key factor in employee motivation and retention is the opportunity employees want to continue to grow and develop job and career enhancing skills. In fact, this opportunity for employees to continue to grow and develop through training is one of the most important factors in employee motivation. Therefore, we sought to find out what motivates the clinical officers to attend the formal CPD and the responses were as shown below:

##### 4.3.4.1 Formal CPD training helps them to improve skills and competencies in their area of practice

The clinical officers who felt training helps them enhance skills and competences were as follows:



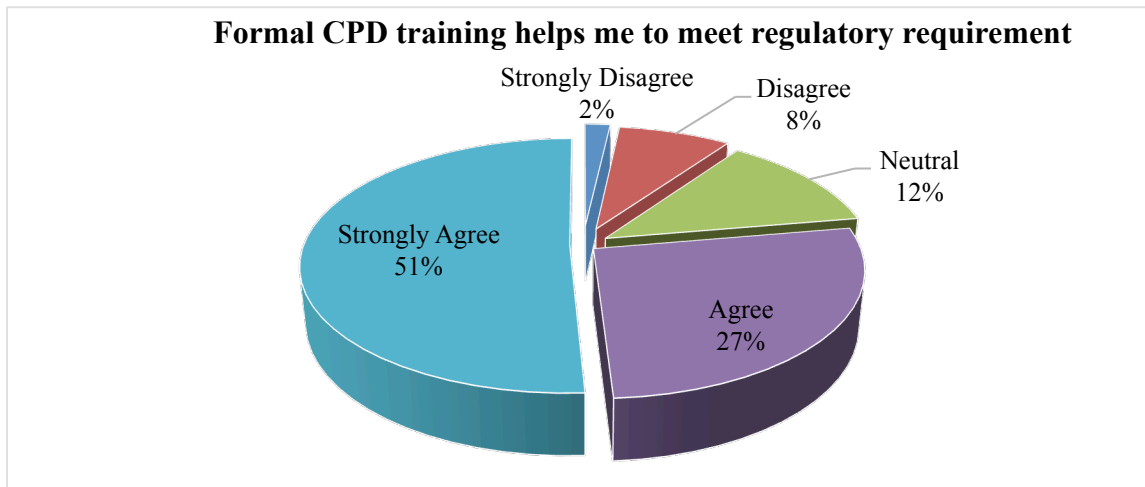
**Figure 12: Formal CPD training helps them to improve skills**

From the figure 12 above, most of the respondents (54.5%) strongly agreed to have attended the Formal CPD training as it helps them to improve their skills and competencies in their areas of

practice. This is then followed by those who agreed (19.6%), then those who were neutral (neither agree nor disagree) (17%) that the Formal CPD training helped them to improve their skills and competencies in their areas of practice. However, 6.3% of the respondents and 2.7% of the respondents disagreed and strongly disagreed respectively that Formal CPD training helped them to improve their skills and competencies in their areas of practice.

#### 4.3.4.2 Formal CPD training helps them to meet regulatory requirement

The response to whether the participants attend development training for licensure was as follows;

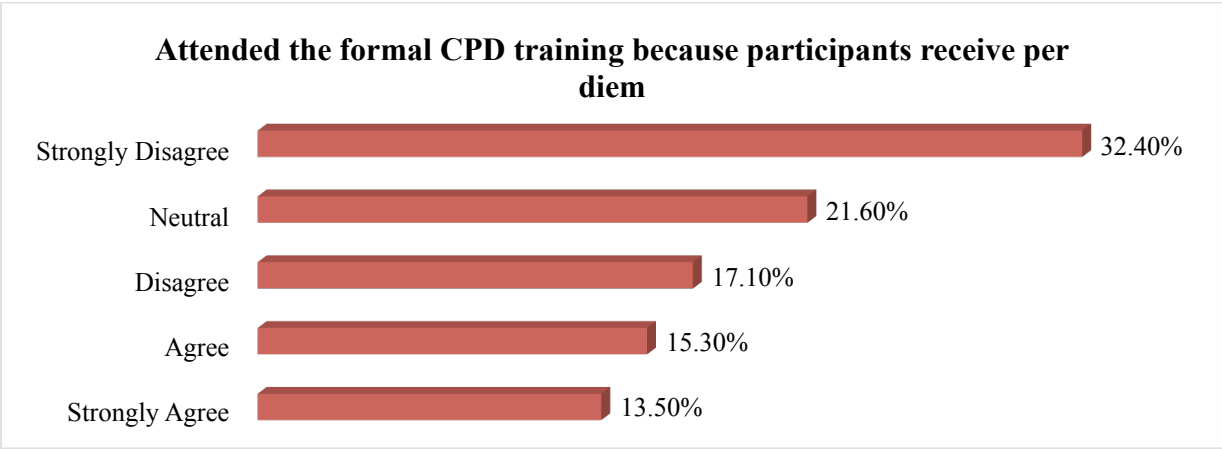


**Figure 13: Formal CPD training helps them to meet regulatory requirement**

Most of the respondents (51%) strongly agreed to have attended the Formal CPD training as the training helps them to meet regulatory requirement as in figure 11 above. Those who agreed (27%) that Formal CPD training helps them to meet regulatory requirement followed by those who were neutral (neither agree nor disagree) at 12% that the Formal CPD training helps them to meet regulatory requirement. However, 8% of the respondents and 2% of the respondents disagreed and strongly disagreed respectively that Formal CPD training helps them to meet regulatory requirement.

#### 4.3.4.3 Attended the formal CPD training because participants receive per Diem

The participants were asked where they attended training for the monetary gains that comes with it in form of per diem and the responses were as follows:

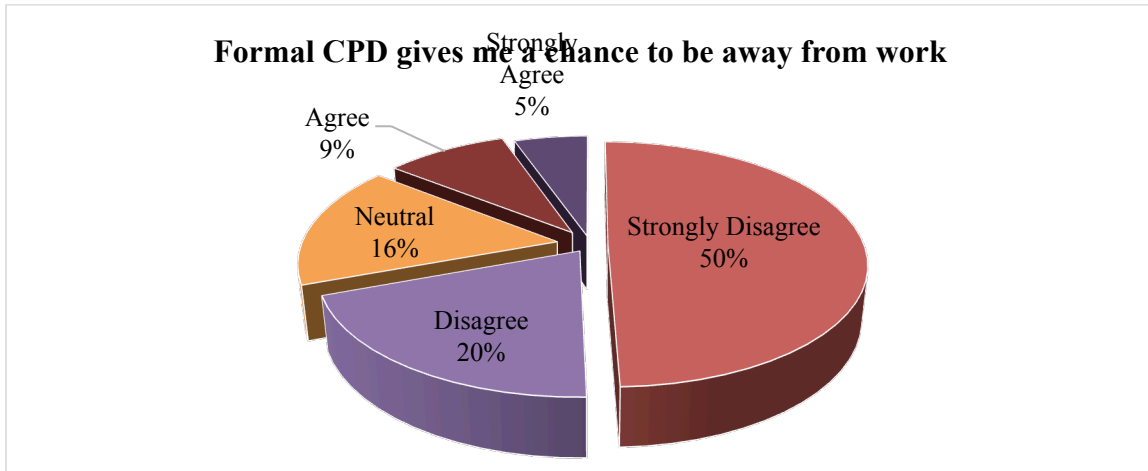


**Figure 14: Attended the formal CPD training because participants receive per diem**

Most of the respondents (32.4%) strongly disagreed to have attended the formal CPD training because participants receive per diem as in figure 12 above. This is then followed by those who were neutral (neither agree nor disagree) (21.6%) that they attended the formal CPD training because participants receive per Diem. Then those who disagreed (17.1%) that they attended the formal CPD training because participants receive per Diem. Finally, 15.3% of the respondents and 13.5% of the respondents agreed and strongly agreed respectively that they attended the formal CPD training because participants receive per diem.

**4.3.4.4 Formal CPD gives me a chance to be away from work**

Another parameter was whether training presented the participants with an opportunity to be away from work.

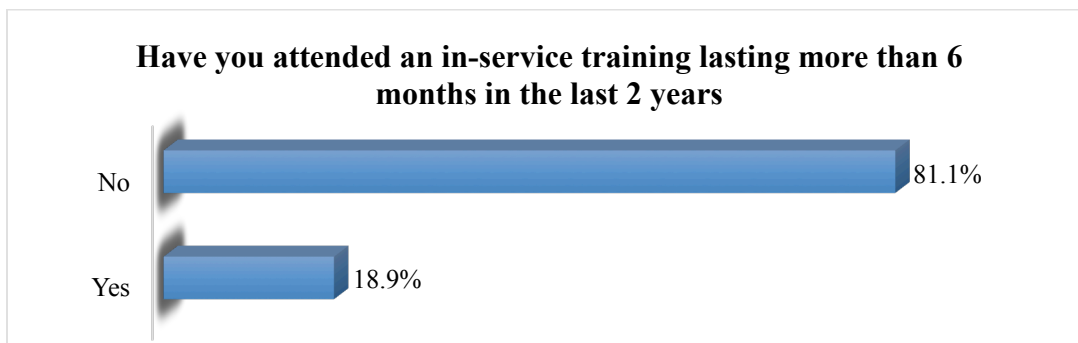


**Figure 15: Formal CPD gives me a chance to be away from work**

From the figure 15 above, most of the respondents (50%) strongly disagreed to have attended the Formal CPD as it gave them a chance to be away from work. This is then followed by those who disagreed (20%) that they attended the Formal CPD as it gave them a chance to be away from work, then followed by those who were neutral (neither agree nor disagree) (16%) in the fact that they attended the Formal CPD as it gave them a chance to be away from work. Finally, 9% of the respondents and 5% of the respondents agreed and strongly agreed respectively that they attended the Formal CPD as it gave them a chance to be away from work.

#### 4.3.5 In service training lasting more than 6 months in the last 2 years

The proportion of the clinical officers who have attended an in-service training lasting more than 6 months in the last 2 years is in the output below.



**Figure 16: Attendance of an in-service training lasting more than 6 months in the last 2 years**

Figure 16 shows that 83% of the clinical officers have not attended the in-service trainings, whereas 18.9% of the clinical officers have attended the in-service trainings lasting more than 6 months in the last 2 years.

**4.3.6 Further, did the trainings have a cost implication?**

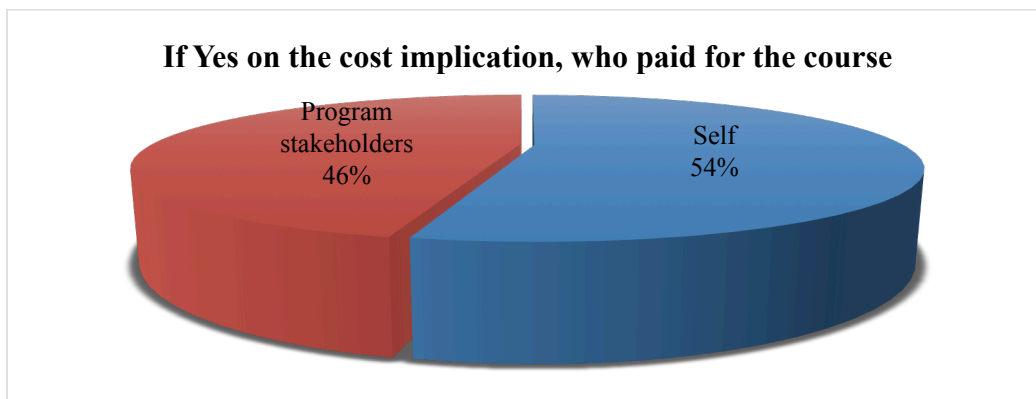
When the clinical officers go for the in-service training lasting more than 6 months, do these trainings have an implication? The response indicated that:

**Table 5: Cost implication on the in-service training**

<b>If yes, did the training have cost implications?</b>	
Yes	72.2%
No	27.8%
Total	100%

Table 6 indicates that most of the in-service trainings, 72.2% have cost implication and a handful of 27.8% of the in-service trainings have no cost implications.

For the clinical officers who had the cost implications, who met the cost is as shown below:



**Figure 17: Who paid for the course**

Figure 17 shows that 54% of the clinical officers who attended the in-service trainings paid for the trainings themselves whereas 46% of the clinical officers who have attended the in-service trainings lasting more than 6 months in the last 2 years had the trainings paid by the program stakeholders.

For the clinical officers who had not attended the in-service trainings lasting more than 6 months in the last 2 years, the reasons were that:

- Cost implication is on me and I couldn't manage as per the timing
- No relevant training lasting more than 6 months
- No opportunity to attend
- Not allowed to be away from duty because of workload
- Policy rendering training on health workers in Nairobi County are not adhered to. Wrong cadres go for right trainings

#### **4. 4 Study objectives**

The main aim of the study is to determine the relationship between formal CPD trainings, job satisfaction and perception to job characteristics among clinical officers in Nairobi County with the focus on the specific objectives whose results, findings and discussions are explained in the following objectives:

1. To investigate the relationship between formal continuous professional development (CPD) training and satisfaction with the different attributes of job satisfaction among Clinical Officers in Nairobi County.
2. To examine the relationship between formal continuous professional development (CPD) training and perception of towards specific attributes of job characteristics among clinical officers in Nairobi County
3. To establish the association between job satisfaction and perception towards job characteristics as a result of having gone through CPD among Clinical Officers within Nairobi County

#### **4.4.0 To examine the relationship between formal CPD trainings and Job Satisfaction among COs in Nairobi County**

The section below discusses both the descriptive and inferential statistics in explaining the relationship between CPD activities and job satisfaction among COs in Nairobi County. Job



satisfaction is decontracted into attribtes which are satisfaction with Remuneration, Promotion, Supervision, Working Conditons and Relation with co-workers.

#### 4.4.1 To examine the relationship between formal CPD trainings and satisfaction with Remuneration

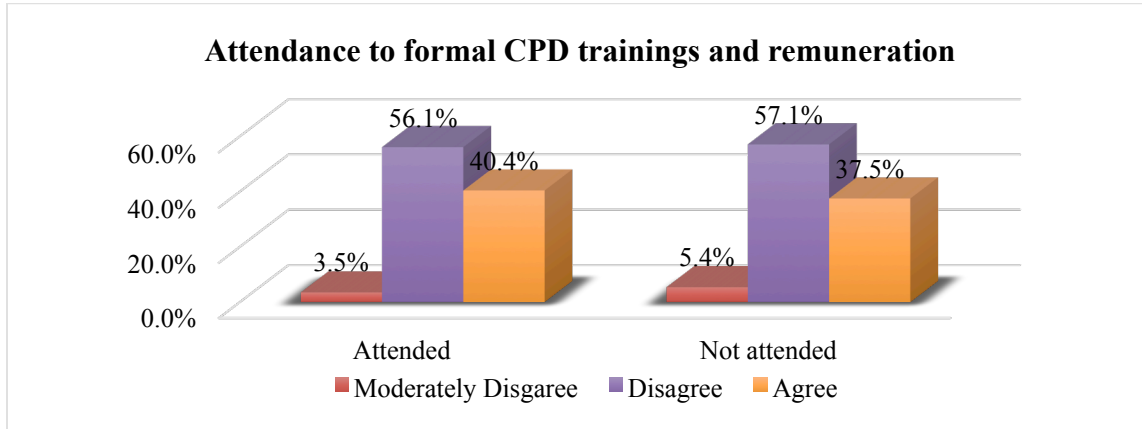
The study aimed at determining whether those who had attended development training had different levels of satisfaction with remuneration from those who had not attended training in the last two year.

**Table 6: Attributes of remuneration**

Remuneration Attributes				
	N	Mean	Std. Deviation	Skewness
I feel I am being paid a fair amount for the work I do.	113	1.79	1.292	1.670
I am not satisfied with the benefits I receive.	111	4.59	1.755	-1.116
The benefits we receive are as good as most other organizations offer.	112	2.25	1.737	1.223
I feel unappreciated by the organization when I think about what they pay me.	111	3.80	2.053	-.293
The benefit package we have is equitable.	109	2.46	1.808	.954
There are few rewards for those who work here.	112	3.69	2.084	-.067
I feel satisfied with my chances for salary increases.	113	2.71	1.874	.633
There are benefits we do not have which we should have.	113	4.87	1.703	-1.223
I don't feel my efforts are rewarded the way they should be.	111	4.54	1.896	-.943

Most of the clinical officers disagreed to having being paid fairly for the work (mean response of  $1.79 \pm 1.292$ ), their pay being are less than other organizations (mean response of  $2.25 \pm 1.737$ ) and also the pay package they receive is not equitable (mean response of  $2.46 \pm 1.808$ ) respectively corresponding to 2 on a Likert scale. However, they were neutral on the chances of salary increases (mean response of  $2.71 \pm 1.874$ ) to 3 on a Likert scale. Similarly, the clinical officers agreed that they feel that there are few rewards for those who work here (mean response of  $3.69 \pm 2.084$ ) corresponding to 4 on a Likert scale. Finally, the clinical officers strongly agreed on not being satisfied with the benefits they receive (mean response of  $4.59 \pm 1.755$ ),

availability of benefits that they do not have which ought to have (mean response of  $4.87 \pm 1.703$ ) and not feeling the efforts are rewarded the way they should be (mean response of  $4.54 \pm 1.896$ ) corresponding to 5 on a Likert scale



**Figure 18: Attendance to formal CPD trainings and remuneration**

**Table 7: Descriptive statistics on the Relationship between Formal CPD and Remuneration**

Descriptive Statistics on Remuneration		
	Attended	Not attended
N	57	56
Mean	3.37	3.32
Median	3.00	3.00
Mode	3	3
Std. Deviation	.555	.575

For the clinical officers that attended the formal CPD trainings, a greater proportion (56.1%) disagreed with the remuneration as is also seen by the mean and standard deviation of ( $3.37 \pm 0.555$ ) whereas 40.4% agreed with the remuneration whereas 3.5% moderately disagreed with the remuneration. While for the clinical officers that had not attended the formal CPD trainings, a greater proportions (57.1%) disagreed with the remuneration as is also seen by the mean and standard deviation of ( $3.32 \pm 0.575$ ) whereas 37.5% agreed with the remuneration whereas 5.4% moderately disagreed with the remuneration.

**Table 8: Chi-square, Pearson correlation and ANOVA test on the relationship between Formal CPD and Remuneration**

<b>Formal CPD and Remuneration</b>					
<b>Chi-Square Tests</b>					
	<b>Value</b>	<b>df</b>	<b>Asymp. Sig. (2-sided)</b>		
Pearson Chi-Square	.282	2	.868		
<b>ANOVA</b>					
	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	.062	1	.062	.195	.660
Within Groups	35.477	111	.320		
Total	35.540	112			
<b>Pearson Correlation</b>					
	<b>Value</b>	<b>N</b>	<b>Sig. (2-tailed)</b>		
Pearson Correlation	-.042	113	.660		

There is no association between formal CPD trainings and remuneration among the clinical officers in Nairobi City County as seen by the chi-square test. ( $\chi^2 = 0.282$ ,  $df = 2$ ,  $p = 0.868$ ). From the correlation, there is a weak negative linear relationship between formal CPD training and remuneration among the clinical officers in Nairobi City County. ( $r = -0.042$ ,  $p = 0.660$ ). Finally, from the ANOVA analysis, there is no statistical difference in the mean of remuneration between the clinical officers who attended and those who never attended the formal CPD trainings ( $F = 0.195$ ,  $df = (1, 112)$ ,  $p = 0.660$ ).

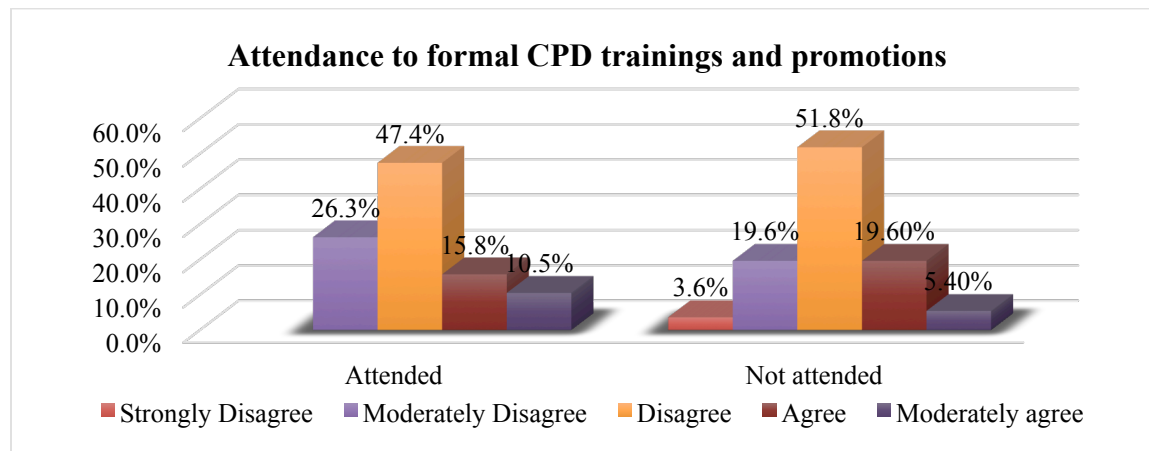
#### **4.4.2 The relationship between formal CPD trainings and Promotions**

The analysis aimed at determining whether there was any significance difference between satisfaction with opportunities for promotion between those who had attended formal development training and those who had not attended in the last two years.

**Table 9: Attributes of Promotions**

Promotions Attributes				
	N	Mean	Std. Deviation	Skewness
There really is too little chance for promotion on my job	112	4.02	1.995	-.427
Raises are too few and far between.	110	3.96	1.832	-.283
Those who do well on the job stand a fair chance of being promoted.	112	2.33	1.624	1.042
People get ahead as fast here as they in other places	111	2.86	1.803	.598
I am satisfied with my chances for promotion.	113	2.25	1.656	1.157

Most of the clinical officers disagreed that those who do well on the job stand a fair chance of being promoted (mean response of  $2.33 \pm 1.624$ ) and dissatisfied with the chances for promotion (mean response of  $2.25 \pm 1.656$ ) corresponding to 2 on a Likert scale. Similarly, they were neutral on People getting ahead as fast here as they in other workplaces (mean response of  $2.86 \pm 1.803$ ) corresponding to 3 on a Likert scale. Finally, the clinical officers agreed that there really is too little chance for promotion on their jobs (mean response of  $4.02 \pm 1.995$ ) and Raises being too few and far between (mean responses of  $3.96 \pm 1.832$ ) corresponding to 4 on a Likert scale



**Figure 19: Attendance to formal CPD trainings and promotion**

**Table 10: Descriptive Statistics on Promotion**

<b>Descriptive Statistics on Promotion</b>		
	<b>Attended</b>	<b>Not attended</b>
N	57	56
Mean	3.11	3.04
Median	3.00	3.00
Mode	3	3
Std. Deviation	.920	.873

For the clinical officers that attended the formal CPD trainings, a greater proportion (47.4%) disagreed with the promotions as is also seen by the mean and standard deviation of (3.11 ± 0.920) whereas 26.3% agreed with the promotions whereas 15.8% agreed with the promotions and finally 10.5% moderately agreed with the promotions. While for the clinical officers that had not attended the formal CPD trainings, a greater proportions (51.8%) disagreed with the promotions as also seen by the mean and standard deviation of (3.04 ± 0.873) whereas 19.6% both agreed and moderately disagreed respectively with the promotions whereas 5.4% moderately agreed with the promotions and finally 3.6% strongly disagreed with the promotions.

**Table 11: Formal CPD and Promotion**

<b>Formal CPD on Promotion</b>					
<b>Chi-Square Tests</b>					
	<b>Value</b>	<b>df</b>	<b>Asymp. Sig. (2-sided)</b>		
Pearson Chi-Square	3.878	4	.423		
<b>ANOVA</b>					
	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	.137	1	.137	.170	.681
Within Groups	89.297	111	.804		
Total	89.434	112			
<b>Pearson Correlation</b>					
	<b>Value</b>	<b>N</b>	<b>Sig. (2-tailed)</b>		
Pearson Correlation	-.039	113	.681		

There is no association between formal CPD trainings and promotion among the clinical officers in Nairobi City County as seen by the chi-square test. ( $\chi^2 = 3.878$ ,  $df = 4$ ,  $p = 0.423$ ). From the correlation, there is a weak negative linear relationship between formal CPD training and promotion among the clinical officers in Nairobi City County. ( $r=-0.039$ ,  $p= 0.681$ ). Finally, from the ANOVA analysis, there is no statistical difference in the mean of promotion between the clinical officers who attended and those who never attended the formal CPD trainings ( $F= 0.170$ ,  $df = (1, 112)$ ,  $p = 0.681$ ).

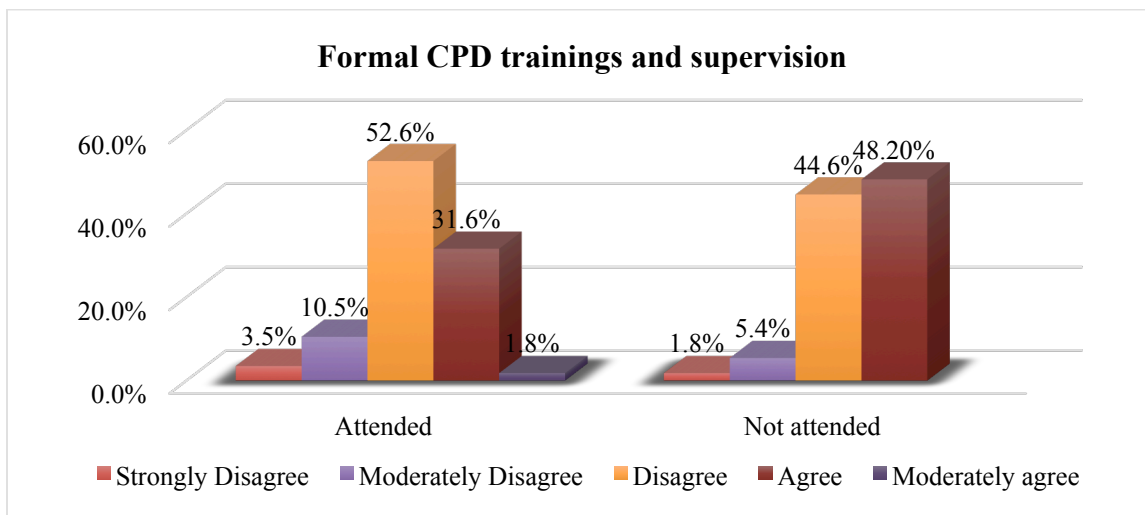
#### 4.4.3 To examine the relationship between formal CPD trainings and satisfaction with Supervision

The study aims to determine whether attending professional development training has an impact on supervision among clinical officer. The researcher highlights the attributes of supervision from the instrument used in data collection.

**Table 12: Attributes of Supervision**

Supervision Attributes				
	N	Mean	Std. Deviation	Skewness
My supervisor is quite competent in doing his/her job.	112	3.77	1.724	-.492
Communications seem good within the organization.	112	3.48	1.542	-.101
My supervisor is unfair to me.	113	2.29	1.286	.563
My supervisor shows too little interest in the feelings of subordinates.	112	2.73	1.489	.456
I like my supervisor.	110	4.04	1.729	-.534

Most of the clinical officers disagreed with the supervisor being unfair (mean response of  $2.29 \pm 1.286$ ) and a corresponding to 2 on a Likert scale. Similarly, they were neutral on supervisor showing too little interest in the feelings of subordinates (mean response of  $2.73 \pm 1.489$ ) and Communications being good within the organization (mean response of  $3.48 \pm 1.542$ ) corresponding to 3 on a Likert scale. Finally, the clinical officers agreed that their supervisor are quite competent in doing their jobs (mean response of  $3.77 \pm 1.742$ ) and liking the supervisor (mean response of  $4.04 \pm 1.729$ ) corresponding to 4 on a Likert scale



**Figure 20: Formal CPD trainings and supervision**

**Table 13: Descriptive statistics on supervision**

Descriptive Statistics on Supervision		
	Attended	Not attended
N	57	56
Mean	3.18	3.39
Median	3.00	3.00
Mode	3	4
Std. Deviation	.782	.679

For the clinical officers that attended the formal CPD trainings, a greater proportions (52.6%) disagreed with the supervision as is also seen by the mean and standard deviation of (3.18 ± 0.782) whereas 31.6%, 10.5%, 3.5% and 1.8% agreed, moderately agreed, strongly disagreed and moderately agreed with supervision respectively. While for the clinical officers that had not attended the formal CPD trainings, a greater proportions (48.2%) agreed with the supervision as is also seen by the mean and standard deviation of (3.39 ± 0.679) whereas 44.6%, 5.4% and 1.8%, disagreed, moderately disagreed and strongly disagreed with the supervision.

**Table 14: Formal CPD and Supervision**

Formal CPD and Supervision					
Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)		
Pearson Chi-Square	4.579	4	.333		
ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.335	1	1.335	2.487	.118
Within Groups	59.603	111	.537		
Total	60.938	112			
Pearson Correlation					
	Value	N	Sig. (2-tailed)		
Pearson Correlation	.148	113	.118		

There is no association between formal CPD trainings and supervision among the clinical officers in Nairobi City County as seen by the chi-square test. ( $\chi^2 = 4.579$ ,  $df = 4$ ,  $p = 0.333$ ). From the correlation, there is a weak positive linear relationship between formal CPD training and supervision among the clinical officers in Nairobi City County. ( $r=0.148$ ,  $p= 0.118$ ). Finally, from the ANOVA analysis, there is no statistical difference in the mean of supervision between the clinical officers who attended and those who never attended the formal CPD trainings ( $F= 2.487$ ,  $df = (1, 112)$ ,  $p = 0.118$ ).

#### **4.4.4 Relationship between formal CPD trainings and Satisfaction with Relation with Co-workers**

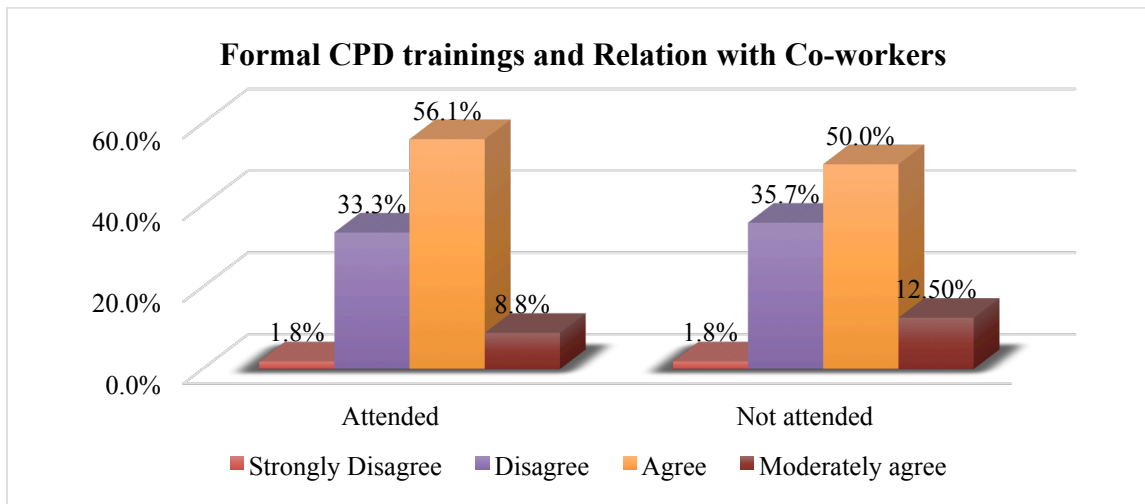
The analysis in this section aims at finding out if attending training has an impact on levels of satisfaction with how they related with other staff at their workstation.



**Table 15: Attributes of Relation with Co-workers**

Relation with Co-Workers Attributes				
	N	Mean	Std. Deviation	Skewness
I like the people I work with.	111	4.31	1.524	-.659
I find I have to work harder at my job because of the incompetence of people I work with.	113	2.88	1.680	.360
I enjoy my coworkers.	110	4.58	1.337	-.930
There is too much bickering and fighting at work.	113	2.65	1.663	.510

Most of the clinical officers were neutral on findings to having to work harder at their jobs because of the incompetence of people they work with (mean response of  $2.88 \pm 1.680$ ) and that there is too much bickering and fighting at work (mean response of  $2.65 \pm 1.663$ ) corresponding to 3 on a Likert scale. Finally, the clinical officers agreed to liking the people they work with (mean response of  $4.31 \pm 1.524$ ) and enjoying the co-workers (mean response of  $4.58 \pm 1.337$ ) corresponding to 4 on a Likert scale.



**Figure 21: Formal CPD trainings and Relation with Co-workers**

**Table 16: Descriptive statistics on relation to co-workers**

<b>Descriptive Statistics on Relation to co-workers</b>		
	<b>Attended</b>	<b>Not attended</b>
N	57	56
Mean	3.70	3.73
Median	4.00	4.00
Mode	4	4
Std. Deviation	.706	.700

For the clinical officers that attended the formal CPD trainings, a greater proportions (56.1%) agreed with their relation to co-workers as is also seen by the mean and standard deviation of (3.70 ± 0.706) whereas 33.3% disagreed with their relation to co-workers whereas 8.8% moderately agreed and finally 1.8% strongly disagreed with their relation to co-workers. While for the clinical officers that had not attended the formal CPD trainings, a greater proportions (50%) agreed with their relation to co-workers as is also seen by the mean and standard deviation of (3.73 ± 0.700) whereas 35.7% disagreed respectively with their relation to co-workers whereas 12.5% moderately agreed with their relation to co-workers and finally 1.8% strongly disagreed with their relation to co-workers.

**Table 17: Formal CPD on relation to co-workers**

<b>Formal CPD on Relation to Co-workers</b>					
<b>Age Chi-Square Tests</b>					
	<b>Value</b>	<b>df</b>	<b>Asymp. Sig. (2-sided)</b>		
Pearson Chi-Square	2.617	4	.624		
<b>ANOVA</b>					
	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	.026	1	.026	.053	.819
Within Groups	54.912	111	.495		
Total	54.938	112			
<b>Pearson Correlation</b>					
	<b>Value</b>	<b>N</b>	<b>Sig. (2-tailed)</b>		
Pearson Correlation	.022	113	.819		

There is no association between formal CPD trainings and relation to co-workers among the clinical officers in Nairobi City County as seen by the chi-square test. ( $\chi^2 = 2.617$ ,  $df = 4$ ,  $p = 0.624$ ). From the correlation, there is a weak positive linear relationship between formal CPD training and relation to co-workers among the clinical officers in Nairobi City County. ( $r=0.022$ ,  $p= 0.819$ ). Finally, from the ANOVA analysis, there is no statistical difference in the mean of relation to co-workers between the clinical officers who attended and those who never attended the formal CPD trainings ( $F= 0.053$ ,  $df = (1, 112)$ ,  $p = 0.819$ ).

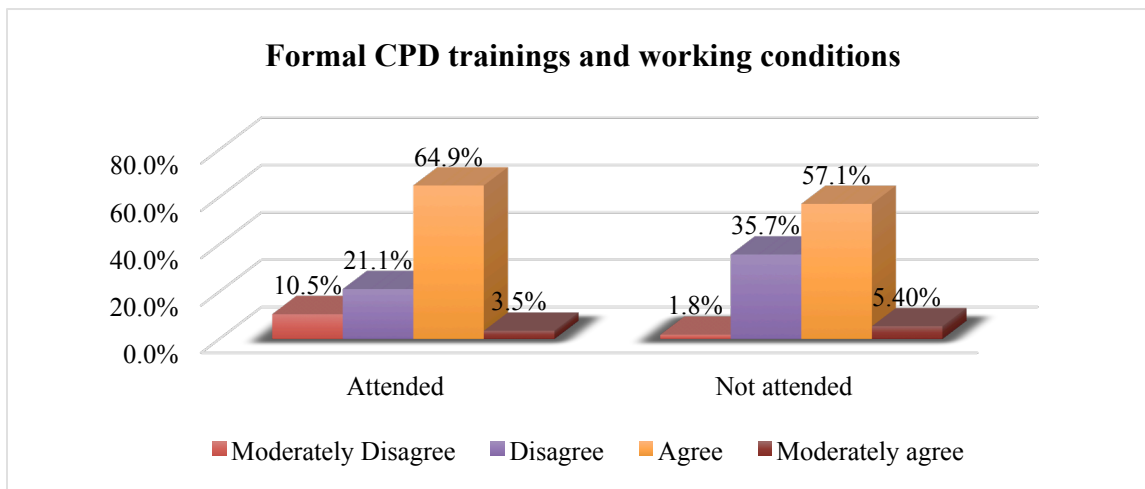
#### 4.4.5 Relationship between formal CPD training and Satisfaction with Working Conditions

The study aimed at examining if attending training or not attending could influence the levels of satisfaction with working conditions.

**Table 18: Attributes of Working Conditions**

Working Conditions Attributes				
	N	Mean	Std. Deviation	Skewness
When I do a good job, I receive the recognition for it that I should receive.	112	2.14	1.599	1.257
Many of our rules and procedures make doing a good job difficult.	109	3.43	1.729	.096
I sometimes feel my job is meaningless.	110	3.11	1.672	.340
I do not feel that the work I do is appreciated.	113	4.31	1.748	-.620
My efforts to do a good job are seldom blocked by red tape.	111	3.68	1.466	-.301
I like doing the things I do at work.	109	4.21	1.650	-.685
The goals of this organization are not clear to me.	112	2.73	1.554	.635
I have too much to do at work.	113	4.31	1.653	-.762
I often feel that I do not know what is going on with the organization.	112	2.95	1.849	.463
I feel a sense of pride in doing my job.	113	4.45	1.727	-.854
I have too much paperwork.	112	3.68	1.851	-.097
My job is enjoyable.	113	4.49	1.458	-.826
Work assignments are not fully explained.	113	3.42	1.826	.052

Most of the clinical officers disagreed to receive the recognition for it that they should receive when they do a good job (mean response of  $2.14 \pm 1.599$ ), corresponding to 2 on a Likert scale. However, they were neutral on Many of the rules and procedures make doing a good job difficult (mean response of  $3.43 \pm 1.729$ ), sometimes feeling the job as meaningless (mean response of  $3.11 \pm 1.672$ ), the goals of this organization not being clear (mean response of  $2.73 \pm 1.554$ ), often feeling that they do not know what is going on with the organization and working assignments are not being fully explained (mean response of  $2.95 \pm 1.849$ ) corresponding to 3 on a Likert scale. In addition, the clinical officers agreed that they do not feel that the work they do is appreciated (mean response of  $4.31 \pm 1.748$ ), like doing the things they do at work (mean response of  $4.21 \pm 1.650$ ), having too much to do at work (mean response of  $4.31 \pm 1.651$ ), feeling a sense of pride in doing my job (mean response of  $4.45 \pm 1.727$ ) and the job being enjoyable (mean response of  $4.49 \pm 1.458$ ) corresponding to 4 on a Likert scale.



**Figure 22: Formal CPD trainings and working conditions**

**Table 19: Descriptive statistics on working conditions**

Descriptive Statistics on Working conditions		
	Attended	Not attended
N	57	56
Mean	3.61	3.66
Median	4.00	4.00
Mode	4	4
Std. Deviation	.726	.611

For the clinical officers that attended the formal CPD trainings, a greater proportions (64.9%) agreed with their working conditions as is also seen by the mean and standard deviation of (3.61 ± 0.0.726) whereas 21.1% disagreed with their working conditions whereas 10.5% moderately disagreed and finally 3.5% moderately agreed with their working conditions. While for the clinical officers that had not attended the formal CPD trainings, a greater proportions (57.1%) agreed with their relation to co-workers as is also seen by the mean and standard deviation of (3.66 ± 0.611) whereas 35.7% disagreed with their working conditions whereas 5.4% moderately agreed with their relation to co-workers and finally 1.8% moderately disagreed with their working conditions.

**Table 20: Formal CPD on working conditions**

<b>Formal CPD on Working conditions</b>					
<b>Chi-Square Tests</b>					
	<b>Value</b>	<b>df</b>	<b>Asymp. Sig. (2-sided)</b>		
Pearson Chi-Square	6.125	3	.106		
<b>ANOVA</b>					
	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	.062	1	.062	.136	.713
Within Groups	50.062	111	.451		
Total	50.124	112			
<b>Pearson Correlation</b>					
	<b>Value</b>	<b>N</b>	<b>Sig. (2-tailed)</b>		
Pearson Correlation	.035	113	.713		

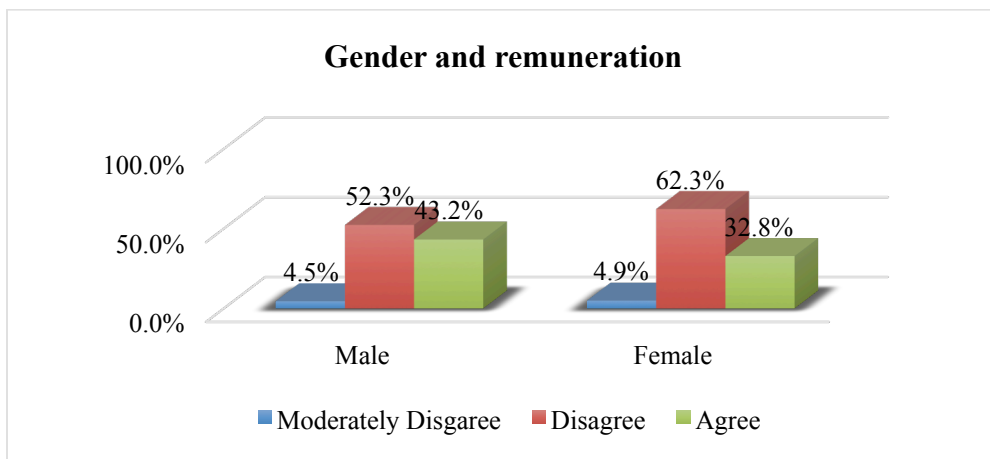
There is no association between formal CPD trainings and working conditions among the clinical officers in Nairobi City County as seen by the chi-square test. ( $\chi^2 = 6.215$ ,  $df = 3$ ,  $p = 0.106$ ). From the correlation, there is a weak positive linear relationship between formal CPD training and working conditions among the clinical officers in Nairobi City County. ( $r=0.035$ ,  $p= 0.713$ ). Finally, from the ANOVA analysis, there is no statistical difference in the mean of working conditions between the clinical officers who attended and those who never attended the formal CPD trainings ( $F= 0.136$ ,  $df = (1, 112)$ ,  $p = 0.713$ ).

#### 4.4.6 Relationship between the confounding variables and Satisfaction with Remuneration

The researcher aimed to determine which confounding variable in the study were a predictor of job satisfaction. In the study, job satisfaction aspects addressed are satisfaction with remuneration, promotion, supervision, relation with co-workers and working conditions while the confounding variables are Gender, Age, Educational Level and Job Group.

##### 4.4.6.1 Relationship between Gender and Satisfaction with Remuneration

The aim was to find out whether gender was a predictor in satisfaction with remuneration.



**Figure 23: Gender and remuneration**

**Table 21: Descriptive statistics on the Relationship between gender and Remuneration**

Descriptive statistics		
	Male	Female
N	44	61
Mean	3.39	3.28
Median	3.00	3.00
Mode	3	3
Std. Deviation	.579	.552

Most of the male CO's (52.3%) disagreed with the remuneration they receive as is also seen by the mean and standard deviation of  $(3.39 \pm 0.579)$  whereas a fraction 43.2% agreed with the

remuneration they receive whereas 4.5% moderately disagreed with the remuneration. While for the female clinical officers, a greater proportion (62.3%) disagreed with the remuneration as also seen by the mean and standard deviation of  $(3.28 \pm 0.552)$  whereas 32.8% agreed with the remuneration whereas 4.9% moderately disagreed with the remuneration.

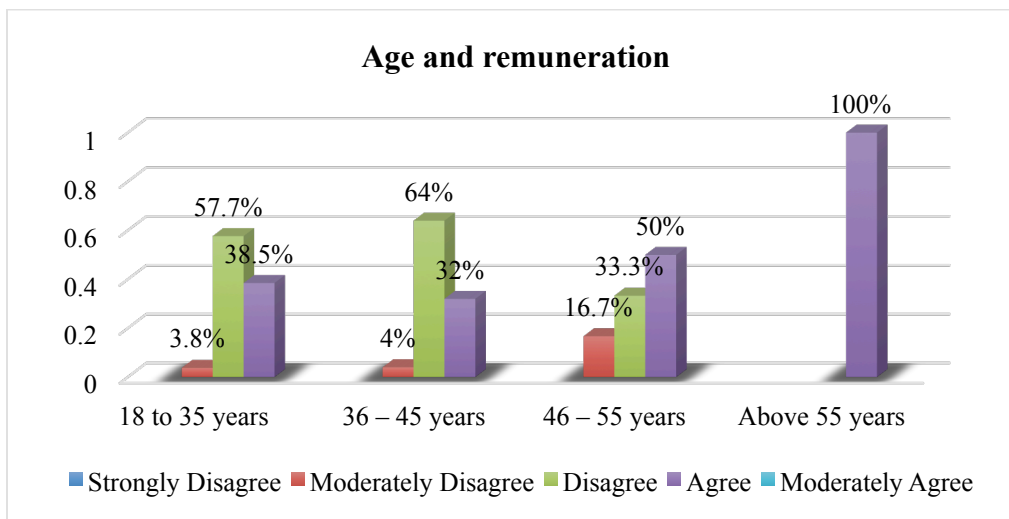
**Table 22: Chi-square, Pearson correlation and ANOVA test on the relationship between gender and Remuneration**

Gender and Remuneration					
Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)		
Pearson Chi-Square	1.193	2	.551		
ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.290	2	.145	.586	.558
Within Groups	25.271	102	.248		
Total	25.562	104			
Pearson Correlation					
	Value	N	Sig. (2-tailed)		
Pearson Correlation	-.095	105	.336		

There is no significant association between gender and remuneration among the clinical officers in Nairobi City County as seen by the chi-square test. ( $\chi^2 = 1.193$ ,  $df = 2$ ,  $p = 0.551$ ). From the correlation, there is a weak negative linear relationship between gender and remuneration among the clinical officers in Nairobi City County. ( $r = -0.095$ ,  $p = 0.336$ ). Finally, from the ANOVA analysis, there is no significant statistical difference in the mean of remuneration between the male and female clinical officers ( $F = 0.586$ ,  $df = (2, 104)$ ,  $p = 0.558$ ).

#### 4.4.6.2 Relationship between Age and satisfaction remuneration

The researcher aimed at determining whether age has an effect on satisfaction with remuneration



**Figure 24: Age and remuneration**

**Table 23: Descriptive statistics**

Descriptive Statistics				
	18 to 35	36 to 45	46 to 55	Above 55
	Years	Years	Years	Years
N	78	25	6	2
Mean	3.35	3.28	3.33	4.00
Median	3.00	3.00	3.50	4.00
Mode	3	3	4	4
Std. Deviation	.554	.542	.816	.000

Most of the CO's between the age of 18 and 35 years (57.7%) disagreed with the remuneration they were receiving as is also seen by the mean and standard deviation of  $(3.35 \pm 0.554)$  whereas a fraction 38.5% agreed with the remuneration they receive and 3.8% moderately disagreed with the remuneration. While for the CO's aged between of 36 and 45 years most of them (64%) disagreed with the remuneration they receive as is also seen by the mean and standard deviation of  $(3.28 \pm 0.542)$  whereas a fraction 32% agreed with the remuneration they receive and 4% moderately disagreed with the remuneration. For the CO's aged between of 46 and 55 years most of them (50%) agreed with the remuneration they receive as is also seen by the mean and standard deviation of  $(3.33 \pm 0.816)$  whereas a fraction 33.3% disagreed with the remuneration they receive and 16.7% moderately disagreed with the remuneration. Finally, for the CO's above



55 years of age, all of them (100%) agreed with the remuneration they receive as is also seen by the mean and standard deviation of (4.00 ± 0.000).

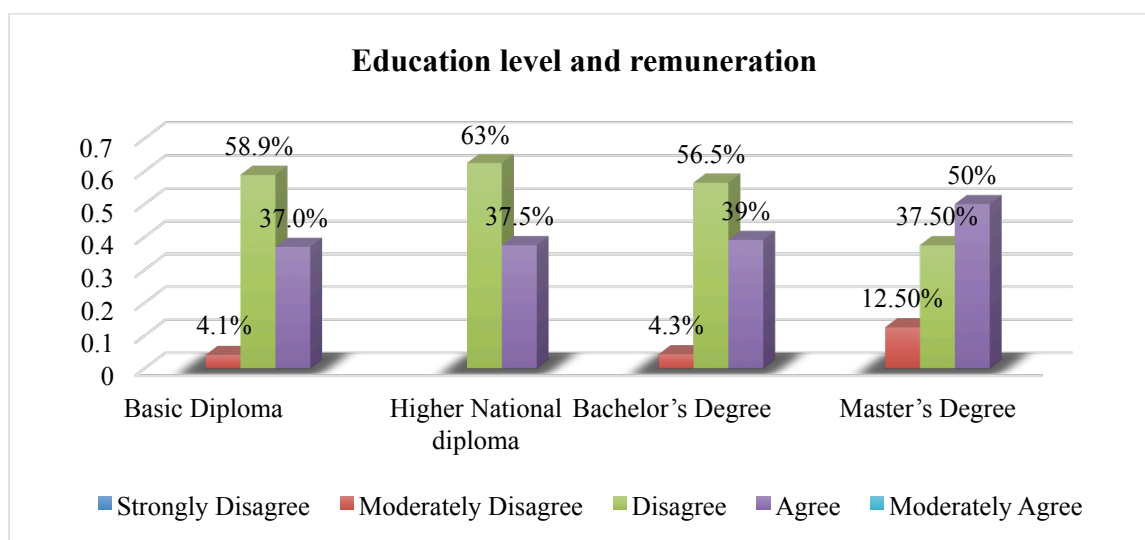
**Table 24: Age and remuneration**

<b>Age and Remuneration</b>					
<b>Age Chi-Square Tests</b>					
	<b>Value</b>	<b>df</b>	<b>Asymp. Sig. (2-sided)</b>		
Pearson Chi-Square	6.536	6	.366		
<b>ANOVA</b>					
	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	.794	2	.397	.865	.424
Within Groups	49.548	108	.459		
Total	50.342	110			
<b>Pearson Correlation</b>					
	<b>Value</b>	<b>N</b>	<b>Sig. (2-tailed)</b>		
Pearson Correlation	.054	111	.571		

There is no association between age and remuneration among the clinical officers in Nairobi City County as seen by the chi-square test. ( $\chi^2 = 6.536$ ,  $df = 6$ ,  $p = 0.366$ ). From the correlation, there is a weak positive linear relationship between age and remuneration among the clinical officers in Nairobi City County. ( $r = -0.054$ ,  $p = 0.571$ ). Finally, from the ANOVA analysis, there is no significant statistical difference in the mean of remuneration between the different ages of the clinical officers ( $F = 0.865$ ,  $df = (2, 110)$ ,  $p = 0.424$ ).

#### **4.4.6.3 The relationship between Education level and satisfaction with remuneration**

While else the minimum qualification to be a clinical officer is a diploma, some have advanced to different specializations up to Masters Level. The study sort to find if there is relationship between those with basic diploma and those who have advanced their studies.



**Figure 25: Education level and remuneration**

**Table 25: Descriptive statistics**

Descriptive Statistics				
	Higher			
	Basic Diploma	National Diploma	Bachelor's Degree	Master's Degree
N	73	8	23	8
Mean	3.33	3.38	3.35	3.38
Median	3.00	3.00	3.00	3.50
Mode	3	3	3	4
Std. Deviation	.554	.518	.573	.744

A greater proportion of the CO's with a basic diploma (57.7%) disagreed with the remuneration they receive as is also seen by the mean and standard deviation of  $(3.33 \pm 0.554)$  whereas a fraction 37% agreed with the remuneration they receive and 4.1% moderately disagreed with the remuneration. While for the CO's with a higher national diploma, most of them (63%) disagreed with the remuneration they receive as also seen by the mean and standard deviation of  $(3.38 \pm 0.518)$  whereas a fraction 37% agreed with the remuneration they receive. For the CO's with a bachelor's degree most of them (56.5%) disagreed with the remuneration they receive as is also seen by the mean and standard deviation of  $(3.35 \pm 0.573)$  whereas a fraction 39% agreed with the remuneration they receive and 4.3% moderately disagreed with the remuneration. Finally, for

the CO's with a master's degree, most of them (50%) agreed with the remuneration they receive as is also seen by the mean and standard deviation of (3.38 ± 0.744) whereas a fraction 37.5% disagreed with the remuneration they receive and 12.5% moderately disagreed with the remuneration.

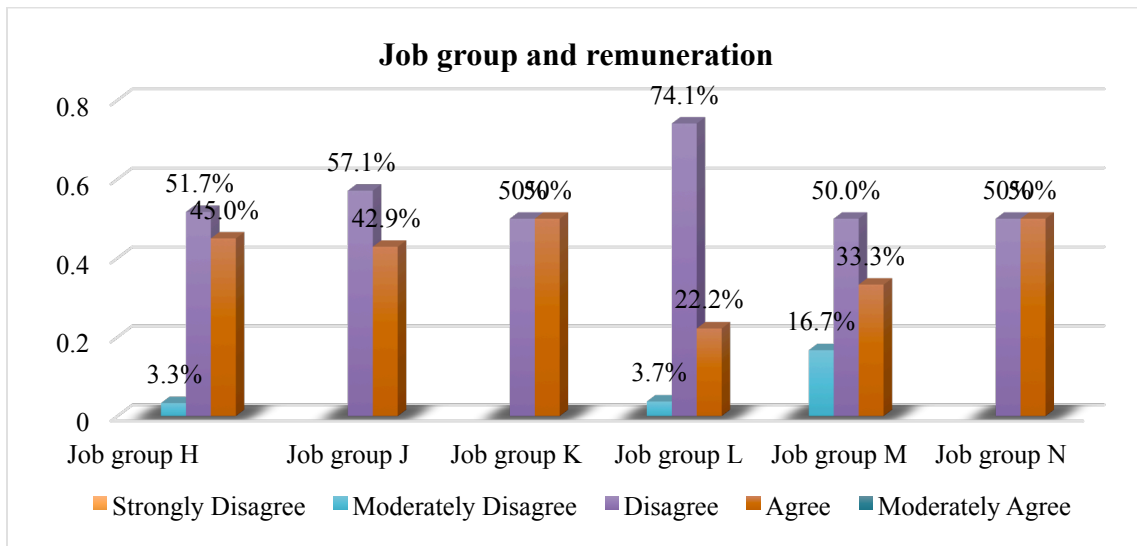
**Table 26: Education level and remuneration**

<b>Education level and Remuneration</b>					
<b>Chi-Square Tests</b>					
	<b>Value</b>	<b>df</b>	<b>Asymp. Sig. (2-sided)</b>		
Pearson Chi-Square	4.077	8	.850		
<b>ANOVA</b>					
	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	1.609	2	.805	.698	.500
Within Groups	126.886	110	1.154		
Total	128.496	112			
<b>Pearson Correlation</b>					
	<b>Value</b>	<b>N</b>	<b>Sig. (2-tailed)</b>		
Pearson Correlation	.055	113	.565		

There is no association between education level and remuneration among the clinical officers in Nairobi City County as seen by the chi-square test. ( $\chi^2 = 4.077$ ,  $df = 8$ ,  $p = 0.850$ ). From the correlation, there is a weak positive linear relationship between education level and remuneration among the clinical officers in Nairobi City County. ( $r=0.055$ ,  $p= 0.565$ ). Finally, from the ANOVA analysis, there is no statistical difference in the mean of remuneration between the clinical officers with different education levels ( $F= 0.698$ ,  $df = (2, 112)$ ,  $p = 0.500$ ).

#### **4.4.6.4 Relationship between Job group and Remuneration**

The study aimed to determine whether clinical officers in different job group had different satisfaction with remuneration they were getting.



**Figure 26: Job group and remuneration**

**Table 27: Descriptive Statistics**

Descriptive Statistics						
	job group H	job group J	job group K	job group L	job group M	job group N
N	60	7	2	27	12	2
Mean	3.42	3.43	3.50	3.19	3.17	3.50
Median	3.00	3.00	3.50	3.00	3.00	3.50
Mode	3	3	3	3	3	3
Std. Deviation	.561	.535	.707	.483	.718	.707

For the CO's in job group H, most of them (51.7%) disagreed with the remuneration they receive as is also seen by the mean and standard deviation of  $(3.42 \pm 0.561)$  whereas a fraction 45% agreed with the remuneration they receive and 3.3% moderately disagreed with the remuneration. While for the CO's in job group J, most of them (57.1%) disagreed with the remuneration they receive as is also seen by the mean and standard deviation of  $(3.43 \pm 0.535)$  whereas a fraction 42.9% agreed with the remuneration they receive. For the CO's in job group K, an equal number (50%) disagreed and similarly agreed with the remuneration they receive as is also seen by the mean and standard deviation of  $(3.50 \pm 0.707)$ . For the CO's in job group L, most of them (74.1%) disagreed with the remuneration they receive as is also seen by

the mean and standard deviation of  $(3.19 \pm 0.483)$  whereas a fraction 22.2% agreed with the remuneration they receive and 3.7% moderately disagreed with the remuneration. For the CO's in job group M, most of them (50%) disagreed with the remuneration they receive as is also seen by the mean and standard deviation of  $(3.17 \pm 0.718)$  whereas a fraction 33.3% agreed with the remuneration they receive and 16.7% moderately disagreed with the remuneration. Finally, for the CO's in job group N, an equal number (50%) disagreed and similarly agreed with the remuneration they receive as is also seen by the mean and standard deviation of  $(3.50 \pm 0.707)$ .

**Table 28: Job group and remuneration**

<b>Job group and Remuneration</b>					
<b>Chi-Square Tests</b>					
	<b>Value</b>	<b>df</b>	<b>Asymp. Sig. (2-sided)</b>		
Pearson Chi-Square	10.829	12	.544		
<b>ANOVA</b>					
	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	10.445	2	5.222	1.941	.148
Within Groups	290.546	108	2.690		
Total	300.991	110			
<b>Pearson Correlation</b>					
	<b>Value</b>	<b>N</b>	<b>Sig. (2-tailed)</b>		
Pearson Correlation	-.185	111	.052		

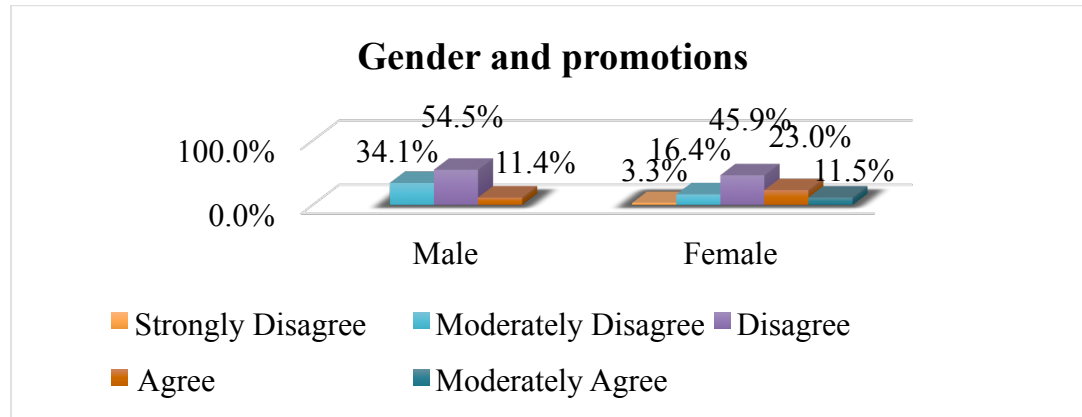
There is no association between job group and remuneration among the clinical officers in Nairobi City County as seen by the chi-square test. ( $\chi^2 = 10.829$ ,  $df = 12$ ,  $p = 0.544$ ). From the correlation, there is a weak negative linear relationship between gender and remuneration among the clinical officers in Nairobi City County. ( $r = -0.185$ ,  $p = 0.052$ ). Finally, from the ANOVA analysis, there is no statistical difference in the mean of remuneration between the clinical officers from different job groups ( $F = 1.941$ ,  $df = (2, 110)$ ,  $p = 0.148$ ).

#### **4.4.7 The relationship between confounding variables and satisfaction with Promotion**

The study aimed at determining whether the different confounding variables have an impact on satisfaction with opportunities for promotion.

#### 4.4.7.1 Relationship between gender and Promotion

The analysis from data collected aimed at finding out if there was a significance relationship between gender of the respondents at their levels of satisfaction with promotion opportunities.



**Figure 27: Gender and promotions**

**Table 29: Descriptive statistics**

Descriptive Statistics		
	Male	Female
N	44	61
Mean	2.77	3.23
Median	3.00	3.00
Mode	3	3
Std. Deviation	.642	.973

For the male clinical officers, a greater proportion (54.5%) disagreed with the promotion as is also seen by the mean and standard deviation of (2.77 ± 0.642) whereas 34.1% moderately disagreed with the promotion whereas 11.4% agreed with the supervision and finally 2.3% agreed moderately with the promotion. While for the female clinical, a greater proportions (45.9%) disagreed with the promotion as is also seen by the mean and standard deviation of (3.23 ± 0.973) whereas 23% agreed with the promotion whereas 16.4% moderately disagreed with their promotion, 11.5% moderately agreed with their promotion and finally 3.3% strongly disagreed with the promotion.

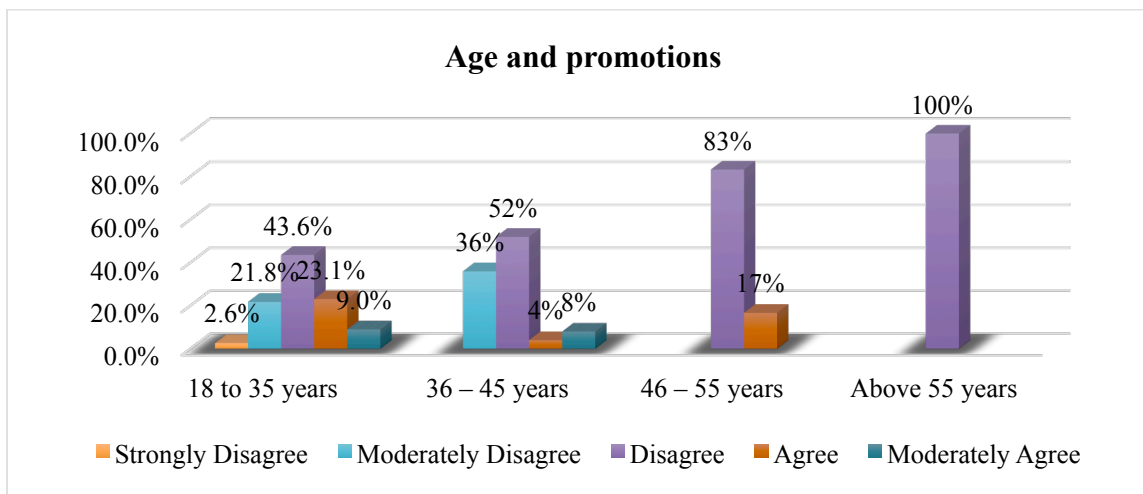
**Table 30: Gender and promotion**

<b>Gender and Promotion</b>					
<b>Chi-Square Tests</b>					
	<b>Value</b>	<b>df</b>	<b>Asymp. Sig. (2-sided)</b>		
Pearson Chi-Square	12.137	4	.016		
<b>ANOVA</b>					
	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	2.955	4	.739	3.267	.015
Within Groups	22.607	100	.226		
Total	25.562	104			
<b>Pearson Correlation</b>					
	<b>Value</b>	<b>N</b>	<b>Sig. (2-tailed)</b>		
Pearson Correlation	.258	105	.008		

There is a significant association between gender and promotion among the clinical officers in Nairobi City County as seen by the chi-square test. ( $\chi^2 = 12.137$ ,  $df = 4$ ,  $p = 0.016$ ). From the correlation, there is a weak positive linear relationship between gender and promotion among the clinical officers in Nairobi City County. ( $r=0.258$ ,  $p=0.008$ ). Finally, from the ANOVA analysis, there is a significant statistical difference in the mean of promotions between the male and female clinical officers ( $F= 3.267$ ,  $df = (4, 104)$ ,  $p = 0.015$ ).

#### **4.4.7.2 Relationship between age and promotion**

The researcher aimed at determining if the age of a clinical officer has an influence on his/her satisfaction with promotion opportunities available at their organization.



**Figure 28: Age and promotions**

**Table 31: Descriptive statistics**

Descriptive Statistics				
	18 to 35	36 to 45	46 to 55	Above 55
	Years	Years	Years	Years
N	78	25	6	2
Mean	3.14	2.84	3.17	3.00
Median	3.00	3.00	3.00	3.00
Mode	3	3	3	3
Std. Deviation	.950	.850	.408	.000

Most of the CO's between the age of 18 and 35 years (43.6%) disagreed with the promotions they receive as is also seen by the mean and standard deviation of  $(3.14 \pm 0.950)$  whereas a fraction 23.1% agreed with the promotions they receive and 21.8% moderately disagreed with the promotions. While for the CO's aged between of 36 and 45 years most of them (52%) disagreed with the promotions they receive as is also seen by the mean and standard deviation of  $(3.28 \pm 0.542)$  whereas a fraction 36% moderately agreed with the promotions they receive and 8% moderately agreed with the promotions. For the CO's aged between of 46 and 55 years most of them (83%) disagreed with the promotions they receive as is also seen by the mean and standard deviation of  $(3.17 \pm 0.408)$  whereas a fraction 17% agreed with the promotions they receive. Finally, for the CO's above 55 years of age, all of them (100%) disagreed with the promotions they receive as is also seen by the mean and standard deviation of  $(3.00 \pm 0.000)$ .



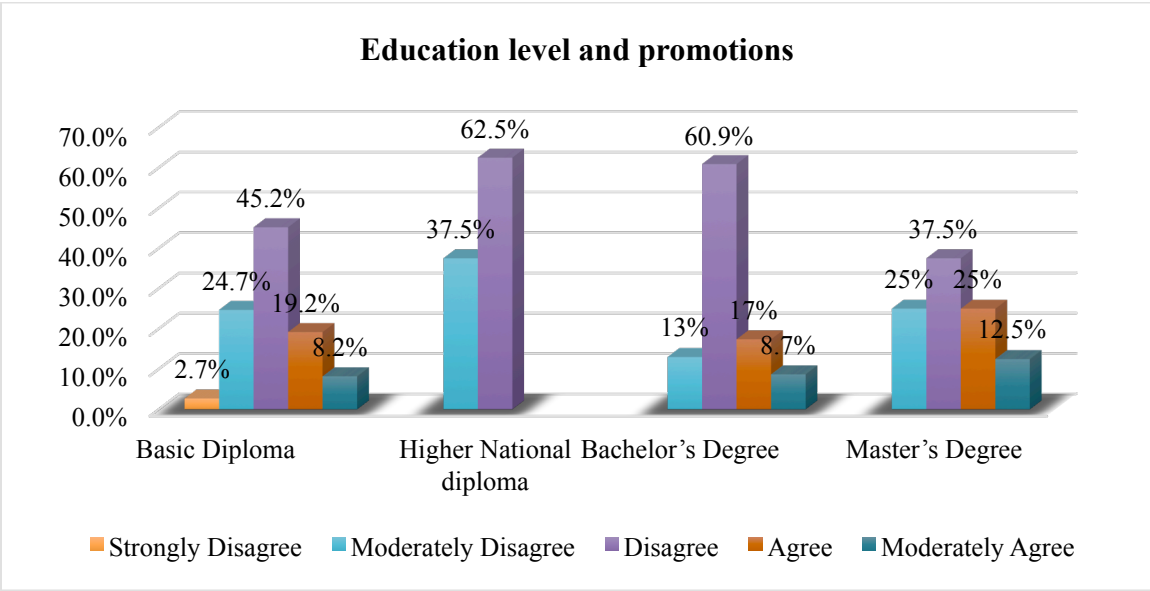
**Table 32: Age and promotion**

Age and Promotion					
Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)		
Pearson Chi-Square	12.454	12	.410		
ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.926	4	.732	1.635	.171
Within Groups	47.416	106	.447		
Total	50.342	110			
Pearson Correlation					
	Value	N	Sig. (2-tailed)		
Pearson Correlation	-.076	111	.428		

There is no association between age and promotion among the clinical officers in Nairobi City County as seen by the chi-square test. ( $\chi^2 = 12.454$ ,  $df = 12$ ,  $p = 0.410$ ). From the correlation, there is a weak negative linear relationship between age and promotion among the clinical officers in Nairobi City County. ( $r = -0.076$ ,  $p = 0.428$ ). Finally, from the ANOVA analysis, there is no significant statistical difference in the mean of promotion between the different ages of the clinical officers ( $F = 0.732$ ,  $df = (4, 110)$ ,  $p = 0.171$ ).

#### 4.4.7.3 Relationship between education level and promotions

As earlier mentioned, clinical officers have progressed from the basic diploma upto masters levels. The study aimed at finding out if clinical officers who have advanced academically had different levels of satisfaction with promotion opportunities.



**Figure 29: Education level and promotions**

**Table 33: Descriptive Statistics**

Descriptive Statistics				
	Basic Diploma	Higher National Diploma	Bachelor's Degree	Master's Degree
N	73	8	23	8
Mean	3.05	2.63	3.22	3.25
Median	3.00	3.00	3.00	3.00
Mode	3	3	3	3
Std. Deviation	.941	.518	.795	1.035

A greater proportion of the CO's with a basic diploma (45.2%) disagreed with the promotion opportunities as also seen by the mean and standard deviation of  $(3.05 \pm 0.941)$  while A fraction 24.7%, 19.2%, 8.2% and 2.7% moderately disagreed, agreed, moderately agreed and strongly disagreed with the promotions opportunities respectively. For the CO's with a higher national diploma, a majority (62.5%) disagreed with the promotions opportunities as also seen by the mean and standard deviation of  $(3.38 \pm 0.518)$  whereas a fraction of 37.5% agreed. For the CO's with a bachelor's degree most of them (60.9%) disagreed with the promotions opportunities as is also seen by the mean and standard deviation of  $(3.22 \pm 0.795)$  whereas 17% agreed with and

13% moderately disagreed with chances of promotions. Finally, for the CO's with a master's degree, most of them (37.5%) disagreed with the promotions in place as is also seen by the mean and standard deviation of  $(3.25 \pm 1.035)$  whereas a fraction 25% both moderately disagreed and also agreed with the promotions in place and 12.5% moderately agreed with the promotions opportunities.

**Table 34: Education level and promotion**

Education level and Promotion					
Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)		
Pearson Chi-Square	7.910	16	.951		
ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.180	4	.545	.466	.761
Within Groups	126.316	108	1.170		
Total	128.496	112			
Pearson Correlation					
	Value	N	Sig. (2-tailed)		
Pearson Correlation	.067	113	.480		

There is no association between education level and promotion among the clinical officers in Nairobi City County as seen by the chi-square test. ( $\chi^2 = 7.910$ ,  $df = 16$ ,  $p = 0.951$ ). From the correlation, there is a weak positive linear relationship between education level and promotion among the clinical officers in Nairobi City County. ( $r=0.067$ ,  $p= 0.480$ ). Finally, from the ANOVA analysis, there is no statistical difference in the mean of promotion between the clinical officers with different education levels ( $F= 0.466$ ,  $df = (4, 112)$ ,  $p = 0.480$ ).

The findings contradicts those from qualitative data where the keys informants, a sub-county health administrator had this to say:

*The COs are very dissatisfied with the rate of promotions with some complaining of stagnating in one job group for more than nine (9) years. For those who have gone back to school for specialized training and on completion, they are posted to utilize their skills but not re-designated or promoted in line with scheme of service. They constantly come to my office for help but there is nothing I can do .This has really demotivate them.....*

#### 4.4.7.4 Relationship between job group and Promotion

The study aimed at determining if the job group had an impact on satisfaction with promotion opportunities available for clinical officers in Nairobi County.

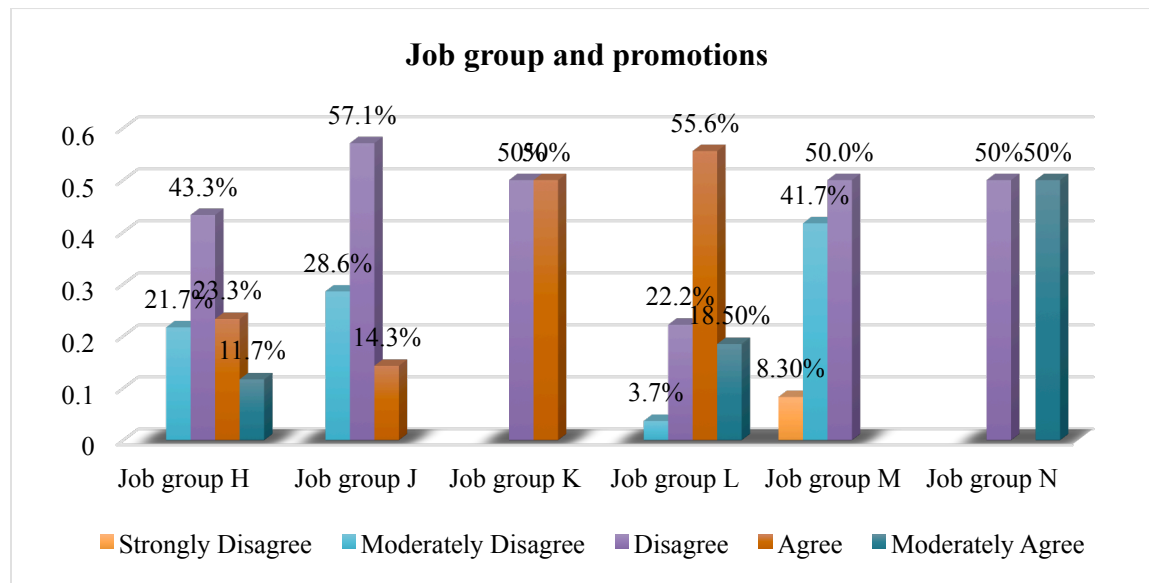


Figure 30: Job group and promotions

Table 35: Job group and promotions

Descriptive Statistics						
	job group H	job group J	job group K	job group L	job group M	job group N
N	60	7	2	27	12	2
Mean	3.25	3.00	3.50	2.89	2.42	4.00
Median	3.00	3.00	3.50	3.00	2.50	4.00
Mode	3	3	3	3	3	3
Std. Deviation	.932	1.000	.707	.751	.669	1.414

For the CO's in job group H, most of them (43.3%) disagreed with the promotions they receive as is also seen by the mean and standard deviation of  $(3.25 \pm 0.932)$  whereas a fraction 23.3% agreed with the promotions they receive and 21.7% moderately disagreed with the promotions and finally 11.7% moderately agreed with the promotions. While for the CO's in job group J, most of them (57.1%) disagreed with the promotions they receive as is also seen by the mean and standard deviation of  $(3.00 \pm 1.00)$  whereas a fraction 28.6% moderately disagreed with the

promotions they receive and finally 14.3% moderately disagreed with the promotions they receive. For the CO's in job group K, an equal number (50%) disagreed and similarly agreed with the promotions they receive as is also seen by the mean and standard deviation of (3.50 ± 0.707). For the CO's in job group L, most of them (55.6%) agreed with the promotions they receive as is also seen by the mean and standard deviation of (2.89 ± 0.751) whereas a fraction 22.2% disagreed with the promotions they receive, 18.3% moderately agreed with the promotions and finally 3.7% moderately disagreed with the promotions they receive. For the CO's in job group M, most of them (50%) disagreed with the promotions they receive as is also seen by the mean and standard deviation of (2.42 ± 0.669) whereas a fraction 41.7% moderately disagreed with the promotions they receive and 8.3% strongly disagreed with the promotions. Finally, for the CO's in job group N, an equal number (50%) disagreed and similarly moderately agreed with the promotions they receive as is also seen by the mean and standard deviation of (4.00 ± 1.414).

**Table 36: Job group and promotion**

<b>Job group and Promotion</b>					
<b>Chi-Square Tests</b>					
	<b>Value</b>	<b>df</b>	<b>Asymp. Sig. (2-sided)</b>		
Pearson Chi-Square	24.041	24	.459		
<b>ANOVA</b>					
	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	20.054	4	5.013	1.892	.117
Within Groups	280.937	106	2.650		
Total	300.991	110			
<b>Pearson Correlation</b>					
	<b>Value</b>	<b>N</b>	<b>Sig. (2-tailed)</b>		
Pearson Correlation	-.218	111	.022		

There is no association between job group and promotion among the clinical officers in Nairobi City County as seen by the chi-square test. ( $\chi^2 = 24.041$ ,  $df = 24$ ,  $p = 0.459$ ). From the correlation, there is a weak negative linear relationship between job group and promotion among the clinical officers in Nairobi City County. ( $r = -0.218$ ,  $p = 0.022$ ). Finally, from the ANOVA

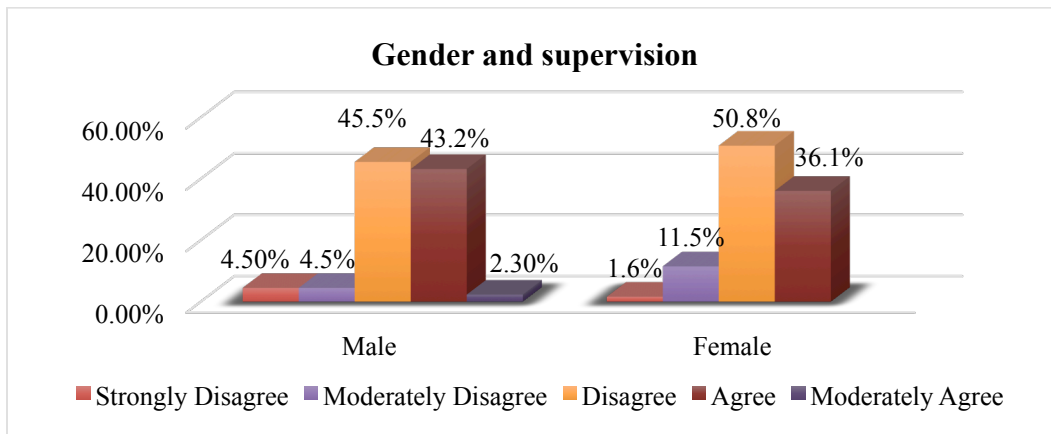
analysis, there is no statistical difference in the mean of promotion between the clinical officers from different job groups ( $F= 1.892$ ,  $df = (4, 110)$ ,  $p = 0.117$ ).

#### 4.4.8 Relationship between confounding variables and satisfaction with Supervision

The study aimed at examining to what extent different confounding variables impacted on levels of satisfaction with supervision among clinical officers in Nairobi County.

##### 4.4.8.1 Relationship between Gender and Supervision

The researcher aimed at determining if the gender of a clinical officer had an influence on the satisfaction levels with supervision



**Figure 31: Gender and supervision**

**Table 37: Descriptive statistics on gender and supervision**

Descriptive Statistics		
	Male	Female
N	44	61
Mean	3.34	3.21
Median	3.00	3.00
Mode	3	3
Std. Deviation	.805	.710

For the male clinical officers, a greater proportion (45.5%) disagreed with the supervision as is also seen by the mean and standard deviation of  $(3.34 \pm 0.805)$  whereas 43.2% moderately

agreed with the supervision whereas 4.5% both moderately and strongly disagreed respectively with the supervision and finally 2.3% agreed moderately with the supervision. While for the female clinical, a greater proportions (50.8%) disagreed with the supervision as is also seen by the mean and standard deviation of (3.21 ± 0.710) whereas 36.1% agreed with the supervision whereas 11.5% moderately disagreed with the supervision and finally 1.6% strongly disagreed with the supervision.

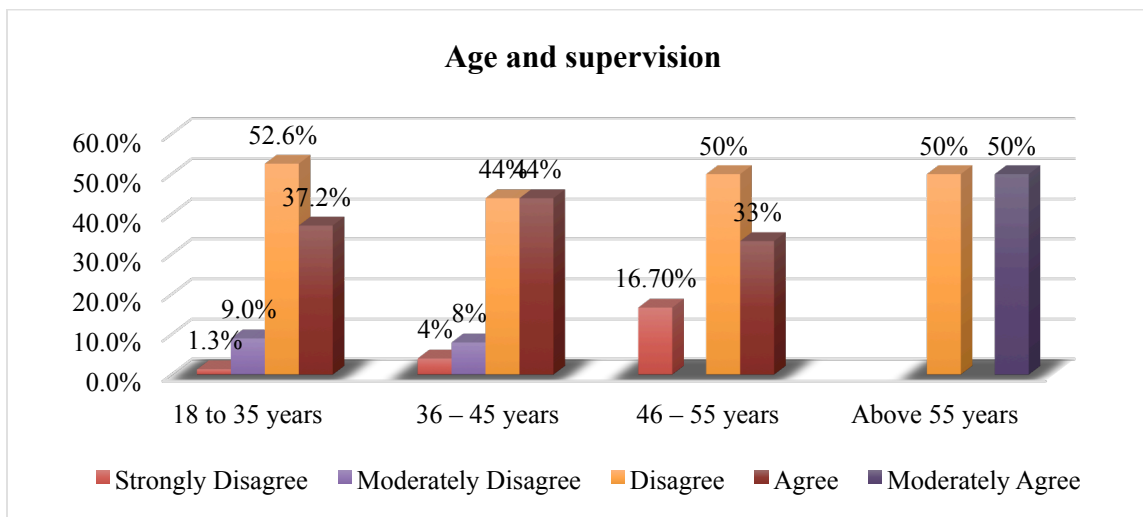
**Table 38: Inferential statistics for gender and supervision**

<b>Gender and Supervision</b>					
<b>Gender Chi-Square Tests</b>					
	<b>Value</b>	<b>df</b>	<b>Asymp. Sig. (2-sided)</b>		
Pearson Chi-Square	4.057	4	.398		
<b>ANOVA</b>					
	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	.988	4	.247	1.005	.409
Within Groups	24.574	100	.246		
Total	25.562	104			
<b>Pearson Correlation</b>					
	<b>Value</b>	<b>N</b>	<b>Sig. (2-tailed)</b>		
Pearson Correlation	-.084	105	.392		

There is no significant association between gender and supervision among the clinical officers in Nairobi City County as seen by the chi-square test. ( $\chi^2 = 4.057$ ,  $df = 4$ ,  $p = 0.398$ ). From the correlation, there is a weak negative linear relationship between gender and supervision among the clinical officers in Nairobi City County. ( $r = -0.084$ ,  $p = 0.392$ ). Finally, from the ANOVA analysis, there is no significant statistical difference in the mean of supervision between the male and female clinical officers ( $F = 1.005$ ,  $df = (4, 104)$ ,  $p = 0.409$ ).

#### **4.4.8.2 Relationship between Age and Supervision**

The analysis aims at demonstrating the statistical significance and co-relationship between age of the respondents and its influence of satisfaction with supervision process in their organization.



**Figure 32: Age and supervision**

**Table 39: Descriptive statistics on age and supervision**

Descriptive Statistics				
	18 to 35	36 to 45	46 to 55	Above 55
	Years	Years	Years	Years
N	78	25	6	2
Mean	3.26	3.28	3.00	4.50
Median	3.00	3.00	3.00	4.50
Mode	3	3	3	4
Std. Deviation	.673	.792	1.095	.707

Most of the CO's between the age of 18 and 35 years (52.6%) disagreed with the supervision as is also seen by the mean and standard deviation of  $(3.26 \pm 0.673)$  whereas a fraction 37.2% agreed with the supervision they receive and 9% moderately disagreed with the supervision. While for the CO's aged between of 36 and 45 years most of them (44%) both agreed and disagreed with the supervision they receive as is also seen by the mean and standard deviation of  $(3.28 \pm 0.792)$  whereas a fraction 8% moderately disagreed with the supervision they receive and 1.3% strongly disagreed with the supervision. For the CO's aged between of 46 and 55 years most of them (50%) disagreed with the supervision they receive as is also seen by the mean and standard deviation of  $(3.00 \pm 1.095)$  whereas a fraction 16.7% strongly disagreed with the supervision they receive. Finally, for the CO's above 55 years of age, equal number of them



(50%) both disagreed and moderately agreed respectively with the supervision they receive as is also seen by the mean and standard deviation of  $(4.50 \pm 0.707)$ .

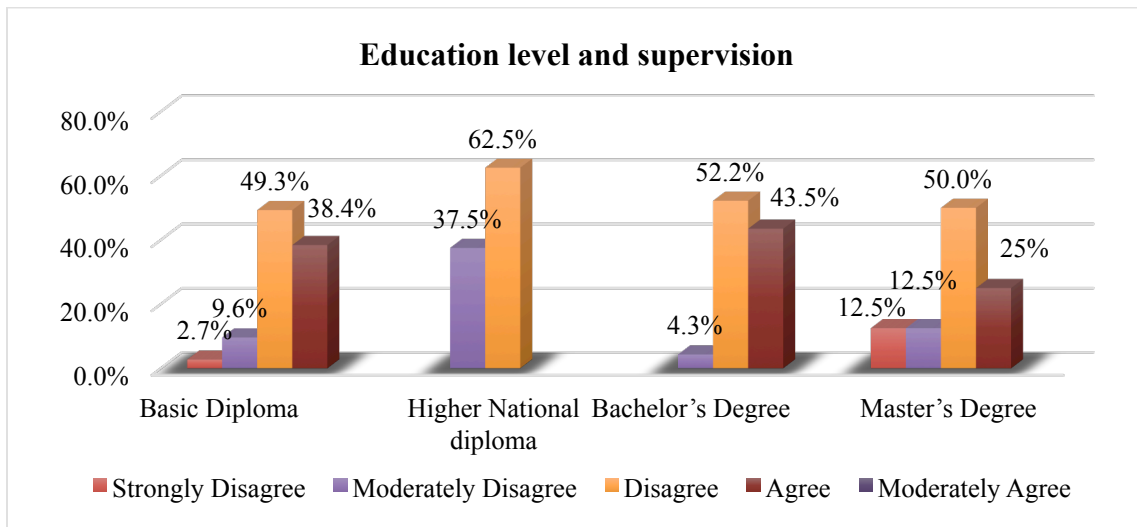
**Table 40: Inferential statistics for age and supervision**

<b>Age and Supervision</b>					
<b>Age Chi-Square Tests</b>					
	<b>Value</b>	<b>df</b>	<b>Asymp. Sig. (2-sided)</b>		
Pearson Chi-Square	61.970	12	.000		
<b>ANOVA</b>					
	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	8.576	4	2.144	5.441	.001
Within Groups	41.766	106	.394		
Total	50.342	110			
<b>Pearson Correlation</b>					
	<b>Value</b>	<b>N</b>	<b>Sig. (2-tailed)</b>		
Pearson Correlation	.080	111	.405		

There is an association between age and supervision among the clinical officers in Nairobi City County as seen by the chi-square test. ( $\chi^2 = 61.970$ ,  $df = 12$ ,  $p = 0.00$ ). From the correlation, there is a weak positive linear relationship between age and supervision among the clinical officers in Nairobi City County. ( $r=0.080$ ,  $p= 0.405$ ). Finally, from the ANOVA analysis, there is a significant statistical difference in the mean of supervision between the different ages of the clinical officers ( $F= 5.441$ ,  $df = (4, 110)$ ,  $p = 0.001$ ).

#### **4.4.8.3 Relationship between Education level and Supervision**

The analysis aims at demonstrating the association, co-relation and statistical significance between education level of the participants and satisfaction with supervision.



**Figure 33: Education level and supervision**

**Table 41: Descriptive statistics on education level and supervision**

Descriptive Statistics				
	Basic Diploma	Higher National Diploma	Bachelor's Degree	Master's Degree
N	73	8	23	8
Mean	3.23	3.63	3.39	2.88
Median	3.00	4.00	3.00	3.00
Mode	3	4	3	3
Std. Deviation	.736	.518	.583	.991

A greater proportion of the CO's with a basic diploma (45.2%) disagreed with the promotions in place as is also seen by the mean and standard deviation of  $(3.05 \pm 0.941)$  whereas a fraction 24.7% moderately disagreed with the promotions in place, 19.2% agreed with the promotions in place, 8.2% moderately agreed with the promotions in place and finally 2.7% strongly disagreed with the promotions in place. While for the CO's with a higher national diploma, most of them (62.5%) disagreed with the promotions in place as is also seen by the mean and standard deviation of  $(3.38 \pm 0.518)$  whereas a fraction 37.5% agreed with the promotions in place. For the CO's with a bachelor's degree most of them (60.9%) disagreed with the promotions in place as is also seen by the mean and standard deviation of  $(3.22 \pm 0.795)$  whereas a fraction 17% agreed with the promotions in place and 13% moderately disagreed with the promotions in place.

Finally, for the CO's with a master's degree, most of them (37.5%) disagreed with the promotions in place as is also seen by the mean and standard deviation of  $(3.25 \pm 1.035)$  whereas a fraction 25% both moderately disagreed and also agreed with the promotions in place and 12.5% moderately agreed with the promotions in place

**Table 42: Inferential statistics for education level and supervision**

Education level and Supervision					
Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)		
Pearson Chi-Square	120.064	16	.000		
ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11.283	4	2.821	2.599	.040
Within Groups	117.212	108	1.085		
Total	128.496	112			
Pearson Correlation					
	Value	N	Sig. (2-tailed)		
Pearson Correlation	.054	113	.570		

There is an association between education level and supervision among the clinical officers in Nairobi City County as seen by the chi-square test. ( $\chi^2 = 120.064$ ,  $df = 16$ ,  $p = 0.00$ ). From the correlation, there is a weak positive linear relationship between education level and supervision among the clinical officers in Nairobi City County. ( $r=0.054$ ,  $p= 0.570$ ). Finally, from the ANOVA analysis, there is a statistical difference in the mean of supervision between the clinical officers with different education levels ( $F= 2.599$ ,  $df = (4, 112)$ ,  $p = 0.040$ ).

This finding corresponds with qualitative data from key informant's observation:

*[The clinical officers especially those who have specialized feel frustrated because I am expected to offer support supervision to them but I may not be an expert in their area of study and where I can , there visits are not facilitated] ...from a senior Sub-county clinical officer in-charge.*

#### 4.4.8.4 Relationship between Job Group and satisfaction with Supervision

The analysis aims at demonstrating the association and correlation between job group and supervision.

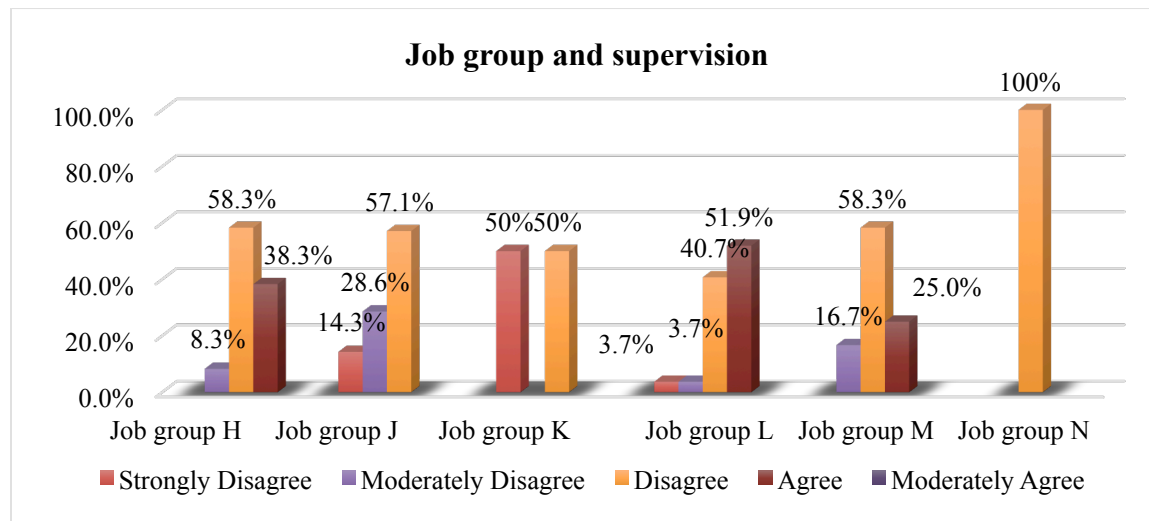


Figure 34: Job group and supervision

Table 43: Descriptive statistics on job group and supervision

Descriptive Statistics						
	job group H	job group J	job group K	job group L	job group M	job group N
N	60	7	2	27	12	2
Mean	3.30	3.29	2.00	3.41	3.08	3.00
Median	3.00	4.00	2.00	4.00	3.00	3.00
Mode	3	4	1	4	3	3
Std. Deviation	.619	1.113	1.414	.747	.669	.000

For the CO's in job group H, most of them (58.3%) disagreed with the supervision in place as is also seen by the mean and standard deviation of  $(3.30 \pm 0.619)$  whereas a fraction 38.3% disagreed with the supervision they receive and finally 8.3% moderately disagreed with the supervision. While for the CO's in job group J, most of them (57.1%) disagreed with the supervision they receive as is also seen by the mean and standard deviation of  $(3.29 \pm 1.113)$  whereas a fraction 28.6% moderately disagreed with the supervision they receive and finally 14.3% strongly disagreed with the supervision. For the CO's in job group K, an equal

number (50%) disagreed and similarly strongly disagreed with the supervision they receive as is also seen by the mean and standard deviation of  $(2.00 \pm 1.414)$ . For the CO's in job group L, most of them (51.9%) agreed with the supervision they receive as is also seen by the mean and standard deviation of  $(3.41 \pm 0.747)$  whereas a fraction 40.7% disagreed with the supervision they receive, 3.7% moderately disagreed and strongly disagreed respectively with the supervision. For the CO's in job group M, most of them (58.5%) disagreed with the supervision they receive as is also seen by the mean and standard deviation of  $(3.08 \pm 0.669)$  whereas a fraction 25% agreed with the supervision they receive and 16.7% moderately disagreed with the supervision. Finally, for the CO's in job group N, all of them (100%) disagreed with the supervision they receive as is also seen by the mean and standard deviation of  $(3.00 \pm 0.000)$ .

**Table 44: Inferential statistics on job group and supervision**

<b>Job group and Supervision</b>					
<b>Chi-Square Tests</b>					
	<b>Value</b>	<b>df</b>	<b>Asymp. Sig. (2-sided)</b>		
Pearson Chi-Square	32.613	18	.019		
<b>ANOVA</b>					
	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	1.589	3	.530	.189	.904
Within Groups	299.402	107	2.798		
Total	300.991	110			
<b>Pearson Correlation</b>					
	<b>Value</b>	<b>N</b>	<b>Sig. (2-tailed)</b>		
Pearson Correlation	-.058	111	.542		

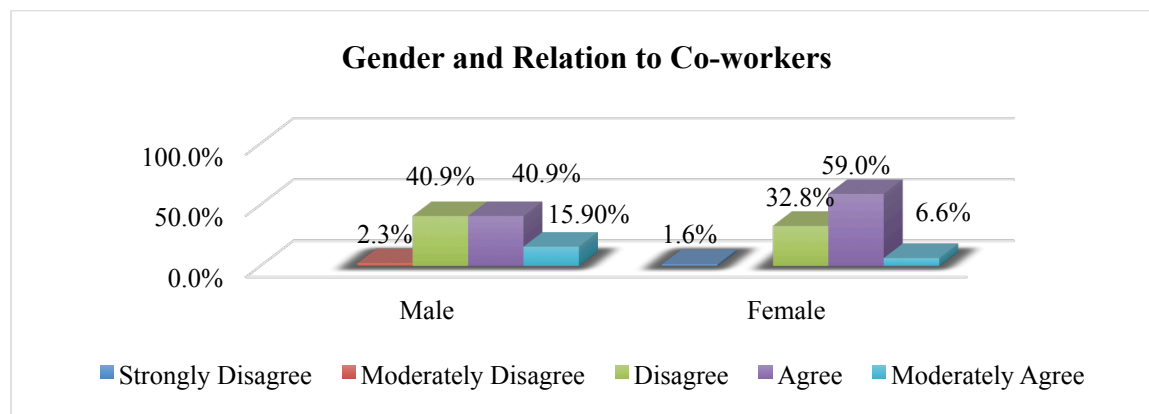
There is an association between job group and supervision among the clinical officers in Nairobi City County as seen by the chi-square test. ( $\chi^2 = 32.613$ ,  $df = 18$ ,  $p = 0.019$ ). From the correlation, there is a weak negative linear relationship between job group and supervision among the clinical officers in Nairobi City County. ( $r = -0.058$ ,  $p = 0.542$ ). Finally, from the ANOVA analysis, there is no statistical difference in the mean of supervision between the clinical officers from different job groups ( $F = 0.189$ ,  $df = (3, 110)$ ,  $p = 0.904$ ).

#### 4.4.9 To examine the relationship between confounding variables and satisfaction with Relation to Co-workers

The researcher aimed at examining if different confounding variables had an influence on levels of satisfaction with who the clinical officers related with their colleagues and other staff within their workplace.

##### 4.4.9.1 Relationship between Gender and Relation to Co-workers

The analysis aims at understanding if gender has an influence on satisfaction with how one relates with co-workers.



**Figure 35: Gender and relation to co-workers**

**Table 45: Descriptive statistics on gender and relation to co-workers**

Descriptive Statistics		
	Male	Female
N	44	61
Mean	3.70	3.69
Median	4.00	4.00
Mode	3	4
Std. Deviation	.765	.672

For the male clinical officers, a greater proportions (40.9%) both agreed and disagreed respectively with their relation to co-workers as is also seen by the mean and standard deviation of (3.70 ± 0.765) whereas 15.9% moderately agreed with their relation to co-workers whereas

2.3% moderately disagreed with their relation to co-workers. While for the female clinical, a greater proportions (59%) agreed with their relation to co-workers as is also seen by the mean and standard deviation of  $(3.69 \pm 0.672)$  whereas 32.8% disagreed with their relation to co-workers whereas 6.6% moderately agreed with their relation to co-workers and finally 1.6% strongly disagreed with their relation to co-workers.

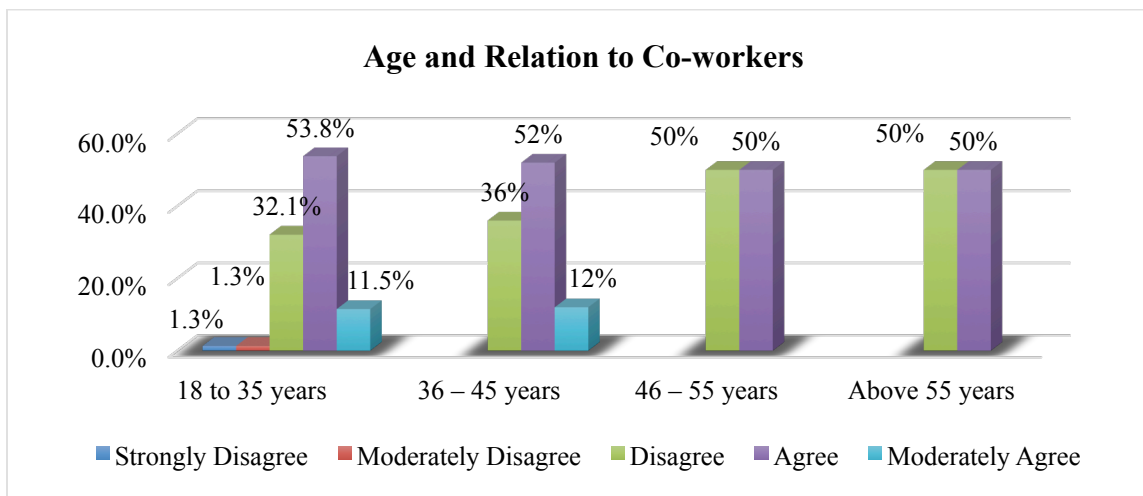
**Table 46: Inferential statistics for gender and relation to co-workers**

Gender and Relation to co-workers					
Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)		
Pearson Chi-Square	6.337	4	.175		
ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.543	4	.386	1.606	.179
Within Groups	24.019	100	.240		
Total	25.562	104			
Pearson Correlation					
	Value	N	Sig. (2-tailed)		
Pearson Correlation	-.011	105	.910		

There is no significant association between gender and relation to co-workers among the clinical officers in Nairobi City County as seen by the chi-square test. ( $\chi^2 = 6.337$ ,  $df = 4$ ,  $p = 0.175$ ). From the correlation, there is a weak negative linear relationship between gender and relation to co-workers among the clinical officers in Nairobi City County. ( $r = -0.011$ ,  $p = 0.910$ ). Finally, from the ANOVA analysis, there is no significant statistical difference in the mean of relation to co-workers between the male and female clinical officers ( $F = 1.606$ ,  $df = (4, 104)$ ,  $p = 0.179$ ).

#### 4.4.9.2 Relationship between Age and Relation to Co-workers

The analysis aimed at determining the relationship between age and how they relate with co-workers.



**Figure 36: Age relation to co-workers**

**Table 47: Descriptive statistics on age relation to co-workers**

Descriptive Statistics				
	18 to 35	36 to 45	46 to 55	Above 55
	Years	Years	Years	Years
N	78	25	6	2
Mean	3.73	3.76	3.50	3.50
Median	4.00	4.00	3.50	3.50
Mode	4	4	3	3
Std. Deviation	.733	.663	.548	.707

Most of the CO's between the age of 18 and 35 years (53.8%) agreed with their relation to co-workers as is also seen by the mean and standard deviation of  $(3.73 \pm 0.733)$  whereas a fraction 32.1% disagreed with their relation to co-workers they receive and 11.5% moderately agreed with their relation to co-workers. While for the CO's aged between of 36 and 45 years most of them (52%) agreed with the relation to co-workers as is also seen by the mean and standard deviation of  $(3.76 \pm 0.663)$  whereas a fraction 36% disagreed with their relation to co-workers and 12.5% moderately agreed with their relation to co-workers. For the CO's aged between of 46 and 55 years an equal number(50%) disagreed and agreed with their relation to co-workers as is also seen by the mean and standard deviation of  $(3.50 \pm 0.548)$ . Finally, for the CO's above 55 years of age, equal number of them (50%) both disagreed and agreed respectively with their relation to co-workers as is also seen by the mean and standard deviation of  $(3.50 \pm 0.707)$ .



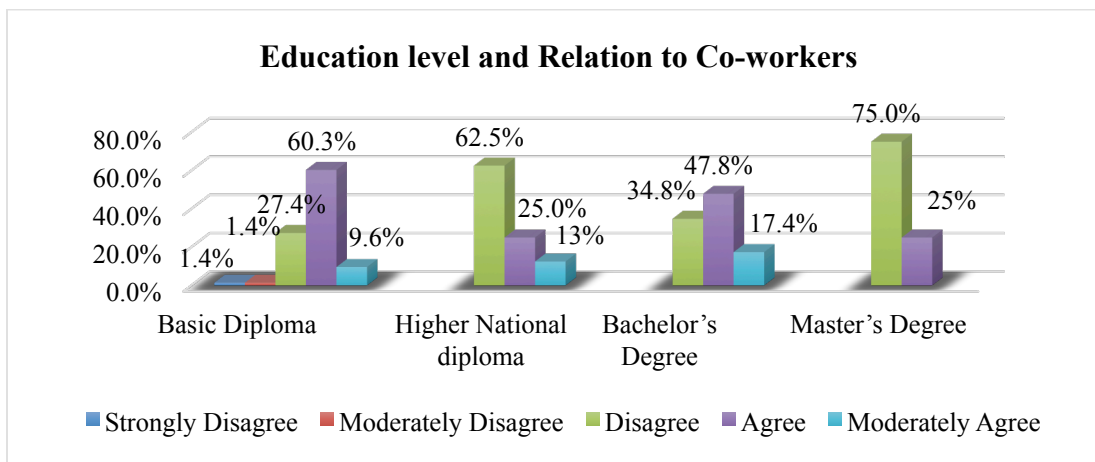
**Table 48: Inferential statistics for age and relation to co-workers**

<b>Age and Relation to co-workers</b>					
<b>Chi-Square Tests</b>					
	<b>Value</b>	<b>df</b>	<b>Asymp. Sig. (2-sided)</b>		
Pearson Chi-Square	2.522	12	.998		
<b>ANOVA</b>					
	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	.822	4	.206	.440	.780
Within Groups	49.520	106	.467		
Total	50.342	110			
<b>Pearson Correlation</b>					
	<b>Value</b>	<b>N</b>	<b>Sig. (2-tailed)</b>		
Pearson Correlation	-.057	111	.551		

There is no association between age and relation to co-workers among the clinical officers in Nairobi City County as seen by the chi-square test. ( $\chi^2 = 2.522$ ,  $df = 12$ ,  $p = 0.998$ ). From the correlation, there is a weak negative linear relationship between age and relation to co-workers among the clinical officers in Nairobi City County. ( $r = -0.057$ ,  $p = 0.551$ ). Finally, from the ANOVA analysis, there is no statistical difference in the mean of relation to co-workers between the different ages of the clinical officers ( $F = 0.440$ ,  $df = (4, 110)$ ,  $p = 0.780$ ).

#### **4.4.9.3 Relationship between Education level and Relation to Co-workers**

The analysis aimed at highlighting the statistical difference and co-relation between education level and relation with co-workers.



**Figure 37: Education level and relation to co-workers**

**Table 49: Descriptive statistics on education level and relation to co-workers**

Descriptive Statistics				
	Basic Diploma	Higher National Diploma	Bachelor's Degree	Master's Degree
N	73	8	23	8
Mean	3.75	3.50	3.83	3.25
Median	4.00	3.00	4.00	3.00
Mode	4	3	4	3
Std. Deviation	.703	.756	.717	.463

A greater proportion of the CO's with a basic diploma (60.3%) agreed with their relation to co-workers as is also seen by the mean and standard deviation of  $(3.75 \pm 0.703)$  whereas a fraction 27.4% disagreed with their relation to co-workers, 9.6% moderately agreed with their relation to co-workers, 1.4% both moderately and strongly disagreed with their relation to co-workers. While for the CO's with a higher national diploma, most of them (62.5%) disagreed with their relation to co-workers as is also seen by the mean and standard deviation of  $(3.50 \pm 0.756)$  whereas a fraction 25% agreed with their relation to co-workers and finally 13% moderately agreed with their relation to co-workers. For the CO's with a bachelor's degree most of them (47.8%) agreed with their relation to co-workers as is also seen by the mean and standard deviation of  $(3.83 \pm 0.717)$  whereas a fraction 34.8% disagreed with their relation to co-workers and 17.4% moderately agreed with the 25% agreed with their relation to co-workers. Finally, for the CO's with a master's degree, most of them (75%) disagreed with the 25% agreed with their

relation to co-workers as is also seen by the mean and standard deviation of  $(3.25 \pm 0.463)$  whereas a fraction 25% agreed and also agreed with the 25% agreed with their relation to co-workers.

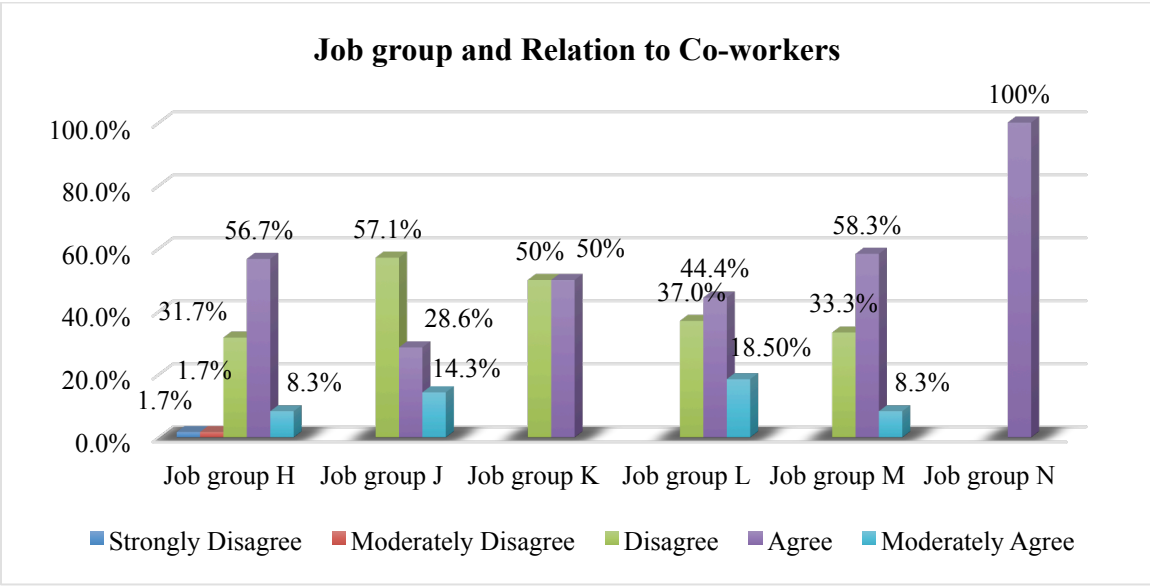
**Table 50: Inferential statistics for educational level and relation to co-workers**

Education level and Relation to co-workers					
Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)		
Pearson Chi-Square	13.798	16	.614		
ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.512	4	1.378	1.210	.311
Within Groups	122.983	108	1.139		
Total	128.496	112			
Pearson Correlation					
	Value	N	Sig. (2-tailed)		
Pearson Correlation	-.081	113	.396		

There is no association between education level and relation to co-workers among the clinical officers in Nairobi City County as seen by the chi-square test. ( $\chi^2 = 13.798$ ,  $df = 16$ ,  $p = 0.614$ ). From the correlation, there is a weak negative linear relationship between education level and relation to co-workers among the clinical officers in Nairobi City County. ( $r = -0.081$ ,  $p = 0.396$ ). Finally, from the ANOVA analysis, there is a statistical difference in the mean of relation to co-workers between the clinical officers with different education levels ( $F = 1.210$ ,  $df = (4, 112)$ ,  $p = 0.311$ ).

#### 4.4.9.4 Relationship between Job group and Relation to Co-workers

The analysis aimed to determine the relationship between job group and relation with co-workers



**Figure 38: Job group and relation to co-workers**

**Table 51: descriptive statistics on job group and relation to co-workers**

Descriptive Statistics						
	job group H	job group J	job group K	job group L	job group M	job group N
N	60	7	2	27	12	2
Mean	3.68	3.57	3.50	3.81	3.75	4.00
Median	4.00	3.00	3.50	4.00	4.00	4.00
Mode	4	3	3	4	4	4
Std. Deviation	.725	.787	.707	.736	.622	.000

For the CO’s in job group H, most of them (56.7%) agreed with their relation to co-workers as is also seen by the mean and standard deviation of  $(3.68 \pm 0.725)$  whereas 31.7% disagreed with their relation to co-workers, 8.3% moderately agreed with their relation to co-workers and finally 1.7% moderately and strongly disagreed respectively with their relation to co-workers. While for the CO’s in job group J, most of them (57.1%) disagreed with their relation to co-workers as is also seen by the mean and standard deviation of  $(3.57 \pm 0.787)$  whereas a fraction 28.6% agreed with their relation to co-workers and finally 14.3% moderately agreed with their relation to co-workers. For the CO’s in job group K, an equal number (50%) disagreed and similarly agreed

with their relation to co-workers as is also seen by the mean and standard deviation of ( $3.50 \pm 0.707$ ). For the CO's in job group L, most of them (44.4%) agreed with their relation to co-workers as is also seen by the mean and standard deviation of ( $3.81 \pm 0.736$ ) whereas a fraction 37.1% disagreed with their relation to co-workers, 18.5% moderately agreed with their relation to co-workers. For the CO's in job group M, most of them (58.3%) agreed with their relation to co-workers as is also seen by the mean and standard deviation of ( $3.75 \pm 0.622$ ) whereas a fraction 33.3% disagreed with their relation to co-workers and 8.3% moderately agreed with their relation to co-workers. Finally, for the CO's in job group N, all of them (100%) agreed with their relation to co-workers as is also seen by the mean and standard deviation of ( $4.00 \pm 0.000$ ).

**Table 52: Inferential statistics on job group and relation to co-workers**

<b>Job group and Relation to co-workers</b>					
<b>Chi-Square Tests</b>					
	<b>Value</b>	<b>df</b>	<b>Asymp. Sig. (2-sided)</b>		
Pearson Chi-Square	10.219	24	.994		
<b>ANOVA</b>					
	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	4.913	4	1.228	.440	.780
Within Groups	296.078	106	2.793		
Total	300.991	110			
<b>Pearson Correlation</b>					
	<b>Value</b>	<b>N</b>	<b>Sig. (2-tailed)</b>		
Pearson Correlation	.093	111	.331		

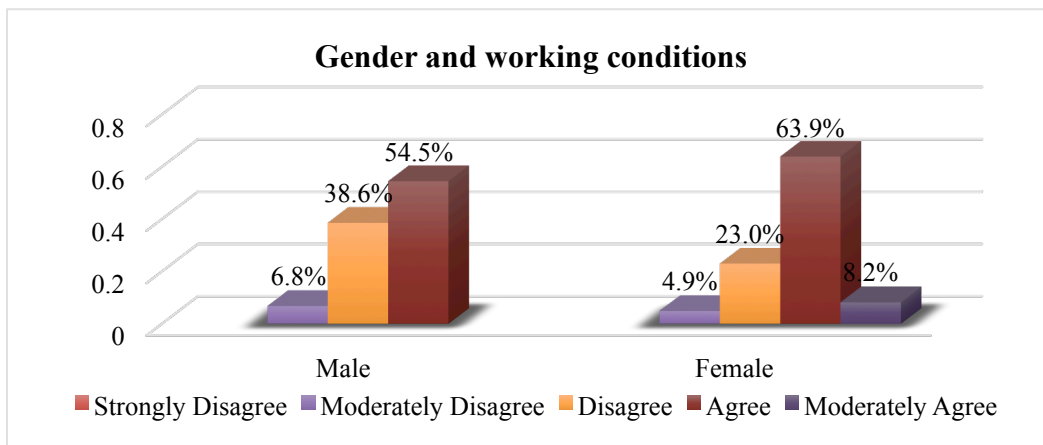
There is no association between job group and relation to co-workers among the clinical officers in Nairobi City County as seen by the chi-square test. ( $\chi^2 = 10.219$ ,  $df = 24$ ,  $p = 0.994$ ). From the correlation, there is a weak positive linear relationship between job group and relation to co-workers among the clinical officers in Nairobi City County. ( $r=0.093$ ,  $p= 0.331$ ). Finally, from the ANOVA analysis, there is no statistical difference in the mean of relation to co-workers between the clinical officers from different job groups ( $F= 0.440$ ,  $df = (4, 110)$ ,  $p = 0.780$ ).

#### 4.4.10 To examine the relationship between confounding variables and satisfaction with Working Conditions

The researcher aimed to examine if the confounding variables had an influence on satisfaction with working conditions

##### 4.4.10.1 Relationship between Gender and Working Conditions

The analysis of data aimed at determining if there is a co-relation, statistical significance and association between gender and working conditions.



**Figure 39: Gender and working conditions**

**Table 53: Descriptive statistics on gender and working conditions**

Descriptive Statistics		
	Male	Female
N	44	61
Mean	3.48	3.75
Median	4.00	4.00
Mode	4	4
Std. Deviation	.628	.675

For the male clinical officers, a greater proportion (54.5%) agreed with their working conditions as is also seen by the mean and standard deviation of (3.48 ± 0.628) whereas 38.6% disagreed with their working conditions whereas 6.8% moderately disagreed with their working conditions. While for the female clinical, a greater proportion (63.9%) agreed with their working conditions

as is also seen by the mean and standard deviation of  $(3.75 \pm 0.675)$  whereas 23% disagreed with their working conditions whereas 8.2% moderately agreed with their working conditions and finally 4.9% moderately disagreed with their working conditions.

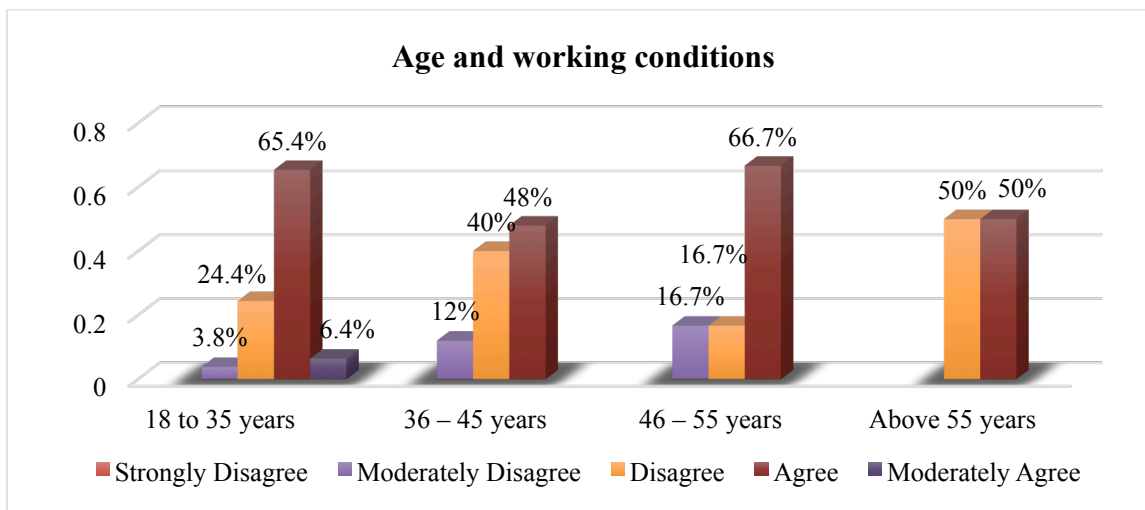
**Table 54: Inferential statistics on gender and working conditions**

Gender and Working conditions					
Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)		
Pearson Chi-Square	6.274	3	.099		
ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.527	3	.509	2.139	.100
Within Groups	24.035	101	.238		
Total	25.562	104			
Pearson Correlation					
	Value	N	Sig. (2-tailed)		
Pearson Correlation	.206	105	.035		

There is no significant association between gender and working conditions among the clinical officers in Nairobi City County as seen by the chi-square test. ( $\chi^2 = 6.274$ ,  $df = 3$ ,  $p = 0.099$ ). From the correlation, there is a weak negative linear relationship between gender and working conditions among the clinical officers in Nairobi City County. ( $r=0.206$ ,  $p= 0.035$ ). Finally, from the ANOVA analysis, there is no significant statistical difference in the mean of working conditions between the male and female clinical officers ( $F= 2.139$ ,  $df = (3, 104)$ ,  $p = 0.100$ ).

#### 4.4.10.2 Relationship between Age and working conditions

The researcher aim was to examine if age had an influence on how one felt satisfied with working conditions.



**Figure 40: Age and working conditions**

**Table 55: Descriptive statistics on age and working conditions**

Descriptive Statistics				
	18 to 35	36 to 45	46 to 55	Above 55
	Years	Years	Years	Years
N	78	25	6	2
Mean	3.74	3.36	3.50	3.50
Median	4.00	3.00	4.00	3.50
Mode	4	4	4	3
Std. Deviation	.633	.700	.837	.707

Most of the CO's between the age of 18 and 35 years (65.4%) agreed with their working conditions as is also seen by the mean and standard deviation of  $(3.74 \pm 0.633)$  whereas a fraction 24.4% disagreed with their working conditions and 6.4% moderately agreed with their working conditions. While for the CO's aged between of 36 and 45 years most of them (48%) agreed with their working conditions as is also seen by the mean and standard deviation of  $(3.36 \pm 0.700)$  whereas a fraction 40% disagreed with their working conditions and 12.5% moderately agreed with their relation to co-workers. For the CO's aged between of 46 and 55 years most of the COs (66.7%) disagreed and agreed with their working conditions as is also seen by the mean and standard deviation of  $(3.50 \pm 0.548)$ . Finally, for the CO's above 55 years of age, equal number of them (50%) both disagreed and agreed respectively with their working conditions as also seen by the mean and standard deviation of  $(3.50 \pm 0.707)$ .



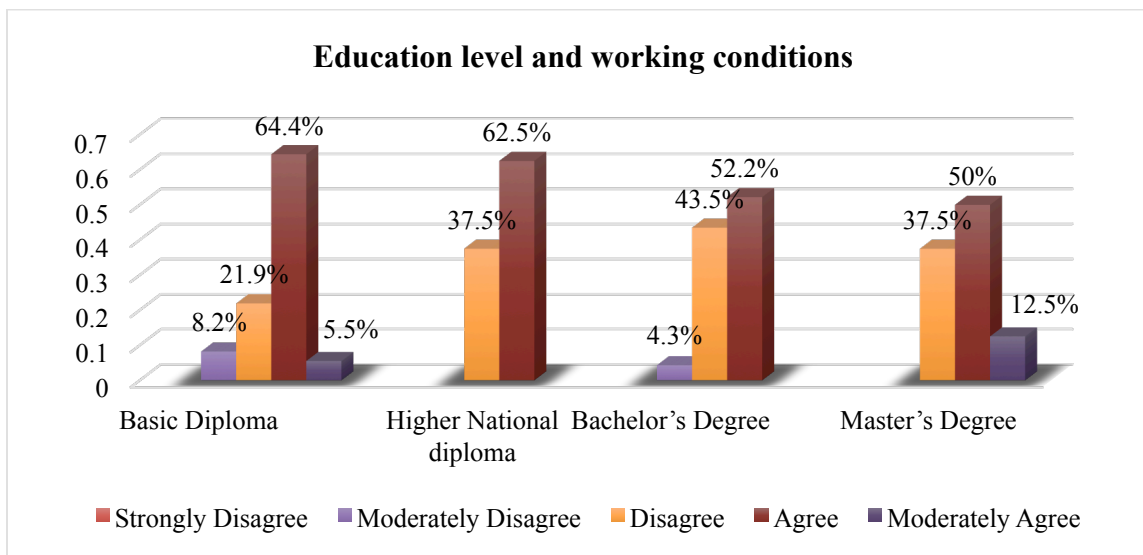
**Table 56: Inferential statistics for age and working conditions**

Age and Working conditions					
Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)		
Pearson Chi-Square	8.582	9	.477		
ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.951	3	.650	1.438	.236
Within Groups	48.391	107	.452		
Total	50.342	110			
Pearson Correlation					
	Value	N	Sig. (2-tailed)		
Pearson Correlation	-.190	111	.046		

There is no association between age and working conditions among the clinical officers in Nairobi City County as seen by the chi-square test. ( $\chi^2 = 8.582$ ,  $df = 9$ ,  $p = 0.477$ ). From the correlation, there is a weak negative linear relationship between age and working conditions among the clinical officers in Nairobi City County. ( $r = -0.190$ ,  $p = 0.046$ ). Finally, from the ANOVA analysis, there is no statistical difference in the mean of working conditions between the different ages of the clinical officers ( $F = 1.438$ ,  $df = (3, 110)$ ,  $p = 0.236$ ).

#### 4.4.10.3 Relationship between Education level and Working conditions

The study aimed at examining the statistical relationship between educational level and satisfaction with working conditions.



**Figure 41: Educational level and working conditions**

**Table 57: Descriptive statistics on Educational level and working conditions**

Descriptive Statistics				
	Basic Diploma	Higher National Diploma	Bachelor's Degree	Master's Degree
N	73	8	23	8
Mean	3.67	3.63	3.48	3.75
Median	4.00	4.00	4.00	4.00
Mode	4	4	4	4
Std. Deviation	.708	.518	.593	.707

A greater proportion of the CO's with a basic diploma (64.4%) agreed with their working conditions as is also seen by the mean and standard deviation of  $(3.67 \pm 0.708)$  whereas a fraction 21.9% disagreed with their working conditions, 8.2% moderately disagreed with their relation to co-workers, 5.5% both moderately agreed with their working conditions. While for the CO's with a higher national diploma, most of them (62.5%) agreed with their working conditions as is also seen by the mean and standard deviation of  $(3.63 \pm 0.518)$  whereas a fraction 37.5% disagreed with their working conditions. For the CO's with a bachelor's degree most of them (52.2%) agreed with their working conditions as is also seen by the mean and standard deviation of  $(3.48 \pm 0.593)$  whereas a fraction 43.5% disagreed with the 4.3% moderately disagreeing with their working conditions. Finally, for the CO's with a master's

degree, most of them (50%) agreed with their working conditions as is also seen by the mean and standard deviation of  $(3.75 \pm 0.707)$  whereas a fraction 37.5% agreed and also disagreed with the 12.5% moderately agreed with their working conditions.

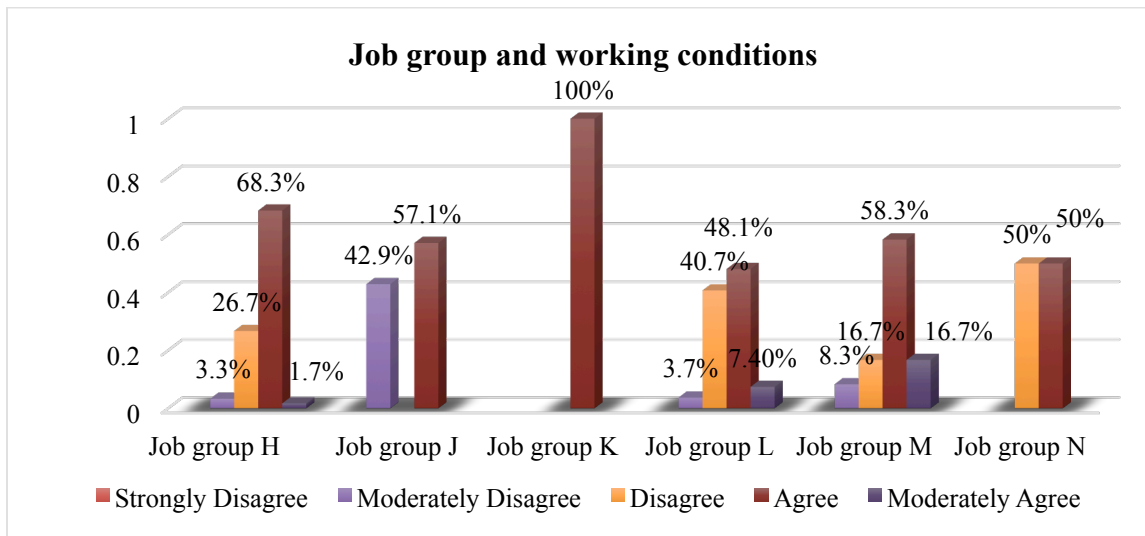
**Table 58: Inferential statistics for Educational level and working conditions**

Education level and Working conditions					
Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)		
Pearson Chi-Square	8.964	12	.706		
ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.215	3	1.405	1.232	.302
Within Groups	124.281	109	1.140		
Total	128.496	112			
Pearson Correlation					
	Value	N	Sig. (2-tailed)		
Pearson Correlation	-.040	113	.670		

There is no association between education level and working conditions among the clinical officers in Nairobi City County as seen by the chi-square test. ( $\chi^2 = 8.964$ ,  $df = 12$ ,  $p = 0.706$ ). From the correlation, there is a weak negative linear relationship between education level and working conditions among the clinical officers in Nairobi City County. ( $r = -0.040$ ,  $p = 0.670$ ). Finally, from the ANOVA analysis, there is a statistical difference in the mean of working conditions between the clinical officers with different education levels ( $F = 1.232$ ,  $df = (3, 112)$ ,  $p = 0.302$ ).

#### 4.4.10.4 Relationship between Job group and Working conditions

The analysis aimed at finding if job group of the respondent had an influence on their satisfaction with working conditions.



**Figure 42: Job group and working conditions**

**Table 59: Descriptive statistics on job group and working conditions**

Descriptive Statistics						
	job group H	job group J	job group K	job group L	job group M	job group N
N	60	7	2	27	12	2
Mean	3.68	3.14	4.00	3.59	3.83	3.50
Median	4.00	4.00	4.00	4.00	4.00	3.50
Mode	4	4	4	4	4	3
Std. Deviation	.567	1.069	.000	.694	.835	.707

For the CO's in job group H, most of them (56.7%) agreed with their working conditions as is also seen by the mean and standard deviation of  $(3.68 \pm 0.567)$  whereas a fraction 26.7% disagreed with their working conditions, 3.3% moderately disagreed with their working conditions and finally 1.7% moderately agreed with their working conditions. While for the CO's in job group J, most of them (57.1%) agreed with their working conditions as is also seen by the mean and standard deviation of  $(3.14 \pm 1.069)$  whereas a fraction 42.9% moderately disagreed with their working conditions. For the CO's in job group K, all of them (100%) agreed with their working conditions as is also seen by the mean and standard deviation of  $(4.00 \pm 0.00)$ . For the CO's in job group L, most of them (48.1%) agreed with their working conditions as is

also seen by the mean and standard deviation of  $(3.59 \pm 0.736)$  whereas a fraction 40.7% disagreed with their working conditions, 7.4% moderately agreed with their working conditions and finally 3.7% moderately disagreed with their working conditions. For the CO's in job group M, most of them (58.3%) agreed with their working conditions as is also seen by the mean and standard deviation of  $(3.83 \pm 0.835)$  whereas a fraction 16.7% disagreed and moderately agreed respectively with their working conditions and 8.3% moderately disagreed with their working conditions. Finally, for the CO's in job group N, 50% both agreed and disagreed respectively with their working conditions as is also seen by the mean and standard deviation of  $(3.50 \pm 0.707)$ .

**Table 60: Inferential statistics for job group and working conditions**

<b>Job group and Working conditions</b>					
<b>Chi-Square Tests</b>					
	<b>Value</b>	<b>df</b>	<b>Asymp. Sig. (2-sided)</b>		
Pearson Chi-Square	31.729	18	.024		
<b>ANOVA</b>					
	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	12.917	3	4.306	1.599	.194
Within Groups	288.074	107	2.692		
Total	300.991	110			
<b>Pearson Correlation</b>					
	<b>Value</b>	<b>N</b>	<b>Sig. (2-tailed)</b>		
Pearson Correlation	.022	111	.818		

There is an association between job group and working conditions among the clinical officers in Nairobi City County as seen by the chi-square test. ( $\chi^2 = 31.729$ ,  $df = 18$ ,  $p = 0.024$ ). From the correlation, there is a weak positive linear relationship between job group and working conditions among the clinical officers in Nairobi City County. ( $r=0.022$ ,  $p= 0.818$ ). Finally, from the ANOVA analysis, there is no statistical difference in the mean of working conditions between the clinical officers from different job groups ( $F= 1.599$ ,  $df = (3, 110)$ ,  $p = 0.194$ ).

#### 4.5 To examine the relationship between Formal CPD trainings and perceptions towards Job Characteristics among COs in Nairobi County

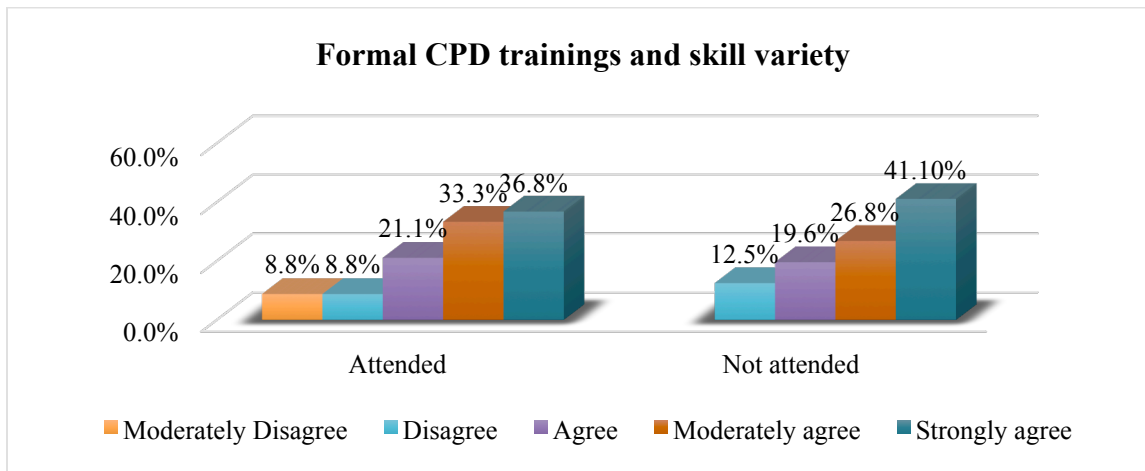
The section below discusses the descriptive statistics in explaining the relationship between CPD activities and attributes of job characteristics among COs in Nairobi County as well as the inferential statistics to explain the relationship between CPD activities and attributes of job characteristics among COs in Nairobi County. The job characteristics aspects highlighted in this study are skill variety, task identity, task significance, autonomy and feedback

##### 4.5.1 Relationship between formal CPD trainings and Skill variety

The researcher sought to establish the relationship between CPD training and perception towards job allowing opportunities to undertake a variety of tasks, that is, skill variety.

**Table 61: Attributes of skill variety**

Skill Variety attributes				
			Std.	
	N	Mean	Deviation	Skewness
1. How much would you like your work to be Stimulating and challenging	112	3.71	1.721	-.161
2. Opportunities to learn new things from my work	112	5.47	.910	-1.599
3. Opportunities to be creative and imaginative in my work	112	4.95	1.214	-.757
4. Opportunities for personal growth and development.	112	5.47	.890	-1.635



**Figure 43: Formal CPD trainings and skills variety**

**Table 62: Descriptive statistics on formal CPD trainings and skills variety**

Descriptive statistics		
	Attended	Not Attended
N	57	56
Mean	4.98	4.96
Median	5.00	5.00
Mode	6	6
Std. Deviation	.973	1.061

For the clinical officers that attended the formal CPD trainings, a greater proportions (36.8%) strongly agreed on the skill variety as is also seen by the mean and standard deviation of (4.98 ± 0.973) whereas 33.3% moderately agreed on skill variety whereas 21.1% agreed and finally 8.8% disagreed and moderately disagreed on skill variety respectively. While for the clinical officers that had not attended the formal CPD trainings, a greater proportions (41%) strongly agreed on the skill variety as is also seen by the mean and standard deviation of (4.96 ± 1.061) whereas 26.8% moderately agreed on skill variety whereas 19.6% agreed and finally 12.5% moderately disagreed on skill variety.

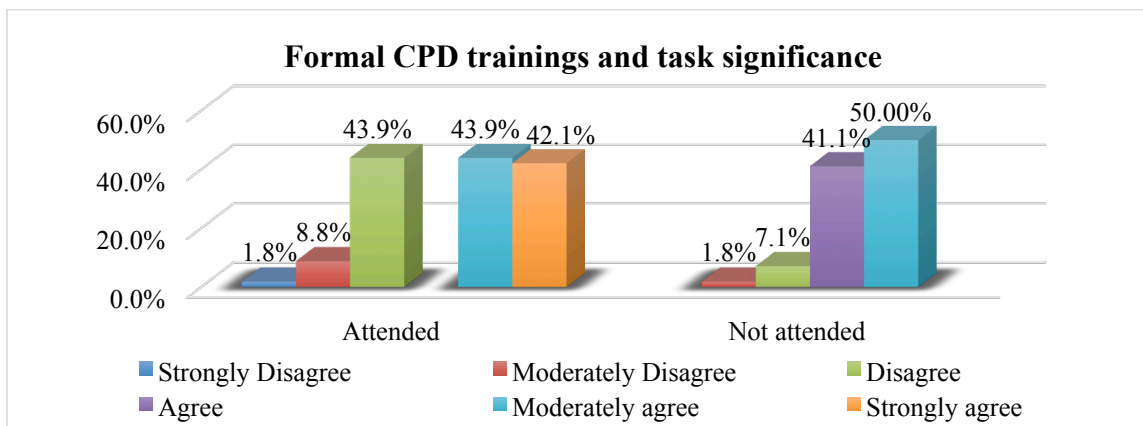
#### 4.5.2 To examine the relationship between Formal CPD trainings and Task significance

Task significance is the extent to which one is regarded as important. The researcher aimed to determine if formal development training has an influence of how one perceived the way the job they did was regarded as being important.

**Table 63: Attributes of task significance**

	Task significance attributes			
	N	Mean	Std. Deviation	Skewness
1. A sense of worthwhile accomplishment in my work.	112	5.45	.879	-1.822
2. My opinion of myself goes up when I do this job well.	112	5.32	.997	-1.795
3. Most of the things I have to do on this job seem useless or trivial.	112	2.15	1.441	1.496
4. I feel a great sense of personal satisfaction when I do this job well.	112	4.97	1.663	-1.465
5. The work I do on this job is very meaningful to me.	112	5.27	1.162	-1.838
6. My own feelings are generally not affected much one way or the other by how well I do on this job	113	2.53	1.530	.649





**Figure 44: CPD training and task significance**

**Table 64: Descriptive statistics on CPD training and task significance**

Descriptive statistics	Not	
	Attended	Attended
N	57	56
Mean	4.35	4.39
Median	4.00	4.50
Mode	4	5
Std. Deviation	.834	.705

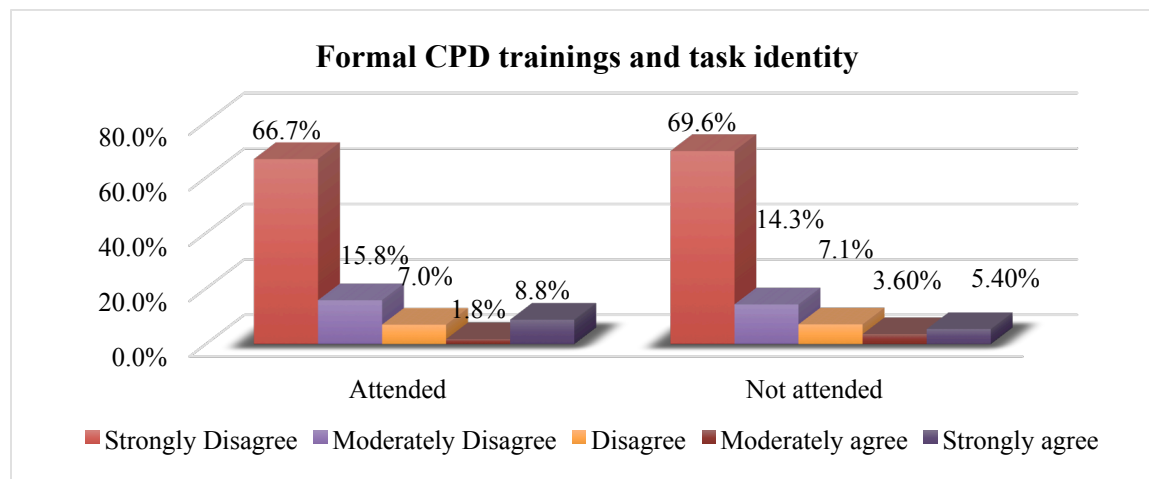
For the clinical officers that attended the formal CPD trainings, an equal proportions (43.9%) disagreed and moderately agreed on the task significance as is also seen by the mean and standard deviation of  $(4.35 \pm 0.834)$  whereas 42.1% strongly agreed on task significance whereas the least 1.8% strongly disagreed on task significance. While for the clinical officers that had not attended the formal CPD trainings, a greater proportions (50%) moderately agreed on the task significance as is also seen by the mean and standard deviation of  $(4.39 \pm 0.705)$  whereas 41.1% agreed on task significance whereas the least were 1.8% who moderately disagreed on task significance.

### 4.5.3 To examine the relationship between Formal CPD trainings and perceived Task identity

The researcher aimed at determining if respondents prior attendance to professional development raining has an influence on how they perceived their ability to identify their roles.

**Table 65: Attributes of task identity**

	Task Identity attributes			
	N	Mean	Std. Deviation	Skewness
It's hard for me to care very much about whether or not the work gets done right.	111	1.76	1.454	2.098



**Figure 45: Formal CPD trainings and task identity**

**Table 66: Descriptive statistics on formal CPD trainings and task identity**

	Descriptive statistics	
	Attended	Not Attended
N	57	56
Mean	1.81	1.70
Median	1.00	1.00
Mode	1	1
Std. Deviation	1.517	1.374

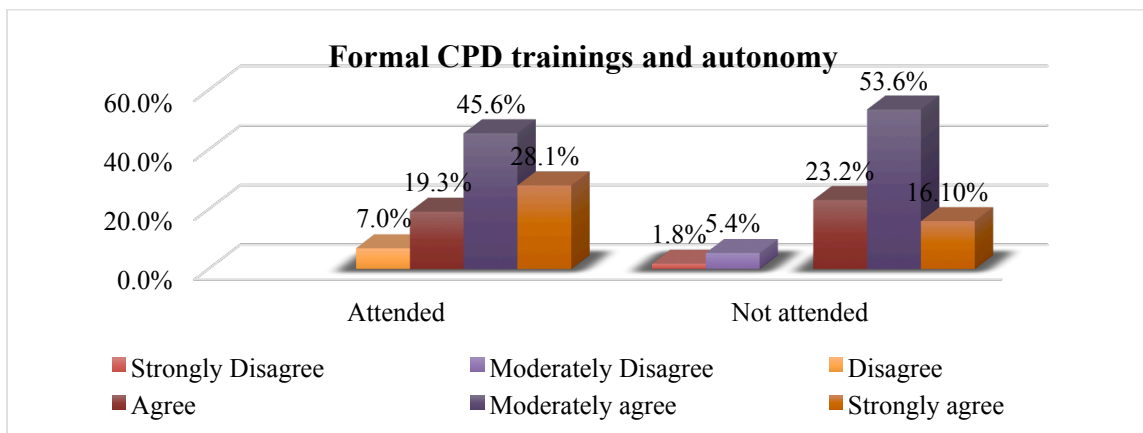
For the clinical officers that attended the formal CPD trainings, a greater proportion (66.7%) strongly disagreed on the task identity as is also seen by the mean and standard deviation of (1.81 ± 1.517) whereas 15.8% moderately disagreed on task identity whereas 8.8% strongly agreed and finally 1.8% moderately disagreed on task identity. While for the clinical officers who had not attended the formal CPD trainings, a greater proportion (69.6%) strongly disagreed on the task identity as is also seen by the mean and standard deviation of (1.70 ± 1.374) whereas 14.3% moderately disagreed on task identity whereas the least were 3.6% who moderately agreed on task identity.

#### 4.5.4 To examine the relationship between Formal CPD trainings and Autonomy

The study aimed at determining if there is a relationship between attending development training and how the clinical officers perceived the extent to which they are able to make decisions in their work.

**Table 67: Attributes of autonomy**

Autonomy attributes				
	N	Mean	Std. Deviation	Skewness
1. Chances to exercise independent thought and action.	112	4.88	1.316	-.852
2. I feel a very high degree of personal responsibility for the work I do.	113	5.29	1.200	-2.193
3. I feel I should personally take the credit or blame for the results of my work.	112	4.70	1.500	-1.016
4. Whether or not this job gets done right is clearly my responsibility.	113	5.28	1.228	-2.120



**Figure 46: Formal CPD trainings and autonomy**

**Table 68: Descriptive statistics on formal CPD trainings and autonomy**

Descriptive statistics	Not	
	Attended	Attended
N	57	56
Mean	4.95	4.75
Median	5.00	5.00
Mode	5	5
Std. Deviation	.875	.919

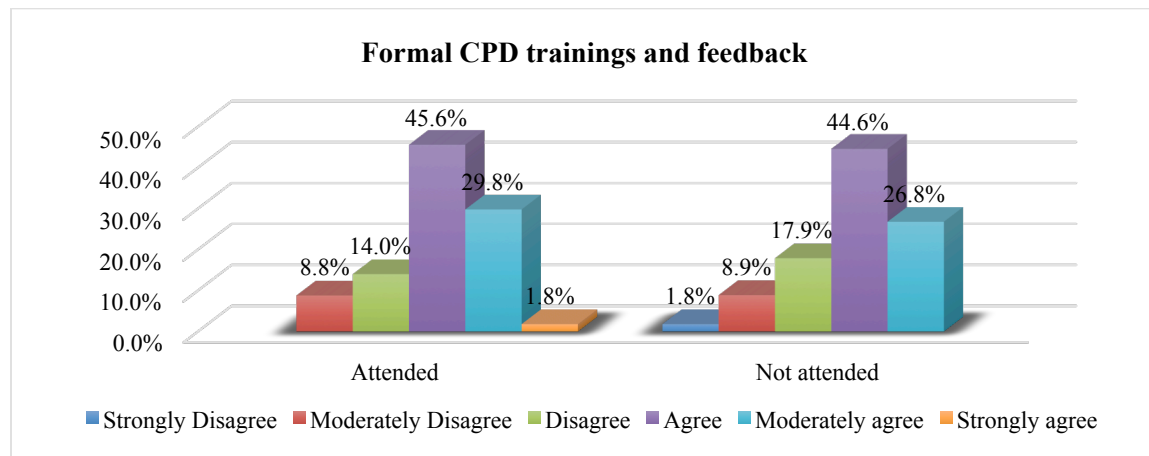
For the clinical officers that attended the formal CPD trainings, a greater proportion (45.6%) moderately agreed on autonomy as is also seen by the mean and standard deviation of (4.95 ± 0.875) whereas 28.1% strongly agreed on autonomy whereas the least 7.0% disagreed on autonomy. While for the clinical officers that had not attended the formal CPD trainings, a greater proportions (53.6%) moderately agreed on autonomy as is also seen by the mean and standard deviation of (4.75 ± 0.919) whereas 23.2% agreed on autonomy whereas the least were 1.8% who strongly disagreed on autonomy.

#### **4.5.5 To examine the relationship between Formal CPD trainings and Feedback**

The researcher aimed at examining if training had an influence on how the clinical officers perceived the feedback system about their work.

**Table 69: Attributes of feedback**

	Feedback attributes			
	N	Mean	Std. Deviation	Skewness
1. I usually know whether or not my work is satisfactory on this job.	112	4.34	1.443	-.561
2. I feel bad and unhappy when I discover that I have performed poorly.	113	5.04	1.644	-1.728
3. I often have trouble figuring out whether I am doing well or poorly.	113	2.66	1.573	.294



**Figure 47: Relationship between formal CPD trainings and feedback**

**Table 70: Descriptive statistics on relationship between formal CPD trainings and feedback**

Descriptive statistics	Not	
	Attended	Attended
N	57	56
Mean	4.02	3.86
Median	4.00	4.00
Mode	4	4
Std. Deviation	.935	.980

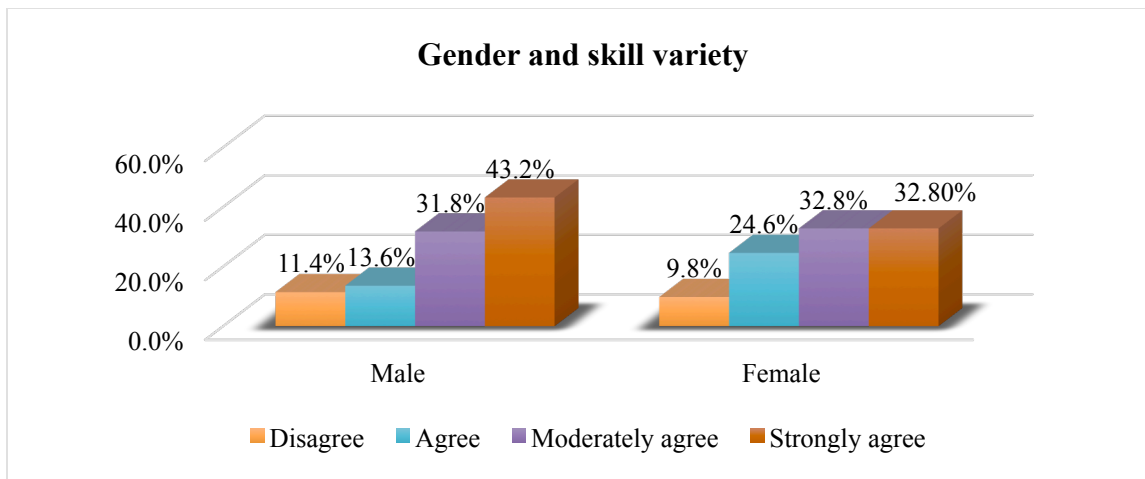
For the clinical officers that attended the formal CPD trainings, a greater proportion (45.6%) agreed on feedback as is also seen by the mean and standard deviation of (4.02 ± 0.935) whereas 29.8% moderately agreed on feedback whereas the least 1.8% strongly agreed on feedback. While for the clinical officers that had not attended the formal CPD trainings, a greater proportion (44.6%) agreed on feedback as is also seen by the mean and standard deviation of (3.86 ± 0.980) whereas 26.8% moderately agreed on feedback whereas the least 1.8% moderately agreed on feedback.

#### 4.5.6 Relationship between confounding variables and Skill variety

The analyses is done to determine if the confounding variables used in this study have influence on the different aspects of job characteristics

##### 4.5.6.1 Relationship between gender and Skill variety

The study aimed at investigating the relationship between gender and the extent to which one is able to apply different expertise and competences in their day-day performance of their duty at work.



**Figure 48: Gender and skill variety**

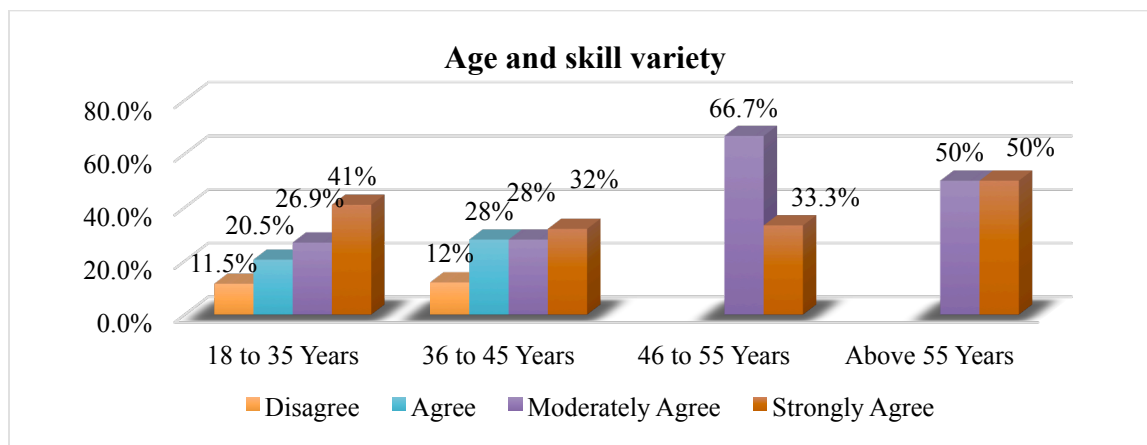
**Table 71: Descriptive statistics on gender and skill variety**

Descriptive Statistics		
	Male	Female
N	44	61
Mean	5.07	4.89
Median	5.00	5.00
Mode	6	5
Std. Deviation	1.021	.985

A good proportion of male CO's (43.2%) strongly agreed with the skill variety they receive as is also seen by the mean and standard deviation of (5.07 ± 1.021) whereas a fraction 31.8% moderately agreed with the skill variety they receive and 11.4% disagreed with the skill variety. While for the female CO's , and equal fraction (32.8%) strongly and moderately agreed each with the skill variety they receive as is also seen by the mean and standard deviation of (4.89 ± 0.985) whereas a fraction 9.8% disagreed with the skill variety they receive.

**4.5.6.2 Relationship between age and percetion towards Skill variety**

The analyses examined if age influences how one evaluates their capability to apply different competencies and professionalism while performing their work.



**Figure 49: Age and skill variety**

**Table 72: Descriptive statistics on age and skill variety**

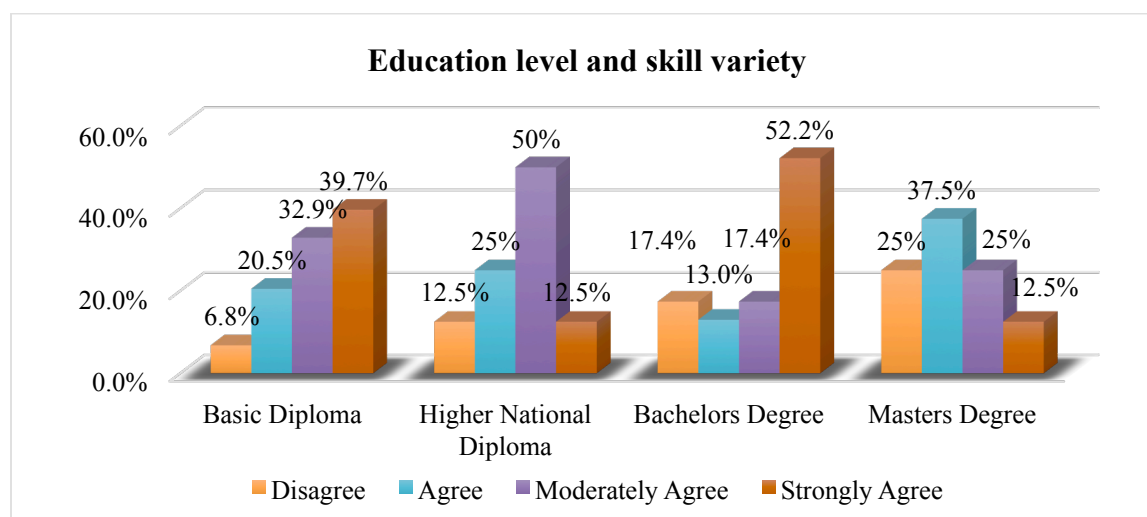
	Descriptive Statistics			
	18 to 35 years	36 to 45 years	46 to 55 years	Above 55 years
N	78	25	6	2
Mean	4.97	4.80	5.33	5.50
Median	5.00	5.00	5.00	5.50
Mode	6	6	5	5
Std. Deviation	1.044	1.041	.516	.707

Most of the CO's between the age of 18 and 35 years (41%) strongly agreed with the skill they receive as is also seen by the mean and standard deviation of  $(4.97 \pm 1.044)$  whereas a fraction of 11.5% disagreed with the skill variety they receive and 26.9% moderately agreed with the skill variety. While for the CO's aged between of 36 and 45 years most of them (32%) strongly agreed with the skill variety they receive as is also seen by the mean and standard deviation of  $(4.80 \pm 1.041)$  whereas a fraction 12% disagreed with the skill variety they receive and 28% moderately agreed with the skill variety. For the CO's aged between of 46 and 55 years most of them (67.7%) moderately agreed with the skill variety they receive as is also seen by the mean and standard deviation of  $(5.33 \pm 0.516)$  whereas a fraction 33.3% strongly agreed with the skill variety they receive. Finally, for the CO's above 55 years of age, an equal proportion of (50%) each moderately agreed and strongly agreed with the skill variety they receive as is also seen by the mean and standard deviation of  $(5.50 \pm 0.707)$

#### **4.5.6.3 Relationship between Education level and Skill variety**

The analysis of data aimed at determining the relationship between education level and skill variety





**Figure 50: Educational level and skills variety**

**Table 73: Descriptive statistics on Educational level and skills variety**

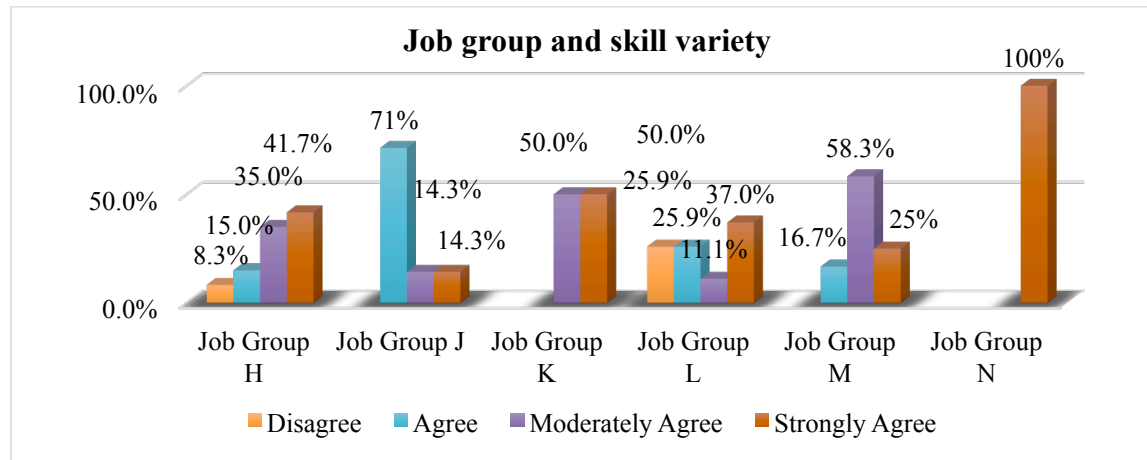
Descriptive Statistics				
	Basic Diploma	Higher National diploma	Bachelor's degree	Master's degree
N	73	8	23	8
Mean	5.05	4.63	5.04	4.25
Median	5.00	5.00	6.00	4.00
Mode	6	5	6	4
Std. Deviation	.941	.916	1.186	1.035

A fairly good proportion of the CO's with a basic diploma (39.7%) strongly agreed with the skill variety they receive as is also seen by the mean and standard deviation of  $(5.05 \pm 0.941)$  whereas a fraction 32.9% moderately agreed with the skill variety they receive and 6.8% disagreed with the skill variety. While for the CO's with a higher national diploma, half of them (50%) moderately agreed with the skill variety they receive as is also seen by the mean and standard deviation of  $(4.63 \pm 0.916)$  whereas a fraction 12.5% disagreed with the skill variety they receive. For the CO's with a bachelor's degree most of them (56.5%) strongly agreed with the skill variety they receive as is also seen by the mean and standard deviation of  $(5.04 \pm 1.186)$  whereas an equal fraction (17.4%) moderately agreed and disagreed with the skill variety they receive. Finally, for the CO's with a master's degree, a fair part of them (37.5%) agreed with the skill variety they receive as is also seen by the mean and standard deviation of  $(4.25 \pm 1.035)$

whereas a fraction 25% disagreed and moderately agreed each with the skill variety they receive and 12.5% strongly agreed with the skill variety.

#### 4.5.6.4 Relationship between Job group and Skill variety

The aim was to examine the influence on job group on skill variety



**Figure 51: Job group and skill variety**

**Table 74: descriptive statistics on job group and skill variety**

Descriptive Statistics						
	Job Group H	Job Group J	Job Group K	Job Group L	Job Group M	Job Group N
N	60	7	2	27	12	2
Mean	5.10	4.43	5.50	4.59	5.08	6.00
Median	5.00	4.00	5.50	4.00	5.00	6.00
Mode	6	4	5	6	5	6
Std. Deviation	.951	.787	.707	1.248	.669	.000

or the CO's in job group H, most of them (41.7%) strongly agreed with the skill variety they receive as is also seen by the mean and standard deviation of  $(5.10 \pm 0.951)$  whereas a fraction 35% moderately agreed with the skill variety they receive and 8.3% disagreed with the skill variety. While for the CO's in job group J, a great portion of them (71%) agreed with the skill variety they receive as is also seen by the mean and standard deviation of  $(4.43 \pm 0.787)$  whereas an equal fraction of 14.3% each moderately agreed and strongly agreed with the skill variety they

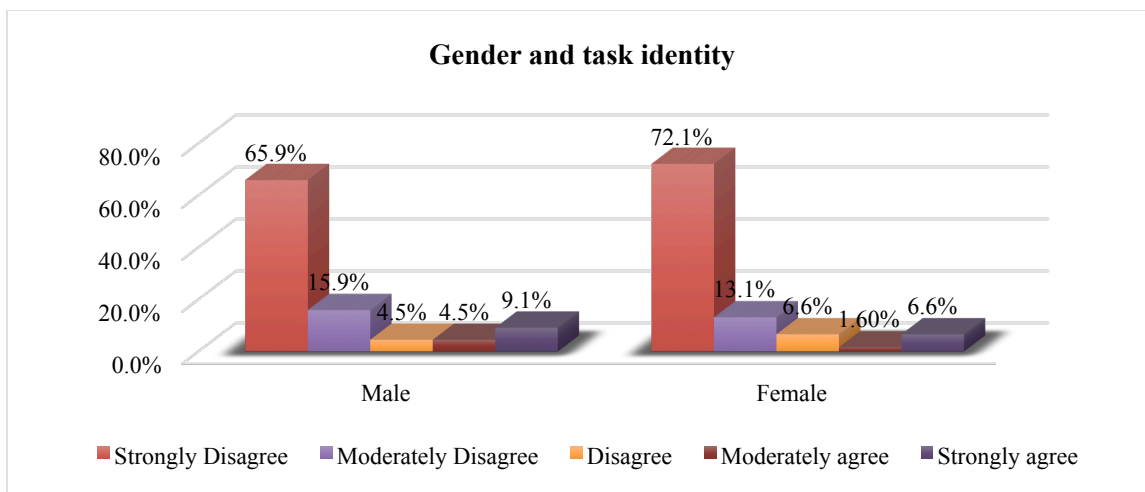
receive. For the CO's in job group K, an equal fraction of 50% each strongly agreed and moderately agreed to the skill variety they receive. For the CO's in job group L, 37% strongly agreed with the skill variety they receive as is also seen by the mean and standard deviation of  $(4.59 \pm 1.248)$  whereas an equal fraction 25.9% each, agreed and disagreed with the skill variety they receive. For the CO's in job group M, most of them (58.3%) strongly agreed with the skill variety they receive as is also seen by the mean and standard deviation of  $(5.08 \pm 0.669)$  whereas a fraction 25% strongly agreed with the skill variety and 16.7% agreed with the skill variety. Finally, for the CO's in job group N, all (100%) strongly agreed to the skill variety they receive as is also seen by the mean and standard deviation of  $(6.00 \pm 0.000)$ .

#### 4.5.7 Relationship between confounding variables and Task identity

The objective was to determine the extend to which the confounding variables influenced perception towards task identity.

##### 4.5.7.1 Relationship between Gender and Task identity

The researcher aimed at examining the influence of gender on how the clinical officers perceived the extent to which they could identify the work they are required to do.



**Figure 52: Gender and task identity**

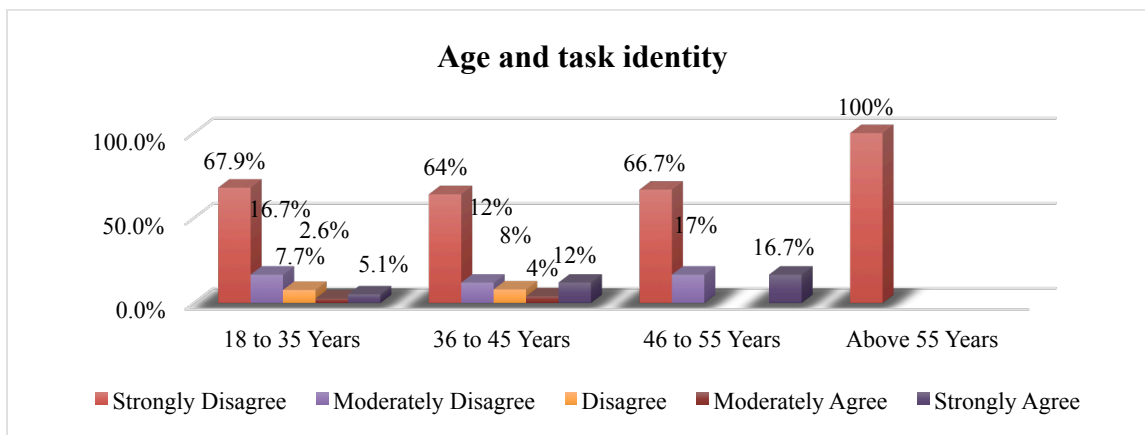
**Table 75: Descriptive statistics and gender and task identity**

Descriptive Statistics		
	Male	Female
N	44	61
Mean	1.89	1.66
Median	1.00	1.00
Mode	1	1
Std. Deviation	1.617	1.377

For the male clinical officers, a greater proportion (65.9%) strongly disagreed on the task identity as is also seen by the mean and standard deviation of  $(1.89 \pm 1.617)$  whereas 15.9% moderately disagreed on task identity whereas 9.1% strongly agreed and finally 4.5% each moderately disagreed and disagreed apiece on task identity. While for the female clinical officers, a greater proportions (72.1%) strongly disagreed on the task identity as also seen by the mean and standard deviation of  $(1.66 \pm 1.377)$  whereas 13.1% moderately disagreed on task identity whereas 6.6% each disagreed and strongly agreed equally on task identity and the least 1.6% moderately agreed.

#### 4.5.7.2 Relationship between Age and Task identity

The aim was to examine the relationship between age and how one subjectively evaluated their work assigned to them.



**Figure 53: Age and task identity**

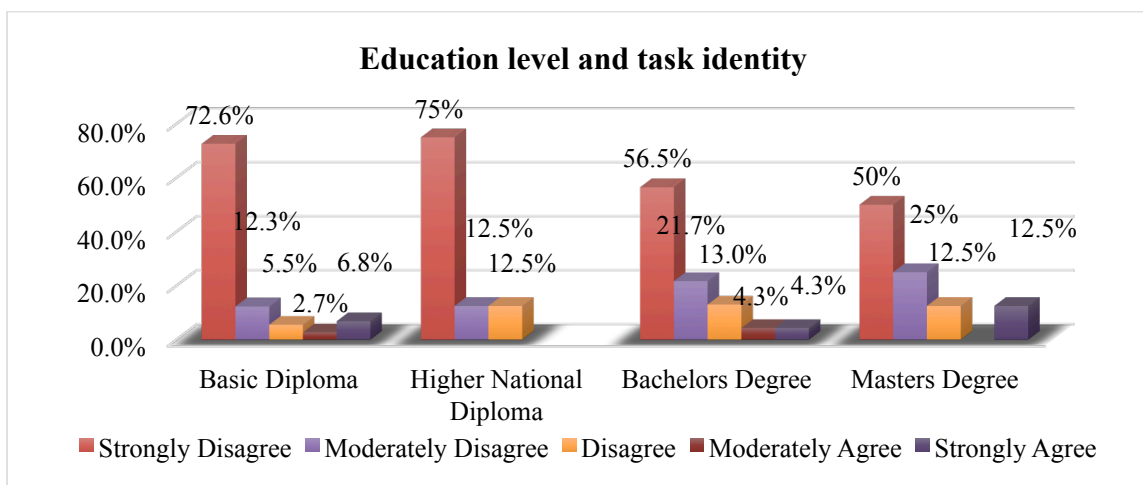
**Table 76: Descriptive statistics on age and task identity**

<b>Descriptive Statistics</b>				
	<b>18 to 35</b>	<b>36 to 45</b>	<b>46 to 55</b>	<b>Above</b>
	<b>years</b>	<b>years</b>	<b>years</b>	<b>55 years</b>
N	78	25	6	2
Mean	1.68	2.04	2.00	1.00
Median	1.00	1.00	1.00	1.00
Mode	1	1	1	1
Std. Deviation	1.314	1.767	2.000	.000

Most of the CO's between the age of 18 and 35 years (67.9%) strongly disagreed with the task identity with the mean and standard deviation of  $(1.68 \pm 1.314)$  whereas a fraction of 16.7% moderately disagreed with the task identity and 7.7% disagreed with the task identity. Most of the CO's between the age of 35 and 45 years (64%) strongly disagreed with the task identity with the mean and standard deviation of  $(2.04 \pm 1.767)$  whereas a fraction of 12% moderately disagreed with the task identity and 8% disagreed with the task identity. Most of the CO's between the age of 46 and 55 years (66.7%) strongly disagreed with the task identity with the mean and standard deviation of  $(2.00 \pm 2.00)$  whereas a fraction of 17% moderately disagreed with the task identity and 16.7% strongly agreed with the task identity. Finally all COs (100%) above 55 years strongly disagreed with the task identity with mean and standard deviation of  $(1.00 \pm 0.00)$ .

#### **4.5.7.3 Relationship between Education level and Task identity**

The aim was to find out if education level influenced perception of ones ability to identify job assigned to them.



**Figure 54: Education level and task identity**

**Table 77: Descriptive statistics on education level and task identity**

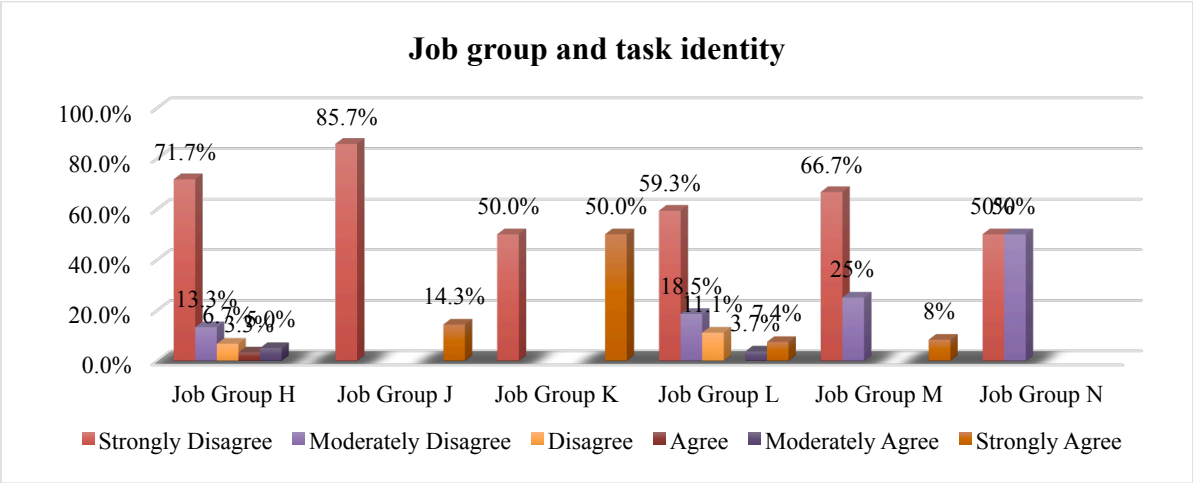
	Descriptive Statistics			
	Basic Diploma	Higher National diploma	Bachelor's degree	Master's degree
N	73	8	23	8
Mean	1.68	1.75	1.87	2.13
Median	1.00	1.00	1.00	1.50
Mode	1	1	1	1
Std. Deviation	1.433	1.753	1.359	1.727

Most of the CO's with a basic diploma (72.6%) strongly disagreed with the task identity as is also seen by the mean and standard deviation of  $(1.68 \pm 1.433)$  whereas a fraction of 12.3% moderately disagreed with the task identity and 6.8% strongly agreed with the task identity. While for the CO's with a higher national diploma, a great proportion (75%) strongly disagreed with the task identity as is also seen by the mean and standard deviation of  $(1.75 \pm 1.753)$  whereas a fraction of 12.5% each moderately disagreed with the task identity and disagreed with the task identity. For the CO's with a bachelor's degree most of them (56.5%) strongly disagreed with the task identity as is also seen by the mean and standard deviation of  $(1.87 \pm 1.359)$  whereas a fraction of 21.7% moderately disagreed with the task identity and 13.0% disagreed with the task identity. Finally, for the CO's with a master's degree, half of them(50%) strongly disagreed with the task identity as is also seen by the mean and standard deviation of  $(2.13 \pm$

1.727) whereas a fraction of 25% moderately disagreed with the task identity and an equal of 12.5% disagreed and strongly agreed each with the task identity.

**4.5.7.4 Relationship between Job group and perceived Task identity**

The aim was to establish the relationship between job group and perceived task identity



**Figure 55: Job group and task identity**

**Table 78: Descriptive statistics on job group and task identity**

Descriptive Statistics						
	Job Group H	Job Group J	Job Group K	Job Group L	Job Group M	Job Group N
N	60	7	2	27	12	2
Mean	1.65	1.71	3.50	1.93	1.67	2.00
Median	1.00	1.00	3.50	1.00	1.00	2.00
Mode	1	1	1	1	1	1
Std. Deviation	1.338	1.890	3.536	1.517	1.435	1.414

For the CO’s in job group H, a greater proportion of them (71.7%) strongly disagreed with the task identity as is also seen by the mean and standard deviation of (1.65 ± 1.338) whereas a fraction 13.3% moderately disagreed with the task identity and 6.7% disagreed with the task identity. While for the CO’s in job group J, a great proportion of them (85.7%) strongly disagreed with the task identity as is also seen by the mean and standard deviation of (1.71 ± 1.890)while 14.3% strongly agreed with the task identity. For the CO’s in job group K, half of

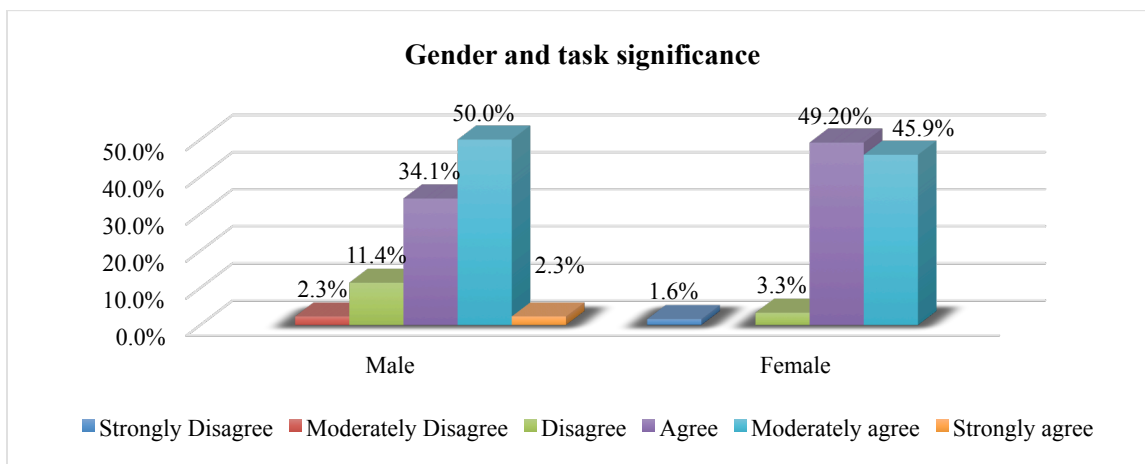
them (50%) strongly disagreed with the task identity as is also seen by the mean and standard deviation of  $(3.50 \pm 3.536)$  whereas the other half strongly agreed with the task identity. For the CO's in job group L, most of them (59.3%) strongly disagreed with the task identity as is also seen by the mean and standard deviation of  $(1.93 \pm 1.517)$  whereas a fraction 18.5% moderately disagreed with the task identity and 11.1% disagreed with the task identity. For the CO's in job group M, a great proportion of them (66.7%) strongly disagreed with the task identity as is also seen by the mean and standard deviation of  $(1.67 \pm 1.435)$  whereas a fraction 25% moderately disagreed with the task identity and 8% strongly agreed with the task identity Finally, for the CO's in job group N, an equal fraction (50%) strongly disagreed and moderately disagreed apiece to the task significance as is also seen by the mean and standard deviation of  $(2.0 \pm 1.414)$ .

#### 4.5.8 Relationship between confounding variables and Task significance

The researcher investigated the relationship between age, gender, education level and job group with how one evaluates their work as being important.

##### 4.5.8.1 Relationship between gender and task significance

The analyses examined if gender influenced how one evaluated their work as being important.



**Figure 56: Gender and tasks significance**



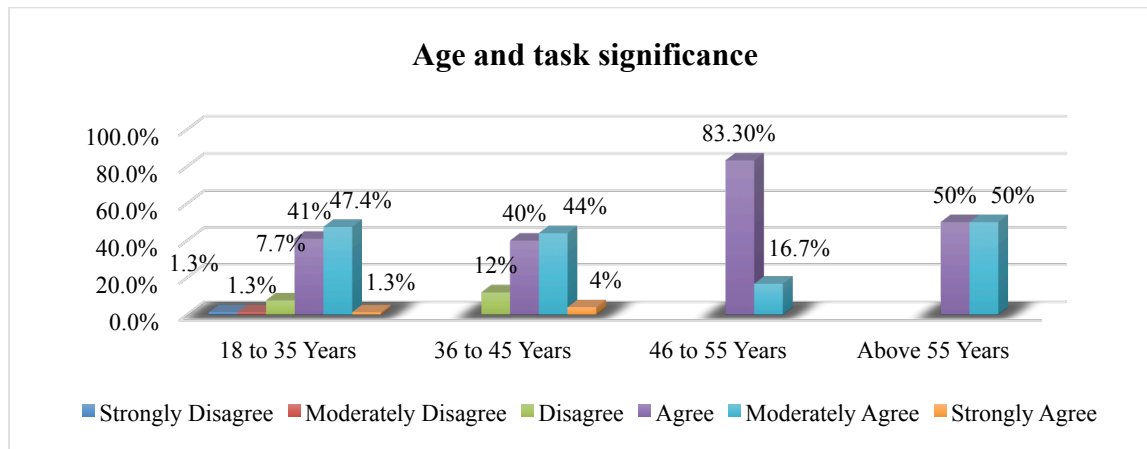
**Table 79: Descriptive statistics on gender and tasks significance**

Descriptive Statistics		
	Male	Female
N	44	61
Mean	4.39	4.38
Median	5.00	4.00
Mode	5	4
Std. Deviation	.813	.711

For the male COs, a half (50%) moderately agreed on the task significance as is also seen by the mean and standard deviation of  $(4.39 \pm 0.813)$  whereas 34.1% agreed on task significance and 11.4% disagreed with the task significance while an equal proportion of 2.3% strongly agreed and moderately disagreed apiece on task significance. For the female COs, most of them (49.20%) agreed on the task significance as is also seen by the mean and standard deviation of  $(4.38 \pm 0.711)$  whereas 45.9% moderately agreed on task significance and 3.3% disagreed with the task significance while 1.6% strongly disagreed on the task significance.

#### 4.5.8.2 Relationship between Age and Task significance

The analyses of the data examined the relationship between age and task significance.



**Figure 57: Age and task significance**

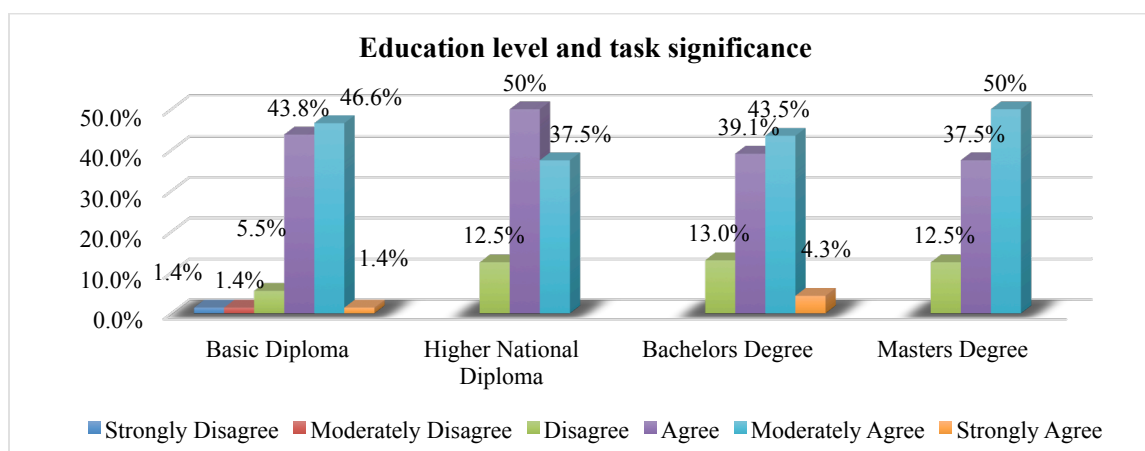
**Table 80: Descriptive statistics on age and task significance**

	Descriptive Statistics			
	18 to 35	36 to 45	46 to 55	Above 55
	years	years	years	years
N	78	25	6	2
Mean	4.36	4.40	4.17	4.50
Median	4.00	4.00	4.00	4.50
Mode	5	5	4	4
Std. Deviation	.805	.764	.408	.707

Most of the CO's between the age of 18 and 35 years (47.4%) moderately agreed with the task significance they do as is also seen by the mean and standard deviation of  $(4.36 \pm 0.805)$  whereas a good fraction of 41% also agreed with the task significance and 7.7% disagreed with the task significance. While for the CO's aged between of 36 and 45 years most of them (44%) moderately agreed with the task significance as is also seen by the mean and standard deviation of  $(4.40 \pm 0.764)$  whereas a fraction of 40% also agreed with the task significance and 12% disagreed with the task significance. For the CO's aged between of 46 and 55 years a great portion of them (83.50%) agreed with the task significance they do as is also seen by the mean and standard deviation of  $(4.17 \pm 0.408)$  whereas a fraction of 16.7% also moderately agreed with the task significance. Finally, for the CO's above 55 years of age, an equal proportion of (50%) each moderately agreed and agreed with the task significance as is also seen by the mean and standard deviation of  $(4.50 \pm 0.707)$

#### **4.5.8.3 Relationship between Education level and Task significance**

The analyses investigate the relationship between education level and task significance.



**Figure 58: Education level and tasks significance**

**Table 81: Descriptive statistics on education level and tasks significance**

	Descriptive Statistics			
	Basic Diploma	Higher National diploma	Bachelor's degree	Master's degree
N	73	8	23	8
Mean	4.37	4.25	4.39	4.38
Median	4.00	4.00	4.00	4.50
Mode	5	4	5	5
Std. Deviation	.791	.707	.783	.744

Most of the CO's with a basic diploma (46.6%) moderately agreed with the task significance as is also seen by the mean and standard deviation of  $(4.37 \pm 0.791)$  whereas a fraction 43.8% agreed with the task significance and 5.5% disagreed with the task significance. While for the CO's with a higher national diploma, half of them (50%) agreed with the task significance as is also seen by the mean and standard deviation of  $(4.25 \pm 0.707)$  whereas a fraction 37.5% moderately agreed with the task significance and of them, 12.5% disagreed with the task significance. For the CO's with a bachelor's degree most of them (43.5%) moderately agreed with the task significance as is also seen by the mean and standard deviation of  $(4.39 \pm 0.783)$  whereas a fraction 39.1% agreed with the task significance and 13% of them disagreed with the same. Finally, for the CO's with a master's degree, a half of them (50%) moderately agreed with the task significance as is also seen by the mean and standard deviation of  $(4.38 \pm 0.744)$  whereas a fraction 12.5% disagreed with the task significance.

#### 4.5.8.4 Relationship between Job group and Task significance

The analyses examined if job group influenced perception towards task significance

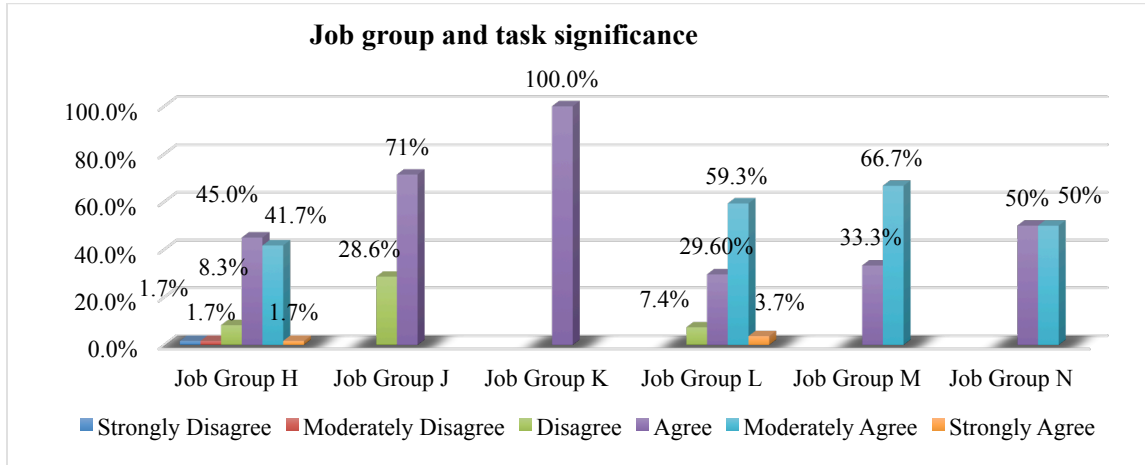


Figure 59: Job group and task significance

Table 82: Descriptive statistics on job group and task significance

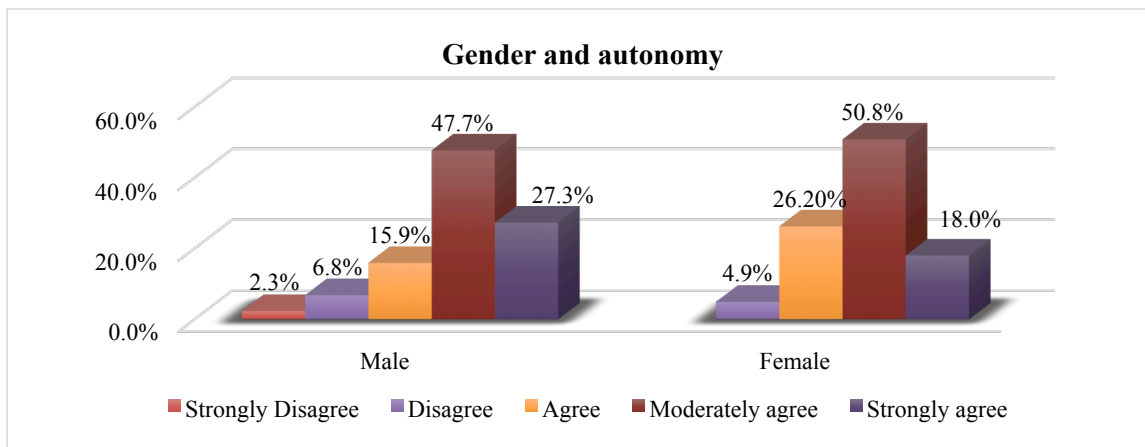
Descriptive Statistics						
	Job Group H	Job Group J	Job Group K	Job Group L	Job Group M	Job Group N
N	60	7	2	27	12	2
Mean	4.28	3.71	4.00	4.59	4.67	4.50
Median	4.00	4.00	4.00	5.00	5.00	4.50
Mode	4	4	4	5	5	4
Std. Deviation	.846	.488	.000	.694	.492	.707

For the CO's in job group H, most of them (45.0%) agreed with the task significance as is also seen by the mean and standard deviation of  $(4.28 \pm 0.846)$  whereas a fraction 41.7% moderately agreed with the task significance and 8.3% disagreed with the task significance. While for the CO's in job group J, a great portion of them (71%) agreed with the skill variety they receive as is also seen by the mean and standard deviation of  $(3.71 \pm 0.488)$  whereas a fraction of 28.6% moderately agreed with the task significance. For the CO's in job group K, all of them (100%) agreed to the task significance with mean and standard deviation of  $(4.00 \pm 0.000)$ . For the CO's

in job group L, most of them (59.3%) moderately agreed with the task significance as is also seen by the mean and standard deviation of  $(4.59 \pm 0.694)$  whereas a fraction 29.6% agreed with the task significance and 7.4% disagreed with the same. For the CO's in job group M, most of them (66.7%) moderately agreed with the task significance as is also seen by the mean and standard deviation of  $(4.67 \pm 0.497)$  whereas a fraction 33.3% agreed with the task significance. Finally, for the CO's in job group N, an equal fraction (50%) agreed and moderately agreed apiece to the task significance as is also seen by the mean and standard deviation of  $(4.50 \pm 0.707)$ .

#### 4.5.9 Relationship between confounding variables and Autonomy

The researcher investigated the relationship between the different confounding variables identified in this study with autonomy.



**Figure 60: Gender and autonomy**

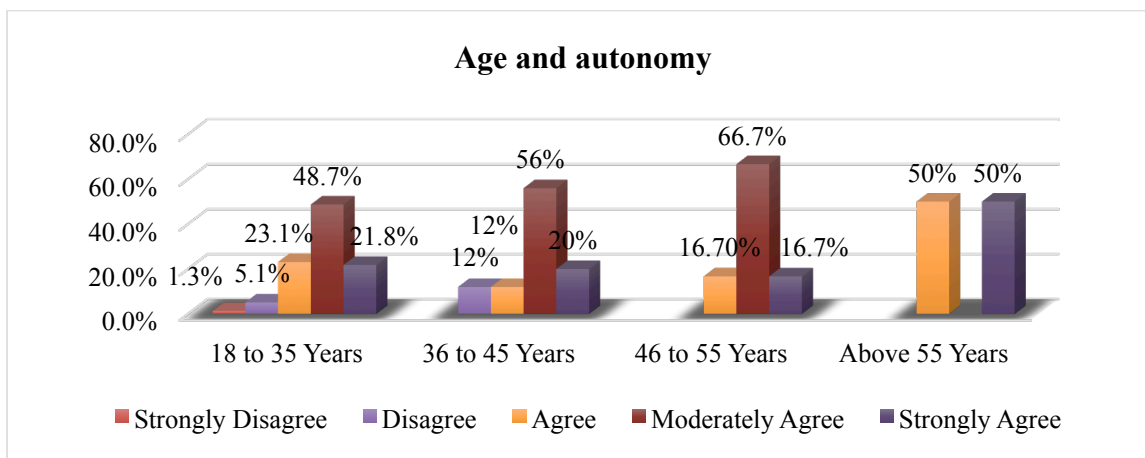
**Table 83: Descriptive statistics on gender and autonomy**

Descriptive Statistics		
	Male	Female
N	44	61
Mean	4.89	4.82
Median	5.00	5.00
Mode	5	5
Std. Deviation	1.039	.785

For the Male clinical officer's a greater proportion (47.7%) moderately agreed on autonomy as is also seen by the mean and standard deviation of  $(4.89 \pm 1.039)$  whereas 27.3% strongly agreed on autonomy and the least 6.8% disagreed on autonomy. While for the Female clinical officers, a greater proportions (50.8%) moderately agreed on autonomy as is also seen by the mean and standard deviation of  $(4.82 \pm 0.785)$  whereas 26.2% agreed on autonomy whereas the least were 4.9% who agreed on autonomy.

#### 4.5.9.1 Relationship between Age and Autonomy

The analysis investigates if age influences how one perceives autonomy in their work.



**Figure 61: Age and autonomy**

**Table 84: Descriptive statistics on age and autonomy**

	Descriptive Statistics			
	18 to 35	36 to 45	46 to 55	Above 55
	years	years	years	years
N	78	25	6	2
Mean	4.83	4.84	5.00	5.00
Median	5.00	5.00	5.00	5.00
Mode	5	5	5	4
Std. Deviation	.918	.898	.632	1.414

Most of the CO's between the age of 18 and 35 years (48.7%) moderately agreed with the autonomy as is also seen by the mean and standard deviation of  $(4.83 \pm 0.918)$  whereas 23.1%

agreed with the autonomy and 5.1% disagreed with the autonomy. Most of the CO's between the age of 36 and 45 years (56%) moderately agreed with the autonomy as is also seen by the mean and standard deviation of  $(4.84 \pm 0.898)$  whereas 20% strongly agreed with the autonomy and 12% disagreed and agree each with the autonomy. While most of the CO's between the age of 46 and 55 years (66.7%) moderately agreed with the autonomy as is also seen by the mean and standard deviation of  $(5.00 \pm 0.632)$  whereas 16.7% strongly agreed and agreed with the autonomy .Lastly those above 55 years had equal proportion (50%) agreed and strongly agreed with the feedback as is also seen by the mean and standard deviation of  $(5.0 \pm 1.414)$

#### 4.5.9.2 Relationship between Education level and Autonomy

The analysis examines the relationship between education level and autonomy.

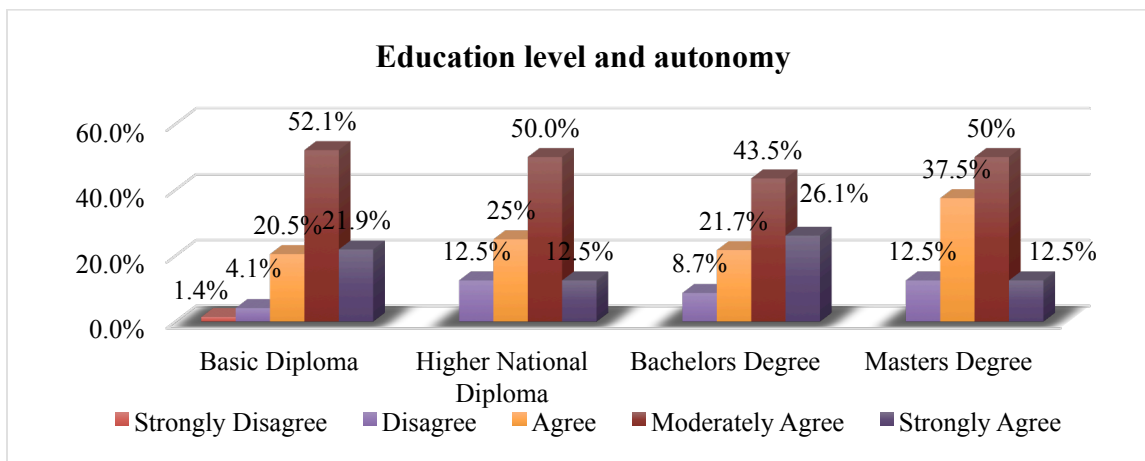


Figure 62: Education level and autonomy

Table 85: Descriptive statistics on education level and autonomy

	Descriptive Statistics			
	Basic Diploma	Higher National diploma	Bachelor's degree	Master's degree
N	73	8	23	8
Mean	4.88	4.63	4.87	4.63
Median	5.00	5.00	5.00	5.00
Mode	5	5	5	5
Std. Deviation	.897	.916	.920	.916

Most of the CO's with a basic diploma (52.1%) moderately agreed with the autonomy as is also seen by the mean and standard deviation of  $(4.88 \pm 0.897)$  whereas a fraction 21.9% strongly agreed with the autonomy and 20.0% agreed with the autonomy. While for the CO's with a higher national diploma, half of them (50%) moderately agreed with the autonomy with mean and standard deviation of  $(4.63 \pm 0.916)$  whereas a fraction 25% agreed with the autonomy and 12.5% each strongly agreed and disagreed apiece with the autonomy. For the CO's with a bachelor's degree most of them (43.5%) moderately agreed with the autonomy as is also seen by the mean and standard deviation of  $(4.87 \pm 0.920)$  whereas a fraction (26.1%) strongly agreed with the autonomy and 21.7% of them agreed with the same. Finally, for the CO's with a master's degree, a half of them (50%) moderately agreed with the autonomy as is also seen by the mean and standard deviation of  $(4.63 \pm 0.916)$  whereas a fraction 37.5% agreed with the autonomy and 12.5% disagreed and strongly agreed apiece with the autonomy

#### 4.5.9.3 Relationship between Job group and Autonomy

The researcher examined the influence job group has on autonomy.

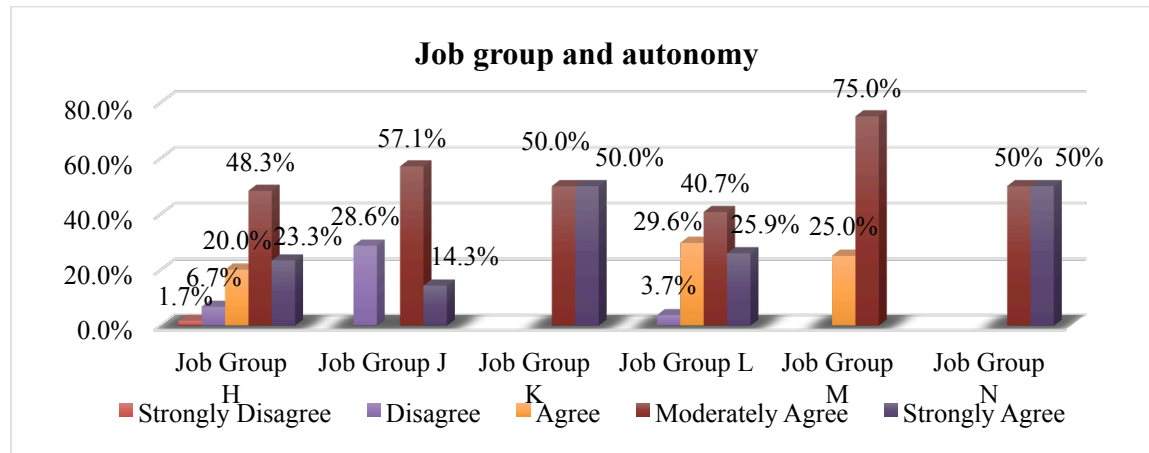


Figure 63: Job group and autonomy

Table 86: Descriptive statistics on job group and autonomy

Descriptive Statistics						
	Job Group H	Job Group J	Job Group K	Job Group L	Job Group M	Job Group N
N	60	7	2	27	12	2
Mean	4.83	4.57	5.50	4.89	4.75	5.50



Median	5.00	5.00	5.50	5.00	5.00	5.50
Mode	5	5	5	5	5	5
Std. Deviation	.977	1.134	.707	.847	.452	.707

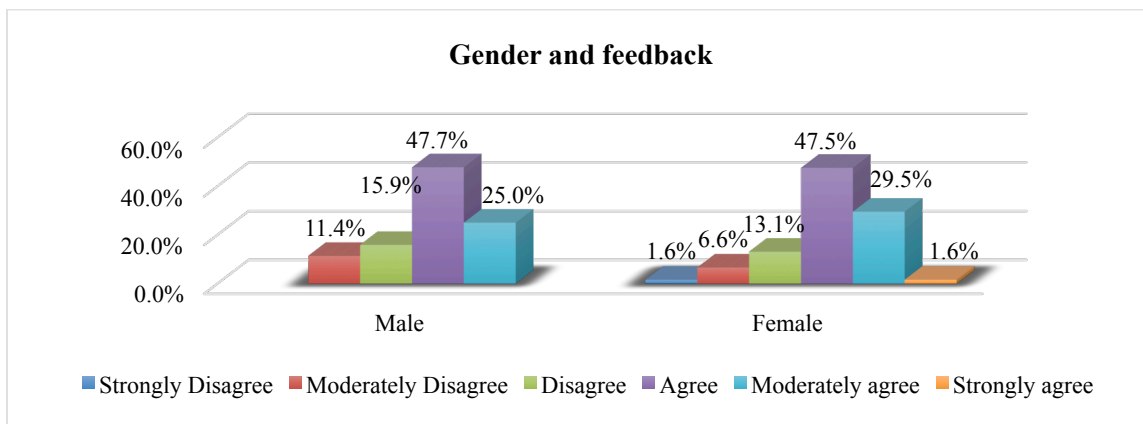
For the CO's in job group H, most of them (48.3%) moderately agreed with the autonomy as is also seen by the mean and standard deviation of  $(4.83 \pm 0.977)$  whereas a fraction 23.3% strongly agreed with the autonomy and 20.0% agreed with the autonomy. While for the CO's in job group J, a great portion of them (57.1%) moderately agreed with the autonomy as is also seen by the mean and standard deviation of  $(4.57 \pm 1.134)$  whereas a fraction of 28.6% disagreed with the autonomy and 14.3% strongly agreed with the autonomy. For the CO's in job group K, an equal proportion of them (50%) strongly agreed and moderately agreed apiece with the autonomy with mean and standard deviation of  $(5.50 \pm 0.707)$  . For the CO's in job group L, most of them (40.7%) moderately agreed with the autonomy as is also seen by the mean and standard deviation of  $(4.89 \pm 0.847)$  whereas a fraction 29.6% agreed with the autonomy and 25.9% strongly agreed with the same. For the CO's in job group M, a great proportion of them (75.0%) moderately agreed with the autonomy as is also seen by the mean and standard deviation of  $(4.75 \pm 0.452)$  whereas a fraction 25% agreed with the autonomy. Finally, for the CO's in job group N, an equal fraction (50%) agreed and moderately agreed apiece to the autonomy as is also seen by the mean and standard deviation of  $(5.50 \pm 0.707)$ .

#### **4.5.10 Relationship between confounding variables and Feedback**

The researcher investigated the relationship between gender, age, and education level and job group of a clinical officer with how they perceived the system of getting response on how they perform their work.

##### **4.5.10.1 Relationship between Gender and Feedback**

The analyses examines the relationship between gender and feedback



**Figure 64: Gender and feedback**

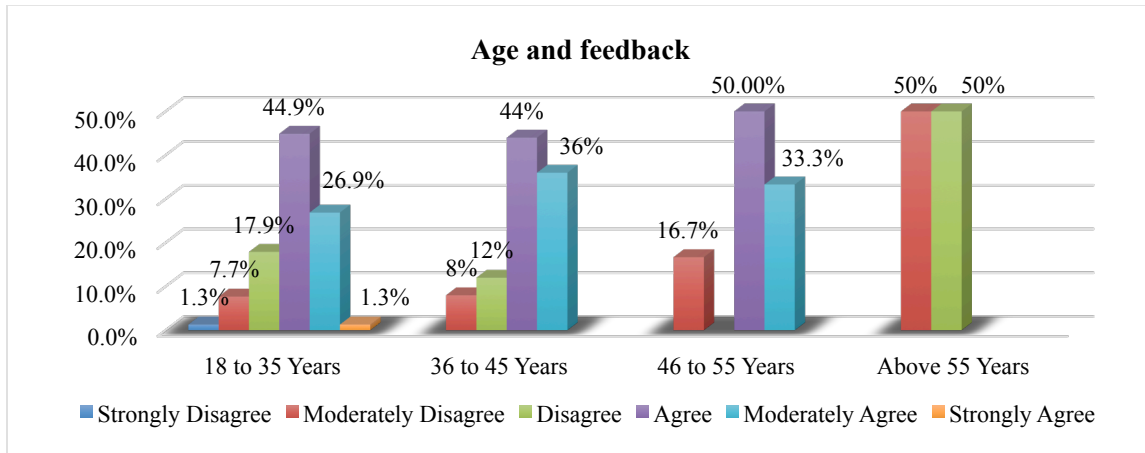
**Table 87: Descriptive and feedback on gender and feedback**

Descriptive Statistics		
	Male	Female
N	44	61
Mean	3.86	4.02
Median	4.00	4.00
Mode	4	4
Std. Deviation	.930	.957

For the male clinical officers a greater proportion (47.7%) agreed on feedback as is also seen by the mean and standard deviation of (3.86 ± 0.930) whereas 25.0% moderately agreed on feedback whereas 15.9% strongly agreed on feedback. While for the female clinical officers, a greater proportion (47.5%) agreed on feedback as is also seen by the mean and standard deviation of (4.02 ± 0.957) whereas 29.5% moderately agreed on feedback whereas 13.1% moderately agreed on feedback.

#### 4.5.10.2 Relationship between Age and Feedback

The analysis examines the relationship between age and feedback.



**Figure 65: Age and feedback**

**Table 88: Descriptive statistics on Age and feedback**

	Descriptive Statistics			
	18 to 35 years	36 to 45 years	46 to 55 years	Above 55 years
N	78	25	6	2
Mean	3.92	4.08	4.00	2.50
Median	4.00	4.00	4.00	2.50
Mode	4	4	4	2
Std. Deviation	.964	.909	1.095	.707

Most of the CO's between the age of 18 and 35 years (44.9%) agreed with the feedback as is also seen by the mean and standard deviation of  $(3.92 \pm 0.964)$  whereas 26.9% moderately agreed with the feedback and 17.9% disagreed with the feedback. Most of the CO's between the age of 36 and 45 years (44%) agreed with the feedback as is also seen by the mean and standard deviation of  $(4.08 \pm 1.909)$  whereas 36% moderately agreed with the feedback and 12% disagreed with the feedback. While half of the CO's between the age of 46 and 55 years (50%) agreed with the feedback as is also seen by the mean and standard deviation of  $(4.00 \pm 1.095)$  whereas 33% moderately agreed with the feedback and 16.7% moderately disagreed with the

feedback .Lastly those above 55 years had equal proportion (50%) disagreed and moderately disagreed with the feedback as is also seen by the mean and standard deviation of (2.5 ± 0.707).

#### 4.5.10.3 Relationship between Education level and Feedback

The analysis examines the relationship between education level and feedback

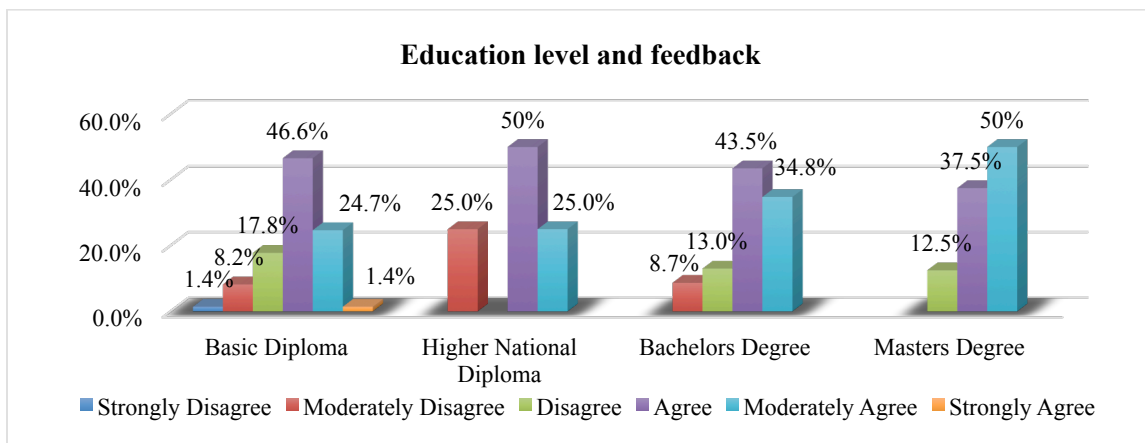


Figure 66: Education level and feedback

Table 89: Descriptive statistics on education level and feedback

Descriptive Statistics				
	Basic Diploma	Higher National diploma	Bachelor's degree	Master's degree
N	73	8	23	8

Mean	3.89	3.75	4.04	4.38
Median	4.00	4.00	4.00	4.50
Mode	4	4	4	5
Std. Deviation	.966	1.165	.928	.744

Most of the CO's with a basic diploma (46.6%) agreed with the feedback as is also seen by the mean and standard deviation of (3.89 ± 0.966) whereas a fraction 24.7% moderately agreed with the feedback and 17.8% disagreed with the feedback. While for the CO's with a higher national diploma, half of them (50%) agreed with the feedback with mean and standard deviation of (3.75 ± 1.165) whereas a fraction 25% each moderately agreed and moderately disagreed with the feedback. For the CO's with a bachelor's degree most of them (43.5%) agreed with the feedback as is also seen by the mean and standard deviation of (4.04 ± 0.928) whereas 34.8% moderately agreed with the feedback and 13% of them disagreed with the same. Finally, for the CO's with a master's degree, a half of them (50%) moderately agreed with the feedback as is also seen by the mean and standard deviation of (4.38 ± 0.744) whereas a fraction 37.5% agreed with the feedback and 12.5% disagreed with the feedback.

#### 4.5.10.4 Relationship between Job group and Feedback

The analyses examines the relationship between job group and feedback.

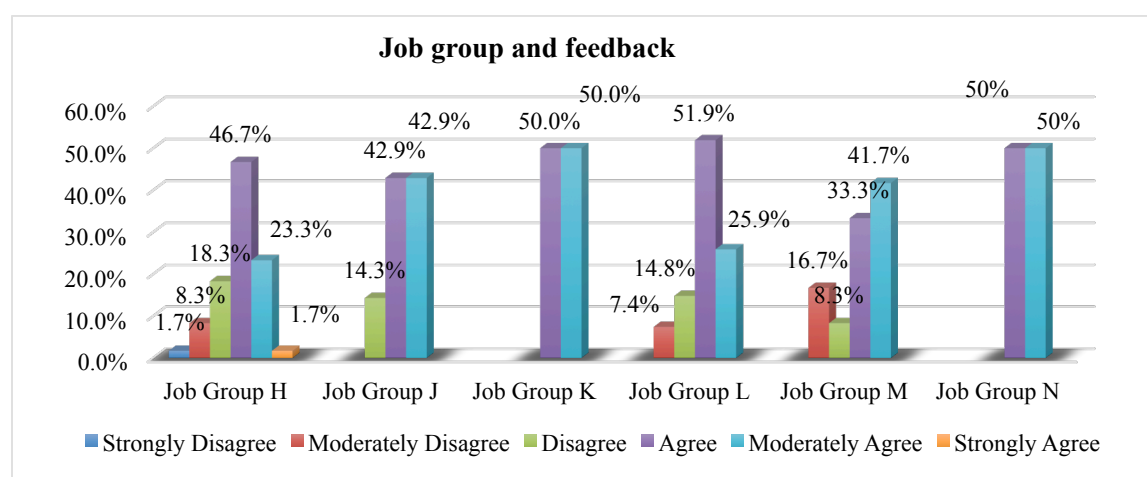


Figure 67: Job group and feedback

**Table 90: Descriptive statistics on job group and feedback**

Descriptive Statistics						
	Job Group H	Job Group J	Job Group K	Job Group L	Job Group M	Job Group N
N	60	7	2	27	12	2
Mean	3.87	4.29	4.50	3.96	4.00	4.50
Median	4.00	4.00	4.50	4.00	4.00	4.50
Mode	4	4	4	4	5	4
Std. Deviation	.982	.756	.707	.854	1.128	.707

For the CO's in job group H, most of them (46.7%) agreed with the feedback as is also seen by the mean and standard deviation of  $(3.87 \pm 0.982)$  whereas a fraction 23.3% moderately agreed with the feedback and 18.3% disagreed with the feedback. While for the CO's in job group J, an equal portion of them (42.9%) agreed and moderately agreed each with the feedback as is also seen by the mean and standard deviation of  $(4.29 \pm 0.756)$  whereas a fraction of 14.3% disagreed with the feedback. For the CO's in job group K, an equal proportion of them (50%) agreed and moderately agreed apiece with the feedback with mean and standard deviation of  $(4.50 \pm 0.707)$  . For the CO's in job group L, most of them (51.9%) agreed with the feedback as is also seen by the mean and standard deviation of  $(3.96 \pm 0.854)$  whereas a fraction 25.9% moderately agreed with the feedback and 14.8% disagreed with the same. For the CO's in job group M, most of them (41.7%) moderately agreed with the feedback as is also seen by the mean and standard deviation of  $(4.0 \pm 1.128)$  whereas a fraction 33.3% agreed with the feedback and 16.7% strongly disagreed with the feedback. Finally, for the CO's in job group N, an equal fraction (50%) agreed and moderately agreed apiece to the feedback as is also seen by the mean and standard deviation of  $(4.50 \pm 0.707)$ .

#### 4.6 Hypotheses Testing

The section presents regression analysis in two parts. First is the regression of relationship between CPD training, confounding variable and different attributes of job satisfaction. In the second part, it presents analyses of regression on professional development training, confounding variables and different attributes of job characteristics

#### 4.6.1 Relationship between formal CPD trainings and Job satisfaction

The analyses examines which factor is the greatest predictor of satisfaction with remuneration, promotion, relation with co-workers and working conditions.

##### 4.6.1.1 Remuneration

The aim was to establish which factor among the confounding variables is a major predictor of satisfaction with remuneration.

**Table 91: Regression for Remuneration**

Regression Coefficients					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.236	.346		9.349	.000
1. Gender	-.014	.117	-.013	-.123	.902
2. Age	.092	.095	.106	.968	.336
3. Education Level	.077	.060	.142	1.280	.204
4. Job Group	-.099	.041	-.284	-	.018
5. Attending formal CPD training	-.010	.115	-.009	-0.087	.931

Dependent Variable: Remuneration

Education level has the highest contribution on remuneration among CO's in Nairobi County ( $\beta=0.142$ ,  $t =1.280$ ,  $p=0.204$ ) and therefore, education level is a significant predictor of satisfaction with remuneration. This is then followed by age ( $\beta=0.106$ ,  $t =0.968$ ,  $p=0.336$ ). Job Group contributes the least on remuneration among CO's in Nairobi County ( $\beta= -0.284$   $t=-2.413$ ,  $p= 0.018$ ), then followed by gender ( $\beta=-0.013$ ,  $t=-0.123$ ,  $p=0.902$ ) and finally attendance of the formal CPD training ( $\beta=-0.009$ ,  $t =-0.087$ ,  $p=0.931$ ).

#### 4.6.1.2 Promotion

The analysis was to establish which factor was a significant predictor of satisfaction with promotion.

**Table 92: Regression for Promotion**

Regression Coefficients					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.931	.492		3.922	.000
1. Gender	.646	.167	.357	3.874	.000
2. Age	.126	.135	.091	.929	.355
3. Education Level	.230	.086	.269	2.690	.008
4. Job Group	-.264	.058	-.479	-4.524	.000
5. Attending formal CPD training	.003	.163	.002	.019	.985

Dependent Variable: Promotion

Gender has the highest contribution on promotion among CO's in Nairobi County ( $\beta=0.357$ ,  $t=3.874$ ,  $p=0.000$ ) and therefore, gender is a significant predictor of satisfaction with promotion



opportunities. This is then followed by education level ( $\beta=0.269$ ,  $t=2.690$ ,  $p=0.008$ ), then age ( $\beta=0.091$ ,  $t=0.929$ ,  $p=0.355$ ) and finally attendance of the formal CPD training ( $\beta=0.002$ ,  $t=0.019$ ,  $p=0.985$ ). Job Group contributes the least on remuneration among CO's in Nairobi County ( $\beta= -0.479$   $t=-4.524$ ,  $p= 0.00$ ).

#### 4.6.1.3 Supervision

The regression establishes the factor which is a major predictor of satisfaction with supervision among clinical officers.

**Table 93: Regression for Supervision**

Regression Coefficients					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.982	.457		6.533	.000
1. Gender	-.010	.155	-.007	-.068	.946
2. Age	.003	.125	.003	.024	.981
3. Education Level	.038	.079	.054	.476	.635
4. Job Group	-.029	.054	-.064	-.528	.599
5. Attending formal CPD training	.185	.151	.128	1.225	.224

Dependent Variable: Supervision

Attendance of the formal CPD training has the highest contribution on supervision among CO's in Nairobi County ( $\beta=0.128$ ,  $t=1.225$ ,  $p=0.224$ ) and therefore, attendance of the formal CPD

training is a significant forecaster on supervision. This is then followed by education level ( $\beta=0.054$ ,  $t=0.476$ ,  $p=0.635$ ), and finally age ( $\beta=0.003$ ,  $t=0.024$ ,  $p=0.981$ ) attendance of the formal CPD training ( $\beta=0.002$ ,  $t=0.019$ ,  $p=0.985$ ). Job Group contributes the least on satisfaction with remuneration among CO's in Nairobi County ( $\beta= -0.479$   $t=-4.524$ ,  $p= 0.00$ ).

#### 4.6.1.4 Relation with Co-Workers

The analyses examines the factor which is most significant to satisfaction with the relation with co-workers.

**Table 94: Regression for Relation with Co-Workers**

Regression Coefficients					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.986	.443		8.994	.000
1. Gender	-.101	.150	-.069	-.672	.503
2. Age	-.114	.122	-.104	-.940	.349
3. Education Level	-.127	.077	-.184	-1.642	.104
4. Job Group	.094	.052	.212	1.791	.077
5. Attending formal CPD training	.092	.147	.064	.625	.534

Dependent Variable: Relation to co-workers

Job grade had the highest contribution on satisfaction with relation with co-workers among CO's in Nairobi County ( $\beta=0.212$ ,  $t=1.791$ ,  $p=0.077$ ) and therefore, the job grade of a clinical officer is

a significant predictor on how they relate with their co-workers with gender as the least significant predictor. The other factors were as follows, attending development training, Education level, Age and finally gender with ( $\beta=0.064$ ,  $t=0.625$ ,  $p=0.534$ ,  $\beta=-.184$ ,  $t=0-1.642$ ,  $p=0.104$ ,  $\beta=-.104$ ,  $t=-.940$ ,  $p=0.349$  and  $\beta= -0.069$   $t=-.672$ ,  $p= .503$  respectively.

#### 4.6.1.5 Working conditions

The regression aims to establish which factor is significant predictor of satisfaction with working conditions.

**Table 95: Regression for Working conditions**

Regression Coefficients					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.722	.401		9.276	.000
1. Gender	.239	.136	.176	1.762	.081
2. Age	-.279	.110	-.270	-2.535	.013
3. Education Level	-.015	.070	-.023	-.208	.836
4. Job Group	.051	.048	.123	1.071	.287
5. Attending formal CPD training	.077	.133	.057	.575	.566

Dependent Variable: Working Conditions

On the relationship between attending a development training and satisfaction with working conditions, gender was the most significant predictor ( $\beta=.176$ ,  $t=1.762$ ,  $p=.081$ ) while level of education was the least significant predictor ( $\beta=-.023$ ,  $t=-.208$ ,  $p=.836$ ).

#### 4.6.2 Regression analysis on relationship between CPD training, confounding variables and job characteristics

The regression analysis examines which factors were significant predictors of skill variety, task significance, task identity, autonomy and feedback among clinical officers in Nairobi County.

##### 4.6.2.1 Skill Variety

The regression analysis aimed at demonstrating factors which have an influence of how clinical officers perceive skill variety present in their job.

**Table 96: Regression for Skill Variety**

Regression Coefficients					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.921	.615		8.008	.000
1. Gender	-.146	.208	-.072	-.704	.483
2. Age	.151	.169	.098	.897	.372
3. Education Level	-.204	.107	-.212	-1.910	.059
4. Job Group	-.053	.073	-.086	-.732	.466
5. Attending formal CPD training	.238	.204	.119	1.168	.246

Dependent Variable: Skill Variety

From the analysis, having attended a formal CPD was seen as a major predictor of how clinical officer evaluated skill variety present in their job ( $\beta=0.119$ ,  $t= 0.119$ ,  $p=0.246$ ), followed by age ( $\beta=0.098$ ,  $t=0.897$ ,  $p=0.372$ ) while gender had the least influence ( $\beta=-.072$ ,  $t=-.704$ ,  $p=.483$ ).

#### 4.6.2.2 Task Identity

The analysis investigates the major predictor of task identity among clinical officers in Nairobi County.

**Table 97: Regression for Task Identity**

Regression Coefficients					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.060	.944		2.182	.032
1. Gender	-.304	.320	-.100	-.952	.344
2. Age	.073	.259	.031	.280	.780
3. Education Level	.058	.164	.040	.356	.723
4. Job Group	.055	.112	.059	.492	.624
5. Attending formal CPD training	-.138	.313	-.046	-.441	.660

Dependent Variable: Task Identity

Job group had the greatest influence on how clinical officers perceived their ability to identify the roles in their job ( $\beta=0.059$ ,  $t=0.492$ ,  $p=.624$ ) followed by the education level, ( $\beta=.040$ ,  $t=.356$ ,  $p=.723$ ) while attending CPD was a weak determiner of how the clinician perceived the presence of task identify in their job(  $\beta=-.046$ ,  $t=-.441$ ,  $p=.660$ ).

#### 4.6.2.3 Task Significance

The analysis examined the which factors were significant predictors of how clinical officers perceived Task Significance.

**Table 98: Regression for Task significance**

Regression Coefficients					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.518	.456		9.901	.000
1. Gender	-.078	.155	-.051	-.508	.613
2. Age	-.177	.125	-.152	-	.162
				1.411	

3. Education Level	-.091	.079	-.125	-	.256
4. Job Group	.157	.054	.337	1.144	.005
5. Attending formal CPD training	.115	.151	.077	.763	.447

Dependent Variable: Task Significance

The analysis demonstrated that the job group and CPD were significant determinants of how clinical officers evaluated their job as being important ( $\beta=.337$ ,  $t=2.903$ ,  $p=.005$ ,  $\beta=.077$ ,  $t=.763$ ,  $p=.447$ ). this was followed by age, education level and gender having the least influence ( $\beta=-.152$ ,  $t=-.411$ ,  $p=.162$ ,  $\beta=-.125$ ,  $t=-1.144$ ,  $p=.25$ ,  $\beta=-.051$ ,  $t=-.508$ ,  $p=.613$ ).

#### 4.6.2.4 Autonomy

The analysis examined the which factors were significant predictors of how clinical officers perceived their ability to make different decisions in their work.

**Table 99: Regression for Autonomy**

Regression Coefficients					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	5.172	.564		9.167	.000
1. Gender	-.075	.191	-.042	-.395	.694
2. Age	-.009	.155	-.007	-.060	.952
3. Education Level	-.092	.098	-.107	-.933	.353
4. Job Group	.041	.067	.075	.621	.536
5. Attending formal CPD training	-.093	.187	-.052	-.495	.621

Dependent Variable: Autonomy

From the analysis on the relationship between autonomy, CPD and confounding variables, job group was a significant factor on how clinical officers perceived autonomy in their job ( $\beta=.075$ ,  $t=.621$ ,  $p=.536$  with age having the least influence ( $\beta=-.007$ ,  $t=-.060$ ,  $p=.952$ ).

#### 4.6.2.5 Feedback

The analysis examined the which factors were significant predictors of how clinical officers perceived feedback.

**Table 100: Regression for Feedback**

Regression Coefficients					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.004	.598		6.697	.000
1. Gender	.107	.202	.055	.529	.598
2. Age	-.101	.164	-.069	-.613	.541
3. Education Level	.093	.104	.101	.892	.375
4. Job Group	.033	.071	.057	.473	.638
5. Attending formal CPD training	-.148	.198	-.078	-.746	.458

Dependent variable: Feedback

In terms of how clinical officers perceived the way feedback is given on their work, education level was the most significant factor ( $\beta=.101$ ,  $t=.892$ ,  $p=.375$ ) followed by job group and gender ( $\beta=.057$ ,  $t=.473$ ,  $p=.638$ ,  $\beta=.055$ ,  $t=.529$ ,  $p=.598$ ) while age was the least significant ( $\beta=-.069$ ,  $t=-.613$ ,  $p=.541$ ).

#### 4.6.3 Association between Formal CPD, Job Satisfaction and perception towards Job Characteristics

The aim was to establish the association between job satisfaction and perception towards job characteristics as a result of having gone through CPD among Clinical Officers within Nairobi County

**Table101: Association between Formal CPD, Job satisfaction and Job characteristics**

		Attended CPD	Not attended
Job Satisfaction	Remuneration	3.37	3
	Promotion	3.11	3.04
	Supervision	3.18	3.39

	Relationship	3.7	3.73
	Working	3.61	3.66
Job characteristics	Skill variety	4.98	4.96
	Task significance	4.35	4.39
	Task identity	1.81	1.7
	Autonomy	4.95	4.75
	Feed Back	4.02	3.86

**Table 102: Hypotheses Testing**

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Group1- Group 2	.0300	.21494	.09612	-.23689	.29689	.312	4	.771

The paired t-test statistics was calculated with 5% level of significance. The t- test value was 0.312 which lies on the rejection area which is outside the lower limit -0.23689 and upper limit of 0.29689. Hence the rejection of the null Hypotheses that there is no association between job satisfaction as a result of having gone through CPD among Clinical Officers within Nairobi County and thus the acceptance of the alternative Hypotheses that there is the association



between job satisfaction as a result of having gone through CPD among Clinical Officers within Nairobi County. However, the association is not significant as indicated by the significance of 0.125 which is greater than the p-value of 0.05

**Table 103: Hypotheses Testing**

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Group 1 - Group 2	.09000	.09899	.04427	-.03292	.21292	2.033	4	.112

The paired t-test statistics was calculated with 5% level of significance. The t- test value was 2.033 which lies on the rejection area which is outside the lower limit -.03292 and upper limit of 0.21292. Hence the rejection of the null Hypotheses that there is no the association between perception towards job characteristics as a result of having gone through CPD among Clinical Officers within Nairobi County and thus the acceptance of the alternative Hypotheses that there is the association between perception towards job characteristics as a result of having gone through CPD among Clinical Officers within Nairobi County. The association seems to be significant as indicated by the significance of 0.000 which is lower than the p-value of 0.05.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATION**

#### **5.1 Introduction**

This chapter describes the summary of the major findings, the relations to other studies, suggestions for future research, limitations and conclusions drawn for the study. In chapter one, the researcher did an introduction on the relationship between formal professional development training, job satisfaction and perception towards job characteristics among clinical officers in Nairobi County. Chapter two focused on literature review of empirical studies done on the relationship training and attributes of job satisfaction and characteristics and the demographic information. It also discusses the theoretical and conceptual framework.

Chapter three is about research methodology used in the study that includes: research design, sample size, data collection and analysis. Chapter four outlines the results and discussions on demographic characteristics, attributes of job satisfaction and job characteristics.

#### **5.2 Internal Validity**

The major challenge was assessing the subjective rather than objective aspect of job characteristic where the respondents give a score that may reflect on them positively. The target population is more designated in the outpatient department that is characterized by long patient queues; they felt the questionnaire had many items considering their work demands. This could have led to some filling the questionnaire without paying much attention that affects the overall score.

Lastly, the nature of work shift posed a challenge in reaching the target population. The researcher had difficulties since some were on night duties while others were said to be away on leave, administrative duties or gone for a transfer.

#### **5.3 External Validity**

The study area was Nairobi County, which is an urban setting and the capital city of Kenya. There are more opportunities for training programs as compared to rural set-up. The urban aspect makes the cost of living high with limited resources thus clinical officers opt to working on part-time basis (locum) to supplement their income. This may affect the generalization of the findings

as the results can only be inferred to clinical officers working in urban settings with almost similar standards like Mombasa, Kisumu vis a vie peri-urban areas like Meru, Nyeri, Siaya and the rest of Kenya. Another external factor that may affect the study was the population had almost similar exposure in terms of same employer, the human resource management aspect and working conditions. This would affect inferring the study findings to clinical officers working in the private sector and faith-based organizations.

## **5.4 Summary of the Findings**

The section highlights the summary of the finding from analysis of data in chapter four.

### **5.4.1 Demographic Information**

The demographic information from the study indicated that on gender 57% of the responders were male while 47% were female (N=113). On age, majorities were between 26-35 years at 69.6%, marital status majority were married (80.4%), compared to those who responded as being single (19.6%).

The educational background those with the basic qualification of a diploma were 64.6% while those with higher diploma, degree and master were 7.10%, 20.4% and 8% respectively. On Job Grades, majority were in job group H (24%), while those in job group J, K, L, M and above N were 10.8%, 6.3%, 2.7% and 1.8% respectively.

### **5.4.2 Formal Professional Development Training and Job Satisfaction**

On formal professional development training, there was no big gap between those who had attended training being majority (50.4) and those who had not attended (49.6) with majority attending a training lasting between 2-5 months (51%). The aspect of training helping one enhance their skills, competencies and knowledge was the highest motivator to participate in a training (54.5%) while attending to meet regulatory requirements for licensure was at 51%. This finding is in concurrence with Giri *et al.*, (2012) and Mathauer & Imhoff, (2006).

It is evident from previous studies that salaries of healthcare workers especially in developing countries are way below the minimum wage (Geleto *et al.*, 2015; WHO, 2006). While most of

the countries have improved the salaries among healthcare workers in public facilities by awarding incentives in form of allowances, other work conditions remain unchanged leading to continued dissatisfaction (WHO, 2006).

On the influence of CPD and satisfaction with remuneration, the study confirmed a negative correlation ( $r=-0.282$ ). Clinical officers who had attend training were more dissatisfied with the pay they were getting (56.1%) compared to those who had not attend a training (40.4%). Majority were dissatisfied with the pay itself and rewards they were getting for work done. This is consistent with a study by Geleto and colleagues among health workers in Ethiopia where only 34.1% of participants were satisfied with pay (Geleto *et al.*, 2015).

CPD aims at enhancing skills, competencies and knowledge (Giri *et al.*, 2012) some training among health professionals leading to specialization. With enhanced knowledge and specialized skills, there are higher expectations on remuneration and when this is not met, it leads to dissatisfaction (Nguyen *et al.*, 2002). Other studies have reported pay as a negative predictor of job satisfaction (Kalamawei *et al.*, 2015; Young *et al.*, 2004). The Two- Factor theory may explain this phenomenon. While the employer enhances the hygiene factors e.g. Pay, it does not translate to satisfaction or motivation but only reduces dissatisfaction. This explains why, despite the government enhancing the pay for clinical officers through several allowances, they still report low levels of job satisfaction.

However, other studies have found a positive correlation between training and pay. In different studies by Jones, Judge and their colleagues, reported those who had attended training were more satisfied with their pay than those who had not attended training (Jones *et al.*, 2008, Judge *et al.*, 2001)

The overall satisfaction with promotion was low while there was no association between satisfaction with promotion and training. There was a negative correlation between training and promotion ( $r= -0.039$ ) with participants being dissatisfied most with chances of being promoted. However, other studies have found a positive correlation between promotion and training. One such study is by Mustapha and Zakaria (2013) aimed at determining the influence of promotion opportunities on job satisfaction and demonstrated a positive correlation  $r=0.590m$  (Mustapha & Zakaria, 2013). Khan and colleagues (2012) report similar findings.

The study found a positive correlation between training and satisfaction with supervision ( $r= 0.148$ ). The role of supervision as a predictor of job satisfaction cannot be ignored. Among the healthcare workers, support supervision is key as it helps in updating knowledge and improves

self-efficacy (WHO, 2006; Mathauer & Imhoff, 2006). Supervision also offers the chance to communicate the organization goals and good work is recognized. This acts as a motivator factor. This is supported by a study done among Kenyan healthcare workers by Goetz and colleagues who found that low levels of training, recognition and poor support supervision as major factors impending delivery of quality services among health care workers in Kenya (Goetz *et al.*, 2015).

A study conducted in Zimbabwe in public health facilities rural settings reported high levels of motivation among healthcare workers despite poor pay, understaffing and lack of proper equipment's. This is attributed to support supervision and good leadership (Stilwel, 2001). A similar study by Manongi and colleagues support the findings of this study. From their study conducted among health care workers in Tanzania support supervision, promotions and career development had major influence towards delivery of quality services (Manongi *et al.*, 2006).

On relation with co-workers of COs reported being satisfied with how they related with their co-workers and enjoying working with them with a greater proportion being those who attended CPD as compared to those who did not ( 56.1% and 50%) respectively. They reported dissatisfaction with bickering and infighting at their workplace. The findings are supported by reviews from by Giri and Ndege who hold that one of the areas professional development training focuses on is enhancing the participant's communication, organization and administration skills (Giri *et al.*, 2012; Ndege, 2006). It is expected therefore that with the enhanced skills, one would be a better team player. Schermerhorn and colleagues highlighted relation with co-workers among the factors that influence job satisfaction (Schermerhorn *et al.*, 2015).

However, from the analysis, there was no association between formal CPD and satisfaction with relation with co-workers.

The study report no association between CPD and satisfaction with working conditions, with weak positive correlation ( $r=.0350$ ). From previous studies, the influence of CPD on satisfaction with working conditions have not been given prominence, this posed as a challenge in this study. However, working conditions is a major predictor of job satisfaction and has an influence on delivery of quality services more so among healthcare workers. This is evident from different studies, one by Mathauer and Imhoff done among healthcare workers in Kenya and Benin and concluded that despite the pay rise, the working conditions remain unchanged which may still contribute to low levels of job satisfaction (Mathauer & Imhoff, 2006). Similar findings are by

Satpathy and colleagues in review of literature done on attributes used to access job satisfaction from 34 studies. They concluded that while pay was an important factor in respect to job satisfaction, it does not play the major role compared to other non-monetary benefits. Working environment was listed as the major predictor of job satisfaction (Satpathy *et al.*, 2014).

In conclusion, there was major difference in the means of overall job satisfaction between those who had attended CPD and those who had not attended (3.39, 3.36)

### **5.4.3 Influence of other factors on Job satisfaction**

ANOVA analysis was done to determine the influence of gender, age, educational level and job group on satisfaction with remuneration, promotion, supervision, relation with co-workers and working conditions. The result indicated a statistical difference between education level and supervision, relation with co-workers and working conditions. Statistical difference was also observed between gender and promotion and between age and supervision. There was no statistical difference between gender and remuneration. The findings are concurrence with those of Okpara among bank managers in Nigeria on perceived gender differences in pay and promotions. The study indicated that there was no statistical difference between remuneration and gender (Okpara, 2006). However, Galdeano found a significant relationship between gender and satisfaction with pay with male being more satisfied with the pay than their female colleagues (Galdeano, 2003). Similar findings are reported by Nguyen *et al.*, 2002. Concerning overall job satisfaction, the influence of gender is demonstrated in different studies which indicate a positive correlation (Lindorff, 2010; Okpara, 2006).

Regression analysis on factors that were major predictors of satisfaction with different aspects of job satisfaction among COs indicated that: Education level was a major predictor of satisfaction with remuneration ( $\beta=0.142$ ,  $t=1.280$ ,  $p=0.204$ ). Nguyen and Co support this finding with explanation that with advancement in education, their expectations of higher salaries increase (Nguyen *et al.*, 2002).

Gender had a major influence of satisfaction with promotion and working conditions among the COs ( $\beta=0.357$ ,  $t=3.874$ ,  $p=0.000$  and  $\beta=.176$ ,  $t=1.762$ ,  $p=.081$ ) respectively. A study by Okpara that indicated gender having an influence on promotion supports the findings. In the study, male were more satisfied with salaries and promotions as compared to female (Okpara, 2006). CPD was a predictor of satisfaction with supervision ( $\beta=0.128$ ,  $t=1.225$ ,  $p=0.224$ ) while job group of a

CO had an influence on how satisfied they were with their relation with co-workers ( $\beta=0.212$ ,  $t=1.791$ ,  $p=0.077$ ).

The study indicated age as not being a strong predictor of job satisfaction. A study by Amira in Egypt is in concurrence with the findings (Amira *et al.*, 2008). However, this defers with a study by Kalamawei in Nigeria which indicated that younger health workers reported higher levels of job satisfaction while a study by Hagopian (2010) in Uganda had older employees being more satisfied (Kalamawei *et al.*, 2006; Hagopian *et al.*, 2010).

#### **5.4.4 Formal Professional Development Training and Perceptions towards Job Characteristics**

The analysis examined the influence of CPD on perception towards different attributes of job characteristics (skill variety, task identity, task significance, autonomy and feedback). Previous studies have investigated the relationship of job characteristics and job satisfaction. However, the influence of CPD on job characteristics has not been given prominence. Job characteristics have direct impact on employee's attitudes and behavior such as job satisfaction, absenteeism and turnover (Oldman & Hackman, 1995; 1996; Szilagyi & Keller, 1976). From the study, a job that offers opportunity to learn new things and enable personal growth and development were the most desired attributes of skill variety both for those who had attended CPD and for those who had not both scoring means of 5.47. These findings are supported by previous literature that proposes interesting work as the most important work attitude (Judge & Saari, 2004). On task significance, majority of COs perceived their job as being important with no major differences between the two groups.

For autonomy, those who had attended training desired for ability to make decisions about their work compared with those who had not attended training with means of 4.95 and 4.75 respectively. Previous studies indicated a relationship between autonomy and job satisfaction (Khan, 2011; Guest, 2004) with Nguyen stating that, the more autonomous a job is, the greater the satisfaction (Nguyen *et al.*, 2003). The same was observed with attending a professional training having an impact on perception towards feedback with means of 4.02, 3.86 between the group of those who had attended and those who had not attended a training respectively.

From regression analysis, CPD was a major predictor of how COs evaluated skill variety

( $\beta=0.119$ ,  $t= 0.119$ ,  $p=0.246$ ) and task significance in their job ( $\beta=.337$ ,  $t=2.903$ ,  $p=.005$ ). This could be accounted for by the role of CPD to enhance skills, competences and knowledge (Giri et al., 2012) leading to COs being able to perform duties competently. Job group was indicated as having the major influence on perception towards task identity and autonomy ( $\beta=0.059$ ,  $t=0.492$ ,  $p=.624$ ; ( $\beta=.075$ ,  $t=.621$ ,  $p=.536$ ) while education level was a predictor of how they evaluated feedback in their job ( $\beta=.101$ ,  $t=.892$ ,  $p=.375$ ). Interestingly, gender and age did not have significant influence on job characteristics. However, Scheiman writes of a relationship between gender and subjective job characteristics (Scheiman, 2002).

### **5.5 Conclusion**

In this study, the objective was to investigate influence of CPD on job satisfaction and subjective job characteristics among COs and more specifically the attributes. The study concluded that there is an association between CPD training and job satisfaction among clinical officers in Nairobi County. Overall job satisfaction was higher among COs who had attended a CPD compared to those who had not attended with the study demonstrating significant statistical differences in the means of supervision between those who had attended a training and those who had not.

Another conclusion is that there is a significant association between CPD and perception towards job characteristics. CPD was also a major predictor of how COs perceived skill variety and task significance

### **5.6 Recommendation**

The findings derived from analysis of data collected during this study will help address the melee of issues facing the health sector both at County and at National government. Some of the recommendations are;

1. The government needs to place more emphases on CPD not just as a requirement for licensure but as a human resource management tool so as to improve job satisfaction among the health workers. Consequently, there will be improved performance and quality services.
2. The employer should endeavor to ensure more attendance of formal CPD as this has an influence of how COs perceive job characteristics.



### **5.7 Areas for Further Studies**

The study also will give theoretical contributions in the area of organizational and Industrial psychology on ways of improving overall job satisfaction in the workforce and how to enrich work to make it more interesting and challenging.

There is need for future studies to enrich the area of association between CPD and job characteristics. While this study demonstrated a significant association between the two variables previous studies had not given it prominence

There is need for other scholars to advance the same study to other health professionals such as nurses and doctors as this will lead to understand wholly the influence of CPD on job satisfaction and job characteristics among healthcare workers.

Finally, the study will provide basis on further studies especially on specific aspect of job characteristics.

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## APPENDICES

### APPENDIX I

#### PARTICIPANTS QUESTIONNAIRE

Hallo, I am a Masters student at The University of Nairobi carrying out a research on “**the relationship between formal continuous professional development and perception of job characteristics and job satisfaction among clinical officers in Nairobi County**”. The research is meant for academic purpose only. You are kindly requested to provide answers to these questions as honestly and precisely as possible. The results of this case study will be confidential and no identifying data will be collected. Your participation is highly appreciated.

**Instructions: Please tick or fill Gaps where appropriate**

#### SECTION A: DEMOGRAPHIC INFORMATION OF THE RESPONDENTS

	QUESTION	RESPONSE
	Questionnaire Serial number	
	Sub County	
	Facility Name	
A1	Gender	Male Female
A2	Age	Below 25 years 26 – 35 years 36 – 45 years 46 – 55 years Above 55 years
A3	Religion	Christian Muslim Other
A4	Marital status	Married                      Single Divorced                      Others (specify)
A5	Education Level	Basic Diploma              Higher National diploma University Degree              Masters Others (Specify).....
A6	Job Group	H                      J                      K                      L

		M	N	Above N
<b>A7</b>	How long have you worked in this current Job group?			
<b>A8</b>	Years of service	Below 3 years	3.1 – 6 years	6.1 – 9 years
		9.1 – 12 years	12.1 – 15 years	Above 15 years
		<b>NB: The 0.1 is one month</b>		
<b>A9</b>	Department	Out-Patient	Special clinic (specify)	Program (specify)
		Others.....		

**SECTION B: Continuous Professional Development Trainings (CPD)**

**B1:** Have you attended any form of CPD training in the last one year? Yes No

**B2:** If YES, how long ago.( Specify in months).....

If NO, why.....

**B3:** Was the training relevant to your area of interest? Yes NO

**B4:** Do you have choice of the on training to attend depending of your area of interest

Yes NO

**B5:** what motivates you to participate in CPD trainings (Tick the most appropriate)

To improve skills and competencies in my area of practice

To meet regulatory requirement

Attended because participants receive per diem

It is chance for me to be away from work

Others (specify) .....





### Employees' Perceptions towards Decision Latitude

Please state how much you agree with these statements=Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5=Strongly Agree

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
• Job decisions are made by the manager in a biased manner.	1	2	3	4	5
• My manager makes sure that all employee concerns are heard before Job decisions are made.	1	2	3	4	5
• To make job decisions, my manager collects accurate and complete information	1	2	3	4	5
• My manager clarifies decisions and provides additional information when requested by employees.	1	2	3	4	5
• All jobs decisions are applied consistently to all affected employees.	1	2	3	4	5
• Employees are allowed to challenge or appeal job decisions made by their managers.	1	2	3	4	5

### Employees' Perceptions towards Management

Please state how much you agree with these statements.1=Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5=Strongly Agree

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
• When decisions are made about my job, the manager treats me with kindness and consideration.	1	2	3	4	5
• When decisions are made about my job, the manager treats me with respect and dignity.	1	2	3	4	5
• When decisions are made about my job, the manager is sensitive to my personal needs.	1	2	3	4	5
• When decisions are made about my job, the manager	1	2	3	4	5

deals with me in a truthful manner.					
• When decisions are made about my job, the manager shows concern for my right as employee.	1	2	3	4	5
• Concerning decisions made about my job, the manager discusses with me the implications of the decisions.	1	2	3	4	5
• The manager offers adequate justification for decisions made about my job.	1	2	3	4	5
• When making decisions about my job, the manager offers explanations that make sense to me.	1	2	3	4	5
• My manager explains very clearly any decisions made about my job.	1	2	3	4	5

### The Level of Job satisfaction among Employees'

Please state how much you agree with these statements. 1=Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5=Strongly Agree

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
• In general, I am satisfied with this job.	1	2	3	4	5
• I find that my opinions are respected at work.	1	2	3	4	5
• Most people on this job are very satisfied with it.	1	2	3	4	5
• I am satisfied with the recognition I get for the work I do	1	2	3	4	5
• I am satisfied with the way my pay compares with that for similar jobs in other firms.	1	2	3	4	5
• I am satisfied with the personal relationship between my boss and his/her employees.	1	2	3	4	5
• I am satisfied with the way my boss handles employees.	1	2	3	4	5

## SECTION D: JOB CHARACTERISTICS SCALE

Instructions: Following are the few statements to know the characteristics of the job to which you are associated. There are five options against each statement, give your response by putting a tick mark (‘’) in any one of them. Please answer to all questions.

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
• In this job, the available instructions related with the job remain unclear and insufficient.	1	2	3	4	5
• I cannot do my job easily due to indefinite and unclear job area and power boundary.	1	2	3	4	5
• The goal and methods fixed for this job are perfectly clear and planned	1	2	3	4	5
• It is not clear that which type of work behavior is expected from me by higher authority and Clinical Officers-workers.	1	2	3	4	5
• Work related instructions of different authorities are usually contradictory in nature.	1	2	3	4	5
• It becomes problematic for me to establish co-ordination between political and group pressure and formal principles.	1	2	3	4	5
• I have to do lots of work in this job.	1	2	3	4	5
• The responsibility regarding work efficiency and productivity of many employees are thrown up to me.	1	2	3	4	5
• I cannot give sufficient time to my family and personal works and problems due to excess involvement in this job.	1	2	3	4	5
• A big responsibility for the development and growth of this organization/department is on me.					
• My suggestion is also demanded for any type of improvement and change in					

work method, apparatus and work condition.					
• My decisions and instructions are adequately followed in the division of work for employees.					
• My suggestions are considered here and they are also implemented.					
• Authorities do not interfere in my work area and method of work.					
• I get opportunity to freely use my work efficiency and experiences.					
• In this job, there is sufficient opportunity to develop ability and skill.					
• I get salary according to my labour.					
• In this job, people get appropriate wages for extra work.					
• In this job, there is sufficient opportunity for promotion.					
• Employees' ability is given due importance for promotion in high positions.					

**APPENDIX II**  
**KEY INFORMANT INTERVIEW GUIDE**

Hallo, I am a Masters student at The University of Nairobi carrying out a research on **“The relationship between formal continuous professional development and perception of job characteristics and job satisfaction among clinical officers in Nairobi County”**. The research is for academic purpose only. You are kindly requested to provide answers to these questions as honestly and precisely as possible. The results of this case study will be confidential and no identifying data will be collected. Your participation is highly appreciated.

QUESTIONNAIRE SERIAL NUMBER	
SUB COUNTY	
DESIGNATION	
NUMBER OF CLINICAL OFFICERS UNDER YOU	

1. What are some of the challenges clinical officers face regarding attending CPD trainings?
2. What is the frequency of the trainings?
3. Do you think CPD trainings have an impact on the job satisfaction of clinical officers in your sub-County?
4. What are some of the factors affecting perception of job characteristics among clinical officers in Nairobi County?
5. What are some of the factors affecting of job satisfaction among clinical officers in Nairobi County?

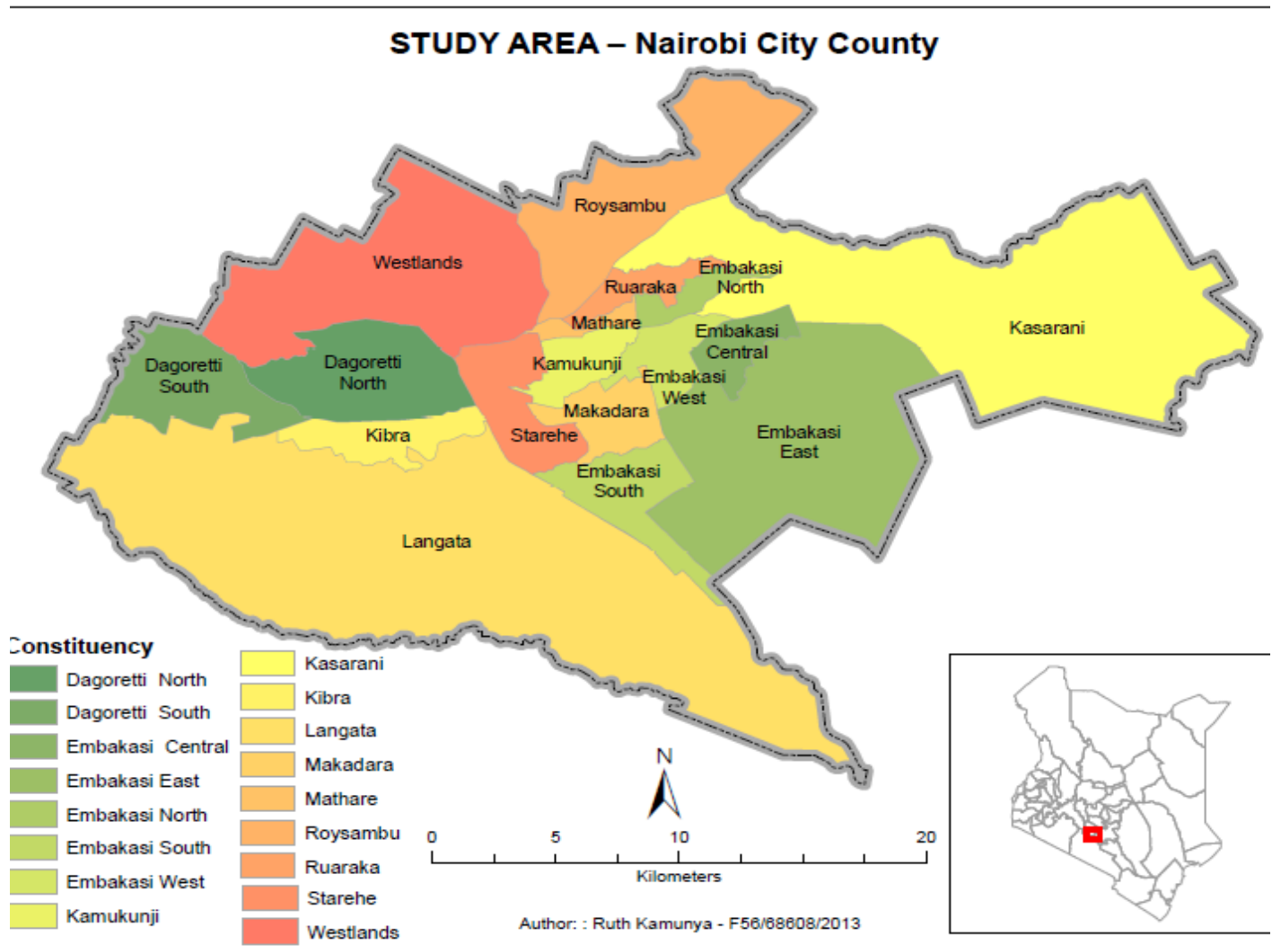
## APPENDIX III

### CLINICAL OFFICERS FORMAL CPD FRAMEWORK

<b>01.0</b>	<b>Trainings</b>	
	1.1 Long term training above 1 yr	30 points
	1.2 Short term training up to 6/12	15 points
	1.3 E-learning long term >6/12	15 points
	1.4 E-learning short term <6/12	7 points
<b>02.0</b>	<b>Research and Publication</b>	20 points
<b>03.0</b>	<b>Research</b>	10 points
<b>04.0</b>	<b>Research Supervision</b>	10 points
<b>05.0</b>	<b>Workshop</b>	
	05.1. Workshop participants	10 points
	05.2. Workshop facilitators	15 points
<b>06.0</b>	<b>Scientific Conferences</b>	
	06.10 international Conferences	
	06.11. Participate	5 points
	06.12. Facilitate	10 points
<b>07.0</b>	<b>Seminars.(1-5 Days)</b>	20 points
	07.1. Participate 1 point/day	Max 5 points
	07.1. Facilitate 2 points /day	max 5 points
<b>08.0</b>	<b>CMEs (max 12/year)</b>	
	08.10. Participate	1 point max 12 points
	08.20. Facilitate	2 point max 24 points
<b>09.0</b>	<b>Learning Major ward Round</b>	
	09.10. All rotations	1 point (max 4/Year)
<b>10.0</b>	<b>Outreach services/school health program.</b>	
	10.10. Planning 4 times	1 point
	10.20. Participating 4 times	1 point
<b>11.0</b>	<b>Lecturers/Trainers</b>	10 points
	11.10. Part time lecturers	5 points

*(Courtesy of Clinical Officers Council, 2017)*

**APPENDIX IV**  
**MAP OF NAIROBI COUNTY**



*Image adopted from Google maps Courtesy of Kamunya, (2013)*



## APPENDIX V

### AUTHORIZATION LETTER FROM NAIROBI COUNTY

## NAIROBI CITY COUNTY

Telephone: +254 20 2221349  
Web: www.nairobi.go.ke



City Hall  
P .o. box 30075-00100  
Nairobi  
Kenya

### DEPARTMENT OF HUMAN RESOURCES DEVELOPMENT

Ref: HRD/3/4/1195/2016  
DATE; 20<sup>TH</sup> DECEMBER 2016

**STELLA W. WARUINGE**  
P/NO. 2009102980

**UNIVERSITY OF NAIROBI**  
P.O BOX 30197  
NAIROBI

#### **RE: RESEARCH AUTHORIZATION**

Reference is hereby made to your application letter dated 30<sup>th</sup> November 2016 on the above subject;

The Nairobi City County has approved your request subject to the following;

1. The period of research will be effective from January to March 2017 for Three months.
2. You will be attached to **Health Services**
3. You are expected to adhere to the rules and regulations pertaining to your research.
4. That during your research there will be no costs devolving on the County.
5. That you undertake to indemnify the County against any claim that may arise from your research study.
6. You are required to submit a copy of the final research document to the Human Resource Development Department one week after completion.
7. Research will be on **"The relationship between formal continuous professional development, job satisfaction and perception of job characteristics: A case of Nairobi City County Clinical Officers."**

Please report to the **Chief Administrative Officer**; Health Services for assignment of duties.

  
**CHARLES CHOI**  
**FOR: DIRECTOR HUMAN RESOURCE DEVELOPMENT**

**APPENDIX VI**  
**AUTHORIZATION LETTER FROM NACOSTI**



**NATIONAL COMMISSION FOR SCIENCE,  
TECHNOLOGY AND INNOVATION**

Telephone: 020 400 7000,  
0713 788787,0735404245  
Fax: +254-20-318245,318249  
Email: [dg@nacosti.go.ke](mailto:dg@nacosti.go.ke)  
Website: [www.nacosti.go.ke](http://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/17/84864/14922**

Date: **14<sup>th</sup> November, 2017**

Stella Wangari Waruingi  
University of Nairobi  
P.O. Box 30197-00100  
**NAIROBI.**

**RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on “*Relationship between formal contious profesionla development, job satisfaction and perception for job characteristics*” I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for the period ending **13<sup>th</sup> November, 2018.**

You are advised to report to **the County Commissioner and, the County Director of Education, Nairobi 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.

**GODFREY P. KALÉRWA MSc., MBA, MKIM**  
**FOR: DIRECTOR-GENERAL/CEO**

Copy to:

The County Commissioner  
Nairobi County.

The County Director of Education  
Nairobi County.

*National Commission for Science, Technology and Innovation is ISO 9001:2008 Certified*

APPENDIX IV  
LICENSE FROM NACOSTI

**THIS IS TO CERTIFY THAT:  
MS. STELLA WANGARI WARUINGI  
of UNIVERSITY OF NAIROBI, 0-618  
NAIROBI, has been permitted to conduct  
research in *Nairobi County***

**Permit No : NACOSTI/P/17/84864/14922  
Date Of Issue : 14th November,2017  
Fee Recieved :Ksh 1000**

**on the topic: *RELATIONSHIP BETWEEN  
FORMAL CONTIOUS PROFESIONLA  
DEVELOPMENT, JOB SATISFACTION AND  
PERCEPTION FOR JOB CHARACTERISTICS***

**for the period ending:  
13th November,2018**



.....  
**Applicant's  
Signature**

A handwritten signature in blue ink, appearing to read 'G. Kalenya'.

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