

**FACTORS INFLUENCING RETENTION OF HEALTH CARE WORKERS IN COUNTY
PUBLIC HEALTH FACILITIES IN A DEVOLVED SYSTEM OF GOVERNANCE IN
GARISSA COUNTY**

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DECLARATION

I hereby declare that; this thesis is my original work and has not been presented for a degree in any or other University.

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

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This thesis has been submitted for examination with our approval as university supervisors”.

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DEDICATION

This research is dedicated to my family and friends who stood with me in the whole process. To my wife, Leila Mohamed, my children Shamim, Shamhat, Shureim, and my last born Sudeys. In particular, my wife Leila Mohamed has been supportive all through my research process.

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LIST OF ACRONYMS AND ABBREVIATION

HIV	Human Immunodeficiency virus
AIDS	Acquired Immunodeficiency Syndrome
HRH	Human Resources for Health
IDPs	Internally Displaced People.
IRC	International Rescue committee
LWF	Lutheran world federation
KEMSA	Kenya Medical Supplies Authority
KeMU	Kenya Methodist University
MOH	Ministry of Health
MDGs	Millennium Development Goals
MSF	Medicins Sans Frontieres
NACOSTI	National Commission for Science Technology and Innovation
NEP	North Eastern Province
NRC	Norwegian Refugee counsel
SPSS	Statistics package for social science
UNICEF	United nation's children fund
WHO	World Health Organization

ABSTRACT

Retention of employees is one of the most important elements determining the health sector's viability in underdeveloped nations. Retention has received a lot of interest and remains to do so. This research sought to investigate the factors influencing health care workers retention in County public health facilities under a devolved system of governance in Garissa County. The study was guided by the following research objectives: To investigate the influence of regular promotion on health care workers retention in Garissa County public health facilities, to establish the influence of work and living environment on health care workers retention in Garissa County public health facilities, to assess the influence of essential commodity supplies on health care workers retention in Garissa County public health facilities and to determine the influence of special financial package on health care workers retention in Garissa County public health facilities. The research was anchored on two theories namely: The Needs Hierarchy Theory of Maslow and the Two-Factor Theory of Herzberg. To gather data from 134 healthcare professionals, the researchers adopted a descriptive research methodology using a Self-Administered Questionnaire. Sub-counties, primary healthcare institutions, and participants were sampled using stratified sampling and simple random sampling procedures. SPSS was used to analyze the data, and correlation and multiple regression were used to examine the connections between variables. The research established that regular promotion ($\beta = 0.239$, $p = .000 < p = 0.05$), work and living environment ($\beta = 0.405$, $p = .000 < p = 0.05$), Special financial package ($\beta = 0.122$, $p = .000 < p = 0.05$) and provision essential supplies ($\beta = 0.625$, $p = .000 < p = 0.05$) had a statistically significant influence on retention of healthcare workers in primary healthcare facilities in Garissa County when a joint regression model was considered. However, there was a statistically significant influence between all the four factors under study on the retention of health care workers. The study concludes that regular promotion, work and living environment, special financial package, and essential supplies influenced retention of healthcare workers in primary healthcare facilities in Garissa County. It was recommended that the County government management should ensure that every health care worker receives their salary on time all time. The supervisor in the County should ensure there is regular feedback to help improve health workers intention to stay. In addition, the management should ensure that health care workers work and live in a conducive environment, areas that have good shopping centers and entertainment and have safe, clean water for domestic use, should also provide health care workers with essential commodity supplies to improve health care workers intention to stay. The management should also ensure the workers have a manageable workload, ensure there is the availability of the supplies needed to do their job well and safely (drugs, gloves, bandages, needles etc), and also ensure there needed types of equipment to do their job well and effectively such as ultrasound, x-ray, blood pressure cuffs) are available.

CHAPTER ONE

INTRODUCTION

1.1 Background

Worker retention is a component of Personnel Management and planning activities, thus the capacity to keep workers in an organization is related to the measures by which companies seek to keep workers in their workplace. Organizations must investigate why workers leave or why they continue to stay. The International Labor Organization (of the year 2003 has been involved in supporting protections for workers since employees are an asset. The Occupational Safety and Health Act (2007), it is extremely important to ensure the health, safety, and wellbeing of workers and all individuals legally present at workplace, and to provide learning and developmental initiatives in their organisations (Mukherjee et al., 2020).

As per the World Health Organization (WHO,2013) the worldwide personnel capital problem, along with the poor practice of health by professionals in lower- and medium nations, is gaining worldwide attention. Workers are the most valuable resource in any business (Kundu & Lata, 2017). An effective and highly fluid company may be created by involving workers in the cultivation of their performance. As a result, to maintain a competitive edge, personnel must be able to demonstrate entire dedication to the needed overall performance ethics. Organizations are increasingly being required to significantly enhance their performance to meet high demands, volatile business conditions, and strong competition. Because of the international rivalry for talented individuals, the service sector needs to focus more on retaining competent personnel. However, dealing with talented workers creates various problems, and the retention process becomes more critical,

especially with this current generation of individuals who are very mobile and continually searching for better possibilities (Fahim, 2019).

Over the next 5 years, the percentage of employees who might have quit their employment was expected to rise to 23%. Internationally, it is estimated that 192 individuals would have resigned from their employment in 2008. Researchers predict that in India, the percentage of employees who left their employment is 26 percent, deeming India to be a personnel turnover storm nation. According to Arasanmi and Krishna (2019), India has more than one million immigrants worldwide, ranking second only to the Philippines among developing countries.

Various researches in Africa have endeavored to give a response to the question of what defines workers intention to exit by exploring alternative contexts of workers intention to consider leaving, and the research concluded that absence of dedication is by far the most immediate cause of intent to leave, and devotion to the entire organization can significantly ease the intentions to leave (Akinwale & George, 2020; Ashraf, 2019; Arana et al., 2018). Bang et al. (2020) conducted a study on multinational organizations in Cameroon and discovered that dedication is a multi-faceted concept in which a worker can be dedicated to his work, colleague, supervisor, or organization. In addition, the research highlights will illustrate the positive correlation between organizational commitment and employee retainment. As a result, it might be argued that if an employee's degree of commitment to the organization is strong, the likelihood of their retention is high. According to Bichi et al. (2017), low staff retention may be improved by enhancing employee perks, incentives, and working environment.

Economies must make bolstering the healthcare workforce a top priority if they are to improve public health. Incorporated and harmonious approaches are necessary, with a focus on essential stages in the value chain of health care workers and an appreciation of the importance that various constituencies in society perform. This includes addressing ability, managerial staff, and conditions for workers, and also a thorough knowledge of the health labor market dynamics that influence production, implementation, uptake in the healthcare system, performance, and inspiration of the health care workforce. Immediate action is required (Busari et al., 2017).

Acute deficits and unequal allocation of health personnel within nations are also important impediments to expanding access to health interventions for the most vulnerable people. Although rural regions are home to 50 percent of the worldwide people, metropolitan areas are home to 75 percent of physicians and 62 percent of nurses. For instance, Yaoundé has 4.5 times more health care workers than the lowest income region in the nation. Even though rural regions are home to about 80 percent of Malawi's citizens, just 30 percent of the national healthcare personnel work there. Migration: Poorer nations lose several of their most important health personnel to affluent nations. For instance, 75 percent of physicians educated in Mozambique currently work in other countries. The largest (1,220) work in Portugal, while the remainder work in Southern Africa (61), the United States (20), and the United Kingdom (UK) (167). When a large number of physicians and nurses emigrate, the nations that paid for their study do not get a return on investment (Davis et al., 2019).

Kenya's health care is hampered by regional and urban disparities, a shortage of funding, and a personnel deficit, with One doctor for every 10,150 persons. The north-eastern

province (NEP) has fewer facilities, which makes access challenging, and the province is under served in terms of health establishments per 100,000 inhabitants, with a 10/100,000 proportion (Davis et al., 2019). Retention of healthcare personnel is a big concern, especially for those deployed to the NEP from other parts of the nation. This is a significant barrier to attaining the MDGs. The country as a whole is suffering from a lack of appropriately skilled and motivated employees (Oxford Analytical, 2017).

1.2 Problem Statement

Retaining staff deployed in hard-to-reach and remote parts of the County have been a challenge since they do not get any special packages that are commensurate with the level of hardship they face in that part of the County (Arasanmi & Krishna, 2019). While it has been a challenge with the National government on retention of staff, devolving the health sector was seen as the best intervention for this problem in Northern Kenyan. However, staff turnover stands at 20% since devolution compared to the previous rates of 21% before devolution. While it's not known what motivates the stay of the few who have worked for a long period in those areas considered to be a hard ship, the turnout is huge and demanding for the County government of Garissa (Davis et al., 2019).

As part of plans to overcome human resource challenges, the County government of Garissa proposed certain measures to reduce staff turnover among them was the County employment of 100 more nurses immediately after devolution to reduce workload and reduce pressure from the staff. The County also constructed several new health facilities to decongest highly populated areas again with intention of reducing workload from staff in busy centers. Despite these efforts, more than 35% of the devolved and newly recruited staff sought for transfer from the County health human resource.

A handful of research in the US and Canada have found that as the quantity of skilled staff drops, so does the danger to the patient (Kundu & Lata, 2017). Kenya's healthcare system is beset by a variety of human resource issues, the most serious of which is a general lack of staff in important sectors, exacerbated by a high number of educated workers exiting the health sector to work in another country. Moreover, the remaining staff are unequally divided between urban and rural regions (Davis et al., 2019). The difference between turnover and retention is essential and we need to assess whatever we want (retention) rather than what we do not want (turnover). Since an experienced worker is more beneficial than a recently recruited one, retention must be prioritized. Where the workers is experienced, the standard of healthcare is higher because there are chances of errors, and long-term employees lower the expenditure of lost productivity.

Local studies that have been carried out on retention of health workers include: Ngunjiri (2016) researched on factors influencing retention of health workers in the public health sector in Kenya with special focus on Kenyatta National Hospital According to the findings, compensation and leadership continue to be important factors in influencing health professional retention. The studies also revealed that promotions, training, and workplace environment all had an impact on health professionals. Nonclinical workers perceived that the hospital prioritizes clinical staff in terms of pay, but nonclinical staff perceived that professionals are preferred in terms of remuneration. Malango (2012) investigated the factors affecting health care workers retention in primary care facilities in Kakamega County, Kenya. Age, length of time of employment, versatility and capacity to balance professional and home life, reasonable evaluation, supervisor's professionalism, controllable volume of work, and hardware were statistically correlated. Wako (2019)

researched on how working environment influenced retention of employees at level 4 and 5 health facilities in Machakos County. The study results indicate that working hours and the Information Communication System had a negative impact on retention. The results also indicated that job description and design positive affected retention. Moreover, Wako (2019) adopted a quantitative research design, while Malango (2012) and Ngure (2016) used a cross sectional survey design. The current study however, used descriptive design.

From the foregoing it was evident that there were both contextual and methodological gaps in most of the past studies reviewed above. None of them had examined the influence of regular promotion, work and living environment, essential commodity supplies and special financial package on health care workers retention in Garissa County public health facilities on a broad scale as undertaken in this study. Similarly the study adopted a quantitative research design, cross sectional research design. The current research employed a descriptive design. The current study therefore sought to address these conceptual, contextual, and methodological gaps by adopting a broader approach both in context and research design approach.

1.3 Purpose of the Study

To investigate the factors influencing the retention of health care workers in Garissa County.

1.4 Broad Objective

To investigate factors influencing health care workers retention in County public health facilities under the devolved system of governance in Garissa County.

1.4.1 Specific Objectives

The study sought to achieve the following objectives:

- i. To investigate the influence of regular promotion on health care workers retention in Garissa County public health facilities.
- ii. To establish the influence of work and living environment on health care workers retention in Garissa County public health facilities.
- iii. To assess the influence of essential commodity supplies on health care workers retention in Garissa County public health facilities.
- iv. To determine the influence of special financial package on health care workers retention in Garissa County public health facilities.

1.5 Research Questions

The study sought answers to the following questions:

- i. How does regular promotion influence health care workers retention in Garissa County public health facilities?
- ii. How does work and living environment influence health care workers retention in Garissa County public health facilities?
- iii. How does the provision of essential supplies influence health care workers retention in Garissa County public health facilities?
- iv. How does the provision of a special financial package for health care workers deployed in hard-to-reach facilities influence health care workers retention in Garissa County public health facilities?

1.6 Justification of the Study

High staff turnover has been an issue before devolution and the same is experienced under devolution. The challenges in the human resource have led to the closure of 26 health

facilities in the County translating to 22% of the facilities. Shortage of staff as a result of chronic absenteeism and/or desertion that led to burn-out of the remaining staff as they struggle to cover the absent colleagues. This culminates in low indicator coverage in the County and low-quality services.

1.7 Limitation of the Study

There were many limitations to the research. As per Read Bain, case data are frequently tainted since the subject might write what he believes the researcher needs; and the better the relationship, the more biased the entire process is. The measures were based on the participants' views rather than their actions. A long-term research would have shown whether or not the employees departed. Cross-sectional research (Mukherjee et al., 2020) have repeatedly demonstrated that worker habits of desire to quit their employers are the biggest predictors of actual attrition and are utilized in retention investigations.

The participants' responses constrained the research findings, notably the freedom they felt in sharing their opinions regarding promotion, in contrast to the free expression indicated on topics such as work & living environment, basic supplies, and Special Financial Package. One deputy director declined to take part. The utilization of the questionnaires, on the other hand, provided extra information that led to reasonable findings. The research was further restricted by the premise that it was located in Garissa County, one of Kenya's counties.

1.8 Delimitation of the Study

In this research, the target groups were all health care workers who are working in Garissa County for at least six months of the study period. The target groups were all technical staff working both at service delivery points and managerial positions in levels. The key variable in the research included a regular promotion, work & living environment, essential supplies & commodities, and provision of special packages for health care workers. The dependent variable in this case staff retention while moderating variable that will influence both dependent and independent variables includes national policies, leadership at the County level, and availability of resources.

1.9 Scope of the Study

The research has covered issues on staff retention, influencers of staff retention under a devolved system in Garissa County.

1.10 Operational definition of terms

Health Is a state of bodily, psychological, and interpersonal well-being that is more than the lack of a sickness or disability. (WHO).

Health Care Reforms Critical reform in government-led policy and institutional structures designed to enhance health sector functioning and efficiency, and consequently public health status.

Health Care Systems	Includes all organizations, institutions, and resources dedicated to producing actions primarily aimed at improving the health and health needs of target populations.
Health Policy	Formal declarations or processes within organizations (notable government) that identify goals and intervention criteria in response to available resources and other political pressures about health needs.
Health Worker	Are all the citizens whose key tasks aim to improve health? These include the individuals who deliver clinical care in the health system, such as physicians, nurses, pharmacists, laboratory technicians, PHO, and support workers such as supervisors, managers, and clerks.
Health Workers Retention Measures	Includes vacancy rates for personnel shortages, turnover rates, attrition rates, and rates of absenteeism and unemployment.
Human Resource for Health	Adequate number and combination of health professionals for the health care system in both groups
Human Resources Management	The Strategic approach to the management of the health staff workforce, to the achievement of the objectives of the health system.

Human Resources Planning	Focusing and retaining the optimal numbers with the appropriate skills, expertise, and competencies for the functioning of the health system.
Retention	Retention is the process of ensuring your staff members remain active with the organization and for the period required.
Turnover	The number of people who leave an organization, resignation, attrition, and migration of health workers from the region to another place. Rates of labor turnover illustrate the turbulence within an organization.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section presents a literature review that discusses issues relating to shortage, retention, and turnover of health workers. A variety of tools may be used to track the severity of the inequality and the mal-distribution of health staff. The most commonly used are the densities of urban health workers as compared to rural areas. Such metrics include turnover rates, turn-over rates, retention rates, and absenteeism and unemployment rates.

2.2 Theoretical Review

A theoretical structure will demonstrate an understanding of the theories and principles important for the research subject (Pålsson & Sandberg, 2020b). In this review, the theoretical research was founded on Maslow's Needs Hierarchy Theory and will explain the effect of career development on the retention of employees.

Maslow (1943) believed that Individuals are driven by a drive to achieve or preserve the many conditions that underpin some fundamental satisfaction levels and by other more abstract desires because the average number of society is most often partially satisfied and partially unsatisfied with all one's wishes (Alajmi & Alasousi, 2019). Chullen et al. (2015) argued that Maslow had implemented a hierarchy of needs in which at least five sets of requirements form the system. The five sets of requirements were divided into two categories: basic requirements and higher-order requirements. Defined by food, water, shelter, and health, the most basic human needs are deemed important for human life.

Motivation theories emphasize specific variables that influence job satisfaction. Everything, both intrinsically and extrinsically-driven actions demonstrate the different hypotheses that can be applied to explain motivational behavior. Maslow and Herzberg are material scientists, who emphasize the importance of fulfillment. Maslow's theory (1946) and Herzberg's theory (1968) concentrate on the issue of what awakens, sustains, and governs goal-directed behavior which is what motivates people particularly. There is the idea that everyone responds to motivational stimuli in much the same way, and that there is one best way to motivate everyone, and that it focuses on the needs of one person.

2.2.1 Herzberg's two-factor theory

Employment status is a big driver of job satisfaction; the factors in motivational theory that dissatisfy employment people are different from those that motivate them to do a good job (Ashraf, 2019). Small pay, poor career opportunities and training rewards, unsatisfactory access to equipment and support facilities, and inadequate personal contact with colleagues and managers all contribute to unhappiness (Gordon, 2017). Unlike these motivating extrinsic factors, intrinsic motivation is related to the actual quality of work, feelings of success, self-esteem, and self-confidence; it leads to job satisfaction and productivity increases (Hagqvist et al., 2018).

Limiting dissatisfiers, Herzberg said, motivates a worker to live but not perform better. In keeping with this theory, some authors propose that avoiding dissatisfiers in fostering longevity is more important than maintaining especially high rates of job satisfaction. But others dispute that view and claim that turnover is more a result of low intrinsic job satisfaction than experiencing stressful work environments, especially for professionals (Dipboye, 2018a). Many middle and low-income countries still suffer from extreme worker

shortages and/or misallocation of health services, worsened more subsequently by the collapse of low-income nations' medical systems and the worldwide policy environment. Low pay, deplorable conditions for workers, a lack of preparation, and a dearth of institutions and equipment, and HIV/AIDS all lead to health workers being displaced from remote areas (Matthews et al., 2018).

2.2.2 Maslow's Hierarchy of Needs and Motivation

Maslow's hierarchy can be used to describe the type of knowledge that people seek at various stages of growth. For instance, people at the lowest level consider dealing with knowledge to meet their basic needs. Information that is not specifically related to helping a person in a very short time fulfill his or her needs is often left unattended (Chullen et al., 2015). The details require safety-level assistance from individuals. We are finding ways in which they can be safe and protected. Persons in need of their belonging need to seek insightful knowledge. Several times this can be found in books or other articles on the nature of relationships. Individuals at the confidence stage want to empower knowledge. They are seeking information about how to develop their egos. Additionally, people seeking enriching awareness in the growth stages of cognitive, psychological, and self-actualization. While Toshav-Eichner and Bareket-Bojmel (2021) do not explicitly address the stage of transcendence, it is fair to conclude that individuals will sort out information on how to respond to something outside themselves or how to edify others at this level.

The Kenya Constitution 2010 provides for every Kenyan the right to the highest attainable health quality and imposes a constitutional duty on the State to take legislative, policy, and other steps, including setting standards, to ensure that the rights laid down in Article 43, which include the right to health, are gradually realized. Such constitutional provisions set

out the functions and responsibilities of the health sector to promote the inclusive realization of the right to health for everyone. Schedule 4 of the Constitution assigns the function of providing essential health services to the County Governments, and the functions of Health Stewardship to the National Government.

Because of a lack of skilled labor, economic development, and employee attrition, the retention of workers is the most important issue facing business leaders. Retention is defined as retaining those staff that you wish to retain for longer than your rivals (Renaud et al., 2015).

The direct and indirect costs associated with the loss of skilled workers are among the many reasons a company worries about retention. Human resource managers recorded that turnover costs in several studies vary between 50 and 500 percent of the annual salary of the leaving employee, probably one of the highest turnover costs depending on the level of employment, sector, and region, and perhaps the most underrated, is the loss of the future potential of the brightest and best who are usually the ones to leave. Another, more subtle cost of turnover is sharing the service, infrastructure, and clients of a company with rivals who may have recruited the workers away. This continues to increase the financial effect of losing talented workers (Dhanpat et al., 2019).

Staff motivation to improve results encompasses many important factors: employee involvement, corporate vision and values, recognition and acknowledgment of well-performed work, overall leadership credibility, financial incentives, and career development among others. Employees should reach the workplace with the drive and ability to excel, add value and contribute to the dream of an employer. In comparison, the

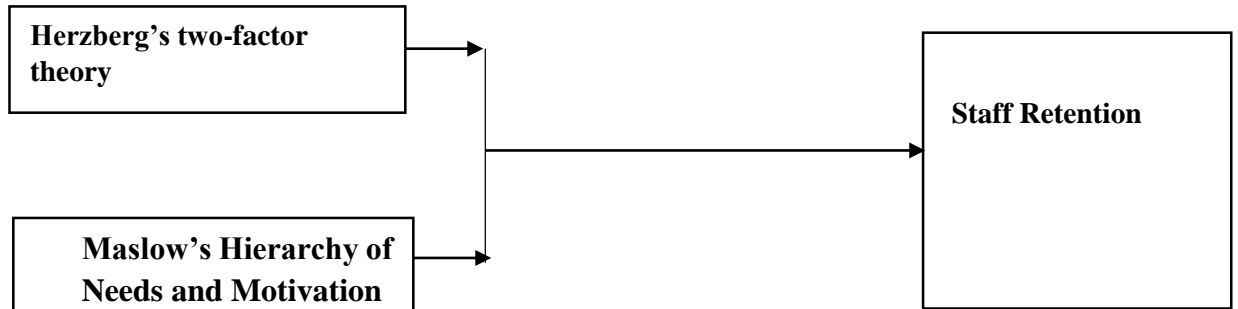
employer must provide productive workers with tools, incentives, recognition, and a consistent work atmosphere (Behera et al., 2019).

Individuals are motivated by a variety of factors and are intrinsic or extrinsic to all types of motivation. Intrinsic driven work behavior stems from an "internal" desire intrinsically drive is the desire of a person to achieve something and is thus typically conscience. measures, e.g. pure involvement in a project or constructive feedback from coworkers. According to Dzimbiri and Molefakgotla (2021), what people would do without external inducements such as hunger, a sense of obligation, altruism and a desire to be valued is intrinsic motivation. Akinwale and George (2020) note that when there is no other clear motive than the action itself, emotionally motivated actions are seen. In the opinion of Kim (2016), very high levels of intrinsic motivation are characterized by such a strong commitment and participation in the job, and such a good task difficulty matches the level of ability that people feel some sort of psychological "flow," a sense of connecting with the project they are doing.

Extrinsically motivated conduct, on the other hand, is action to earn financial or social rewards or to avoid punishment. The root of motivation is not the action itself but the consequence of action. George (2015) believed that extrinsically motivated behaviors are those in which the control mechanism is easy to see and concluded in their research that extrinsically motivated behaviors typically arise from anxiety, leading to low self-esteem and fear. Extrinsic influenced work behavior derives among other items from such tangible opportunities as pay, rewards, and promotion.

Figure 2. 1

Theoretical Review



2.3 Emperical Review

2.3.1 Promotion and retention of health care workers

The growth of the health sector in Kenya faces a range of challenges. Amid the health workers multitude of challenges and opposition, "devolution to County administration occurred. To present, the nation has seen several health worker strikes in various counties, as well as the resignation of certain health-care professionals, notably physicians. This has also resulted in an unequal allocation of competent health personnel, since health care workers have left certain areas to assist others with improved job circumstances (Busari et al., 2017). Other issues like healthcare staff, the loss of qualified employees in the private industry and other nations that have better pay ncentives, the lack of employment opportunities and educational chances, the absence of continuity in the proper process of transferring healthcare staff, the recruitment of healthcare professionals, the transfer (Behera et al., 2019).

Agyepong et al. (2018) describe retention as an ongoing effort to engage in business with a particular organization. Retention is' customer love, reputation, loyalty, confidence, readiness to suggest and buyback intents, the first four of which are emotional-cognitive retention systems in place and the final two of which are determinants of intended outcome. According to Ellapen et al. (2018), retention is motivated by several key factors that should be treated cohesively: organizational culture theory, policy, rewards, and benefits. The economic implications will be detrimental to a company if businesses cannot keep their workers.

Movement within an organization is typically classified as advancement in a position where responsibilities and prestige are increased. Promotional incentives impact individual acts within the organization and encourage individuals to move forward with expanded potential. Promotion is used as a reward and incentive for successful work outcomes and other behavioral styles that are embraced organizationally. If they feel that will lead to promotion, people will work harder. They have little motivation if they feel reserved for outsiders to get better jobs. The promotion method helps companies to balance their need for skilled workers with the willingness of employees to apply their expertise. There is a strong link between the prospects for promotion and high rates of work satisfaction. An effective system of promotion will result in more organizational efficiency and high morale for employees (Akinwale & George, 2020).

Promotion is a cause of employee happiness and the company is more committed to happy employees. During the assessment of an employee's promotional performance, an appropriate communication mechanism should be developed to know where the employee who may not be eligible for promotion is absent and where the hat can be made to yield

results. Regular reviews on employee performance can encourage workers to boost their performance and get a promotion. This means the employees are involved in company progress (Lichtenthaler & Fischbach, 2018). Employee advancement should also rely on factors such as competence, performance, and experience and should be justified in preventing workers from engaging in politics to place pressure on managers for bonuses and promotion (Lichtenthaler & Fischbach, 2016).

In Garissa County, after devolution, the seconded national government staff had huge backlogs promotion. Some staff was not promoted for more than ten years devolution was seen as a blessing by the health care providers. The County government of Garissa made some good progress in promoting 70% of staff who were due for promotion, with some staff getting two Job groups up.

2.3.2 Work and Living Environment and Retention of Health Care Workers

Employees undertake attempts to improve unsatisfactory work circumstances that might otherwise play a key role in their choice to leave their companies. Employees who are successful in improving dissatisfying work circumstances will experience less discontent, and their desire to quit will shift to intent to stay, increasing the probability that they will stay with their company. It is the management's major job to discover bright and high-performing employees in the first place, and they need be rewarded for their accomplishments in every way possible, including monetary awards. Employees who quit their jobs willingly are more likely to be paid less and have inadequate benefits. Many of the factors that lead employees to quit also make it difficult to find new candidates to fill their shoes. Employee turnover is expensive for businesses, with the average firm losing

\$100,000 for each professional or management employee that departs (Bäckström et al., 2016).

The workplace environment encompasses not just the physical features of an employee's work space, but also everything that pertains to the employee's connection with the job. The working environment is defined by the Total Reward Association as "the complete collection of psychological, physical and behavioral elements present at work" (Kjellström et al., 2017). Workers are said to feel better about heading to work in a safe atmosphere, which provides the drive they need to get through each day. Bäckström et al. (2016) reaffirm this point, stating that firms that provide adequate degrees of privacy and solid workplace regulations are better able to recruit and retain employees, as well as increase motivation and engagement. Crawford et al. (2017) also state that maintaining a good work environment is one of the most important components of any company's total compensation strategy.

Because learning and development opportunities seem vital to the preservation of talented employees, an organization needs to create caring learning and work environment. The term 'learning and working environment' usually refers to the atmosphere in which all employees create the organization (Kjellström et al., 2017). More specifically, the definition can be expressed by referring to direction and respect at work; work stress; amount of pride and obligation faced by employees; choice of work and employment obligations; stipulation of demanding and essential jobs; and opportunities for development and growth and facilities. Previous studies, results suggest that the indebted strategy, operationalized by appreciative learning and working climate, has a positive impact on staff retention (Dipboye, 2018b).

The word "workplace conditions" pertains to the situations under which an individual works. The work atmosphere can be formed by physical elements such as workplace climate or equipment such as desktop PCs. It could also be related to workplace processes. Three essential characteristics of the workplace are addressed by environment and worker retention strategies: the institution's ethical and values basis; guidelines that translate and interpret those principles into day-to-day activities; and the physical surroundings in which employees work. The overarching objective (Kjellström et al., 2017) is to make your firm a place where people desire to work.

Dipboye (2018a) found that the workplace environment is frequently described from an industrial standpoint, with an emphasis on physical factors such as hard lifts, noise, and hazardous chemical exposure. The intriguing element is that the work environment in the services sector differs from that in the manufacturing sector since it involves interacting with clients or consumers. Relations will vary in frequency and intensity based on the type of business and the type of employment.

The connection between workers and customers or clients necessitates a shift in emphasis from the physical to the psychosocial aspects of the workplace. Support, volume of work, expectations, role ambiguity, and stressors all play a role in the psycho-social work setting. The work atmosphere may send negative signals regarding how much the company appreciates its people and the expectations it has for them (Dipboye, 2018b).

According to an independent research performed by the Society for Human Resource Management, the physical work setting is a key factor influencing employees' decisions to stay or quit their jobs. Access to a pleasant and natural environment can assist to minimize

job stress, sadness, and anxiety, all of which are good for the environment. Various elements in the workplace environment are important drivers of employee success. These factors may have a good or negative impact on reaching peak staff performance. Employees will always be dissatisfied if they believe their immediate surroundings are in sync with their responsibilities. Organizational success is determined by the sort of working environment in which workers work (Crawford et al., 2017).

According to Behera et al. (2019), the physical office environment influences workers functions and determines the well-being of businesses. The physical work environment also comprises the indoor and outdoor workplace layout, temperature, comfort zone, and work setup or arrangement, according to the authors. Lighting (both natural and artificial), furniture, noise, and office spatial patterns are all elements in the physical working environment. Comfort, airflow, and warmth, as well as light, all contribute to the physical office environment. These elements help with the décor and design of the working environment on both a practical and aesthetic level, which helps to better the workers experience and necessitates higher performance. Employees' health is also influenced by their degree of comfort and temperature. Busari et al. (2017) discovered that when temperatures are high, job performance suffers, and that colder temperatures affect manual task performance. By the manner their workstations are designed, office architecture encourages people to operate in a specific way. The way workers do their duties is heavily influenced by spatial layouts.

Numerous research and policy publications have also focused on the importance of a relevant psychosocial practice environment for both individual and organizational well-being. The good work environment were emphasized, and it was decided that the job must

be done in a healthy manner, both physically and mentally, in order to promote employee well-being and professional growth while also preventing illness. The objective of the notion is to improve work organization at any business on a local scale. The employer must allow employee involvement and influence at work to enhance employee satisfaction and well-being (Crawford et al., 2017).

2.3.3 Essential Supplies and Retention of Health Care Workers

The study reported that the government had provided not more than half of the health care facilities in the Nigerian states with drug supply in 2002 (Kwon & Kim, 2018). In Brazil, in a Dominican Republic hospital study comparing patient prescriptions and records of prescribed medications, 32 percent of patients reported prior knowledge of abuse in government pharmacies Cohen, (2002) and a significant proportion of medications were absent. In Ethiopia, an Addis Abeba health officer It was observed that "many health personnel are participating in such activities," linking this to "external influences" and poor government employee salaries (Vandawaker et al., 2017).

The Kenya Medical Supplies Authority (KEMSA) has resolved these issues by turning it into a more autonomous and efficient medical logistics authority from a bureaucratic agency which it has been for many years. KEMSA is a state agency whose mission is to purchase, store and distribute medical supplies to public health facilities in 47 counties across the country. This is an important milestone that has helped improve the provision of service (Koech et al., 2020). Medicines and medical devices constitute 20-30 percent of global health spending, mainly in low- and middle-income countries, and therefore make up a large part of the budget anywhere health services are paid for. In certain situations, the burden will be higher, since a reasonable amount is charged by governments and

businesses. Drug shortages have been shown to dissuade the use of public resources, with key procurement failures, largely in the utter lack of productivity improvement, process control, inspections, and unchecked political interference, and in dispersion, wherein stock management and analytics systems are especially vulnerable. Alleged pharmaceutical misuse both by healthcare workers and hospital patients are blamed on a lack of prescription prescribed and medicine supply restrictions (Bang et al., 2020).

In Kenya, drug and medical equipment procurement is primarily KEMSA's work. The first preference in procurement is granted to KEMSA and the second choice for MEDS. The latter has only been allocated to County Referral Hospitals; thus, the local hospital has to arrange supplies more frequently than daunting to other facilities. On the other hand, many businesses do not have internet connectivity, and thus do not submit orders electronically. Certain problems included purchasing only generic basic medicines for health facilities and leading to insufficiency of medicines in health facilities, if not available. Perennial delinquent payments by County governments to KEMSA also influence the management of the supply chain (Davis et al., 2019).

Following the departure, the Ministry of Health (MoH) noted that KEMSA had undergone significant changes to better serve its clients, ranging from updating its strategic strategy to adjusting to evolving environmental dynamics; aligning its organizational structure with the emerging business needs of the devolved healthcare systems; KEMSA was completely integrated into LMIS and introduced in 35 out of 47 counties to build healthcare resources and strategically plan networking structures intending to effectively and efficiently serving customers. Plans were also under way to create a Supply Chain Institute. It emerged that the main problems for the counties also included the inadequacy of equipment and

services, as KEMSA pursued only about 50-60 percent of orders (the national government retained just 55 percent of the health functions to be managed (Arana et al., 2018).

2.3.4 Special Financial packages on retention of health care workers

A special financial package is money granted to somebody as compensation for an accident, loss, or suffering, or money earned by a worker as a salary or wage from employers (Kim, 2018). Money isn't the sole part of a special financial package. It might also be in the form of something other than money. In many major companies, benefits such as pensions, health and life coverage, pension plans, and perks like company vehicles or subsidised transportation all play a substantial role in salary (Hagqvist et al., 2021).

A lot of studies have found that customized financial packages have a crucial role in retaining employees. Gordon (2017) investigated how hospitality staff are motivated using the remuneration. If there is no compensating preparation, companies risk generating an unpleasant work and environment. The workers stayed committed to the business happy business conveys its pay practices, according to Busari et al. (2017). Additionally, an institutions compensation package can influence a performance of the employee and willingness to stay on the job. There are a lot of studies that show that there is a significant degree of inter-individual variation in how people perceive the importance of financial incentives for retaining employees.

Pay is the monetary remuneration that employers get for the labor that their employees perform. The daily wage, which is payment received dependent on specific preset rates, including the period of time an individual receives on the work, such as regular salaries, and dependent on the employment relationship, is one of the two primary elements of compensation (Toshav-Eichner & Bareket-Bojmel, 2021).

Wages, piecework, benefits, pay bonuses, share options, and other forms of compensation may be provided to successful employees. One of the most important factors is money. Money may denote more than just monetary value; it can also denote status or power. Economists and many administrators prefer to put a large amount of money on the side of the motivators, but behavioral scientists prefer to put a little amount of cash on the side of the motivators. Obviously, no single point of view is correct (Hagqvist et al., 2021).

Special financial packages are any stimuli, or occurrences that boost the likelihood and intensity of cognitive and behavioural circumstances leading to such objects (learning, also known as favorable reassurance), generate approach and complex movement behavior, and stimulate subjective feelings of euphoria and hedonic satisfaction. Individual financial packages are critical because they sustain such basic functions as drinking, feeding, and reproduction. For higher order incentives like money, variety, and psychological and behavioural rewards, behavioral processes are mostly identical. The brain pulls reward signals from optical, audio, tactile, olfactory, and other sensory input because fundamental reward items are polysensory and do not engage specific reward receptors. The discovery of higher order increased cognitive processes are required for special financial packages. As a result, rewards are defined by the behaviour in response they elicit rather than the chemistry and physics of their contributions (Liewendahl & Heinonen, 2020).

Moreover, monetary remuneration, perks, and other non-cash kinds, as well as job experience, are usually included in particular financial packages. Educational and training possibilities, employee development, flexible work hours, share options, and appreciation incentives like as products and vacation are all part of strategic reward schemes. Non-cash incentives like as on-site day care, exercise facilities, dry-cleaning services, and automated

teller machines make employees' life easier and increase loyalty. Work-at-home and employment arrangements allow individuals to better manage family - work obligations while also allowing businesses to adapt to business demands. Base wage, remuneration, direct pay, perks, bonuses, performance appraisal, training, career progression, mentoring, as well as other employee-related rules are all included in the entire incentive system. Providing a comprehensive incentive package requires a mix of variable compensation, acknowledgment and appreciation, and perks (Ghosh et al., 2020).

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Kim (2018), maintains that many businesses distinguish incentives based on status (instead of contribution), and getting promoted is frequently the only option for a person to improve his or her income. This generally encourages people to “protect themselves” rather than increase their total contribution. However, the major incentive utilized to entice information technology experts is still money. Many experts, nevertheless, believe that money is not the lengthy solution for attracting and retaining competent high-tech workers.

High earnings aren't necessary, according to Che Ahmat et al. (2019), but "good" and "fair" wages indicated a significant correlation with commitment to return, implying that as long as remuneration is competitive, financial benefits aren't the most important element in

retention; Kim (2018) supports this assertion, signifying that the exact level of income is less essential than sentiments about salary increases. Workers want to grasp how the compensation system works and how they may improve their income. Once you've achieved a certain wage level, it's time to focus on the intangibles, such as your career, supervisory support, and work-life balance. Worker benefits and rewards in kind (extrinsic rewards, perks, and bonuses) are non-wage compensations given to employees. In addition to regular pay. A 'salary sacrifice' agreement occurs when an employee swaps (cash) compensation for some other type of reward. Most types of employee perks are taxed to some extent in most nations. Housing, corporate insurance (healthcare, dental, and longevity), incapacity, protection of income, and pension benefits are just a few examples.

The objective of the perks, in general, is to enhance workers financial security. The phrase perks, or perks, is a colloquial term for rewards that are more discretionary in nature. Perks are frequently provided to employees who do very well and/or have a high level of seniority. Corporate automobiles, hotel stays, complimentary beverages, recreational activities on working hours (golf, for example), stationery, meal allowances, and first choice of work responsibilities and holiday planning are all common benefits. When openings arise, they may be granted first priority for promotions.

Moreover, Che Ahmat et al. (2019) suggested that motivations for workers to be engaged and driven to fulfill organisation objectives include a greater pay base, profit sharing, bonuses, and stock options for employees. A survey of 250 employees from a manufacturing company was conducted.

Su et al., 2020) discovered a favorable association between job incentives and commitment ($r=.56$, $p>.01$). Benefit practices, according to Ghosh et al. (2020), are linked to turnover. He discovered that businesses where benefits accounted for a larger fraction of overall labor expenses and whose compensation packages were perceived as being of higher quality had reduced rates of employee turnover. According to Che Ahmat et al. (2019), this could be due to employees' satisfaction with the perks they got, or it could be due to the rewards and benefits being binding expenditures that would inspire career devotion. These findings suggest that the amount and types of perks given by a business have a substantial impact on employee departure.

Ghosh et al. (2020) defined reward as anything that a business provides to workers in exchange for their labor and performance, but also something that the employees crave. Walker (2001) claims that acknowledgment from employers, team members, employees, and customers improves dependability. In 2002, the global consulting firm "Watson Wyatt" questioned 12751 people at all levels of occupation throughout all main industrial sites across the US to discover regarding their attitudes toward their workspaces and employers. As per the research, workers valued acknowledgement and demanded to check that their efforts were recognized and rewarded. Che Ahmat et al. (2019) pushed the argument that remuneration is important since it creates a lasting impression on workers, providing them the sensation that they are valued in the workplace.

If money is to be a motivator, then managers need to look at certain issues. To people who raise a family, cash is likely to be more critical than for people who have "arrived," in the sense that their monetary needs are not so urgent. Money is a significant way of keeping a reasonable standard of living, but as people become wealthier it continues to increase. So

money may be used in most businesses as a means of sustaining a properly staffed business and not only as a motivator. Money as a motivator is quite dulled by the tradition of ensuring that the wages of different managers within an organization are fairly equal (Dipboye, 2018b). Many companies take great care to ensure that on a comparable basis, workers are given the same or nearly the same benefit. This is understandable because people generally measure their pay based on what they earn from their peers. If money is to be an effective motivator, salaries and bonuses must be provided to people in different positions, even at a similar level, that reflects their performance (Gordon, 2017).

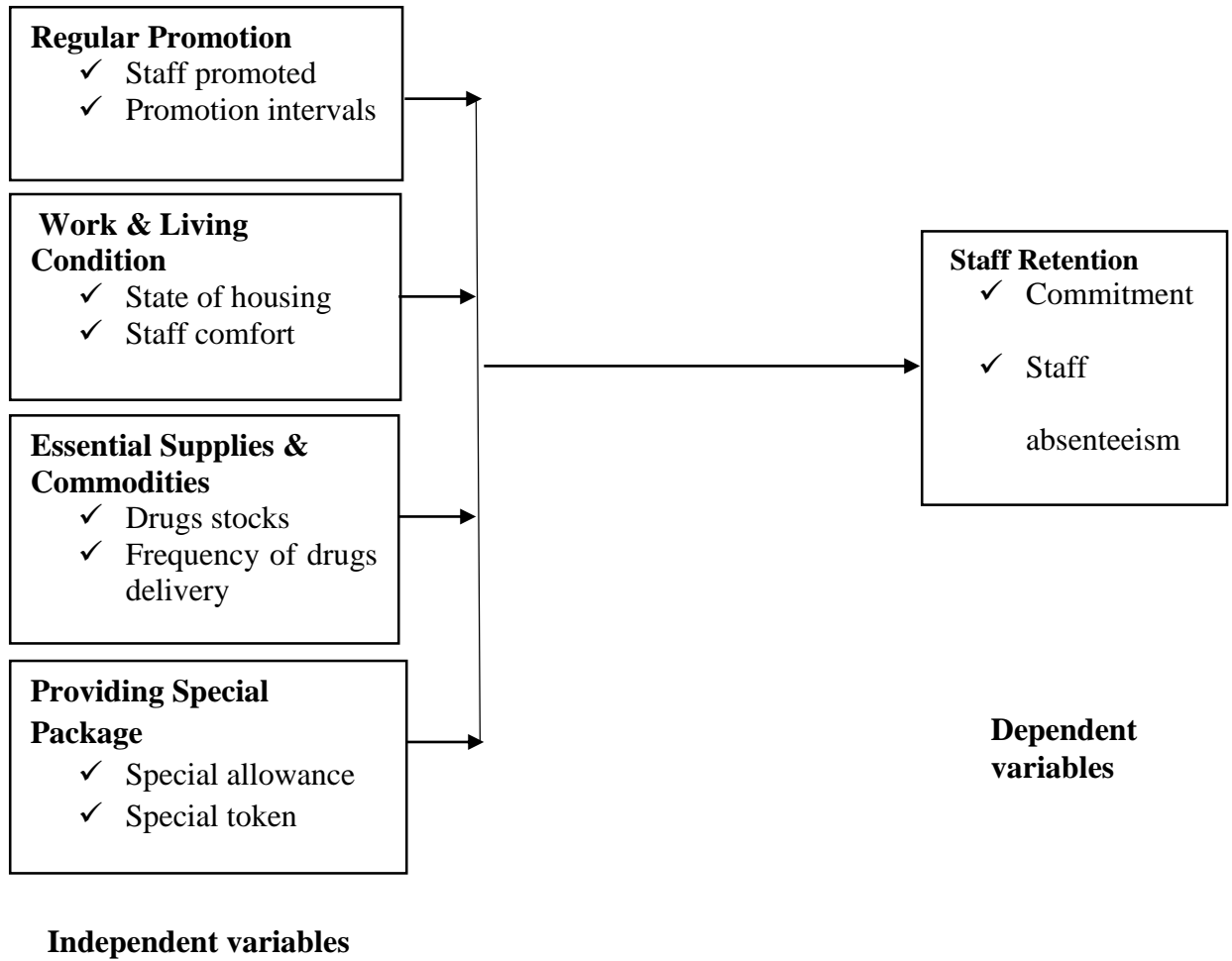
In the case of Garissa County, after devolution, the County government promised to give a special package to staff with higher preference to staff working in more remote and far distance centers from the head quarter. The plan was the farther your work station is from the head quarter, the more the allowance. This is a plan that never materialized to date due to reasons which the County government termed as technical challenges.

2.4 Conceptual Framework

The following conceptual structure was used in the analysis and helped to explain how the variables interrelate. A conceptual structure is a scheme of variables that are operationalized by a researcher to achieve the objectives set (Pålsson & Sandberg, 2020a).

Figure 2. 2

Conceptual Framework



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter explains how the study was carried out.

3.2 Research Design

This study adopted a descriptive research design, which is a kind of research conducted to describe variable characteristics in a situation. The design, according to Schoonenboom and Johnson (2017), is concerned with current situations or relationships, holding opinions, ongoing processes, apparent effects, or trends that are developing. The descriptive survey method allows data collection without altering the research variables. The definition optimizes both the strengths of quantitative methods of the study and qualitative research. The survey approach allows data to be obtained from a large sample population, and results that reflect the entire population and lower costs (Rahi, 2017).

3.3 Target Population

This research targeted all health care workers in public health facilities in Garissa County available at their workstations during the study. The targeted health care workers in the County are 957 who are working at service delivery points.

3.4 Sampling procedure and Sample Size

The number of health care workers in Garissa County in level 3 and level 4 facilities is 957 as per the Garissa County, the formular below was employed Rahi (2017).

$$n = \frac{Nc^2}{c^2 + (N - 1)e^2}$$

we obtained;

$$n = \frac{957 * 0.5^2}{0.5^2 + (957 - 1)0.04^2}$$

$$n = 134.4$$

3.5.1 Sampling Technique

Since Garissa County is made up of six Sub-Counties, To identify participants for this research, stratification random choice was employed 12 health facilities from the 6 Sub-Counties. Facilities were stratified based on regions (Sub-County). The features of stratified random sampling provided each health care worker with an equal chance of inclusion while on the same note, keeping the manageable size (Uribe-Bohorquez et al., 2018). Respondents were selected by use of simple random sampling from the healthcare facilities. Simple random sampling was used to enhance the generalization of data obtained in the study (Helfrich et al., 2020). The sample size was then proportionally allocated according to the targeted population in respective Sub-counties as shown in Table 3.

Table 3. 1*Allocation of sample size according to targeted population in respective sub-counties*

Sub-Counties	Facilities (Both level 3 & 4)	Target population	Percentage	Sample size
Township	15	221	14	31
Ijara	12	167	14	23
Dadaab	11	187	14	26
Lagdera	10	144	14	20
Fafi	9	115	14	16
Balambala	10	123	14	17
Total	67	957	14	134

3.6 Instrumentation

Questionnaires were used in this study, they reduces interviewer bias significantly. The questionnaire had six sections, that is, Section A to Section C. Section A gave the general socio-demographic profiles of the respondents while Section B comprised the independent variables, respectively; Section C- sought to establish Components of retention which was the dependent variable. Each of these constructs was derived from the literature review. Section A had 7 items while the other sections cumulatively had 28 items.

3.7 Pretesting

The researcher carried out pre-testing of the questionnaires at 5 selected health facilities in Tana River County, in the Galole sub-County on 14 respondents within five days, one week before the actual data collection exercise. According to Mugenda and Mugenda (2003) a pilot group should be 10% of the study sample. This was equivalent to 14 respondents. The respondents were randomly picked from Haroresa, Bura nomadic, Charidende dispensary

(CDF) Chewele dispensary, and Galili dispensary and filled the structured questionnaire, which was hand-delivered to them. The data was coded and fed into the system and analyzed in SPSS version 26. During the pilot study, irrelevant, confusing, or ambiguous questions were identified and the questions rephrased without losing meaning. The challenges experienced in collecting the data, coding, and analyzing the data, were used as the basis for refining and improving the final questionnaire used in the study and the pertinent issues required to explore to research problem.

3.8 Validity of the Instruments

Mohajan (2017) described study tool validity as the extent from which a measurement instrument genuinely measures what it is meant to assess or measures what it claims to measure. The survey tools' validity emphasizes the link between both the input and the item being assessed. The research collected data to demonstrate outside relevance, that is the degree to which a survey's conclusions can be extended from a subset to a population by verifying that the participants selected are a fitting of a population. Content validity which relates to the suitability of a tool's material, in that the data that was collected, represents accurately what the researcher would like to know, was ensured through pilot testing. The theoretical interrelationships between the variables and comparing with the outcome of the relationships in the pilot testing determined the construct validity

3.9 Reliability of Research Instruments

Nicolella et al. (2018) state that research reliability is important in evaluating whether a study will accurately measure what it was designed to test or how accurate the research results would be. The internal reliability of the survey questions that assessed the key constructs of interest for this research was determined using Cronbach's alpha reliability

test. A Cronbach's coefficient of greater than 0.7 suggests that the instrument was accurate in measuring the variable.

Table 3. 2

Summary of Cronbach's alpha Reliability Coefficient

Variables	Number of items	Cronbach's Alpha	Cronbach's Alpha if Item Deleted
Regular promotion	4	0.755	RP1
Work and living environment	5	0.910	
Essential supplies	4	0.807	ES1
Special package	5	0.788	
Retention	8	0.885	

Cronbach's Alpha was employed in this research to assess the validity of the suggested components in order to verify the tool's dependability. As seen in Table 5, Regular promotion had a coefficient alpha value of 0.755 after eliminating the item RP1 “I receive my salary on time all the times”, Work and living environment had a coefficient alpha value of 0.910, essential supplies had a coefficient alpha value of 0.807 after removing the item ES1 “My workload is manageable” Special financial package had a coefficient alpha value of 0.788 while retention had a coefficient alpha value of 0.885. This indicate that the instrument was reliable as most of the variables had coefficients alpha value greater than 0.7.

3.10 Data Collection Procedures

The researcher used the drop-and-pick approach to distribute questionnaires to responders. The researcher scheduled meetings with the necessary hospital officials to deliver the research tools to the health professionals prior to administering the questionnaires. The research relied heavily on primary data, which was gathered daily by the researcher

utilizing standardized questionnaires over a 30-day period. The questionnaires were given to a random population of participants from Garissa County's level three and four facilities. The surveys took the researcher an average of 20 to 30 minutes to conduct. The selected responders were given a total of 134 questionnaires. When compared to other techniques of distributing surveys, this form of data collecting was deemed suitable since it yields the greatest response rate.

3.11 Data Analysis and Presentation

All the questionnaires and key informant schedules were edited for the purposes of ensuring that they are filled completely and consistently by the respondents. Qualitative data was first analyzed using content analysis by categorizing it into various themes, and the responses coded and classified into various categories. The quantitative and the coded qualitative data were analyzed by use of Statistical Package for the Social Sciences (SPSS) version 26. The descriptive statistics were then used for establishing the frequencies and percentages of the responses provided. The results were summarized, and then presented in frequency tables. Bivariate analysis was also performed using Chi-square and Spearman's R tests to establish the significance, strength, and nature of the association between the factors under study and retention of health care workers. The direction and degree of the link between the key constructs under consideration were determined using regression analysis. The research was undertaken to determine the statistical significance of the predictor variables in affecting health professionals' retention using the p- values generated from the regression analysis. The statistical significance of the model and the key constructs under investigation was determined using Analysis of Variance (ANOVA).

For ease of presentation, the results were tabulated. The regression model that was utilized was as follows:

$$Y = \beta_0 + \beta X_1 + \beta X_2 + \beta X_3 + \beta X_4 + \varepsilon$$

Where: β_0 is the constant and $\beta_1 \dots \beta_4$ are the regression coefficients; X_1 = Regular Promotion; X_2 = Work and Living environment; X_3 = Essential Package and X_4 = Special package and ε = error term.

3.12 Ethical Considerations

Ethical concerns, according to Bichi et al. (2019), are the rules put in place to regulate studies involving human subjects. The study's ethical conduct was preserved by respecting the values, anonymity and confidentiality of all participants. Anonymity and confidentiality typically relate to the reassurance given to respondents by those conducting the study that their name and participation will be kept a secret. Since the researcher recognizes the impact that any data leaked to members of the general public will have on the participants, secrecy was regarded to be one of the most important ethical issues in this study. As a result, any information or data acquired from research respondents was managed with extreme caution. The respondents were also asked to engage on a voluntary basis, which means that no one would be compelled to participate. All through the data analysis process, a high level of confidentiality was maintained. As a result, the identities of the research respondents, as well as any other information that may be used to identifying them, were never included in the analytic process. Other considerations included the honesty with which respondents attempted to portray in answering the study question, as well as neutrality, which was used to reduce bias.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter provides the results of the study. The findings are discussed and interpreted accordingly concerning unpublished and published literature. The process of data analysis and interpretation involves ordering, categorizing, summarizing, manipulating, interpreting of data and comparison of results with previous studies so as to offer solutions to the problem(s) under investigation (Bichi et al., 2019). The study aimed to investigate influencers of health care workers retention in public health facilities under devolved system of governance in Garissa County.

The study began by presenting reliability statistics of the instrument used and response rate. Respondents' profiles of different categories are also presented with a purpose of relating their linkages to the findings of the study. The study then presents and discusses the key results as per the objectives of the study using descriptive statistics. Finally, the results of the relationship between independent variables as tested through inferential statistics are also discussed and presented accordingly.

4.2 Instrument Response Rate

Out of the 134 questionnaires that had been distributed to healthcare workers in primary health care facilities in Garissa County, 112 were completed and returned indicating an 83.58% response rate as shown in Table 4.1.

Table 4. 1

Response Rate

Response rate	Frequency	Percent
Returned	112	83.58
Unreturned	22	16.42
Total	134	100.00

The result shows an overall response rate of 83.58% which was a very good response rate. According to the recommendations by Baruch and Brooks (2008) that a 50% response rate is acceptable while a 70% response rate indicated a very good response. The researcher instituted effective research techniques and data collection strategies hence an overall good response rate.

4.3 Pilot Study Results

4.3.1 Reliability Analysis Results

The capacity of a tool to provide consistent and steady readings is referred to as its dependability. The alpha can range from 0 (no internal consistency) to 1 (perfect complete internal consistency).

4.3.2 Validity Test

The degree to which a measure measures what it claims to measure is known as validity. According to Golafshani (2003), the following steps are critical in a study: Reviewing a vast number of studies to discover concepts, ideas, connections, and topics under investigation; creating the questionnaire from previous related research; and rigorously pre-testing the questionnaire to determine if individual variable items were valid. These steps were performed in this pilot research, and all recommendations and criticisms about

the questionnaire's organization, phrasing, and questions were taken into account in the final report.

Face validity was determined by a review of relevant literature and peer review, as well as the use of established methodologies in previous research (Salvatori, 2001). The preliminary research tool was pre-tested for understanding, logic, relevance, and verification using a sample population from public primary health institutions in Garissa County, Kenya, to guarantee construct and content validity.

Table 4. 2

Validity Test

		N	%
Cases	Valid	14	100.0
	Excluded	0	0.0
	Total	14	100.0

a. *List wise deletion based on all variables in the procedure.*

The number of cases (participants) in this study was 14. This means that the pilot tested a sample of 14 and the response rate was 100% responsive.

4.4 Diagnostic Tests

4.4.1 Test for Normality

A normality test is done to determine whether the sample data has been obtained from a normally distributed population. The study sought to test the normality of the data which is important particularly when parametric tests like correlation and regression analysis are used. The normality of data used was evaluated by determining the skewness and kurtosis values and presenting Q-Q plots. The scale of normally distributed data is that its skewness must be equal to 0 and kurtosis equals to 3. The test statistics for normality of each variable

are shown in Table 7. From the test results, the normality measures did not indicate extreme departure from normality assumption since, Table 4.3 shows that the skewness of all variables were below one and hence in the zero range while the Kurtosis was within the range of 3.

Table 4. 3

Normality Test Results

Variables	Skewness	Kurtosis
Regular promotion	-.397	-.822
Retention	-.452	-.046
Work and living environment	.094	-1.213
Special financial package	.286	-1.308
Essential supplies	.448	-1.152
Valid N (listwise) 112		

4.4.2 Autocorrelation Test

The autocorrelation was tested using the Durbin–Watson statistic a statistical approach for evaluating the amount of auto-correlation among regression analysis residuals. The fundamental premise of the Durbin–Watson statistic is that values between 1.5 and 2.5 imply non-autocorrelation in a given set of data. In this investigation, the Durbin–Watson statistic was 1.828. The fact that the number is between 1.5 and 2.5 indicates absence of serial auto correlation.

Table 4. 4

Autocorrelation Test

Model	Durbin Watson
1	1.828

4.4.3 Multi-collinearity Test

There was expected multicollinearity considering the nature of the predictor variables being studied. Multicollinearity is an issue that occurs when two maybe more predictor variables in a regression model are strongly linked, according to Lynch (2003). The tolerances values and variance inflation factors (VIF) were used to check for multicollinearity before performing the multivariate analysis.

When the VIF is larger than five (tolerance 0.20), according to Hair et al. (2012) and Mardikyan and Cetin (2008), the regression values are poorly approximated. The presence of multicollinearity among the predictor variables was checked using the variance inflation factors (VIFs) and the level of tolerance. The VIFs for the predictors varied between 1.542 and 2.398, according to Table 4.5. The tolerance levels, as per the data, varied from 0.417 to 0.648. As a result, both the VIFs and tolerance values indicated that multicollinearity was not a significant issue when interpreting the multiple regression results.

Table 4. 5***Collinearity Statistics***

Variables	Collinearity Statistics	
	Tolerance	VIF
Living and working environment	.459	2.178
Essential Supplies	.485	2.063
Special Packages	.417	2.398
Regular promotion	.648	1.542

4.5 Demographic Characteristics of the Respondents

The demographic profile of the responders were analyzed since they were categorical variables that provided some additional insights into the participants. The following factors were taken into account in the study: respondents' genders, age, educational qualifications, and time spent working at the present health institution. Table 4.6 summarizes the results on these topics.

Table 4. 6***Demographic Characteristics of the Respondents***

Variable (n = 112)	Category	Frequency (F)	Percentage (%)
Age in Years	22-26	20	17.9
	27-31	20	17.9
	32-36	44	39.3
	37-41	16	14.3
	42-47	12	10.7
Gender	Female	63	56.3
	Male	49	43.8
Level of Education	Certificate	12	10.7
	Diploma	62	55.4
	Bachelor's degree	23	20.5
	Master's degree	12	10.7
	Ph.D.	3	2.7
Number of years practiced	Less than 5 years	53	47.3
	6-10 years	25	22.3
	11- 15 years	15	13.4
	16 – 20 years	12	10.7
	21 – 25 years	7	6.3
Work setting categorization	Level 3	27	24.1
	Level 4	85	75.9

The findings in Table 4.6 suggest that majority 44 (39%) of the respondents were aged between 32 and 36. Most of them were female 63 (56%) although the proportion of males (43.8%) indicated that there was gender parity in the hiring of medical personnel in the healthcare facilities in the area. Further, the findings indicate that majority 62 (55%) of the

respondents had a diploma level of education as their highest level of education and had practiced for less than five years 53 (47%).

Most of the respondents interviewed were from Level 4 healthcare facilities 85 (76%). The results also indicate that most 40 (36%) of the respondents were young and aged between 22 – 31 years. These findings imply that majority of the respondents were recent graduates and had a reasonable level of experience in their practice and were, therefore, expected to give valid opinions about the factors influencing their willingness to stay at their respective health facilities. Abere and Muturi (2015) explained that to reliably conduct a study, then background characteristics of respondents such as; gender, age, work experience, and educational qualifications ought to be established to ensure a reliable sample from the targeted population that gives a valid answer for the study.

4.4 Professions of the Medical Personnel

The study further examined the respective professions of the respondents. The findings are given in Table 4.7.

Table 4. 7***Professions of the Medical Personnel***

		Frequency	Percent
Valid	Nutritionists	1	.9
	Pharmacists	13	11.6
	Officers	14	12.5
	Medical Doctors	12	10.7
	Social Workers	9	8.0
	Dentists	7	6.3
	Nurses	14	12.5
	Physiotherapists	14	12.5
	Medical lab technologists	19	17.0
	Clinical Officers	9	8.0
	Total	112	100.0

The findings in Table 4.8 shows that the majority of the medical personnel interviewed in the study were medical lab technologists 19 (17%), this was followed by Officers, Nurses, and Physiotherapists 14 (13%) respectively. Other professionals were also interviewed although their proportion was small compared to the four. Consequently, the study sought to establish the distribution of the healthcare professionals across the six sub-counties sampled in Garissa County. The results are summarized in Table 4.9.

Table 4. 8

Distribution of the Medical Professionals across the Four Sub-Counties

		Professional * Sub-County Cross tabulation						Total
		Sub-County						
		Towns hip	Ijar a	Dad aab	Lag dera	Fafi	Balam bala	
Nutritionists	N	1	0	0	0	0	0	1
	%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Lab Technologists	N	4	1	0	5	1	2	13
	%	30.8%	7.7%	0.0%	38.5%	7.7%	15.4%	100.0%
Officers	N	4	3	0	1	1	5	14
	%	28.6%	21.4%	0.0%	7.1%	7.1%	35.7%	100.0%
Medical Doctors	N	4	3	3	0	1	1	12
	%	33.3%	25.0%	25.0%	0.0%	8.3%	8.3%	100.0%
Social Workers	N	2	2	0	2	0	3	9
	%	22.2%	22.2%	0.0%	22.2%	0.0%	33.3%	100.0%
Dentists	N	4	0	0	2	0	1	7
	%	57.1%	0.0%	0.0%	28.6%	0.0%	14.3%	100.0%
Nurses	N	4	2	2	0	2	4	14
	%	28.6%	14.3%	14.3%	0.0%	14.3%	28.6%	100.0%
Pharmacists	N	4	1	2	4	0	3	14
	%	28.6%	7.1%	14.3%	28.6%	0.0%	21.4%	100.0%
Physiotherapist s	N	1	4	7	0	1	6	19
	%	5.3%	21.1%	36.8%	0.0%	5.3%	31.6%	100.0%
Clinical Officers	N	0	0	2	2	2	3	9
	%	0.0%	0.0%	22.2%	22.2%	22.2%	33.3%	100.0%
Total	N	28	16	16	16	8	28	112
	%	25.0%	14.3%	14.3%	14.3%	7.1%	25.0%	100.0%

The results in Table 4.8 suggest that Garissa Township and Balambala Sub-County had the highest number of medical professionals (56/112) across the healthcare facilities sampled in this study. This was followed by Ijara, Dadaab, and Lagdera respectively. These findings suggest that the six sub-counties had a healthy mix of medical professionals and thus underscored the importance of inter-professional collaboration to deliver quality healthcare.

4.6 Descriptive Analysis Results

4.6.1 Descriptive analysis results – Regular promotion

The first objective of the study sought to investigate the influence of regular promotion on health care workers retention in Garissa County. This variable's response were rated using a five - point scale, with One being strongly disagree and Five being strongly agree. The nearer the average score would have been to five, more and more agree there was on the statements. A score around 3.0 would indicate uncertainty while scores significantly below 2.4 would suggest disagreement regarding the statement posed. The findings are presented in Table 4.9.

Table 4. 9***Regular Promotion***

Statements		SD	D	N	A	SA	Mean	STD Dev
I receive my salary on time all the times	% n	8.0 9	20.5 23	39.3 44	11.6 13	20.5 23	3.2	1.20
I am satisfied with my current remuneration that positively affects my desire to stay	% n	10.7 12	11.6 13	15.2 17	37.5 42	25.0 28	3.5	1.28
I am satisfied with civil service benefit program (e.g. pension, leave and housing)	% n	6.3 7	17.9 20	38.4 43	20.5 23	17.0 19	3.2	1.13
I get automatic promotions at standard duration.	% n	3.6 4	17.0 19	31.3 35	28.6 32	19.6 22	3.1	1.10

Regarding whether the respondents received their salary on time all the times, 44(39.3%) were neutral, however, 23(20.5%) strongly agreed and disagreed respectively over the sentiment. The item had a mean score of 3.2 and a standard deviation 1.20. This implied that majority of the health workers pay delayed in many occasions. It was clear that some respondents were satisfied with their current remuneration that affect their desire to stay as indicated by 42(37.5%) of the respondents who agreed. The item had a mean score of 3.5 and a standard deviation 1.28. Compensation, according to experts, aids in employee retention and reduces absenteeism. Similarly, Harris and Brannick (1999) pointed out that pay is the most important element in retaining employees for a longer length of time. Pay is the most important aspect of pay since it influences retention of employees and

attractiveness (Williams & Dreher, 1992). March and Simon (1958) proposed that when businesses do not give adequate remuneration, employees will quit.

It also emerged that the respondents were neutral about them being satisfied with civil service benefit program (e.g. pension, leave and housing) as indicated by 43(38.4%), 23(20.5%) were in agreement while 24.2% disagreed over the same sentiment. This indicated that most of the health workers in Garissa County are not satisfied with the benefits that they receive as civil servant.

There was also lack of consensus on whether the respondents got automatic promotions at standard duration 35(31.3%) were neutral 32(28.6% agreed while 20.6% disagreed over the same statement. This implied that in Garissa County health workers do not get promoted at standard duration. These findings underscore the influence of staff promotion on retention of workers. According to Miller and Wheeler (1992), employees' decisions to stay with the institute are influenced by the absence of advancement opportunities. Workers are motivated by the availability of promotion possibilities, according to social exchange theory (Blau, 1964), which states that when employees are promoted, they feel honored by the company and return it via their loyalty, dedication, and engagement. Morris and Quarles (2004) conducted an empirical study on the intention to stay. The data was gathered using a survey approach. The findings indicated a strong link between promotional opportunities and the willingness to remain.

4.6.2 Descriptive Analysis Results – Work and Living Environment and Retention

The second objective of the study sought to investigate the influence of living environment on health care workers retention in Garissa County. This variable's response were rated using a five - point scale, with One being strongly disagree and Five being strongly agree.

The nearer the average score would have been to five, more and more agree there was on the statements. A score around 3.0 would indicate uncertainty while scores significantly below 2.4 would suggest disagreement regarding the statement posed. The findings are presented in Table 4.10.

Table 4. 10

Descriptive Analysis Results - living environment and Retention

Statements		SD	D	N	A	SA	Mean	STD Dev
My job has a sufficient range of responsibilities to keep it interesting.	%	0	29.5	28.6	16.1	25.9	3.4	1.16
	n	0	33	32	18	29		
In this hospital, ergonomic standards are reasonable.	%	0	1.8	58	21.4	17	2.9	0.68
	n	0	2	65	24	19		
In my employment, the present state of my office environment serves as a source of inspiration.	%	0	18.8	30.4	15.2	35.7	3.3	1.11
	n	0	21	34	17	40		
My work has a direct impact on the health of patients.	%	0	36.6	26.8	21.4	15.2	3.2	1.08
	n	0	41	30	24	17		
My boss gives me comments on my work performance on a regular basis.	%	3.6	17	17.9	38.4	23.2	3.8	1.19
	n	4	19	20	43	26		
My job description is precise and elaborate.	%	-	10.1	-	59.4	30.4	4.10	0.84
	n		11		67	34		
The communities where I live have good shopping and entertainment.	%	0.9	43.8	11.6	16.1	27.7	2.3	1.30
	n	1	49	13	18	31		
I have good housing within reach for accommodation from the government.	%	0.9	28.6	33	19.6	17.9	3.3	1.09
	n	1	32	37	22	20		
I am able to access my family easily and are within reach.	%	2.7	33	26.8	17	20.5	3.2	1.18
	n	3	37	30	19	23		

When asked if the respondent's job has enough diversity of tasks to keep it interesting, there were conflicting responses, as evidenced by the fact that 33(29.5%) disagreed, 32(28.6%) did not give their opinion while 25.9% strongly agreed with this sentiment. The statement had a 3.4 mean value and a 1.16 standard deviation. This implies that in the facilities, job diversity was not a major consideration in job design.

In the hospitals investigated, there was also a lack of agreement on whether ergonomics criteria are feasible, as evidenced by the results that 65(58.0%) who were neutral, 24(21.4%) agreed while a paltry 2(1.8%) disagreed with the statement. The statement had a 2.9 mean value and a 0.68 standard deviation. The findings also reveal that there were mixed replies as to whether the status of participants' office setting is a source of inspiration in their professions, with 40 (35.7 percent) agreeing, 34 (30.4 percent) indifferent, and 21 (18.8%) disagreeing. The statement had a 3.3 a mean value and a 1.11 standard deviation. The findings reveal that all of the participants agreed that the work they do is important to the well-being of patients. The data also suggest that supervisors in the hospitals questioned provide constructive feedback, as evidenced by the fact that 69 (61.6 percent) of participants believe or strongly agreed with the item, whereas 23 (20.6 percent) disagreed or strongly disagreed. The item had a 3.8 mean value and a 1.19 standard deviation. The results reveal that the participants' job descriptions are clear and detailed, as evidenced by 111 (89.8%) of participants agreeing or strongly agreeing with the statement, and also a mean value of 4.10 and a standard deviation of 0.843. The varied replies appear to indicate a misconception or unawareness of the work design of the health facility's staff. Some workers are very well about job design in facilities, whereas some are not. As Al-ahmadi (2009) points out, comprehending work design by workers is linked to a feeling of pride,

and therefore one is able to look after the welfare of their customers, particularly in the case of hospitals where patients require special care.

Most of the respondents 49(43.8%) disagreed that the communities where they live have good shopping and entertainment as shown by a mean of 2.3 and a standard deviation of 1.30, 41(36.6%) of the respondents indicated that they have access to safe, clean water at home while 43(38.4%) were in disagreement with the sentiment. The item had a mean score of 3.4 and a standard deviation 1.37. The results also show that there were diverse responses on whether the respondents were able to access their family easily and were within reach with 42(37.5) of the respondents agreeing and strongly agreeing, 40(35.7%) disagreeing and strongly disagreeing and 30(26.8%) being neutral. The item had a mean score of 3.2 and a standard deviation 1.18.

4.6.3 Descriptive Analysis Results – Provision of Essential Supplies

The third objective of the study sought to investigate the influence of provision of essential supplies on health care workers retention in Garissa County. This variable's response were rated using a five - point scale, with One being strongly disagree and Five being strongly agree. The nearer the average score would have been to five, more and more agree there was on the statements. A score around 3.0 would indicate uncertainty while scores significantly below 2.4 would suggest disagreement regarding the statement posed. The findings are presented in Table 4.11.

Table 4. 11***Descriptive Analysis Results – Provision of Essential Supplies***

Statements		SD	D	N	A	SA	Mean	STD Dev
My workload is manageable.	%	5.4	50.9	13.4	16.1	14.3	2.8	1.2
	n	6	57	15	18	16		
I have everything I require to do my job properly and comfortably (gloves, drugs, bandages, needles etc).	%	3.6	55.4	8.9	23.2	8.9	2.8	1.12
	n	4	62	10	26	10		
I have everything I need to accomplish my work properly and quickly (x-ray, ultrasounds, blood pressure cuffs)	%	6.3	55.4	0.9	25.9	11.6	2.8	1.23
	n	7	62	1	29	13		
I do get supplies quarterly as stipulated in the County strategic plan.	%	10.7	48.2	8.9	17.9	14.3	2.8	1.27
	n	12	54	10	20	16		
The Ministry take specific measures to protect me against infectious diseases like Hepatitis and HIV.	%	4.5	20.5	25	34.8	15.2	3.4	1.11
	n	5	23	28	39	17		

Regarding whether the respondents' workload was manageable, there were mixed reactions as indicated by 57(50.9%) who disagreed; 18(16.1%) agreed, while 15(13.4%) who agreed with the same sentiment. The item had a mean score of 2.8 and a standard deviation 1.20.

Concerning whether the respondents had the supplies they need to do their job well and safely (drugs, gloves, needles, bandages, etc), there were mixed reactions as indicated by 62(55.4%) who disagreed; 26(23.2%) who agreed while a paltry 10(8.9%) did not give any opinion. The item had a mean score of 2.8 and a standard deviation 1.12.

Regarding the question whether, the respondents have the equipments they need to do their job well and efficiently (ultrasound, x-ray, blood pressure cuffs), 62(55.4%) of the respondents disagreed with the sentiment, 29(25.9%) agreed while a paltry 1(0.9%) did not give any opinion. The item had a mean score of 2.8 and a standard deviation 1.23. This implies that Garissa County did not provide health workers with the required equipments to perform their roles and duties adequately. Further, 54(48.2%) of the respondents disagreed that they do get supplies quarterly as stipulated in the County strategic plan, 20(17.9%) agreed while 10(8.9%) did not give any opinion. The item had a mean score of 2.8 and a standard deviation 1.27. This implies that Garissa County did not provide health workers with supplies quarterly as stipulated in the County strategic plan.

Lastly, concerning whether the Ministry take specific measures to protect health workers against infectious diseases like Hepatitis and HIV, 39(34.8%) of the respondents agreed, 28(25.0%) did not give any opinion while another 23(20.5%) disagreed over the same sentiment. The item had a mean score of 3.4 and a standard deviation 1.11.

4.6.4 Descriptive Analysis Results – Special Financial Package

The fourth objective of the study sought to investigate the influence of special package on health care workers retention in Garissa County. This variable's response were rated using a five - point scale, with One being strongly disagree and Five being strongly agree. The nearer the average score would have been to five, more and more agree there was on the statements. A score around 3.0 would indicate uncertainty while scores significantly below 2.4 would suggest disagreement regarding the statement posed. The findings are presented in Table 4.12.

Table 4. 12***Descriptive Analysis Results – Special Financial Package***

Statements		SD	D	N	A	SA	Mean	Std Dev
I see myself valued in the ministry.	%	5.4	50.9	13.4	16.1	14.3	2.8	1.2
	n	6	57	15	18	16		
The job I do is a good match for my skills and experience.	%	3.6	8.9	8.9	23.2	55.4	4	1.12
	n	4	10	10	26	62		
I feel my pay match the pay I get.	%	6.3	55.4	0.9	25.9	11.6	2.8	1.23
	n	7	62	1	29	13		
There is a good rewarding system in the department/section that is fair.	%	3.6	34.8	9.8	33.9	17.9	3.3	1.22
	n	4	39	11	38	20		
If considered for special package, I would stay longer at my station.	%	12.5	29.5	17	21.4	19.6	3.1	1.34
	n	14	33	19	24	22		

Regarding whether the respondents saw themselves valued, gathered mixed reactions as indicated by 57(50.9%) who disagreed; 18(16.1%) agreed with the sentiment while a paltry 15(13.4%) did not give any opinion. The item had a mean score of 2.8 and a standard deviation 1.20. As shown by a mean of 2.8 and a standard deviation of 1.20. There was also lack of consensus on whether the respondents felt their pay matched the pay they got, majority 62(55.4%) of the respondents disagreed, 29(25.9%) agreed while a paltry 1(0.9%)

did not give any opinion. As shown by a mean of 2.8 and a standard deviation of 1.23. Regarding the statement whether there is a good rewarding system in the department/section that is fair, 39(34.8%) disagreed with the sentiment, 38(33.9%) agreed while a paltry 9.8% did not give any opinion. As shown by a mean of 3.3 and a standard deviation of 1.22. There was lack of consensus on whether if considered for special package, the respondents would stay longer at their station, 33(29.5%) disagreed, 24(21.4%) agreed with the sentiment while 19(17.0%) did not give any opinion. As shown by a mean of 3.1 and a standard deviation of 1.34.

4.6.5 Descriptive Analysis Results – Retention of Health Care Workers

The study's outcome variable was retention of health care worker, which had two primary indicators: absenteeism and commitment. The responses on a Likert - type scale item linked to these variables are shown in this subsection. Percentages, frequencies, mean value, and standard deviation were used to make the interpretations. The commitment outcomes are shown in Table 4.13.

Table 4. 13***Descriptive Analysis Results – Health Workers Commitment***

		SD	D	N	A	SA	Mean	STD DEV
I recommend the facility to my friends and relatives.	%	0	1.4	0	71	27.5	4.2	0.53
	n	0	2	0	80	31		
This institution is where I recommend patients and others who are looking for health care.	%	0	0	1.4	69.6	29	4.3	0.48
	n	0	0	2	78	33		
This facility's health staff follow stringent work ethics.	%	0	0	20.3	56.5	23.2	4.0	0.66
	n	0	0	23	63	26		
The health staff at this hospital are devoted to it.	%	0	2.9	23.2	50.7	23.2	3.9	0.77
	n	0	3	26	57	26		
This health institution has an extremely low rate of absenteeism.	%	0	4.3	24.6	36.2	27.5	4	0.88
	n	0	5	28	41	31		
This facility's health staff are only allowed to leave when they have approval or if there is an emergency.	%	0	10.1	11.6	27.5	29	4.2	1
	n	0	11	13	31	33		
When health personnel don't show up for work, they communicate effectively.	%	0	5.8	15.9	36.2	23.2	4.1	0.9
	n	0	7	18	41	26		
When health personnel are missing, they give reasonable explanations.	%	0	2.9	4.3	46.4	23.2	4.4	0.71
	n	0	3	5	52	26		

The participants clearly spoke highly about the healthcare facilities to their family and friends, as seen by the fact that 80(70.0 percent) of the participants agreed, as shown by a mean value of 4.2. The participants clearly advise patients and persons seeking healthcare services to this facility, as evidenced by 78.6% of participants agreed or strongly agreed

and a mean value of 4.3. It was also discovered that participants in the facilities adhered to stringent work ethics, as evidenced by 63 (56.5%) of participants agreed or strongly agreed as shown by a mean value of 4.0. The participants are also devoted to the hospitals, as evidenced by 81 (73.9%) agreeing or strongly agreeing and a mean value of 3.9.

The findings also reveal that there are few occurrences of absenteeism in facilities, as evidenced by 72 (63.7 percent) of participants agreeing or strongly agreeing, as shown by a mean value of 4.0 and a standard deviation of 0.88. According to 67(56.5 percent) of the participants who agreed or strongly agreed, with a mean value of 4.2 and a standard deviation of 1.00, hospital personnel are away only when they have approval or if they have emergencies.. Employees convey well when they miss to show up at work, as evidenced by the majority of participants agreeing or strongly agreeing, with a mean value of 4.1 and a standard deviation of 0.90. Employees at the studied institutions give genuine explanations for their absences, as evidenced by 78.6% of participants agreeing or strongly agreeing on this question, with a mean value of 4.4 and a standard deviation of 0.71.

4.7 Inferential Analysis Results

4.7.1 Bivariate analysis

Bivariate analysis was performed using Chi-square and Spearman's correlation tests at a significance level of $\alpha=0.05$ to establish the significance, strength and the nature of association between the explanatory variables and the outcome variable.

Table 4. 14***Bivariate Analysis Results***

		Retention of health care workers			
		Tests of association	Value	df	Sig.
Regular promotion	N		112		
	Chi-Square (χ^2)		414.612 ^a	252	.000
	Spearman's Correlation (<i>R</i>)		.451		.000 ^c
Work and living environment	N		112		
	Chi-Square (χ^2)		475.703 ^a	294	.000
	Spearman's Correlation (<i>R</i>)		0.796		.000 ^c
Essential supplies	N		112		
	Chi-Square (χ^2)		439.029 ^a	273	.000
	Spearman's Correlation (<i>R</i>)		.758		.000 ^c
Special financial package	N		112		
	Chi-Square (χ^2)		557.081	315	.000
	Spearman's Correlation (<i>R</i>)		.755		.000 ^c

The results in Table 4.14 indicated that regular promotion had significant association ($\chi^2 = 414.612$, $df = 252$, $p < 0.05$) and positive relationship (Spearman's $R = 0.451$, $p < 0.001$) with retention of health care workers. This indicates that staff advancement and promotional intervals played a significant role in the retention of health professionals in Garissa County. This conclusion corroborated Chowdhury, et al. (2017)'s findings, which said that employee promotion is important for improved work satisfaction and, as a result, staff retention. The findings are also consistent with Yang et al. (2018), who discovered a strong and favorable link between advancements and work satisfaction, which aids in staff retention. Internal career growth of workers was frequently the strongest indicator of an employee's successful commitment, according to research by Cicekli and Kabasakal (2017). According to Geng et al. (2018), skilled workers are needed to retain a competitive

edge, and employees seek professional advancement chances to further their careers. Progression plans, internal promotions, and realistic professional previews at the outset of employment are examples of such plans.

Work and living environment had a significant association ($\chi^2 = 475.703$, $df = 294$, $p < 0.05$) and a positive relationship (Spearman's $R = 0.796$, $p < 0.001$) with retention of health care workers. The Pearson's correlation coefficient indicates that the independent variable have a moderate yet positive connection. This means that state of housing and staff comfort were important to the retention of healthcare workers in healthcare facilities in Garissa County. This study backs up Wamunyu's (2016) observation that working circumstances include temperature, ventilation, lighting, hygiene, noise, working hours, noise, and resources. The worker would want to work under settings that allow him or her to be more physically comfortable and convenient. The lack of such working circumstances can have a negative influence on a worker's physical and emotional well-being, as well as increasing their desire to leave. Employees are concerned with a pleasant physical work environment, according to Robbins (2009), and living working circumstances will impact job contentment and motivation to stay.

Employees can benefit from work environments that create a feeling of connection, according to Bäckström et al. (2016). According to Kjellström et al. (2017), organizations with generous HR policies have a better chance of satisfying and retaining employees by offering an appropriate degree of privacy and good control over the work setting, which increases employees' motivation to stay with the company for the lengthy term. Dipboye (2018a) emphasized the need of identifying an employee's specific requirements in order to promote dedication and offer an appropriate work environment.

Further, essential supplies had a significant association ($\chi^2 = 439.029$, $df = 273$, $p < 0.05$) and a positive relationship (Spearman's $R = 0.758$, $p < 0.001$) with retention of health care workers. The result suggests that there was a positive moderate and significant relationship between the variables. This indicates that special financial packages such as special token and special allowance were important to enhance the retention of health workers in healthcare facilities in Garissa County. The results are in line with Lai (2011) findings that confirmed that special financial packages such as allowances and tokens as one of those satisfying variables which if hindered reduces the dissatisfaction level of employees that if not met causes job dissatisfaction and consequently employee turnover.

Lastly, special financial package had a significant association ($\chi^2 = 557.081$, $df = 315$, $p < 0.05$) and a positive relationship (Spearman's $R = 0.755$, $p < 0.001$) with retention of health care workers. The result suggests that there was a positive moderate and significant relationship between the variables. This indicates that essential supplies such as drugs stocks, and frequency of drugs delivery were important to enhance the retention of health workers in healthcare facilities in Garissa County. This conclusion is consistent with Fahim's (2019) findings, which found a favorable link between critical supplies and staff retention. The conclusions of the study on enhancing special financial packages as a way of keeping employees are consistent with those of Hagqvist et al. (2021), who claimed that competitive and fair remuneration was a key starting point in most efforts to recruit and retain people. However, it was generally agreed that exceptional financial packages did not ensure staff retention on their own. The use of sector surveys to calibrate and establish wage and compensation structures to be fair and equitable was a widespread recommended practice. Gordon (2017) examined at the degree to which management employed

intrinsically and extrinsically motivating variables to affect retention and minimize turnover of important workers in both private and public sector companies, and his findings corroborate the conclusions of the research.

4.7.2 Regression Analysis

To examine how the predictors affected the outcome variable collectively, multivariate regression analysis was utilized. The study was also intended to determine the amount to which each explanatory variables influenced the response variable in such a group setting, as well as which ones were the most important. Table 4.15 shows a summary of the findings.

Table 4. 15

Multiple Linear Regression Analysis Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.770 ^a	.593	.578	4.46668

The connection between the predictor variables and all of the predictor variables aggregated altogether had a model correlation coefficient of 0.770, according to the regression analysis in Table 4.16. According to the adjusted r-square (Adj. R2 = 0.578), a combined model with all predictor variables may account up to 57.8% of the differences in health care worker retention in Garissa County. It also implies that incorporating more predictor variables into the model might enhance the model. According to Sen and Srivastava (2011), the F-test should be used to determine if multiple regression models are suitable as a whole. As a consequence, the variables of the study were subjected to an ANOVA, with the findings reported in Table 4.16.

Table 4. 16**ANOVA**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3113.078	4	778.269	39.009	.000 ^b
	Residual	2134.780	107	19.951		
	Total	5247.857	111			

a. Dependent Variable: Retention

b. Predictors: (Constant), Special financial package, Regular promotion, Essential package, Work and living environment

Table 4.16 shows that there is a significant difference in the means of factors predicting healthcare worker retention in Garissa County ($F_o' = 39.009 > F_c = 2.45$; $\alpha = 0.05$; $df = 4, 107$; $p = 0.000$). This outcome shows that the model suggested by Table 31 is significant in predicting health worker retention in Garissa County based on the observed predictor variables. The beta value was utilized to identify which of the factors was more relevant in terms of health worker retention in Garissa County healthcare facilities. The findings are shown in Table 4.16, which summarizes the correlation coefficients from several linear regression analyses.

Table 4. 17***Multiple Linear Regression Coefficients***

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.831	.284		2.930	.004
Living and working environment	.405	.130	.283	3.111	.002
Essential Supplies	.625	.156	.355	4.011	.000
Special financial packages	.122	.144	.185	1.938	.055
Regular promotion	.239	.153	.120	1.561	.121

The study obtained the regression outcome as follows:

$$Y = 0.831 + 0.405X_1 + 0.625X_2 + 0.279X_3 + 0.239X_4$$

From the model, holding constant regular promotion, work and living environment, essential package and special package, retention of health care workers will 0.831. Holding other factors constant, a unit increase in regular promotion will lead to 0.239 units increase in retention of health care workers in health care facilities in Garissa County. Also, holding other factors constant, a unit increase in work and living environment will lead to 0.405 units increase in retention of health care workers in health care facilities in Garissa County. Further, holding other factors constant, a unit increase in provision of essential package will lead to 0.625 units increase in retention of health care workers in health care facilities in Garissa County. Lastly, holding other factors constant, a unit increase in special financial package will lead to 0.279 units increase in retention of health care workers in primary health care facilities in Garissa County.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the conclusion and recommendations drawn from the study outcome. The chapter begins with a summary of the research done. Conclusions are then made from the major findings in line with the research objectives. The chapter then gives a summary of key recommendations that were made from the findings that would be necessary to contribute more in the decision making process in health facilities regarding workforce retention. The final section of the chapter gives recommendations for future research that can be conducted on the subject under study for more insights and building on the knowledge thereof.

5.2 Summary of the findings

The study sought to investigate the influence of regular promotion, living environment of health care workers, provision of essential commodity supplies and special package on retention in Garissa County. The outcomes of the findings can be summarized based on the following research objectives. The research was founded on two theories: Maslow's Needs Hierarchy Theory and Herzberg's Two Factor Theory. To gather data from the selected 134 respondents, the research used a descriptive research methodology using a Self-Administered Questionnaire. Participants were sampled using stratified sampling method. SPSS was used to analyze the data, and correlation and multiple regression analysis were used to examine the link between the variables.

5.2.1 Influence of Regular Promotion on Health Care Workers Retention in Garissa County

Bivariate analysis results indicated that regular promotion had significant association ($\chi^2 = 414.612$, $df = 252$, $p < 0.05$) and positive relationship (Spearman's $R = 0.451$, $p < 0.001$) with retention of health care workers in Garissa County. Regression analysis results established that regular promotion had a significant positive influence on retention of health care workers in Garissa County ($\beta = 0.239$; $p < 0.05$). These results suggest that regular promotion pleased health care workers and hence positively affected their willingness to stay. The results also showed that the respondents were neutral regarding the statement that they received their salary on time all the times. The item had a mean score of 3.2. This implied that majority of the health workers pay delayed in many occasions. It was clear that some respondents were satisfied with their current remuneration that affect their desire to stay as indicated by a mean score of 3.5. It also emerged that the respondents were neutral about them being satisfied with civil service benefit program (e.g. pension, leave and housing) as indicated by a mean score of 3.2.

5.2.2 Living and Work Environment of Health Care Workers' and retention

Bivariate analysis results established that work and living environment had a significant association ($\chi^2 = 475.703$, $df = 294$, $p < 0.05$) and a positive relationship (Spearman's $R = 0.796$, $p < 0.001$) with retention of health care workers. The regression analysis results established that work and living environment had a significant positive influence on retention of health care workers in Garissa County ($\beta = 0.405$; $p < 0.05$). These findings indicate that improving health care workers work and living environment improved their intention to stay at their respective health facilities. A mean of 2.9 also suggested a lack

of agreement in the institutions polled about whether ergonomics guidelines were achievable. The outcomes also reveal that there was a wide range of replies about whether participants' office environment was a great inspiration in their employment, as shown by a mean of 3.3. Participants agreed that the work they conducted was important to the well-being of patients. They also felt that regular feedback from supervisors was provided as evidenced by a mean of 3.8. The job description was precise and elaborate as indicated by a mean score of 4.10. In addition, the respondents disagreed that the communities where they live have good shopping and entertainment as shown by a mean of 2.3. The participants were indifferent regarding their access to safe, clean water at home with a mean of 3.1.

5.2.3 Influence of Essential Commodity Supplies on Health Care Workers Retention in Garissa County

Bivariate analysis results established that essential supplies had a significant association ($\chi^2 = 439.029$, $df = 273$, $p < 0.05$) and a positive relationship (Spearman's $R = 0.758$, $p < 0.001$) with retention of health care workers. Regression analysis results established that essential commodity supplies had a significant and positive influence on retention of health care workers in Garissa County ($\beta = 0.625$; $p < 0.05$). These outcomes indicate that increasing essential commodity supplies improved health care workers' intention to stay. The study found that there were mixed reactions regarding the respondents' workload manageability, as indicated by a mean score of 2.8. There was a lack of consensus regarding the availability of the supplies needed to do their job well and safely (drugs, gloves, needles, bandages, etc), as indicated by a mean score of 2.8. Study participants disagreed that they have the equipments they need to do their job well and efficiently (blood pressure

cuffs, x-ray, ultrasound), as indicated by a mean score of 2.8. This implies that Garissa County did not provide health workers with required equipments to perform their roles and duties adequately. Further, the respondents disagreed that they do get supplies quarterly as stipulated in the County strategic plan with a mean value of 2.8. The respondents agreed that the Ministry take specific measures to protect health workers against infectious diseases like Hepatitis and HIV as indicated by a mean value of 3.4.

5.2.4 Influence of special package for health care workers deployed in hard-to-reach facilities on retention in Garissa County

Correlation and bivariate analysis results established that special financial package had a significant association ($\chi^2 = 557.081$; $df = 315$; $p < 0.05$) and a strong and positive association (Spearman's $R = 0.755$; $p < 0.001$) with retention of health care workers. Regression analysis results established that special package had a significant and positive influence on retention of health care workers in Garissa County ($\beta = .122$; $p < 0.05$). Regarding whether the respondents saw themselves valued, indicated a mixed reactions as indicated by a mean score of 2.8. There was uncertainty as to whether health care workers felt their pay matched the pay they got, as was shown by a mean value of 2.8. There was uncertainty that there is a good rewarding system in the department/section that is fair with a mean value of 3.3. Respondents were indifferent regarding the if considered for special package, they would stay longer at their station, as was indicated by a means value of 3.1.

5.3 Conclusion

The study conclude that regular promotion had a significant and positive influence on retention of health care workers in Garissa County. Most of the health care workers did not receive their salary on time all the times, some were satisfied with their current

remuneration that affected their desire to stay. Majority were not satisfied with civil service benefit program (e.g. pension, leave and housing).

The study also concludes that work and living environment had a significant and positive influence on retention of health care workers in Garissa County. There was uncertainty as to whether ergonomics standards were realistic at the facilities under investigation. Regular feedback from supervisors in the hospitals improved the respondents' intention to stay. The job descriptions were found to be clear and accurate. However, the communities where majority of health care workers in Garissa live have no good shopping and entertainment neither did they have access to safe, clean water at home.

The study concludes that essential commodity supplies had a positive and significant influence on retention of health care workers in Garissa County. This study concludes that that increasing essential commodity supplies improved health care workers intention to stay. For most of the respondents' their workload was not manageable. There was unavailability of the supplies needed to do their job well and safely (drugs, gloves, needles, bandages, etc), and the healthcare workers needed equipments to do their job well and efficiently (ultrasound, x-ray, blood pressure cuffs), Further, the respondents did not get supplies quarterly as stipulated in the County strategic plan.

Lastly, special package was found to have a positive and significant influence on retention of health care workers in Garissa County. Most of the respondents did not see themselves valued, and did not feel like their pay matched the pay they got. There is no good rewarding system in the department/section that is fair in some of the workers in Garissa County.

5.4 Recommendations

The study concluded that regular promotion influenced the retention of health workers in primary health facilities in Garissa County, promotion at organization level is beneficial to employees because it allows them to be more skilled and competent at their workplace through improved productivity and leads to better performance, as well as promotes employee development and employee retention, which boosts employee morale. This research recommends that Garissa County should ensure that every health care worker receive their salary on time all the times that is at the end of every month, ensure all the workers are satisfied with their current remuneration and with civil service benefit program (e.g. pension, leave and housing).

The study concluded that work and living environment determined retention of health workers in primary health facilities in Garissa County, this research recommends that the County should make sure standards of ergonomics are realistic in the health care facilities in the County. The supervisor should ensure there is regular feedback to help improve the respondents' intention to stay. In addition, the County should ensure that health care workers work and live in environment that is conducive, areas that have good shopping centers and entertainment and have safe, clean water for domestic use.

The study concluded that provision of essential supplies influenced the retention of health workers in primary health facilities in Garissa County, this study recommends, this study recommends that the County should provide health care workers with essential commodity supplies to improve health care workers intention to stay. The County should also ensure the workers have workload that are manageable, ensure there is availability of the supplies

that are required to perform their job well and in a safe manner (gloves, drugs, needles, and bandages, and also ensure there are equipment requires to do their job well and efficiently such as ultrasound, x-ray, blood pressure cuffs) are available. The County should also ensure workers get supplies quarterly as stipulated in the County strategic plan.

Lastly, the study concluded that special financial packages influenced the retention of health workers in primary health facilities in the County, it is recommended that the County should make sure that health workers feel valued, and their pay matches the pay they get. In addition the County should ensure there is a good rewarding system in the department/section that is fair.

5.5 Areas for Further Research

While the research established the influence of regular promotion, work and living environment, essential commodity supplies and special package on health care workers retention in Garissa County, it presents areas that need further analysis. Research can be done further to establish other factors that influence health care workers retention in Garissa County. The results indicated that the factors under study explain 95.6% of the changes health care workers retention in Garissa County. This implies that the remaining 4.4% of the variation is accounted for by other factors not investigated in the current research. A research can be conducted in the future to establish the other factors.

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APPENDICES

Appendix I: Consent Form

Purpose: Dear respondent, my name is Salah Dagane Hassan. The aim of this interview is to help me in completing my research on influencers of health care workers retention in County public health facilities in a devolved system of governance, a case study of Garissa County. This is part of requirement from Kenya Methodist University for the award of the master degree in Health System Management.

Duration: The interview will take 45 minutes

Confidentiality: The information given here will be treated as private and confidential and will be used for academic purposes and to inform the relevant stakeholders on issues regarding factors that influences staff retention in public hospitals in Garissa County.

Risk and benefits: There are no risk involved in this interview neither benefits attached to the participation.

Withdrawal: It's a voluntary process and you have the liberty to decline in the participation.

Concerns: Feel free to ask for clarification where the question is not clear. For farther clarifications please contact **0720267715** for assistant.

The participant understood the content of the interview and hereby voluntary give consent to participate in the interview

Interviewer signatureDate.....

Thank you for your time and patience

Selection criteria for the interview

The target population for the interview are health care providers in Garissa County who have worked for the County government for at least 6 month and more. Through sampling process, participants will be selected without bias in confirmative of the laid down procedures in the sampling procedures. There are no financial benefits attached in the participation of the interview.

Narrative description about the research

This research intend to find out factors that influence retention of health care providers in Garissa County. The County is currently facing myriad of challenges in retaining core health care workers within the County facilities. Health care turnover has been high and transfer request has gone as far as 35%.

Consent will be sought from the participants for their participation in the interview. Hard copies of the consent and questionnaires will be printed for staff within Garissa municipality and staff in hard to reach areas a soft copy will be sent through their emails for their response.

Appendix II: Questionnaire

Dear Respondent,

The purpose of this study is to establish the factors influencing health care workers retention in County public health facilities under devolved system of governance in Garissa County. It is academic research conducted in partial fulfillment for the award of degree of Master of Science in health systems management at Kenya Methodist University. You are therefore kindly requested to fill this questionnaire to facilitate the study of the subject. The information obtained will be used strictly for academic purposes and will be treated with the utmost confidentiality.

SECTION A: DEMOGRAPHIC INFORMATION

1. Gender?

Male	[]
Female	[]

2. Age?

22-26	[]
27-31	[]
32-36	[]
37-41	[]
42-47	[]

3. Level of formal education?

Certificate	[]
Diploma	[]
Bachelor's degree	[]
Master's degree	[]
Ph.D.	[]

4. Number of years practiced?

Years	
Less than 5 years	[]
6-10 years	[]
11- 15 years	[]
16 – 20 years	[]
21 – 25 years	[]

5. Work setting categorization?

Level 3	[]
Level 4	[]

6. Profession?

Nutritionists	[]
Pharmacists	[]
Officers	[]
Medical Doctors	[]
Social Workers	[]
Dentists	[]
Nurses	[]
Physiotherapists	[]
Medical lab technologists	[]
Clinical Officers	[]

7. County?

Garissa township	[]
Ijara	[]
Dadaab	[]
Lagdera	[]
Fafi	[]
Balambala	[]

SECTION B: FACTORS INFLUENCING RETENTION

PART A: REGULAR PROMOTION (RP)

1. Please use the point scale below to indicate your level of agreement by ticking each one of the given statements.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

	Items	1	2	3	4	5
RM1	I receive my salary on time all the times					
RM2	I am satisfied with my current remuneration that positively affect my desire to stay					
RM3	I am satisfied with civil service benefit program (e.g. pension, leave and housing)					
RM4	I get automatic promotions at standard duration					
RM5	I get automatic promotions at standard duration					

PART B: WORK AND LIVING ENVIRONMENT (WLE)

1. Please use the point scale below to indicate your level of agreement by ticking each one of the given statements.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

	Items	1	2	3	4	5
WLE1	My job has a sufficient range of responsibilities to keep it interesting.					
WLE2	In this hospital, ergonomic standards are reasonable.					
WLE3	In my employment, the present state of my office environment serves as a source of inspiration.					
WLE4	My work has a direct impact on the health of patients.					
WLE5	My boss gives me comments on my work performance on a regular basis.					
WLE6	My job description is precise and elaborate.					
WLE7	The communities where I live have good shopping and entertainment.					
WLE8	I have access to safe, clean water at home.					
WLE9	I have good housing within reach for accommodation from the government.					
WLE10	I am able to access my family easily and are within reach.					

PART C: ESSENTIAL SUPPLIES (ES)

1. Please use the point scale below to indicate your level of agreement by ticking each one of the given statements.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

	Items	1	2	3	4	5
--	-------	---	---	---	---	---

ES1	My workload is manageable.					
ES2	I do have the supplies I need to do my job well and safely (drugs, gloves, needles, bandages, etc).					
ES3	I have the equipments I need to do my job well and efficiently (ultrasound, x-ray, blood pressure cuffs).					
ES4	I do get supplies quarterly as stipulated in the County strategic plan.					
ES5	The Ministry take specific measures to protect me against infectious diseases like Hepatitis and HIV.					

PART D: SPECIAL PACKAGE (SP)

1. Please use the point scale below to indicate your level of agreement by ticking each one of the given statements.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

	Items	1	2	3	4	5
SP1	I see myself valued in the ministry.					
SP2	The job I do is a good match for my skills and experience.					
SP3	I feel my pay match the pay I get.					
SP4	There is a good rewarding system in the department/section that is fair					
SP5	If considered for special package, I would stay longer at my station					

SECTION C: RETENTION (RN)

1. Please use the point scale below to indicate your level of agreement by ticking each one of the given statements.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

	Items	1	2	3	4	5
SP1	I speak positively of the facility to friends and family.					
SP2	I refer patients and people seeking health services to this facility.					
SP3	Health workers in this facility strictly adhere to work ethics.					
SP4	Health workers of this facility are loyal to the facility.					
SP5	There are very few cases of absenteeism in this health facility.					
SP6	Health workers in this facility are absent only when they have permission or when they have an emergency.					
SP7	Health workers communicate effectively when they fail to report to work.					
SP8	When health workers are absent, they provide valid reasons for their absence.					

2. In your own opinion suggest what should be done to improve health care workers intention to stay.

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Appendix III: Ethical Clearance Letter



KENYA METHODIST UNIVERSITY

P. O. BOX 267 MERU - 60200, KENYA
TEL: 254-064-30301/31229/30367/31171

FAX: 254-64-30162
EMAIL: serc@kemu.ac.ke

February 26, 2021

KeMU/SERC/HSM/5/2021

Salah Dagane Hassan
Kenya Methodist University

Dear Salah,

SUBJECT: INFLUENCERS OF HEALTH CARE WORKERS' RETENTION IN COUNTY PUBLIC HEALTH FACILITIES IN A DEVOLVED SYSTEM OF GOVERNANCE: A CASE STUDY OF GARISSA COUNTY.

This is to inform you that Kenya Methodist University Scientific Ethics and Review Committee has reviewed and approved your above research proposal. Your application approval number is KeMU/SERC/HSM/5/2021. The approval period is 26th February 2021 – 26th February 2022.

This approval is subject to compliance with the following requirements

- I. Only approved documents including (informed consents, study instruments, MTA) will be used.
- II. All changes including (amendments, deviations, and violations) are submitted for review and approval by Kenya Methodist University Scientific Ethics and Review committee.
- III. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to KeMU SERC within 72 hours of notification.

- IV. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to KeMU SERC within 72 hours.
- V. Clearance for export of biological specimens must be obtained from relevant institutions.
- VI. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal
- VII. Submission of an executive summary report within 90 days upon completion of the study to KeMU SERC.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) <https://oris.nacosti.go.ke> and also obtain other clearances needed.

Yours sincerely,



Dr. A. WAMACHI
Chair, SERC


Appendix IV: Research permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Ref No: **145205** Date of Issue: **11/May/2021**

RESEARCH LICENSE




This is to Certify that Mr.. Salah Dagane Hassan of Kenya Methodist University, has been licensed to conduct research in Garissa on the topic: Influences of health care workers retention in county public health facilities in a devolved system of governance: A case study of Garissa County for the period ending : 11/May/2022.

License No: **NACOSTI/P/21/10430**

145205
Applicant Identification Number

Walthero
Director General
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Verification QR Code



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