HUMAN RESOURCE MANAGEMENT PRACTICES AND QUALITY OF HEALTH CARE AT JARAMOGI OGINGA ODINGA TEACHING AND REFERRAL HOSPITAL, KENYA

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D53/ OL/5379/03

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April, 2018
DECLARATION

This proposal is my original work and has not been presented for a degree in any other university.

Signed: …………………………………Date……………………………………

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Reg.No.D53/ OL/5379/03

I confirm that the work in this thesis was done by the candidate under my supervision.

Signed: ………………………………… Date: ………………………

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For and on behalf of Kenyatta University
DEDICATION

I dedicate this thesis to my wife, Imelda and children, Billy, Sheila, Quinter, Rolex and Fiona, with great love and lots of appreciation.
ACKNOWLEDGEMENT

First and foremost I thank the almighty God for answering my prayers and providing me with resources, strength, and knowledge to make my dream of completing my masters studies a reality. I would wish to acknowledge several people who contributed in the development of this thesis.

First and foremost I would like to thank my supervisor, Dr. Hannah Bula; your knowledge, time, help, availability, responsiveness and approachability are sincerely appreciated. Appreciation is also extended to the resource persons and chairpersons who chaired the various presentations for their valuable insights that shaped my work. Appreciation also goes to my colleagues, respondents, research assistants, data analyst and all those who contributed in some way toward the completion of the thesis.

Appreciation also goes to other friends who supported me through what has undoubtedly been the most challenging task I have undertaken in my life so far. I do appreciate your understanding. Finally appreciation is extended to Imelda my wife, and children Billy, Sheila, Quinter, Rolex and Fiona. Thank you for your unwavering love, encouragement and support throughout my masters’ studies. To my parents, sisters and brothers I express my appreciation for your love and always being there for me. I love you and God bless you all.
TABLE OF CONTENTS

Declaration.................................................................................................................. ii
Dedication .................................................................................................................... iii
Acknowledgement ...................................................................................................... iv
Table of Contents ...................................................................................................... v
List of Tables ............................................................................................................. vii
List of Figures ........................................................................................................... viii
Operational Definition of Terms ............................................................................... ix
Abbreviations and Acronyms ................................................................................... xii
Abstract ..................................................................................................................... 

CHAPTER ONE: INTRODUCTION .............................................................................. 1
1.1 Background of the Study ..................................................................................... 1
1.2 Statement of the Problem .................................................................................. 9
1.3 Objective of the Study ....................................................................................... 13
1.4 Research Hypotheses ....................................................................................... 13
1.5 Significance of the Study .................................................................................. 14
1.6 Scope of the Study ............................................................................................ 15
1.7 Limitations of the Study ................................................................................... 16
1.8 Organization of the Study ................................................................................ 16
1.9 Chapter Summary ............................................................................................. 17

CHAPTER TWO: LITERATURE REVIEW ............................................................... 18
2.1 Theoretical Foundation of the Study ................................................................ 18
2.2 Empirical Review .............................................................................................. 25
2.3 Summary of Knowledge Gaps .......................................................................... 33
2.4 Conceptual Framework .................................................................................... 36
2.5 Chapter Summary ............................................................................................. 37

CHAPTER THREE: RESEARCH METHODOLOGY .............................................. 38
3.1 Research Design .............................................................................................. 38
3.2 Target Population ............................................................................................. 42
3.3 Sample Size ..................................................................................................... 44
3.4 Sampling Technique ......................................................................................... 48
3.5 Research Instrument ....................................................................................... 49
3.6 Data Collection Procedure .............................................................................. 50
3.7 Validity of Survey Research Instrument ........................................................... 51
3.8 Reliability of Survey Research Instrument ....................................................... 52
3.10 Content Analysis of Patient Complaint Data ................................................... 57
3.11 Ethical Considerations .................................................................................... 60
3.12 Chapter Summary ........................................................................................... 61

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSIONS ............... 62
4.1 Quantitative Analysis of Survey Data ............................................................... 62
4.1.1 Response Rate ............................................................................................ 62
4.1.2 Respondents Characteristics ..................................................................... 63
4.1.3 Descriptive Statistics of the Study Variables .............................................. 68
4.1.4 Regression Analysis and Hypothesis Testing .............................................. 78
4.2 Qualitative Analysis of Patient Complaint Data .............................................. 87
4.2.1 Source and Form of Complaints ................................................................. 87
**LIST OF TABLES**

Table 2.1: Summary of Empirical Literature and Research Gaps ........................................35
Table 3.1: Study population for the survey ...........................................................................44
Table 3.2: Table for determination of sample size for a given population .........................45
Table 3.3: Study Sample for the Survey .................................................................................46
Table 3.4: Respondents by Clinical Service Directorates ......................................................49
Table 3.5: Summary of Cronbach’s Alpha Reliability Coefficients ....................................53
Table 3.6: Tests of Normality ..................................................................................................55
Table 4.1: Survey Response Rate ...........................................................................................62
Table 4.2: Respondents Gender .............................................................................................63
Table 4.3: Length of Service at JOOTRH .............................................................................64
Table 4.4: Length of Service in the Health Care Sector .........................................................65
Table 4.5: Level of Education ...............................................................................................66
Table 4.6: Area of Specialization ..........................................................................................67
Table 4.7: Job Designation of Respondents .........................................................................67
Table 4.8: Summary statistics for quality of health care .......................................................70
Table 4.9: Recruitment Practices ..........................................................................................72
Table 4.10: Training Practices ..............................................................................................74
Table 4.11: Compensation Management Practices ...............................................................75
Table 4.12: Performance Management Practices ..................................................................76
Table 4.13: Summary statistics for human resource management practices ......................76
Table 4.14: Goodness of Fit Test for HRM practices and quality of health care ..............78
Table 4.15: Analysis of variance for quality of health care and HRM practices ..............79
Table 4.16: Regression model coefficients for HRM practices and quality of health care ..80
Table 4.17: Summary of research objectives, hypotheses and results of statistical tests ......85
Table 4.18: Dimensions of Patient Complaints .....................................................................87
Table 4.19: Summary of content analysis of complaints data .............................................88
LIST OF FIGURES

Figure 1 Conceptual Framework of the Study.........................................................36
Fig. 2 Respondent’s Gender ..................................................................................64
Fig. 3 Length of Service in Health Care Sector......................................................66
Fig. 4 Level of Education ......................................................................................67
Fig. 5 Respondents’ Job Designation ...................................................................69
### OPERATIONAL DEFINITION OF TERMS

<table>
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<tr>
<th>Term</th>
<th>Definition</th>
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<tr>
<td><strong>Compensation Management Practices</strong></td>
<td>The strategies and policies that aim to pay off people fairly, equitably, and consistently in accordance with their value to referral hospitals.</td>
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<td><strong>Complaint</strong></td>
<td>The behavior of a patient signifying dissatisfaction towards medical services, nursing services, and treatment conditions through letters, calls, or visits to the hospital where the purpose of these actions is to criticize the hospital and/or claim compensation.</td>
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<td><strong>Content analysis</strong></td>
<td>A technique for objectively and systematically recording and counting episodes described in written text to produce a quantitative description of the content of a given text.</td>
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<td><strong>Employee perceived service quality</strong></td>
<td>The health professional’s personal evaluation of the health care service quality that he or she delivers to patients.</td>
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<td><strong>Human Resource Management Practices</strong></td>
<td>The human resource systems, processes, policies, and philosophies designed to attract, develop, motivate, and retain employees for effective functioning and survival of referral hospitals.</td>
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<tr>
<td><strong>Performance management practices</strong></td>
<td>Processes and activities of establishing expected job functions, how it contributes to organization goals, how employee and supervisor can sustain, improve, or build on existing performance, performance measures, barriers to performance and removing them.</td>
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<tr>
<td><strong>Quality healthcare service delivery</strong></td>
<td>The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.</td>
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<td><strong>Recruitment practices</strong></td>
<td>The activities and processes for obtaining a sufficient number of qualified people from which selection can be made to fill vacancies.</td>
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<tr>
<td><strong>Training practices</strong></td>
<td>The activities for developing the knowledge, skills, and attitudes required by an individual to adequately perform a given task or job.</td>
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# ABBREVIATIONS AND ACRONYMS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>HCT</td>
<td>Human Capital Theory</td>
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<td>HR</td>
<td>Human Resource</td>
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<td>HRM</td>
<td>Human Resource Management</td>
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<td>JOOTRH</td>
<td>Jaramogi Oginga Odinga Teaching and Referral Hospital</td>
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<tr>
<td>MTRH</td>
<td>Moi Teaching and Referral Hospital</td>
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<tr>
<td>NGOs</td>
<td>Non-Governmental Organizations</td>
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<td>PC</td>
<td>Performance Contracting</td>
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<tr>
<td>P-J –Fit</td>
<td>Person Job Fit Theory</td>
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<td>P-O-Fit</td>
<td>Person Organization Fit Theory</td>
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<td>QHC</td>
<td>Quality Health Care</td>
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<td>RBV</td>
<td>Resource Based View</td>
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<td>SERVPERF</td>
<td>Service Performance Model</td>
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<tr>
<td>SERVQUAL</td>
<td>Service Quality Model</td>
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<tr>
<td>SED</td>
<td>Sequential Explanatory Design</td>
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<tr>
<td>SHRM</td>
<td>Strategic Human Resource Management</td>
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<tr>
<td>TRH</td>
<td>Teaching and Referral Hospital</td>
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<tr>
<td>US</td>
<td>United States</td>
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<td>WHO</td>
<td>World Health Organization</td>
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ABSTRACT

The study examines the influence of HRM practices on the quality of healthcare in teaching and referral hospitals. While efficient HRM can lead to quality health care, no empirical work has identified the HRM practices that are significant in the provision of quality health care. The objective of the study was to establish the influence of recruitment, training, compensation, and performance management practices on the quality of health care. The research was underpinned by the human capital, resource-based view, person fit environment theories, and the service performance model. The two populations of interest consisted of the permanent clinical and nursing staff and patient complaint data on responsiveness and reliability of clinicians and nurses, for the third quarter of the 2017/2018 financial year. The research was grounded on a principle of mixed methods pragmatism, exploiting the sequential explanatory mixed methods design. Phase one surveyed the opinions of a systematic random sample of 97 respondents from a target population of 130 permanent clinicians and nurses. Phase Two involved a content analysis of patient complaints data for an explanation of the quantitative relationships established in the quantitative strand of the study. During Phase One, summary statistics, that informed inferential and subsequent qualitative analysis, were presented using tables and charts. Multiple regression analysis was used to test the significance of the relationship amongst the log10 of predictor and log10 of the outcome variable. The log-log regression model shows that the HRM practices explain 22.2% of the variance in the dependent variable. Hypothesis tests revealed that recruitment and compensation, unlike training and performance management, had statistically significant relationships with quality of health care. Qualitative data provided further evidence on the importance of training and performance management, in ensuring that the technical quality of healthcare was maintained. Most complaints derived from delay in test results, and waiting before the consultation. The shortage of clinicians and nurses were to blame for delays in serving patients. The study concludes that teaching and referral hospitals can improve the quality of health care by addressing challenges relating to recruitment and compensation. Adoption of a strategic approach to the management of HR could remedy HR deficiency and solve the problem of strikes in teaching and referral hospitals, in Kenya and beyond.
CHAPTER ONE

INTRODUCTION

This chapter lays the foundation and provides the context for the subsequent chapters. It provides the research background, and develops the research problem and objectives that underpins the study. It then discusses the study variables and provides an overview of the Jaramogi Oginga Odinga teaching and referral hospital. It also outlines the significance of the study, its organization and finally reiterates key chapter contents.

1.1 Background of the Study

The main objective of this study was to investigate how Human Resource Management (HRM) practices influence the quality of health Care (QHC) at Jaramogi Oginga Odinga Teaching and Referral Hospital. For an organization to provide a high quality of health care, it is important to manage the human resources properly (Kabene, Orchard, Howard, Soriano, Leduc, 2006). When a health care institution manages its clinical and non-clinical staff efficiently, it results improved quality of healthcare (Elarabi & Johari, 2014). However, recent strikes globally, and in Kenya, suggest inadequacy in management of human resources for health (Boseley & Weaver, 2016).

Globally, increased attention is being focused on human resource management within many health care systems. Human resource is one of three health system inputs, the others being physical capital and consumables (WHO, 2000). Due to their obvious and important differences, it is imperative that human capital is handled and managed very differently from physical capital (WHO, 2003). Unfortunately, in many countries health care workers are
unsatisfied with payments and healthcare policy, security, safety, working conditions and physical and administrative infrastructure (Chima, 2013).

In Kenya, pursuit of higher pay and better working conditions, shortage of equipment and manpower prevent health care institutions from offering quality care (Shitsinzi, 2015). It appears that these institutions do not have established HRM functions with the ability to address the HR challenges in providing quality health care. Wanza and Mwakesi (2014) recommended for the inclusion of HR personnel in the managerial hierarchy at Moi Teaching and Referral Hospital to enhance capacity to provide quality health care.

Globally, HRM issues attracting attention include size, composition, distribution, workforce training and migration of workers (Kabene et al., 2006). The WHO (2003) considers the number of health workers a key indicator of capacity to provide health care services. Also, the skill category and training levels indicate the capacity to provide health care services. Further challenges of migration, from rural to urban facilities and to other countries, result in imbalances in supply of health care professionals. Recruiting and retaining health professionals, requires use of other strategies such as housing, infrastructure and opportunities for job rotation, in addition to salary incentives (WHO, 2002).

Kabene et al. (2006) reports that health workers in developing countries are underpaid, poorly motivated and very dissatisfied. Kabene et al. (2006) conclude that proper management of human resources is critical in providing a high quality of health care. Weldon (2005) agrees noting that effective HRM practices lead to lower mortality rates and better health care. Patterson (2015) recommends more empirical work to isolate HRM practices with the most
significant influence on service quality. So far, the significance of HRM in provision of quality health care is yet to be proven empirically (Huselid & Becker, 2015). Quality of health care is determined by the knowledge, skills and motivation of workers (Spence & Lewis, 2009). Quality healthcare depends on the interaction, characteristics and behavior of patients and frontline health personnel (Martin & Pimhidzai, 2013; Gayle & Obert, 2013). Health care quality in literature has been addressed as either technical quality or functional quality. Researchers define technical quality primarily on the basis of the technical accuracy of the medical diagnoses and procedures or the conformance to professional specifications, while service or functional quality refers to the manner in which the health care service is delivered to the patients (Edura & Kamaruzaman, 2009).

Patients have always been in a dependent position as hospitals or other health care providers have specific technical proficiency, or know-how, that can be better evaluated by practitioners, clinicians and medical experts (Timmermans & Berg, 2010). It is now established that most patients may never determine whether a diagnosis or prescription was optimal or not (James, 2013). A section of articles reviewed questioned the ability of patients to evaluate technical quality, with the conclusion that patients find it difficult to distinguish technical quality from functional quality (Sofaer & Firminger, 2005). Patients are most capable of evaluating the functional quality aspects and frequently use them as surrogates for assessment of the accuracy of diagnoses and efficacy of treatment plans (Asadi-Lari, Tamburini, & Gray, 2004). While most patients are not qualified to judge technical quality, their assessment of functional quality can adversely affect the total quality
experience. Such an assessment is vital in defining quality care more comprehensively and cannot be ignored.

It has been demonstrated that while technical quality of providers in most cases is considered satisfactory by patients (Kabeneet et al., 2006), it is service quality or experiences that add to shape up the patient’s overall view of quality care that needs to be understood better and explored more intensively. Keeping this in mind, this study considered both the health worker and patient’s complaints about health care quality. A mixed-methods research design facilitates the triangulation of results and ultimately enriches the credibility and strengthens the conclusions of a research (Hesse-Biber, 2010).

The debate on the perspective to adopt in measuring health care quality is ongoing. An earlier study Hollis (2006) acknowledges that the service receiver perspective has dominated measuring of service quality. However, recent studies have made the case for employee perceived service quality as a basis for driving their behavior (Steers & Porter, 2012). The use of employee’s personal evaluation of the service quality that he or she delivers has found support in the literature (Slåtten, Svensson, & Sværi, 2011). The current study adopts a mixed methods design to obtain a more comprehensive view of quality.

The current study evaluates employee’s quality perceptions using the Service Performance (SERVPERF) instrument by Cronin and Taylor (1992). The current study also took cognizance of patients views by analyzing complaints made about service encounters with health care professionals. Service users’ complaints can reflect health service failures and
deficiencies and can provide valuable insights into services by identifying problem areas which are unknown to management (Hsieh, 2010; Reader, Gillespie, & Roberts, 2014).

In the context of Teaching and Referral Hospitals, research on quality has focused on the effect of ISO certification on organizational performance (Odongo, 2014). Wanza and Mwakesi (2014) on the other hand, investigated factors hindering health professionals from achieving hospital goals. These studies cannot be relied to fully understand the contribution of HRM to provision of quality health care. To fill this gap the current study focuses on identifying the HRM practices with the most significant influence on quality of health care.

1.1.1 Human Resource Management Practices

HRM Practices are policies and procedures designed to ensure that human capital contributes to the achievement of an organizations objectives (Armstrong & Taylor, 2014). Research suggests that recruitment, training, compensation, career and performance management are associated with quality of health care (Patterson & Birdi, 2015). Recruitment identifies and selects qualified people to fill vacancies (Selden, 2008). Training provides knowledge, skills and attitudes for performing a given task (Armstrong, 2009). Compensation remunerates people fairly and equitably (Armstrong & Brown, 2005). Performance management links each individual’s performance to the overall organizational targets (Smith & Goddard, 2002).

These HRM practices can influence the quality of health care (Yin, 2000; Michael, 2009; Patrick, 2011). HRM Practices that lead to highly skilled clinicians, nurses, administrators, and ancillary staff produce high-quality outcomes (Argote, 2000). Top-level physicians and nurses, working in teams, consisting of case managers, pharmacists and social workers, promote quality (Brown and Duguid, 2003). Management of HR in healthcare institutions is
essential for delivery of efficient and effective medical services (Elarabi and Johari, 2014). Improving quality of service in public hospitals requires capacity to attract and employ high-quality nurses (Argote & Ingram, 2000). Service quality is facilitated by selective hiring, and retention of physicians and nurses (Cohen & Leviathan, 2001). Monitoring doctors ensures that they continue to meet certain performance and practice standards to retain credentials (Crewson, 2004). HRM plays an active and vital role in the success of reforms in the health sector (Marie et al., 2007).

Provision of quality healthcare requires efficient management of human resources (Michael, 2009; Patrick, 2011). HRM practices make a significant difference between health organizations with good performance and underperforming ones (Edgar & Geare, 2005). Mwamuye and Nyamu (2014) found that medical doctors tasked with managing hospitals had inadequate HRM skills, suggesting inefficient HRM within the health sector in Kenya.

1.1.2 Quality of Health Care

Quality of health care is the degree to which health services increase desired health outcomes and are consistent with current professional knowledge (Runciman et al., 2009). Within service organizations, quality can be categorized as being technical or functional (Seth, Deshmukh, & Vrat, 2005). Technical quality is best evaluated by service professionals (Mohammad, 2013). Functional quality concerns delivery of services (Steers & Porter, 2012) and is a key determinant of external quality perceptions. The current study examines both technical and functional quality to provide a more comprehensive view of health care service
quality. It applies a mixed methods design to capture both health care professionals and patient perspectives on quality.

In recent years there have been a number of new initiatives to develop measures of quality in health care performance (Wallace, 2007). These initiatives have focused on the fundamental parameters of health care quality including what is being measured and the researchers’ perspective (Wyszewianski, 2005). Quality of health care can be viewed from clinician, patient, payer and society perspectives, and measured from an internal or external perspective (Wyszewianski, 2005). In this study it is measured from an external and internal perspective.

Luxford, Safran, and Delbanco (2011) are critical of patient surveys to measure health care quality. Patients have a limited knowledge about the technical side of medical procedures, diagnosis, and treatment. Despite being the ultimate recipients of health care, patients can not know whether, technically, a quality service has been provided (Lockhart, 2007). Barriers to the use of patient surveys include data not being user centered and not linked to processes, large organizational size, complex structures, lack of time and skepticism (Johnson, Roter, Powe, & Cooper, 2004).

Employee measures of quality have been used successfully in recent studies by Aaron (2013), Lepnurm, Dobson, Voigts, Lissel, and Stamler, (2012), and Wallace (2007). Aaron (2013) examined how nurses’ perceptions of distress, work place recognition and satisfaction influenced their assessment of quality care. Lepnurm et al., (2012) investigated the effects of structures and processes of quality, management, and organizational culture on the quality of care. Further, physician views on health care quality are aligned with the objective data as
established by Wallace (2007). However, it is not clear as to whether views of health care givers on quality of health care can be supported by patient views.

To measure the perceived quality of health care, the current study adopted the service performance (SERVPERF) model by Cronin and Taylor (1992). This is a psychometrically superior model for assessing service quality that utilizes performance items from the service quality (SERVQUAL) model by Parasuraman, Zeithaml, and Berry (1988) rather than the original expectations, performance methodology. The analysis of patient complaint data from the hospital enabled the researcher to focus on the functional aspects of health care quality at Jaramogi Oginga Odinga teaching and referral hospital.

### 1.1.3 Jaramogi Oginga Odinga Teaching and Referral Hospital

A teaching and referral hospital offers training to health care professionals, in conjunction with a university, and provides care to first time patients and those referred from other facilities for specialized attention. Jaramogi Oginga Odinga teaching and referral hospital, which is more than 100 years old, was established to cater for the needs of the workers at the then Port Florence. It was elevated into a Provincial General Hospital, in the early 1970’s and later to a Teaching and Referral Hospital on 20th April, 2012.

Since its elevation to a teaching and referral hospital, the facility has been serving more than 100 district and sub-district hospitals in the Western Kenya Region (JOOTRH, 2016). While it has expanded its mandate, not much evidence exists of its capacity to engage, train, remunerate, and manage the performance of its health care professionals. The recent incidences of industrial unrest amongst health care staff, at this facility, suggest a need to focus on the maturity of its human resource function and ability to handle the health care
issues. Thus the current study answers the need to examine the efficacy by which human resources for health care delivery in these levels of hospitals are managed.

The role of HRM is to provide quality health care professionals to support five key functions in teaching and referral hospitals (Muga, Kizito, Mbayah, & Gakuruh, 2005). First is to provide curative, tertiary, preventive, and public health programs. The second is to set high clinical standards and treatment protocols. The third is to develop a referral system. The fourth is to research into local and national health problems. The fifth is to provide basic and post-graduate training. Given the expanded role of Jaramogi Oginga Odinga Teaching and Referral Hospital, a need exists to evaluate the role that HRM plays in the provision of quality health care.

Recent studies that have focused on teaching and referral hospitals have tended to concentrate on the more established facilities, such as Moi Teaching and Referral Hospital, which was studied by Odongo (2014) and Kenyatta National Hospital by Wanjau, Mururi, and Ayodo (2102). These results of these studies may not provide all the answers to the HR issues that arise from the expanded role of a provincial hospital to a teaching and referral facility. Thus the current study, which aims at evaluating the extent of adoption and influence of HRM practices at Jaramogi Oginga Odinga Teaching and Referral Hospital, fills an important knowledge gap on the influence of HRM in provision of quality health care.

1.2 Statement of the Problem
Human resource for health is the cornerstone of the Health Sector that produces, delivers and manages health care (WHO, 2013). Health in Kenya is acknowledged as a basic need and a vital ingredient in realization of vision 2030 and Millennium Development goals (Health

These strategy and policy documents on health care provide clear guidelines on the contribution expected from health care institutions, including teaching and referral hospitals. But there is no empirical work showing that these guidelines on HRM are working towards provision of quality health care. On the contrary health care institutions seem to be unable to address HRM issues as evident from perennial strikes, which has not spared teaching and referral hospitals, such as Jaramogi Oginga Odinga Teaching and Referral Hospital.

Inadequate number of skilled health workforce, health worker’s persistent unrest, high human resource turnover, unsatisfied staff, lack of promotions, skill mismatch unfairness, low staffing levels, lack of HR development, poor infrastructure, lack of drug/equipment are critical challenges that are hampering employee performance in hospitals. (HRH Strategic plan 2014-2017). WHO report, 2012 indicates that the performance of the health workforce in Kenya is below 50%. It also ranks Kenya as one of the 57 countries in the world with a critical crisis in health workforce. This shortage of the health workforce may compromises quality of service delivery in high volume hospitals, such as teaching and referral hospitals.

The teaching and referral hospitals have inadequate crucial health staff like doctors, nurses, laboratory scientists, clinical officers in addition there are regional disparities in the distribution of the existing health professionals and hardship areas get disadvantaged with less staff. WHO recommends 23 doctors, nurses, and midwives to 10,000 people but Kenya has one doctor, 12 nurses and midwives to 10,000. The hospitals are stretched dangerously thin as they deal with high patient load and increasing complex cases (KMPPDU Report,
Thus, focusing on their practices in managing recruitment, training, compensation and performance of health workers in these institutions can offer human resource management solutions that may reverse these trends.

Jaramogi Oginga Odinga Teaching and Referral Hospital acknowledges the role of health professionals in provision of quality care its current strategic plan (JOOTRH, 2016). However, heavy workload has resulted into staff burn out, demotivation and industrial unrest (Olweny, 2016). Devolution of HRM functions and irregular disbursements of resources to counties by the central government have worsened the problem (Njuguna, Mwangi & Kamau, 2014; Mwamuye & Nyamu, 2014).

Efficient HRM can result in efficient and effective medical services (Elarabi & Johari, 2014). Anecdotal evidence suggests that proper management of human resources is critical in providing a high quality of health care (Kabeneet al., 2006). However, there appears to be a HRM problem in the Kenyan health care sector. Strikes have occurred in recent times, globally (Boseley and Weaver, 2016) and in Kenya (Luoma et al., 2010). Whether quality of health care is driven by decisions made by HRM departments is an open question that is yet to be addressed in the context of teaching and referral hospitals in Kenya.

The few studies that focus on human resources for health conducted in Kenya seem to suggest that such facilities have challenges in managing the human resources required in provision of quality health care. Research conducted in the context of Moi teaching and referral hospitals revealed deficiency in HRM (Wanza & Mwakesi, 2014) and recommend the inclusion of HR personnel in the managerial hierarchy. A more recent study by Olweny (2016), on the other hand, focused on the strategy implementation processes at Jaramogi
Oginga Odinga Teaching and Referral Hospital. Other studies within the health care sector such as Njuguna, Mwangi and Kamau (2014) focused on devolved systems of HR management and retention. Mwamuye and Nyamu (2014) focused on devolution of health care and health service delivery.

Although conducted in the context of health care institutions, these studies may not fully explain the influence that HRM practices may have the quality of health care in teaching and referral hospitals. Thus a knowledge gap exists in our understanding of how practices adopted by teaching and referral hospitals influence the quality of health care. The current study fills this knowledge gap by examining the influence of HRM on quality of health care by teaching and referral hospitals in Kenya.

The conceptual gap in our understanding HRM drivers of quality health care is evident from a close look at previous attempts at understanding the role of HRM. The most recent attempt at relating HRM to quality of care by Nupur (2017) conceptualized quality of health care in terms of business efficiency. This conceptualization of health care quality may not fully explain the relationship between the key decisions in management of health care workers and the provision of quality services. In particular, there is need to understand if decisions in relation to how health care professionals are recruited, trained, compensated and appraised for their performance is related to quality of health care.

The current study fills this conceptual gap by establishing the effect of HRM on quality of health care by focusing on employee perceived quality. Such a conceptualization is required to provide empirically derived recommendations on the management of HR in the health care sector, and in particular, in high volume hospitals, such as teaching and referral hospitals.
This study fills the above knowledge gaps by investigating the influence of recruitment, training, compensation and performance management on quality of health care. The key question answered in the current study was: What is the effect of human resource management practices on the quality of health care at Jaramogi Oginga Odinga teaching and referral hospital in Kenya?

1.3 Objective of the Study

1.3.1 Overall Objective

The overall objective of this study was to assess the influence of HRM practices on quality of health care at Jaramogi Oginga Odinga teaching and referral hospital.

1.3.2 Specific Objectives

1. To determine the influence of recruitment on quality of health care at Jaramogi Oginga Odinga teaching and referral hospital.

2. To assess the influence of training on quality of health care at Jaramogi Oginga teaching and referral hospital.

3. To establish the influence of compensation on quality of health care at Jaramogi Oginga Odinga teaching and referral hospital.

4. To examine the effect of performance management on quality of health care at Jaramogi Oginga Odinga teaching and referral hospital.

1.4 Research Hypotheses

H₁: There is no statistically significant relationship between recruitment practices and quality of health care at Jaramogi Oginga Odinga teaching and referral hospital.

H₂: There is no statistically significant relationship between training and quality of health care at Jaramogi Oginga Odinga teaching and referral hospital.
H₃: There is no statistically significant relationship between performance management on quality of health care at Jaramogi Oginga Odinga teaching and referral hospital.

H₄: There is no statistically significant relationship between compensation management on quality of health care at Jaramogi Oginga Odinga teaching and referral hospital.

1.5 Significance of the Study

The value of this study is in the significant contribution it will have in the theory, policy formulation and practice of human resource management. The integrated framework, recruitment, training, compensation and performance management practices to quality of health care, extends quality scholarship to a teaching and referral teaching context. The theoretical value of the study also lies in the provision of a multidisciplinary framework, based on human capital, resource based view, person environment fit and service quality theories that extended quality scholarship to a teaching and referral hospital context.

Additionally, this study may yield valuable results due to the mixed methods research design. The need for both qualitative and quantitative research to determine the extent to which the HRM decision variables can predict quality of health care is articulated in the literature (Seitio-Kgokgwe, Gauld, Hill & Barnett, 2016). Mixed methods research enables the investigation of complex, multifaceted social issues (Brannen, 2005), provides a more comprehensive account of the area of enquiry (Bryman, 2006), and enables researchers to draw from the strengths and minimise weaknesses of both singular approaches (Johnson & Onwuegubuzie, 2004).

The results are expected to inform policy formulation and implementation of quality initiatives by government, donors, and health care collaborators. The health care sector is a priority sector under the economic pillar in the Vision 2030. This could be attributed to the role that
eaching and referral hospitals are expected to play in the Country’s attainment of Vision 2030. There is therefore need for government interventions in terms of complementing teaching and referral hospital efforts to provide quality health care.

The research will offer teaching and referral management invaluable insights on the influence of human resource management decisional variables on the quality of health care provided. In other words the multidisciplinary conceptualization of human resource management practices will enable their influence to be clearly understood by teaching and referral hospital management. Establishing the influence recruitment, training, compensation and performance management practices will provide a useful starting point for senior management in the formulation of appropriate human resource management strategies that could enhance quality of health care at teaching and referral hospitals.

Finally, this study will assist other profit, non-profit organizations and government ministries, departments and agents to develop and implement strategies that can positively impact on quality of health care such as management of recruitment, training, compensation and performance of human resources. The findings on this study will therefore open a new line of inquiry that will extend the HRM initiatives and quality management discourse.

1.6 Scope of the Study

The scope of the research is limited to the influence of HRM practices on the quality of health care in Teaching and Referral Hospitals within Kenya. The study focussed on Jaramogi Oginga Odinga teaching and referral hospital that serves the former Nyanza, and parts of Western and Rift Valley provinces. The population of interest consists of all permanent clinical and nursing staff at the facility during field the work. The scope of this
study is limited to the perception of clinical and nursing staff on the influence of recruitment, training, compensation and performance management on their ability to offer quality health care services. The study focused on establishing the significance and direction of the direct relationship between HRM practices and quality of health care.

1.7 Limitations of the Study
Limitations are conditions beyond the control of the researcher that restrict the application of conclusions in a study to other situations (Best & Kahn, 2008). During data collection some of the respondents were reluctant to release information in the beginning for fear of victimization. The researcher dealt with this limitation by assuring respondents of confidentiality and guarding their identity. These interventions enable findings on the influence of HRM practices on health care quality to be generalizable to similar teaching and referral hospitals in Kenya and beyond.

1.8 Organization of the Study
The thesis is organized in five chapters. Chapter one has briefly discussed the subject of the study as well as the study variables. It has also presented research problem and the study objectives and research hypotheses tested in the study. Related literature was presented along the study variables from relevant studies. The contribution that the study was expected to make to theory and practice of human resource management was also discussed.

Chapter two presents the theoretical foundations of the study as well as theoretical and empirical review of relevant literature on recruitment, training, compensation and performance management practices and quality of health care. It also provides a summary of the knowledge gaps identified in the literature. A conceptual model is also provided in line with the study objectives and research hypotheses at the end of the chapter.
Chapter three presents the research methodology used in the study, and the research design. It also includes data collection methods, measurement of research variables and the data analysis techniques. Chapter four presents data analysis, findings and interpretation of results. Chapter five summarizes the entire thesis including discussions, conclusions, recommendations, and suggestion for further research.

1.9 Chapter Summary
The chapter has reviewed the background of the study, described the key study variables and given an overview of teaching and referral hospitals. The chapter has also described the research problem, objectives of the study, significance of the study and outlined the organization of the thesis. The next chapter presents the theoretical foundation of the study, a critical review of theoretical and empirical literature, and the conceptual framework of the study.
CHAPTER TWO
LITERATURE REVIEW

This chapter presents review of relevant theoretical and empirical literature. It also presents the theoretical foundation of the study, the relationship between recruitment practices, training practices, compensation management practices, performance management practices and quality of health care. The chapter concludes by providing a summary of selected studies highlighting the knowledge gaps. A conceptual model and conceptual hypotheses used to address the knowledge gaps are also provided.

2.1 Theoretical Foundation of the Study
The decentralization of management of human resources for health implies that teaching and referral hospitals need to rethink their human resource management capacity to ensure quality of health care, meets the vision 2030 and Human Resource for Health policy framework. Faced with industrial unrest and the need to offer quality health care, teaching and referral hospitals are adopting human resource management in order to positively impact on the quality of health care delivered. Various theories explain the HRM and quality of health care relationship. Among them are human capital, resource based view, person environment fit and service quality theories.

A theoretical framework provides the basis on which the entire research rests (Meyer & Maltin, 2010). A theory generates research since the interlocking connections have to be tested (Leininger & McFarland, 2002). The theory and practice of human resource management is in close relationship with human capital, resource based view, person environment fit and service quality theories, which are rooted in management theory. Human
resource management can thus be explained by these theories that focus on the strategic value of human resources.

2.1.1 Human Capital Theory

The phrase, “human capital,” and its foundation appear to have been developed by Becker (1964) in his book, *Human Capital*. Becker’s book was based on his earlier study attempting to determine if national expenditure on higher education was adequate and if U.S. American college student quality could be improved. In the conclusion of his study, Becker was compelled to report that the direct returns on college education alone did not seem to justify increased college expenditures (Becker, 1960).

Further, Becker (1960) asserted that investments in college education provided indirect returns in addition to direct returns, since. Becker was unable to directly support his hypothesis that resources embodied in people are capable of generating income. However, the design of the study provided an important methodology for analyzing human capital investments. The analogy with physical capital emphasizes that these resources can be increased through investment. Becker (1964) exemplified the theoretical and empirical analysis of human capital with special reference to education. He specified that education increases skills, and these, in turn, increase productivity; higher productivity is then rewarded through higher earnings.

As with education, on-the-job experience or training is said to make workers more productive, and, because they are more productive, they are paid more. Therefore, the human capital theory seeks to bridge the gap between income determination and income distribution by asserting that variations in the human capital investments of individuals explain variations
in individual income. Thus, general expenditures on education and training can enhance opportunities for higher incomes for labor force participants.

From the early 1960s, the attention paid to the level of education and training in the workplace has given rise to the concept of human capital embodying skills and other attributes of individuals (OECD, 2001). OECD defines human capital as the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being. Notably, human capital resides in individuals; learning and the acquisition of skills and knowledge take place from birth to death for each individual.

The Human Capital Theory (HCT) by Baker (1964) is an appropriate framework for examining the influence of human resource management initiatives on quality health care. In essence, human capital analysis puts individuals at the center of attention in the economy. It is people who move economy, people who determine whether an economy is rich or poor; human capital as a major aspect of productivity and well-being of people. And it is investment in human capital, by acquiring skills from one’s parents, through going to school, or through training and knowledge in the workplace, that helps determine a person’s and an economy’s stock of human capital wealth (Backer, 1993).

Human capital can be defined as the knowledge, skills, competencies, and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being (OECD, 2001). Together, with the other physical capital and consumables, these three are principle health system inputs (WHO, 2000). Performance of health care institutions depends on the knowledge and skills clinical and non-clinical staff (WHO, 2000).
HRM should focus on attracting, retaining and developing human capital. Human capital is developed in the context of learning within the family and early childcare settings. In addition, formal education and workplace training also develop human capital. Also, human capital is developed in the context of informal learning on the job (OECD, 2001). This approach to conceptualizing human capital helps us to understand that human capital is not like physical capital. Human capital theory is the prevailing wisdom within academic circles for explaining the economic success of individuals, firms and nations. Ho and Alcorso (2014) emphasized the importance of human capital noting that while physical capital that is mechanisms tends to depreciate through use, human capital tends to depreciate through lack of use.

Human capital is accumulated, developed, and improved through use and experience. The human capital theory was relevant to this study because human resource training develops the ability of health care staff to provide quality health care. Development of the employees is a way of fulfilling their potential through enlarging their capabilities as well as enabling them to participate enthusiastically in their development. An organization requires the right quality of personnel to transmit as well as impart knowledge, skills and abilities. However, the availability of a skilled and efficient workforce does not just happen by chance, but follows an articulated recruitment exercise based on merit and technical competence. Thus, the human capital theory was considered as a suitable theoretical lens for examining the influence of training on quality of health care.

2.1.2 Resource Based View of the firm

The Resource Based View (RBV), by Penrose (1959), postulates that firms can develop sustained competitive advantage only by creating value in a way that is rare and difficult for competitors to imitate. Central to the propositions of RBV theory is that competition in all
industries is becoming increasingly intense as firms search for new ways to develop sustainable competitive advantages to counter their rivals (Srivastava, Fahey, & Christensen, 2001). This implies the need for organizations to focus on selecting practices that could create more value.

Armstrong and Taylor (2014) note that organizations have a collection of unique resources and capabilities that provide basis for sustained competitive advantage so long as they are valuable, rare, non-substitutable and difficult to imitate. Fahy (2000) singles out three categories of resources used to create competitive advantage namely tangible assets, intangible assets and human resources, with human beings considered as the most productive asset.

Two reasons explain difficulties in imitating HR strategies (Nieto & Perez, 2002). First, it is difficult to grasp the precise mechanisms by which the interplay of human resource practices and policies generates value. A competitor cannot imitate a valuable human resource system, by hiring top executives, because the human resource system is an organizational capability. Second, HR systems are path dependent, and consist of policies that are developed over time and cannot be simply purchased in the market by competitors. Thus a competitor is precluded from immediate imitation by the time required to fully implement the strategy.

Human resource strategies are an especially important source of sustained competitive advantage as they are not easy to imitate (Srivastava, Fahey, & Christensen, 2001). Theoretical work in business strategy has given a boost to the prominence of HR in generating sustained competitive advantage. Technology and capital can be acquired by most firms anytime, for a price, but it is not easy to acquire a ready pool of highly qualified and motivated employees (Sparrow et al., 2002). Researchers in the field of human resource
management have increasingly relied on RBV of the firm to explain the role of human resource practices on firm performance (Wright, Dunford, & Snell, 2001).

The resource based theory is applicable to this study because employees’ capabilities are required for effective delivery of service and are developed through resource deployment in order to reach a desired outcome. Employee competences is a bundles of skills as well as accumulated knowledge, exercised through organizational processes that enable firms to coordinate activities and make use of their assets. Unique employee capabilities are essential for quality service delivery and RBV is applicable in the analysis of large scale quality upgrading efforts in healthcare.

2.1.3 Person Environment Fit Theory

Person Environment Fit (P-E fit) Theory, attributed to Kristof (1996), focuses on how well employees fit into their work environment. It explains the degree to which a person matches with a job or organization, hence relevant in understanding the HRM practice of recruitment. According to the theory, attitudes and behaviors are caused by the compatibility between individual and environmental characteristics (Dawis, 2005; Kristof-Brown, Zimmerman & Johnson, 2005).

P-E fit theory entails Person Organization (P-O) fit, and Person Environment (P-E) fit. While P-E fit is defined generically as the compatibility between attributes of the person and the environment (Dawis, 2005), P-O fit addresses the compatibility between people and organizations (Kristof-Brown et al., 2005). Like P-E fit, P-O fit has been linked to job choice, selection decisions, job satisfaction, performance, organization commitment, turnover, and psychological well-being (Kristof-Brown et al., 2005).

This study adopts P-E fit as a suitable framework for understanding the effect of recruitment on quality of health care. P-O fit is correlated with job satisfaction and organizational
commitment (Dawis, 2005). Also, P-O fit predicts intention to quit and turnover (Moynihan & Pandey, 2007)) and was related to pro-social behaviors such as organizational citizenship and self-reported teamwork (Wheeler, Coleman, Brouer, & Sablynski, 2007). Although the idea that people should be compatible with their organization may seem simplistic, few studies have considered it a basis for underpinning a study that links recruitment, selection, training, compensation and appraisal and health care quality.

The Person Environment Fit Theory is relevant to this study because it is helpful in employee recruitment. Employee’s values and interests are beneficial if they match those of the hiring company and a perfect fit produces outstanding outcomes because a match between the person and the organization promotes high work attitudes, reduced turnover, and high job performance.

2.1.4 Service Quality Models

The current study considered the SERVQUAL model (Parasuraman et. al., 1985) and the SERVPERF model (Cronin and Taylor, 1992) useful in interpreting results on quality of health care. In the SERVQUAL model, service quality is measured by subtracting 22 expectation scores from the corresponding 22 perception scores. This approach to defining and measuring service quality as the difference between expectations and perceptions is a major departure from previous scale development efforts in health care services (Mohammad, 2013).

Although many studies have used the SERVQUAL model, it has theoretical and operational limitations. To begin with, SERVQUAL is intended to measure functional quality rather than technical quality. Therefore, in a sector where technical quality is an important component of
service delivery, such as in health care it may not be an appropriate measure. Other criticisms have revolved around its dimensional structure and the interpretation and implementation of the instrument (Newman, 2001).

Cronin and Taylor (1992) were the first to provide a theoretical justification for discarding the expectations part of SERVQUAL in favor of mere performance measures included in the scale. They named their performance-based measure of service quality ‘SERVPERF’. Several studies have shown that the performance only SERVPERF scale outperforms the disconfirmation –based SERVQUAL scale (Brandy, Cronin, & Brand, 2002; Caruana, Ewing, & Rameshan, 2000). These studies provide little if any theoretical or empirical evidence supports the relevance of the E-P= quality gap as the basis for measuring service quality.

It has been suggested that the five it is unnecessary to administer the expectations items every time SERVQUAL is administered (Parasuraman et., al., 1991). Cronin and Taylor (1992) concluded that a psychometrically superior assessment of service quality can be obtained through the SERVQUAL performance items alone. Following Cronin and Taylor, the current study used the performance statements in the SERVPERF model. This model was appropriate since the study sought to capture the mean agreement with statements on service performance by the nursing and clinical staff at JOOTRH.

2.2 Empirical Review
This section reviews related literature on the relationship between human resource management practices and quality of health care. Human resource management practices regarded as effective components of a HRM system include compensation, training,
participation, selection, internal promotion, human resource planning, flexible work, 
performance appraisal, grievance systems, teams, information sharing, and employment 
security (Combs et al., 2006). The current study focused on the effect of selection, training, 
compensation and performance management practices on quality in health care in teaching 
and referral hospitals.

2.2.1 HRM Practices and Quality of Health Care

Delivery of quality health care has been the focus of HRM scholars in recent times 
(Mohamed and Hameed, 2015; Elarabi and Johari (2014, and Mukhaimar and Taamenah, 
2004). The study by Mohamed and Hameed (2015) report a strong impact of HRM on 
healthcare quality and performance of hospital’s staff. Elarabi and Johari (2014) agree noting 
that HR efficiency is an important indicator of performance in public hospitals.

Earlier work by Mukhaimar and Taamenah (2004) suggests that organizational failure results 
from failure to perform HR functions designed to influence behaviour of staff. Mukhaimar 
and Taamenah (ibid) argue that focusing on work conditions, morale and satisfaction of staff 
is essential as both tangible and intangible resources drive health care quality. Paradoxically, 
delivery of health care is HR intensive (Delaney & Huselid, 1996) yet hospitals are not 
sophisticated in their adoption of HRM practices (Leggat, Bartram, and Stanton, 2008).

Addressing deficits in adoption and implementation of HRM can improve patient care 
(Leggat, Bartram, and Stanton, 2008). Unfortunately, the descriptive nature of related studies 
makes it difficult to identify the significance of specific practices as drivers of quality health
care. Pathak (2005) suggests that HRM practices have a greater effect on organizational performance when they are integrated and implemented together. The current study answers the need to identify which practices have the most significant effect on quality of service delivery in hospitals. It focuses on the effect of recruitment, training, compensation and performance management on quality of health care, in the provision of health care in teaching and referral hospitals.

2.2.1.1 Recruitment and Quality of Health Care

The general theories of recruitment suggest the employees need to have a fit-in culture in order to survive in a new job environment (Cole, 2002; Armstrong, 2009; Dessler 2006). Under normal circumstances, an increase in the pool of applicants will improve an employer’s opportunities in selecting exactly the right people for job vacancies. Both sides of the application process should and do concern themselves with “fit”.

Studies conducted by Kamoche and Kamoche (2004) shows that applicants will be attracted to the organization to the extent they see it as a good match for them, or what in the literature is known as “Person-Organization (P-O) “fit”. Potential applicants make an initial assessment of the likely P-O fit through what they understand of the employer’s culture. Gupta (2006) observes that selection can be conceptualized in either choosing the “fit” candidates or rejecting the candidates, or a combination of both.

Recruitment practices include advertisements in electronic and print media, agencies and services, schools and colleges/universities forum, professional associations and internal
resources. Melum (2002) observes that a behavior-based interview can help in predicting subsequent performance of employees better than situational interviews. These practices will produce particular employees with varying performances (Ndlovu et al., 2003). Recruitment is central to any management process and its failure can increase difficulties for any organization including an adverse effect on its profitability and inappropriate levels of staffing or skills (Soliman, 2000).

Selection process assumes rightly that there are more candidates than the number of job openings available (Prasad, 2005). The basic idea in selection process is to solicit maximum possible information about the candidates to ascertain their suitability for employment and given the fact that there are factors which affect the seeking of such information. Armstrong (2009) observes that candidates can be selected using different methods in order to assess their suitability for a certain role. These methods include; individual interviews, interviewing panels, selection boards, and assessment centers.

Recruitment is an important predictor of organizational performance (Dessler, 2006). Recruitment practices results in a large pool of highly skilled individuals, with relevant work-related knowledge, skills, and abilities (Batt, Nohara & Kwon, 2010). Proper recruitment leads to work-related expertise of an individual being adequately matched with the specific requirements of the job (Carless, 2005). This reduces the likelihood of role ambiguity and enhances employees’ participation in workplace activities (Green & Tsitsianis, 2005).

Staffing effectiveness is both a function of the quality and quantity of the applicant pool (Orlitzky, 2007). Positive reactions to recruitment are associated with improved service delivery (Breaugh & Starke, 2000). Green and Tsitsianis (2005) report a positive association between recruitment and firm performance. Despite the importance of managing recruitment,
hospitals are unable to attract a clinicians and nurses (WHO, 2012). This study addresses the need to investigate the role of recruitment in enhancing quality of health care.

2.2.1.2 Training and Quality of Health Care

Following the recruitment exercise, organizations need to train employees in order to improve their work-related skills and capabilities (Combs et al., 2006; Lawler et al., 2011). Training Practices includes skill-enhancement workshops, career development programs, on-the-job coaching and mentoring activities (Wan, 2010). These facilitate the systematic development of knowledge, skills and attitudes for performing given tasks and increases job performance (Tsai et al., 2007) and is positively related to organizational performance (Raja, Furqan and Muhammad, 2011). Bartlett (2001) found that perceived access to training produced the highest correlations with organizational commitment.

It is very difficult for an employee to perform well at the job place without any pre-training (Boudreau et al., 2001). Trained employees perform well as compared to untrained employees (Tihanyi et al., 2000) Adequate training results in a work force that is multi skilled, adaptable to rapid changes and has wide conceptual knowledge of the production system (Armstrong, 2009). Training increases the productivity of each employee through improvement in skill level, morale and job satisfaction (Dessler, 2003).

Bartlett (2001) found a positive relationship between workplace training and organizational commitment. Schmidt (2004) found out that job training had a significant relationship to employee performance. The quality of training has impact on performance since work output depends on the employees experience level (Sahu, 2000). In order to obtain a competitive edge in providing the best services to the customers, training and development which will develop a well productive workforce is necessary (Hyz & Pappas, 2005). Armstrong (2006)
points out that a needs analysis that is fully involving and inclusive of all employees must be
carried out before any training is done.

From the foregoing review, it can be argued that lack of training results into lack of skill to
use the knowledge existing in a person. Whereas the literature suggests a direct relationship
between training and organizational performance, few studies have focussed on its influence
of quality of service delivery. The current study fills this gap by examining the relationship
between training and provision of quality health care. This study will test the hypothesis that
training is significantly related to quality of health care in teaching and referral hospitals.

2.2.1.3 Compensation and Quality of Health Care

Compensation management practices aims at rewarding people equitably and consistently in
accordance with their value to the organization. Compensation can attract and retain
employees (Khan, Aslam, and Lodhi, 2014). Rewards affect performance (Bamberger and
Meshoulam, 2000) while benefits are positively related to retention (Hong et al., 2012; Aydin
(2009) observes that reward such as empowerment, recognition, motivation will ultimately
lead to organizational effectiveness. Kamalian (2006) also observes that there exists a
positive relationship between the reward system in place and employee performance.

According to Zakaria, (2011), a reward strategy enhanced commitment, retention and
employee engagement that eventually translated into employee performance. Paying for
performance was a huge concern in current HRM. Establishments had long thought that
efficiency improved after pay was connected to performance. While payment by outcome
schemes and inducements are established to back the belief, researchers have also established
a positive nexus between performances related pay and staff productivity.
According to Armstrong (2009), rewards proved to employees that the behaviour they exhibited was fitting and must be replicated. Both monetary and non-monetary rewards and incentives can enhance employees’ motivation and attachment to the organization (Bergiel, Nguyen, Clenney & Taylor 2009; Döckel, 2003). Compensation management impacts on employer’s ability to attract applicants, retain employees, and ensure optimal levels of performance (Mello, 2009).

According to Zakaria, (2011), fair compensation enhances commitment, retention and employee engagement that eventually translates into employee performance. Wesonga et al. (2011) established that most current employees are ready to quit if offered another job with better terms of service. Very competitive package has been ranked first among the list of factors attracting workers (Howrtz et al., 2003). Compensation strategy is seen as one of the most important strategies in HRM function as it influences the productivity and growth of an organization (Obasan, 2012).

A study carried out by Duberg and Mollen (2010) on reward systems within the health and geriatric care sector. The study sought to find out their effects on quality of health services provided by employees. Six (6) heads of both private and public organizations were interviewed. The study found out that salary was an important aspect in the reward system; however incentives like bonuses and shares were seen to generate an enjoyable workplace with happy workers. This motivated employees and improved their effectiveness.
The majority of published studies do show significant relationship between compensation management and quality of service delivery, these relationships are neither universal nor consistent (Mosadeghrad, 2014). Thus, the question of whether compensation management practices improves or worsens quality of health care is still worthy of further research. Besides, the impact of compensation management practices on quality of health care, within teaching and referral hospitals, has not received adequate research attention in Kenya.

2.2.1.4 Performance Management and Quality of Health Care


Emerging performance management practices include discretionary job design (Wood and De Menezes, 2011), flexible working arrangements (Kelliher and Anderson, 2010) and employee involvement (Batt et. al., 2010). Job discretion given employees operational control on carrying out their job tasks and responsibilities (Cañibano, 2011). Compressed working weeks, flexi-time schemes, part-time working, career breaks, job sharing and sabbaticals are flexible work practices (Atkinson & Hall, 2011).
Collaboration practices include self-directed teams, quality circles and participation in substantive decision-making (Kelliher and Anderson, 2010). While the practice of performance management has evolved from traditional to modern practices, the practice is not as widespread in public health care institutions. A recent study by Musyoka (2015) reported minimal awareness and use of performance appraisals at Mbagathi Hospital.

An earlier study by Mathauer and Imhoff (2006) points out that inadequate or inappropriate use of performance appraisal often leads to demotivated and frustrated doctors and nurse. The inconclusive nature of findings from empirical studies suggests the need for more investigation into the significance of performance management practices within health care institutions. The extent to which performance management is practiced within health care institutions and its influence on delivery of quality health care is thus an open question. The current study sought to establish if performance management is a significant driver of health care quality within teaching and referral hospitals.

2.3 Summary of Knowledge Gaps

The related studies, reviewed in section 2.4 present mixed results regarding the influence of human resource management practices on quality of health care. In Kenya, most studies have focused on the role of HRM practices on employee or organizational performance. Simiyu (2014) report that HRM only had a 69% influence on employee performance Mbagathi hospital and called for further research on other factors specifically in the Health Sector in Kenya. The study by Mwakesi, (2014) concluded that Moi Teaching and Referral Hospital requires recruiting the health professionals or work with HR personnel to help them manage the hospitals better.
These studies acknowledge the importance of HRM practices they fail to describe the relationship between HRM practices and quality of service delivery. To fill this gap the current study investigates the relationship between HRM practices and health care quality. Table 2.1 summarizes the identified knowledge gaps that motivated the current study.
<table>
<thead>
<tr>
<th>Study</th>
<th>Year</th>
<th>Variables</th>
<th>Findings</th>
<th>Gaps</th>
<th>Focus of current Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rajendra</td>
<td>2017</td>
<td>HRM and Quality of Services in a Health Care Organization</td>
<td>Effective HRM has impact on quality and improves staff performance</td>
<td>Quality measured in terms of business efficiency</td>
<td>Measures quality from internal customer perspective</td>
</tr>
<tr>
<td>Musyoka</td>
<td>2015</td>
<td>Performance Appraisal and Performance of health care workers</td>
<td>Little awareness and use of PA beyond ministry requirement</td>
<td>Measures of Performance, Concept of PM limited to appraisal</td>
<td>Effect of Performance management on quality of health care</td>
</tr>
<tr>
<td>Elarabi and Johari</td>
<td>2014</td>
<td>Working conditions, training and development, recruitment</td>
<td>HRM has a strong impact on quality of health care</td>
<td>Does not consider HRM practices as determinants of quality health care</td>
<td>Conceptualizes a broader set of HRM Practices as predictors of quality of health care</td>
</tr>
<tr>
<td>Ashar, Ghafoor, Munir, and Hafeez</td>
<td>2013</td>
<td>Training and employee commitment</td>
<td>Training resulted in emotional attachment and commitment</td>
<td>Description study on effects of training on employee commitment</td>
<td>Empirical investigation of the significance between training and quality of health care</td>
</tr>
<tr>
<td>Duberg &amp; Mollen</td>
<td>2010</td>
<td>Reward systems and health care quality</td>
<td>Bonuses and shares generate an enjoyable work place and happy workers</td>
<td>Not predictive of quality from extent reward systems are adopted</td>
<td>Empirical study relating compensation to quality of health care</td>
</tr>
<tr>
<td>Adwan</td>
<td>2008</td>
<td>HR planning and HR development</td>
<td>Lack of HR planning leads to poor HR Development</td>
<td>Does not relate HR planning to health care quality</td>
<td>Tests significance of recruitment as a driver of QHC</td>
</tr>
<tr>
<td>Mathauer and Imhoff</td>
<td>2006</td>
<td>Non-financial incentives and motivation of health workers</td>
<td>Inadequately or inappropriately applied HRM tools, resulted in de-motivation and frustration</td>
<td>Used qualitative measures and an exploratory design</td>
<td>Contribution of non-financial incentives by investigating empirical link with quality measures to in context of TRHs</td>
</tr>
</tbody>
</table>
2.4 Conceptual Framework

A conceptual framework is a diagrammatic summary of the key decision variables in solving a research problem chosen from a review of literature (Oseno, 2012). Figure 1 incorporates HRM decision variables that are deemed to drive provision of quality of healthcare (Dzansi, 2016; Salah, 2012; Chan & Mark, 2012). The study hypothesized that quality of health care depends on how well the HRM department has recruited, trained, compensated and managed performance of the health care professionals.

**Independent Variable**  
**Dependent Variable**

**HRM Practices**

- **Recruitment**
  - Internal promotion
  - Transparency in recruitment
  - Qualifications & Tests used

- **Training**
  - Training needs assessment
  - Staff training opportunities
  - On and off the job training

- **Performance Management**
  - Flexible and Team Working
  - Performance Contracting
  - Performance Appraisal

- **Compensation Management**
  - Competitive Salary
  - Financial Incentives
  - Group Bonuses

**Quality of Health Care**

- Tangibles
- Reliability
- Responsiveness
- Assurance
- Empathy

**Figure 1 Conceptual Framework of the study**

**Source:** Modified from Dzansi (2016)
The conceptual framework in Figure 1 incorporates HRM decision variables that are deemed to drive provision of quality of healthcare (Dzansi, 2016; Salah Mahmoud Diab, 2012; Chan and Mark, 2012). The framework shows that quality of health care may depend on how well the HRM department has recruited, trained, compensated and managed performance of the health care professionals at teaching and referral hospitals.

2.5 Chapter Summary

This chapter has presented the theoretical foundation of the study by reviewing the theories anchoring the study. The chapter has also presented the theoretical and empirical literature of the related studies to how the relationship between the study variables. A summary of the knowledge gaps, and a conceptual model was also provided. The next chapter presents the research methodology.
CHAPTER THREE
RESEARCH METHODOLOGY

This chapter explains the research design, the populations of interest, method of data collection and techniques for analysis of quantitative and qualitative data. In addition, the chapter provides a summary of operationalization of the study variables, reliability and validity tests, and how the hypotheses were tested.

3.1 Research Design

A research design is the conceptual structure and blueprint for the collection, measurement and analysis of data (Kothari, 2009). Given that the literature review highlights a need for richer explanations behind the role of clinicians and nurses in provision of quality health care, this study used a mixed methods sequential explanatory design (SED). According to Creswell (2006), the purpose of SED is to use qualitative data to enrich, explain, or elaborate upon, results gained from quantitative approaches. The design achieves this in two phases, beginning with the quantitative phase and ending with the qualitative phase.

Phase one involves the collection and analysis of quantitative data. The second phase employs qualitative methods to elaborate on the results from the quantitative phase. In this study, the first phase involved a cross-sectional survey of perceptions of clinicians and nurses on the influence of human resource management practices on quality of health care. The second phase involved the analysis of patient complaints to elaborate on the responsiveness and reliability of health care provided by clinicians and nurses. The use of quantitative and qualitative approaches, in combination, provides a better understanding of research problems than either approach alone (Creswell & Plano, 2011).
The two variations of the sequential explanatory design are the participant selection and the follow-up explanations models (Creswell & Plano, 2011). The participant selection model is used when researchers are interested in using quantitative information to screen in participants to a more detailed qualitative study. The follow-up explanations model is used to elaborate on and explain statistical relationships found at the quantitative phase. This can be done by identifying study participants that fit into respective categories, and use qualitative methods to further explain these differences.

In this study, the follow-up explanations model was used to provide a comprehensive view of the influence of human resource management practices on quality of health care. The quantitative data from Phase 1 was collected and analyzed prior to the collection and analysis of qualitative data in Phase 2 of the study. Phases 1 & 2 were connected by using the statistical data from Phase 1, to determine which variables needed follow-up explanations in Phase 2. The data from the quantitative Phase focused on the mean extent adoption of HRM practices and its influence on tangibility, responsiveness, reliability, empathy and assurance attributes of health care quality.

The data from the qualitative phase focused on analyzing patient complaints data to obtain more insight into the reliability and responsiveness of health care service at the facility. Literature on health care quality suggests that the perception of health care staff on quality is often focused on technical quality and less on functional quality (Dagger, Sweeney, & Johnson, 2007). The aim was to measure functional quality using patient’s complaints data relating to responsiveness and reliability of health care service provided.
The data gathered and analyzed from Phase 1 (quantitative) provides a general overview of the HRM practices adopted at the facility and health care providers self-reports about quality of health care. The data gathered from Phase 2 offers more insight on the quality of health care by examining the quality of interactions between the clinicians, nurses and patients, before, during and after consultation and treatment.

The aim of this study was to explain the influence of human resource management practices on quality of health care, priority was given to the quantitative approach. This enabled the researcher to establish the direction and significance of the relationship between HRM practices and quality of health care. The analysis of patient complaints data provided more insight into the quality issues that focus on responsiveness and reliability of health care service at the facility. The content analysis of qualitative data provided more contextual data on reliability and responsiveness of health care by focusing on the quality of interactions prior to, during and after the consultation, diagnosis and treatment of patients.

Mixed methods design is an invaluable part of most schemes of triangulation or combination of methodologies in the study of the same phenomenon (Bowen, 2009). A mixed methods approach enabled the study to capture perspectives of both health care professionals and patients on quality of health care. The literature suggests that health care professionals typically rate their own success with purely technical quality measures, paying little attention to functional quality (Eaves, 2012). Most patients judge the quality of their hospital experience based on functional quality, the process by which a health care service is delivered, as opposed to the actual procedure itself or technical quality (Fiala, 2012).
Mixed-methods research designs assist in enhancing understanding of the research problem itself (Hesse-Biber, 2010). In the current study, the results and analysis of data from the quantitative questionnaire was used to develop the document review guide for the content analysis of patient complaints data. The use of methodological triangulation provides a confluence of evidence that breeds credibility (Bowen, 2009). Cross sectional design establishes associations among variables at some point in time (Nachmias & Nachmias, 2004), and document analysis facilitates access to inaccessible persons or subjects (Cohen, Manion & Morrison, 2008). Documentary sources have the highest level of accessibility and are very cost effective (Denscombe, 2007).

A cross-sectional survey research design facilitated description of the attitudes, opinions, and characteristics of clinical and nursing staff. It provided information in a short period of time, such as the time required for administering a survey and collecting information, unlike a longitudinal design (Barnett, Mercer, Norbury, Watt, Wyke, & Guthrie, 2012). Further, the use of a cross-sectional design allowed for the description of relationships between variables under study and thereby enabled the researcher to make inferences about the possible effect of independent variables on the dependent variable.

In qualitative research, analysis methods include phenomenology, hermeneutics, grounded theory, ethnography, phenomenographic and content analysis (Bengtsson, 2016). In content analysis it is possible for the researcher to use the same concepts as in quantitative studies, an option that is not accepted when performing analysis using other qualitative methods (Long & Johnson, 2000).
Content analysis is a technique in which researchers objectively and systematically record and count episodes described in written text to produce a quantitative description of the content of given text (Neuendorf, 2016). Content analysis is a research method that provides a systematic and objective means to make valid inferences from verbal, visual, or written data in order to describe and quantify specific phenomena (Bengtsson, 2016). The current study focused on the analysis of primary and secondary documentation of patient complaints. Primary documents consist of eye-witness accounts by people who experienced the event or behavior being investigated, and secondary documents produced by people who have read eye-witness accounts (O’Brien, Remenyi, & Keaney, 2004).

In the literature, a complaint is defined as the behavior of a patient or his/her representative(s) that signifies dissatisfaction towards medical services, nursing services, as well as treatment conditions through letters, calls or visits to the hospital. The patient’s suggestion boxes are opened on a weekly basis by the hospital anti-corruption committee that takes action on the implicated staff.

3.2 Target Population
According to Cooper and Schindler (2009), target population is a group of individual’s objects or items from which samples are taken for measurements. To provide for data triangulation, the study focused on qualitative and quantitative data from two populations. The population for the survey research comprised all the 130 clinical and nursing staff on permanent terms of employment at the Jaramogi Oginga Odinga Teaching and Referral Hospital, at the time of the study.
The clinical and nursing staff at the facility was considered an appropriate population, given the recent unrests in the facility attributed to compensation and related human resource management problems. There have been reports of poor quality of health care within public hospitals in Kenya, including neglect of patients due to overworked staff, understaffed or low capacity, poor remuneration and promotion. These challenges and reactions by staff evident in their industrial action cast doubts on the efficacy of HRM teaching and referral hospitals.

The population for the survey was considered appropriate as clinicians and nurses were most knowledgeable about technical quality of health care, and the likely influence of human resources on quality of health care service offered. The respondents consisted of permanent staff because interns and contract staff may not be subject to all the human resource management interventions at the teaching and referral hospital. The temporary staffs were subject to human resource management practices of their partner institutions, such as donor organization, or universities. Thus interviewing them would not provide a true picture of how HRM practices of the hospital influenced their ability to provide quality health care.

The full time staff would be more likely to provide opinions about the effect of HRM practices adopted by JOOTRH on their ability to provide quality health care. Such staff may have been recruited by the facility, trained, compensated and their performance subject to review by the management at the facility. From the respondents in Table 3.1 a scientific sample was obtained as a basis of in depth investigation of the phenomenon under study. Table 3.1 shows the population for the study.

**Table 3.1: Study Population for the Survey**
<table>
<thead>
<tr>
<th>Population Strata</th>
<th>Permanent</th>
<th>Interns</th>
<th>Contract</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultants</td>
<td>17</td>
<td></td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>Medical Officers</td>
<td>22</td>
<td></td>
<td></td>
<td>22</td>
</tr>
<tr>
<td>Clinical Officers</td>
<td>25</td>
<td>35</td>
<td>18</td>
<td>78</td>
</tr>
<tr>
<td>Nursing officers</td>
<td>66</td>
<td>26</td>
<td>40</td>
<td>132</td>
</tr>
<tr>
<td>TOTAL</td>
<td>130</td>
<td>61</td>
<td>58</td>
<td>249</td>
</tr>
</tbody>
</table>

Source: JOOTRH (2017)

The population of interest for qualitative analysis of patient complaint data was drawn from 430 complaints reported to the ethics committee during the last quarter of the 2017/2018 financial year. The population consisted of 194 complaints related to responsiveness and reliability of service delivered by clinical and nursing staff at JOOTRH.

This population was considered appropriate since the analysis of patient complaints was aimed at establishing patient views on reliability and responsiveness of service encounter with clinicians and nurses at the facility. Complaint data has been utilized for reaching inaccessible persons or subjects, such as sick patient’s (Cohen, Manion & Morrison, 2008). Documentary sources have the highest level of accessibility and are very cost effective (Denscombe, 2007).

3.3 Sample Size

The purpose of sampling is to gain access to participants who are perceived to be of theoretical interest. Whilst both quantitative and qualitative research shares the characteristic of seeking to provide a sample which will address the research question, they tend to favour those particular sampling methods which best fit their overall philosophy (Teddlie & Tashakkori, 2009).
3.3.1 Sample size for the Quantitative Phase

Fundamentally, quantitative research leans toward probability sampling, whereby the probability of any individual being randomly selected from the population of interest is equal (May, 2001). Calculations are made regarding sample size in order to provide statistical confidence intervals, indicating an accepted range from which findings can be generalized to the wider population (Creswell & Creswell, 2017).

The sample for the collection of survey data was based on random sampling and consisted of 97 permanent clinicians and nursing staff. It was determined based on the Krejcie and Morgan's sample size calculation. Table 3.2, by Krejcie and Morgan (1970), provides the corresponding sample size for various possible populations.

<table>
<thead>
<tr>
<th>N</th>
<th>S</th>
<th>N</th>
<th>S</th>
<th>N</th>
<th>S</th>
<th>N</th>
<th>S</th>
<th>N</th>
<th>S</th>
<th>N</th>
<th>S</th>
<th>N</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>10</td>
<td>45</td>
<td>40</td>
<td>80</td>
<td>66</td>
<td>130</td>
<td>200</td>
<td>132</td>
<td>270</td>
<td>159</td>
<td>350</td>
<td>191</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>14</td>
<td>50</td>
<td>44</td>
<td>85</td>
<td>70</td>
<td>140</td>
<td>210</td>
<td>136</td>
<td>280</td>
<td>162</td>
<td>400</td>
<td>196</td>
<td></td>
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<tr>
<td>20</td>
<td>19</td>
<td>55</td>
<td>48</td>
<td>90</td>
<td>73</td>
<td>150</td>
<td>220</td>
<td>140</td>
<td>290</td>
<td>165</td>
<td>420</td>
<td>201</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>24</td>
<td>60</td>
<td>52</td>
<td>95</td>
<td>80</td>
<td>160</td>
<td>230</td>
<td>144</td>
<td>300</td>
<td>169</td>
<td>440</td>
<td>205</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>28</td>
<td>65</td>
<td>56</td>
<td>100</td>
<td>86</td>
<td>170</td>
<td>240</td>
<td>148</td>
<td>320</td>
<td>175</td>
<td>460</td>
<td>210</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>32</td>
<td>70</td>
<td>59</td>
<td>110</td>
<td>92</td>
<td>180</td>
<td>250</td>
<td>152</td>
<td>340</td>
<td>181</td>
<td>480</td>
<td>214</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>36</td>
<td>75</td>
<td>63</td>
<td>120</td>
<td>96</td>
<td>190</td>
<td>260</td>
<td>155</td>
<td>360</td>
<td>186</td>
<td>500</td>
<td>217</td>
<td></td>
</tr>
</tbody>
</table>

Where N = Population Size
S = Sample Size

Source: Krejcie and Morgan (1970)

Based on Table 3.2 the sample size of respondents in the study was 97. The choice of the number of respondents to include from the various departments at the facility was based on
the on judgmental sampling. This was appropriate given the nature of services offered in the various departments, the criteria was to include respondents in the clinical and nursing functions. The distribution of respondents among the strata is shown in Table 3.3.

**Table 3.3: Study Sample of the Survey**

<table>
<thead>
<tr>
<th>Population Strata</th>
<th>Total Population</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultants</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>Medical Officers</td>
<td>22</td>
<td>16</td>
</tr>
<tr>
<td>Clinical Officers</td>
<td>25</td>
<td>19</td>
</tr>
<tr>
<td>Nursing officers</td>
<td>66</td>
<td>49</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>130</td>
<td>97</td>
</tr>
</tbody>
</table>

*Source: JOOTRH (2017)*

### 3.3.2 Sample Size for the Qualitative Phase

Qualitative research tends to favor non-probability sampling, typically not being focused on representativeness but rather more concerned with depth of knowledge, usually from a smaller number of participants (Boddy, 2016). The qualitative strand of this study was no exception and, being exploratory, utilised a ‘theoretical’ non-probability sampling method.

According to Marshall and Bossman (2006), and Cleary, Horsfall, & Hayter (2014), this sampling is always purposeful in that it targets a population group with characteristics that the researcher is interested in but also enables a process of next selection guided by emerging categories. For qualitative data, the sample size is determined when reaching the point of theoretical saturation, where no new themes are emerging (O’reilly & Parker, 2013).

The qualitative phase of the involved an analysis of content analysis for themes relating to responsiveness and reliability of health care, before, during and after examination and treatment. The sample size of n=150 was reached after reading through the patient
complaints data, and isolated all complaints on themes related to responsiveness and reliability. The 150 documented complaints were adequate for the purpose of providing a richer explanation of the quality arising from clinician and nurse interactions, with patients, before, during and after examination, diagnosis and treatment.

Critics question if such a ‘point’ can ever truly be achieved, and if it can would researchers identify it (Glaser & Strauss, 2017), this study makes no bold claims. Rather, the opinion of Mason (2010) is cited in the researcher making some element of judgment, often governed by practical realities; which in this study occurred because data from the documentation of patient complaints did not significantly alter emerged themes, on responsibility and reliability dimensions on quality of health care.

The sampling frame for the qualitative strand of the study, based on judgmental sampling, was 194 complaints focusing on the themes about responsiveness and reliability. From the sampling frame, 105 of the complaints were included, based on judgmental sampling. The complaints that were excluded were too brief to allow for content analysis. These consisted only of a short sentence and no further description about the experience. In terms of qualitative data, sample size is determined by reaching the point of theoretical saturation, although debate indicates difficulty in identifying this point (Glaser & Strauss, 2017). Therefore, some element of judgment from the researcher is required, which is often governed by practical realities (Mason, 2010).

The text in the 105 included complaints varied from a few sentences to long letters with careful descriptions about the experiences of encounters with health professionals. This is in keeping with the conventional approach to determining sample size in qualitative inquiry.
which is based on guidelines rather than rigid rules. Acknowledging the importance of an evolving research design, and in contrast to probability sampling in quantitative research, factors taken into consideration in determining sample size include the quality of the data and the research scope and topic (Morse, 2000).

3.4 Sampling Technique
The qualitative phase of the research focused on a random sample of the population from which to capture perceptions of the use of HRM practices and quality of health care. The quantitative phase took a census of all the documents that related to complaints on the responsiveness and reliability aspects of quality. The cross-sectional survey of health care provider’s perceptions of HR practices and their influence on quality of health care was based on a sample of 97 respondents.

The quantitative phase of the study adopted simple random, stratified and purposive sampling techniques to identify the respondents on whom to administer the survey instrument. Random sampling ensured every individual within each stratum had an equal chance of being selected, for investigation. Stratified sampling ensured each category of health care providers were included in the final sample. Purposive sampling was used to ensure that the final list of respondents was drawn from the diagnostics, nursing or treatment departments. The purpose of the study was to establish the influence that recruitment, training, remuneration and performance management of clinicians and nurses had on the quality of diagnostics, nursing and treatment.

Table 3.4 shows the respondents based on simple random, stratified and purposive sampling techniques.
Table 3.4: Survey Respondents by Clinical Service Directorates

<table>
<thead>
<tr>
<th>Service Directorate</th>
<th>Consultants</th>
<th>Medical Officers</th>
<th>Clinical Officers</th>
<th>Nurses</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Out Patient Services</td>
<td>General Outpatient</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Special Clinics</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Laboratory</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Civil Servants Clinic</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Maternal Child Health</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Gender Based Violence Unit</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Casualty/ High Dependency Unit</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Lab, Pharmacy, X Ray</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Clinical In Patient Services</td>
<td>Main Theater</td>
<td>1</td>
<td>-</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Medical Wards</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Intensive Care Unit</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Amenity Ward</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Surgical Ward</td>
<td>2</td>
<td>3</td>
<td>-</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Eye Ward</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Obstetrics &amp; Gynecology</td>
<td>1</td>
<td>3</td>
<td>-</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Pediatric Ward</td>
<td>1</td>
<td>-</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13</td>
<td>16</td>
<td>19</td>
<td>49</td>
</tr>
</tbody>
</table>

Source: JOOTRH (2017)

The sample in Table 3.4 was based on the proportion of permanent staff in the departments as this varied in the facility. This technique ensured that the department with higher population had more members in the sample. The resultant survey sample represented 10% of the accessible population that is generally recommended by social researchers (Mugenda & Mugenda, 2003).

3.5 Research Instrument

The survey strand of the study relied on primary data, collected by use of a structured questionnaire, administered to clinicians and nurses. The document analysis strand of the study was based on secondary data consisting of documented complaints, from first-hand
account of service encounters, and secondary accounts entered in the patient complaints register.

The questionnaire elicited quantitative data on health care workers demographics, perception of HR practices adopted and perception of technical quality of health care (Johnson & Turner, 2003). The raw complaints and summaries in the complaints register were useful in capturing service or functional quality from the perspective of clients and other external stakeholders. Thus it was possible to generate quantitative and qualitative data for the mixed methods design.

Quantitative data was captured using questionnaires while a document review guide facilitated capturing of the suggestion box documents. Questionnaires allow researchers to assign numeric values and statistical analysis of the data (Mugenda & Mugenda, 2003). Questionnaires can be given to a large number of people and have relatively high rate of response often close to 100% (Fraenkel & Wallen, 2000).

3.6 Data Collection Procedure

The researcher obtained permission from Kenyatta University on approval of the proposal to proceed on data collection. In conformity with the government policy, the researcher obtained a permit from The National Council for Science and Technology (NACOSTI Kenya), and also from the referral hospital where the study was carried out. An introductory letter was also prepared before proceeding to the field for data collection.

Equipped with these, the researcher then proceeded to administer the questionnaires that were dropped and picked later. Primary data, during the quantitative phase of the study, was collected using five research assistants trained prior to the exercise. The researcher
supervised the assistants to ensure completeness of the responses in the collected instruments. The enumerators, once in a specific service area, were simply requested to find out if the health care professional is a nurse or a clinician.

Upon which it was possible to request for participation in the study, depending on the total number to complete the instrument in the section and number that already filled it up. To introduce objectivity in the study, the enumerators determined the $K^{\text{th}}$ respondent to fill the instrument based on a snowball sampling strategy that involved getting the next respondent from the current one. This ensured that the enumerators took little time to access participants for the study, as the respondents knew each other.

Data collection procedures for the second phase entailed obtaining of patients complaints primary and secondary data from the hospital management. Data for document analysis was obtained from the secretary to the anti-corruptions committee, which is tasked with the handling of complaints. The data consisted of patient complaints file, with raw complaint documents, and register of complaints, incorporating secondary complaints data for the last quarter of the 2017/2018 financial year. The data from these documentary sources were analyzed based on a document analysis guide, included in appendix 3. The document analysis guide was useful in coding of the patient complaints data using the Qualitative Data Analysis (QDA) Miner Lite program. The coding scheme was based on taxonomy by Reader et al. (2014) and the five dimensions of patient complaints by Wei et al. (2018).

3.7 Validity of Survey Research Instrument

Validity refers to the degree to which an instrument measures that which it is supposed to measure (Porter, 2010) and the degree to which the research results obtained from the
analysis of the data represent the phenomenon under study (Mugenda and Mugenda, 2003). Three types of validity applicable to this study were content validity, construct validity and face validity.

Bless et al. (2006) explain that in most cases, content validity of an original instrument is achieved by referring to the literature. Expert opinions were used in making sure the instrument yielded validity data. To enhance the content validity, expert opinion from Professionals in this field, researcher’s thesis supervisors were sought. Their comments were incorporated to improve the instrument. The face validity was enhanced by the instruments review. According to Bless et al. (2006), face validity is concerned with the way the instrument appears to the participant, as being insultingly simplistic, far too difficult, or too repetitive. Such flaws affect the respondent’s willingness to complete the questionnaire.

In the case of construct validity, a five point Likert scale was used. The Likert scale is where respondents gave their opinions or views that enabled the researcher collect data that was objective. There is need to develop sound evidence to demonstrate that the test interpretation matches its proposed use (Creswell, 2012). To ensure validity the researcher avoided leding questions and ensured that the wording of questions was simple and unambiguous. The researcher gave the questionnaire to the supervisor and peers to review to ensure its content validity. Finally, control questions were added in order to determine whether respondents were contradicting themselves.

3.8 Reliability of Survey Research Instrument
Reliability of an instrument is the degree to which selection procedures yield comparable data over a period of time (Lakshmi & Mohideen, 2013; Zikmund, 2003). Cronbach alpha, whose values can range from zero to one, was used to gauge reliability of the survey instrument.
Alpha can take values from zero to one and a coefficient of 0.7 and above indicates sound and reliable measures for further analysis (Katou, 2008; Tavakol & Dennick, 2011). Table 3.5 presents the SPSS reliability statistics for the study variables.

Table 3.5: Summary of Cronbach’s Alpha Reliability Coefficients

<table>
<thead>
<tr>
<th>Variable</th>
<th>No. of Items</th>
<th>Cronbach's Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recruitment Practices</td>
<td>5</td>
<td>0.903</td>
</tr>
<tr>
<td>Training Practices</td>
<td>5</td>
<td>0.827</td>
</tr>
<tr>
<td>Compensation Management Practices</td>
<td>6</td>
<td>0.812</td>
</tr>
<tr>
<td>Performance Management Practices</td>
<td>6</td>
<td>0.726</td>
</tr>
<tr>
<td>Quality of Health Care</td>
<td>22</td>
<td>0.923</td>
</tr>
</tbody>
</table>

Source: Survey Data (2017)

The result in Table 3.5 shows that the Cronbach’s Alpha values for all the variables were greater than the critical value of 0.70. Quality of health care (0.928) had the highest coefficient, followed by training (0.903). Performance management practices had the lowest coefficients of 0.726. The closer the Cronbach Coefficient Alpha is to 1, the greater the internal consistency of the items in the scale. Gliem and Gliem (2003) indicate that a Cronbach alpha value of ≥ 0.7 is generally taken to mean that the instrument is reliable. This view is supported by Tavakol and Dennick (2011). It can be concluded that the survey instrument provided a reliable measure of the constructs considered in the study.

3.9 Quantitative Analysis of Survey Data

The current study examined the influence of human resource management practices on quality of health care by using regression analysis to test the hypothesized relationships. Following a description of the quality of health care and the tests of hypothesis, it was
possible to identify the variables requiring further investigation. Use of a mixed methods design provided the methodology triangulation required to enrich and elaborate upon results gained from quantitative data (Creswell & Clark, 2017). The first phase of the quantitative analysis involved obtaining measures of summary and dispersion for hypothesis testing. Before the tests were carried out, data was examined for normality.

3.9.1 Tests of Normality

In testing for normality, a researcher is interested in finding a difference between groups, and looks for small probabilities. If the probability of finding an event is rare, and less than 5%, and we actually find it, that is of interest. When testing normality, an analyst is not looking for a difference. In effect, testing for normality implies finding if the data set is not different from the normal distribution, so that the null hypothesis is accepted. Thus when testing for normality, probabilities > 0.05 mean the data are normal, while probabilities < 0.05 mean the data are not normal.

The Kolmogorov-Smirnov and Shapiro-Wilk test of normality was used to establish if the survey data was from a normal population. For tests on samples of n = 3 to 2000 it is recommended to use Shapiro Wilk’s test while for those of n > 2000 the use of Kolmogorov-Smirnov test is recommended (Royston, 1992). The data in this study was drawn from a sample of 97 respondents, thus the test by Shapiro Wilk’s test was useful in establishing the normality of the distribution.

Statistical tests were preferred to graphical methods, of normality tests, being more precise as they report actual probabilities. The hypotheses tested were:

H₀: The sample data are not significantly different than a normal population
Hₐ: The sample data are significantly different than a normal population.

Using SPSS version 20 it was possible to test the normality of all the five variables in the study. Table 3.6 presents the results of the statistical tests of normality.

**Table 3.6: Tests of Normality**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Kolmogorov-Smirnovᵃ</th>
<th></th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic df Sig.</td>
<td>Statistic df Sig.</td>
<td></td>
</tr>
<tr>
<td>Recruitment practices</td>
<td>.124 78 .005</td>
<td>.948 78 .003</td>
<td></td>
</tr>
<tr>
<td>Training practices</td>
<td>.098 78 .060</td>
<td>.978 78 .208</td>
<td></td>
</tr>
<tr>
<td>Compensation management practices</td>
<td>.078 78 .200*</td>
<td>.979 78 .215</td>
<td></td>
</tr>
<tr>
<td>Performance management practices</td>
<td>.105 78 .034</td>
<td>.969 78 .053</td>
<td></td>
</tr>
<tr>
<td>Quality of health care</td>
<td>.048 78 .200*</td>
<td>.986 78 .548</td>
<td></td>
</tr>
</tbody>
</table>

ᵃ Lilliefors Significance Correction

* This is a lower bound of the true significance.

Table 3.6 shows that the probabilities for all the variables, with the exception of recruitment practices were greater than 0.05, for both the tests. When testing for normality, probability of less than 0.05 means that the data are not normal. From Table 3.6 it is evident that data for recruitment practices, whose probability value of 0.003, for Shapiro-Wilk test, is not normal. The probability of 0.003 is far lower than the decision value of 0.05 hence we reject the null hypothesis that there is no statistically significant difference between the sample and the normal population. The alternative hypothesis that there is a statistically significant difference between the sample and the normal population is accepted.

The data for all the variables, were however, transformed using the $\log_{10}$ function in SPSS to facilitate subsequent analysis and inferences based on the assumption of normality in distribution of responses. Further, the transformation of both the dependent and independent,
variables enabled the researcher to interpret the results much more easily, as transformed values are in percentages.

3.9.2 Descriptive and Inferential Analysis of Survey Data

Descriptive statistics provided the techniques for summarizing the extent of agreement with statements on the human resource management practices adopted by the facility and quality of health care. Tables and were used to present the mean rates of agreement and extent of variability in responses. Charts provided a visual illustration of the descriptive statistics analysis was useful in presenting the main characteristics of the sample data using mean and measures of dispersion.

Inferential analysis involved testing the hypothesized relationships between the independent and dependent variables. The study applied multiple regression analysis to the $\log_{10}$ of the dependent and independent variables. The general model for predicting quality of health care is represented by the following $\log_{10} - \log_{10}$ model:

$$\log_{10} Y = \beta_1 \log_{10} X_1 + \beta_2 \log_{10} X_2 + \beta_3 \log_{10} X_3 + \ldots + \beta_n \log_{10} X_n + \epsilon$$

Where $Y$ is the dependent variable and is a $\log_{10}$ linear function $\log_{10} X_1$, $\log_{10} X_2$, $\log_{10} X_3$, … $\log_{10} X_n$ plus $\epsilon$. $\beta_1$-$n$ are the regression coefficient or change induced in $Y$ by each $X$, $X_1$-$n$ are independent variables, $\epsilon$ is the error term that accounts for the variability in $Y$ that cannot be explained by the linear effect of the predictor variables. The estimate model for the quality of health care for Jaramogi Oginga Odinga was expressed as:

$$\log_{10} (QHC) = C + \beta_1 \log_{10} (RP) + \beta_2 \log_{10} (TP) + \beta_3 \log_{10} (CMP) + \beta_4 \log_{10} (PMP) + \epsilon$$

Where $QHC$=the predicated mean score on the dependent variable, quality of health care $C$ = the value of $Y$ when all predictor variables are equal to zero
\( \beta_1 \) = the % change in QHC resulting from a 1% change in Recruitment Practices
RP = is the mean score of Recruitment Practices.
\( \beta_2 \) = the % change in QHC resulting from a 1% change in Training Practices
TP = is the mean score of Training Practices.
\( \beta_3 \) = the % change in QHC resulting from a 1% change in Compensation Management
CMP = is the mean score of Compensation Management Practices
\( \beta_4 \) = the % change in QHC resulting from a 1% change in Performance Management
PMP = is the mean score of Performance Management Practices.
\( e \) = error term

The regression analysis enabled the researcher to determine the \( R^2 \) value, showing the percentage variance in the dependent variable that can be anticipated from HRM practices. The ANOVA isolated the regression coefficients for each of the predictor variables and tested their significance in predicting quality of health care. Quality of health care was captured using self-reports by health care professionals and document analysis.

Content analysis provides a systematic and objective means to make valid inferences from verbal, visual, or written data in order to describe and quantify specific phenomena (Montini, Noble, & Stelfox, 2008). On the other hand, the analytic procedure for document analysis entailed finding, selecting, appraising, and synthesizing data contained in documents. Document analysis yields data, in the form of excerpts, quotations, or entire passages, that are then organised into major themes, categories, and case examples specifically through content analysis (Labuschagne, 2003).

3.10 Content Analysis of Patient Complaint Data

Content analysis is both a quantitative (Krippendorff, 2004) and a qualitative methodology useful in inductive or deductive analysis (Berg, 2001). Content analysis facilitates capturing of the frequency by which themes or facts in the text occur (Krippendorff, 2004) to answer
questions about how many (Neuendorf, 2002). In the current study, quantitative content analysis of patient complaints helped to capture functional quality aspects of health care at JOOTRH. The choice of analysis method depends on how deep within the analysis the researcher attempts to reflect the informants' statements about a subject. In turn, this affects the number of informants needed and in the way in which data are to be collected (Bengtsson, 2016; Polit & Beck, 2006).

The researcher has to choose whether the analysis is to be a manifest analysis or a latent analysis. In a manifest analysis, the researcher describes what the informants actually say, stays very close to the text, uses the words themselves, and describes the visible and obvious in the text. In contrast, latent analysis is extended to an interpretive level in which the researcher seeks to find the underlying meaning of the text, which is what the text is talking about (Berg, 2001).

The current study adopted a manifest analysis since the qualitative analysis of complaints focused on triangulation of methodology for measuring quality of health care by incorporating both service and patients views. Quantitative content analysis has been used to capture patient’s satisfaction with quality of care in hospitals (Montini, Noble, & Stelfox, 2008). Reader et al. (2014) developed a coding taxonomy for patient complaints through a systematic review of 59 studies.

This consisted of three distinct domains of complaint of safety and quality of the clinical care received, the management of health care organizations, and problems associated with health care staff-patient relationships. Wei et al. (2018) built on the three domains by Reader et al. (2014), and developed a coding framework with five dimensions of patient complaints. These
included complaints that occurred before, during, or after the patient received health care from a specific physician, consisting of the physician or clinical officers attitude, therapeutic effect, ignorance of patient, limited treatment time, and misconduct or bad attitude of the nurse and/or other staff.

The current study focused on providing a quantitative analysis of patient complaints based on the five dimensions to capture aspects of functional quality. The purpose of document analysis was to capture functional quality, which revolved around the process of medical consultation at the teaching and referral hospitals. Hence, the framework by Reader et al. (2014) and the five dimensions of patient complaints by Wei et al. (2018) was useful in establishing patient views on functional quality.

3.10.1 Coding Framework

The analysis of patient complaints was through the use of Qualitative Data Analysis Software (QDA) Miner Lite. The document analysis guide developed by the researcher provided a basis for coding of the documented complaints, using the five dimension coding framework. The analysis captured included identity of complainant and the dimensions of complaints. The identity of the complainant was coded into four types including patients themselves, patient’s close relative, including spouse, parent, or a grown-up child, a patient’s other relative, and other relationships not specified.

Meanwhile, some complainants also identified themselves as referred patients. Therefore, the study coded (1) for referral patients and (0) for primary case patients. For the coding scheme relating to complaints, the study followed the workflow of a health service delivery provider at Jaramogi Oginga Odinga teaching and referral hospital. Generally, if a patient wants to see a doctor or clinical officer, he or she must register for that medical records desk before a
face-to-face consultation can occur. This was coded as the premedical consultation stage. During this stage, complaints include topics such as registration and waiting room issues and time taken before consultation.

During medical consultation, four sub stages identified were overall perception, preliminary diagnosis, examination, and the closure of consultation. The first, overall perception is the immediate evaluation of a doctor or clinical officer’s attitude and their communication with the patient. Preliminary diagnosis relates to the first contact experienced between the doctor or clinical officer and patients.

At this stage, techniques like looking, listening, questioning, and feeling the pulse of the patient facilitates diagnosis. In the examination stage, a medical device is applied to the patient, such as computed tomography film or a blood pressure monitor. The closure of consultation refers to when the patient is about to leave the hospital, with complaints typically concerning bills. After the consultation, patients may start to evaluate the effect of the treatment, if any. This research coded this as post consultation, with a focus on the patient’s perception of effect. Each of the complaint areas was coded with 4 to 9 items.

3.11 Ethical Considerations

Ethics involves consideration of right and wrong, before, during and after the study. The researcher observed fairness and trust to a variety of stakeholders. Confidentiality was assured to the participants and the report was edited to protect identity of individuals. Abidance to ethical considerations was met by evaluating the research against Kenyatta University (KU) ethics checklist as well as clearance with NACOSTI.
3.12 Chapter Summary
This chapter has explained the research design, population of the study, data collection instruments as well as reliability and validity of the data instruments. The chapter also outlined the operationalization of the study variables and the statistical data techniques adopted which consisted of descriptive statistics, regression analyses, and quantitative content analysis. The chapter provided analytical models used for quantitative data analysis and hypotheses testing. The next chapter presents data analysis, findings and discussion of the results of the survey and document analysis phases of the study.
CHAPTER FOUR
DATA ANALYSIS, RESULTS AND DISCUSSIONS

This chapter presents the outcome of data analysis and findings in line with the objectives of the Study. Statistical Program for Social Sciences (SPSS) version 20 facilitated analysis of quantitative survey data. Qualitative Data Analysis (QDA) Miner Lite program facilitated analysis of patient complaints data. The results of analysis are presented in parallel, with Section 4.1 focusing on quantitative data, Section 4.2 on qualitative data, with Section 4.3 providing a synthesis.

4.1 Quantitative Analysis of Survey Data

4.1.1 Response Rate

The quantitative analysis of survey data was based on a total of 97 questionnaires issued out to the consultants, medical officers, clinical officers and nurses at JOOTRH. The response rate is presented in Table 4.1 below.

Table 4.1: Survey Response Rate

<table>
<thead>
<tr>
<th>Response</th>
<th>No</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response</td>
<td>78</td>
<td>80</td>
</tr>
<tr>
<td>Non Response</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>97</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Survey Data (2017)

The 80% response rate in Table 4.1 is excellent for quantitative research in Social Sciences (Gall, Borg, & Gall, 1996). The response rate of 80% reported in Table 4.1 is considered adequate for making inferences about the population from the sample.
4.1.2 Respondents Characteristics

Table 4.2: Respondent’s gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>33</td>
<td>81</td>
</tr>
<tr>
<td>Male</td>
<td>45</td>
<td>19</td>
</tr>
<tr>
<td>TOTAL</td>
<td>78</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Survey Data (2017)

Data in Table 4.2 shows that over 80% of health care staff at JOOTRH were females. Figure 2 provides a pictorial illustration of the Gender of JOOTRH health care staff.

Figure 2: Respondents Gender

![Pie chart showing gender distribution]

Fig. 2: Respondent Gender

Source: Generated from Table 4.2

Figure 2 illustrating the gender of respondents shows that the (42%) were female. This is way above the falls short of the constitutional gender rule that 30% of county employees should be female.
Table 4.3: Length of Service at JOOTRH

<table>
<thead>
<tr>
<th>Length of service</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td>1 – 3 years</td>
<td>15</td>
<td>19</td>
</tr>
<tr>
<td>4 – 8 years</td>
<td>15</td>
<td>19</td>
</tr>
<tr>
<td>8–12 years</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>over 12 years</td>
<td>26</td>
<td>33</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>78</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Survey data (2017)

The results in Table 4.3 shows that almost half (48%) of the respondents had served for more than eight years and were likely to respond adequately to questions on the influence of HRM on quality of health care. Figure 3 illustrates the percentage of respondents for each category of service length of service at the facility.

Figure 3: Length of Service at JOOTRH

Source: Generated from Table 4.3
Figure 3 shows that slightly over 30% of the staff had been employed before conversion of the Nyanza Provincial Hospital into a teaching and referral hospital in 2012. The length of service in the health care sector was captured and presented in Table 4.4.

### Table 4.4: Length of Service in the Health Care Sector

<table>
<thead>
<tr>
<th>Length of Service</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td>3</td>
<td>3.8</td>
</tr>
<tr>
<td>1 – 3 years</td>
<td>12</td>
<td>15.4</td>
</tr>
<tr>
<td>4 – 8 years</td>
<td>15</td>
<td>19.2</td>
</tr>
<tr>
<td>8–12 years</td>
<td>9</td>
<td>11.5</td>
</tr>
<tr>
<td>Over 12 years</td>
<td>39</td>
<td>50.0</td>
</tr>
<tr>
<td>Total</td>
<td>78</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Survey data (2017)

Results in Table 4.4 shows that over 60 percent of respondents had worked for over 8 years. Figure 4 illustrates the data in Table 4.4.

Figure 4: Length of Service in the Health Care Sector
Source: Generated from Table 4.4
The bar chart in Figure 4 illustrates that almost all the respondents had been in service long enough to experience the effect of recruitment, training, compensation and performance management practices on quality of health care.

**Table 4.5: Level of Education**

<table>
<thead>
<tr>
<th>Highest academic qualification</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ph. D</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Masters</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Bachelors</td>
<td>31</td>
<td>40</td>
</tr>
<tr>
<td>H. Diploma</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>Diploma</td>
<td>19</td>
<td>24</td>
</tr>
<tr>
<td>KCSE</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>78</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Source: Survey data (2017)*

From Table 4.5 the highest academic qualification was a PhD degree while the lowest was a Secondary school certificate. Figure 5 illustrates the data in Table 4.5
Figure 4.4 illustrates that the highest number of those interviewed possessed a bachelor’s degree. This could be interpreted to mean that the respondents are knowledgeable enough to respond adequately to the questions in the study.

**Table 4.6: Area of Specialization**

<table>
<thead>
<tr>
<th>Specialization</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Medicine</td>
<td>33</td>
<td>42</td>
</tr>
<tr>
<td>Nursing</td>
<td>45</td>
<td>58</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>78</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

**Source: Survey data (2017)**

Table 4.6 shows that over half or the health care professionals interviewed had specialized in the provision of nursing care. The current study focused on the influence of human resource management practices on quality of health care. Quality of health care was measured from the perspectives of health care service providers. Service personnel and the service setting are the two significant elements in determining the quality of the service encounter (Dagger, Sweeney, & Johnson, 2007). Thus the data I Table 4.6 shows that respondents were either concerned with diagnosing patient problems or providing nursing care. This may be interpreted to mean that, being the caregivers, they were well placed to answer questions relating to quality of care at JOOTRH.

**Table 4.7: Job Designation of Respondents**

<table>
<thead>
<tr>
<th>Designation</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultants</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Medical Officers</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Clinical Officer</td>
<td>14</td>
<td>18</td>
</tr>
<tr>
<td>Nursing Officers</td>
<td>47</td>
<td>60</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>78</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

**Source: Survey Data (2017)**
Table 4.7 shows that over 60% of the respondents interviewed were specialized as nurses and slightly more than 5% reporting were consultants. Figure 5 illustrates the data in Table 4.7

![Figure 5: Respondents’ Job Designation](image)

Source: Generated from Table 4.7

Figure 5 shows that over 60% of respondents were tasked with providing nursing care while the rest provided diagnostic services. All the categories of respondents were tasked with co-production health care service and could express an opinion about the quality of care provided by the health care facility. These were professional health care providers that are expected to be informed about the technical quality of care and the influence of HRM practices on quality of health care.

4.1.3 Descriptive Statistics of the Study Variables

The next section provides means and standard deviations of responses which provided the basis of testing the study hypothesis. The study hypothesized that there was no significant relationship between human resource management practices and quality of health care in teaching and referral hospitals. Section 4.3.1 presents results relating to the dependent
variable while section 4.3.2 captures means and standard deviations for the predictor variables.

**4.1.3.1 Quality of Health Care at Jaramogi Odinga Teaching and Referral Hospital**

Quality of health care can be viewed from clinician, patient, payer and society perspectives (Wyszewianski, 2005). Recent studies based on personal opinions of quality have tended to focus on an internal perspective of quality (Aaron, 2013; Lepnurm *et al.*, 2012; and Wallace, 2007). Phase 1 of the study adopted a clinician view of quality while in phase 2 a patient view of responsiveness and reliability of service was investigated. This enabled the researcher to obtain a summary and dispersion measure of quality required to test the quantitative hypothesis and further offer an explanation of the results using complaint data obtained during the interaction before, during and after the consultation and treatment.

Despite being the ultimate recipients of care, patients lack the technical knowledge to judge the quality of service delivered (Lockhart, 2007). Johnson, Roter, Powe, and Cooper (2004) identify barriers to use of patient surveys to measure health care quality, such as data not being user centered and linked to processes, large organizational size, complex structures, lack of time and skepticism. The current study carried out a document analysis of patient complaints as a technique to corroborate and explain opinions of health care staff on quality of health care.

During Phase 1 of the study, the opinion of clinicians and nurses was measured by a Likert instrument anchored, on a five point scale ranging from 1=Not at all to 5= to a very large extent. The study adopted a mean score of greater than 4.50 to mean agree to a very large extent, between 3.50 and 4.49 means that the respondents agree to a large extent, between
2.50 and 3.49 means moderately agree, between 1.50 and 2.49 means agree to a small extent while a score of between 0 and 1.45 means that respondents did not agree at all.

Table 4.8 presents the clinicians and nurses personal evaluation of quality health care

**Table 4.8: Summary Statistics for Quality of Health Care**

<table>
<thead>
<tr>
<th>Statements</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tangibles</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We have modern equipment</td>
<td>3.62</td>
<td>1.105</td>
</tr>
<tr>
<td>The hospital’s physical facilities are visually appealing.</td>
<td>3.42</td>
<td>1.521</td>
</tr>
<tr>
<td>The hospital’s employees appear neat.</td>
<td>3.71</td>
<td>1.66</td>
</tr>
<tr>
<td>The materials used in the hospitals are visually appealing</td>
<td>3.92</td>
<td>1.112</td>
</tr>
<tr>
<td>Aggregate score for Tangibles</td>
<td>3.67</td>
<td>1.35</td>
</tr>
<tr>
<td><strong>Reliability</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We show sincere interest on solving our patients’ problems</td>
<td>3.51</td>
<td>0.705</td>
</tr>
<tr>
<td>We perform services right the first time</td>
<td>3.72</td>
<td>1.821</td>
</tr>
<tr>
<td>We provide services at the time we promise to do so.</td>
<td>3.58</td>
<td>1.507</td>
</tr>
<tr>
<td>We are accurate in billing our patients</td>
<td>3.71</td>
<td>1.912</td>
</tr>
<tr>
<td>Aggregate score for Reliability</td>
<td>3.63</td>
<td>1.49</td>
</tr>
<tr>
<td><strong>Responsiveness</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We tell patients exactly when services will be performed.</td>
<td>4.08</td>
<td>1.305</td>
</tr>
<tr>
<td>We provide prompt services to our patients</td>
<td>3.52</td>
<td>1.021</td>
</tr>
<tr>
<td>We are always willing to help our patients</td>
<td>3.27</td>
<td>1.070</td>
</tr>
<tr>
<td>We are never too busy to respond to our patients’ request</td>
<td>3.83</td>
<td>1.012</td>
</tr>
<tr>
<td>Aggregate score for Responsiveness</td>
<td>3.28</td>
<td>1.109</td>
</tr>
<tr>
<td><strong>Assurance</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patients feel safe interacting with employees</td>
<td>3.54</td>
<td>1.105</td>
</tr>
<tr>
<td>We can be trusted by our patients</td>
<td>3.56</td>
<td>1.521</td>
</tr>
<tr>
<td>We are consistently courteous to our patients</td>
<td>3.49</td>
<td>1.660</td>
</tr>
<tr>
<td>We have the required knowledge to answer our patients’ questions</td>
<td>3.53</td>
<td>1.112</td>
</tr>
<tr>
<td>Aggregate Score for Assurance</td>
<td>3.53</td>
<td>1.35</td>
</tr>
<tr>
<td><strong>Empathy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We give individual attention to our patients</td>
<td>3.69</td>
<td>1.305</td>
</tr>
<tr>
<td>We have convenient working hours for our patients</td>
<td>3.49</td>
<td>1.401</td>
</tr>
<tr>
<td>We give personal care to our patients</td>
<td>3.49</td>
<td>1.127</td>
</tr>
<tr>
<td>We have our patients’ best interest at heart</td>
<td>3.56</td>
<td>1.221</td>
</tr>
<tr>
<td>We understand the specific needs of our patients</td>
<td>3.90</td>
<td>1.511</td>
</tr>
<tr>
<td>Aggregate Score for Empathy</td>
<td>3.61</td>
<td>1.32</td>
</tr>
<tr>
<td>Aggregate Grand Score</td>
<td>3.54</td>
<td>1.324</td>
</tr>
</tbody>
</table>

*Source: Survey Data (2017)*
Table 4.8 shows that the mean responses to the questions asked under each attribute of health care quality were above a mean score of 3.00. Overall, the personal evaluation of clinicians and nurses shows that to a large extent (mean =3.54) the hospital provided health care that leads to desired health outcomes and are consistent with current professional knowledge. The results in Table 4.8, shows that clinicians and nurses moderately agree (mean= 3.28) that the hospital staff are willing or ready to provide services in a timely manner.

The aggregate score for tangibles (mean= 3.67) shows that the clinicians and nurses agree to a large extent that the physical service environment of the hospital was conducive to provision of quality health care. Likewise, they were of the opinion that to a large extent (mean =3.67) the hospital staff were able to perform the promised service dependably and accurately. It was further revealed that to a large extent that staff were courteous, knowledgeable, and able to inspire trust and confidence in patients (mean =3.53), and were caring and able to provide individualized attention to the patients (mean = 3.61).

The results in Table 4.8 shows that the clinicians and nurses were of the opinion that Jaramogi Oginga Odinga teaching hospital is to a large extent (mean =3.54) able to provide quality health care. This finding is based on an internal evaluation of quality of services using the SERVPERF instrument which has become an alternative measurement scale of SERVQUAL (Yarimoglu, 2014). Brady et al. (2002) mentioned that SERVPERF was the most superior model among all service quality models. The study performed a replication and an extension of SERVPERF whose results supported the work of Cronin and Taylor (1992).
4.1.3.2 HRM Practices adopted by Jaramogi Oginga Odinga Teaching Hospital

The respondents were asked to indicate with a tick the extent to they agreed with statements on the influence of human resource management practices adopted by the hospital on quality of health care on a scale of 1 – 5 where: 1 = Not at all, 2 To a small extent, 3 = To a moderate extent, 4 = To a large extent, 5 = To a very large extent. The study adopted a mean score of > 4.50 to mean agree to a very large extent, between 3.50 and 4.49 means that respondents agree to a large extent, between 2.50 and 3.49 means moderately agree, between 1.50 and 2.49 means agree to a small extent while a score of between 0 and 1.45 means that respondents did not agree at all. The rationale for adopting this scale was to facilitate better data interpretation.

Mean and standard deviations computed for the four HRM practices and discussion of findings are presented in Tables 4.9 to 4.13. The perceived influence of recruitment practices on quality of health care is presented in Table 4.9.

Table 4.9: Recruitment Practices

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviews aid in identifying workers that can provide quality health care</td>
<td>4.32</td>
<td>1.057</td>
</tr>
<tr>
<td>Merit and regional balance ensures staff provide quality health care</td>
<td>4.06</td>
<td>1.268</td>
</tr>
<tr>
<td>Newspaper adverts leads to staff able to provide quality health care</td>
<td>3.51</td>
<td>1.210</td>
</tr>
<tr>
<td>Recruiting on contract compromises quality of health care</td>
<td>2.64</td>
<td>1.252</td>
</tr>
<tr>
<td>Internal promotions result in staff that provide quality health care</td>
<td>4.02</td>
<td>1.107</td>
</tr>
<tr>
<td>Aggregate score</td>
<td>3.71</td>
<td>1.18</td>
</tr>
</tbody>
</table>

Source: Survey data (2017)
Table 4.9 shows that respondents agreed to a large extent that quality health care can result from practices such as identifying workers using recruitment interviews (mean = 4.32), merit and regional balance (Mean= 4.06), internal promotions (mean = 4.02) and advertising in newspapers (Mean = 3.51). These findings provide empirical support to earlier suggestions that recruitment improved service delivery by Heneman (2011). They further lend support to the assertion by Batt, Nohara and Kwon (2010) that these strategies improve quality since the identified staffs have good work-related knowledge, skills, and abilities. Also, proper recruitment leads to work-related expertise of an individual being adequately matched with the specific requirements of the job (Carless, 2005).

Results in Table 4.9, however, shows that respondents moderately agreed with the statement that recruiting health care staff on contract terms compromise quality of health care (Mean of 2.64). This finding can be understood in light of the nature of health care provision in teaching and referral hospitals. These facilities rely on teams of health workers engaged on temporary terms in conjunction with non-governmental organizations, that have programs in mother and child health, HIV/Aids control. Such staff is often seconded from partner health care organizations, universities and research institutions owing to their expertise, hence their engagement cannot result in poor health care delivery.

The study also sought to establish the effect of training clinical and nursing staff on quality of health care at JOOTRH. Respondents were presented with questions that sought to capture their agreement with statements regarding the influence of staff training practices on quality of health care provision at the hospital. Table 4.10 provides the mean and standard deviation of the responses.
Table 4.10: Training Practices

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training in patient care skills improves quality of health care</td>
<td>4.60</td>
<td>1.212</td>
</tr>
<tr>
<td>Training in generic skills improves quality of care</td>
<td>4.38</td>
<td>1.207</td>
</tr>
<tr>
<td>We are trained more than once per year</td>
<td>2.79</td>
<td>1.221</td>
</tr>
<tr>
<td>Career progression plan motivates staff and ensures quality of care</td>
<td>2.87</td>
<td>1.110</td>
</tr>
<tr>
<td>Use of TNA to select trainees improves quality of care</td>
<td>3.10</td>
<td>1.192</td>
</tr>
<tr>
<td>Aggregate score</td>
<td>4.43</td>
<td>0.964</td>
</tr>
</tbody>
</table>

Source: Survey Data (2017)

Table 4.10 shows that respondents agreed that training improves quality of health care to a large extent, if it related to patient care skills (Mean of 4.60) and to a large extent (Mean = 4.06) if it is on generic skills. However, respondents moderately agreed with the statements that they are trained more than once in a year (Mean = 2.79), career progression motivates staff and ensures quality care (mean = 2.87), and use of TNA to select trainees improves quality of care (mean = 3.10). The opinion expressed that practices like frequent training, career progression, and use of TNA are moderately adopted may be interpreted to mean that these practices are not frequent at the hospital.

The overall mean of 4.43 can be interpreted to mean that to a very large extent training influences quality of health care. The finding that training on patient care and generic skills influences quality supports the suggestion by Raja, Furqan and Muhammad (2011) that on the job training are positively related to organizational performance. Further, the result that training influences quality of health care to a large extent supports earlier findings that training has positive effects on organizational performance (Ashar et al., 2011).
The study further sought to establish the extent to which compensation management practices adopted influenced quality of health care at the hospital. Table 4.11 presents opinions of clinicians and nurses on the extent of agreement with the statements on the influence of these practices.

**Table 4.11: Compensation Management Practices**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competitive salary motivates us to offer quality health care</td>
<td>2.50</td>
<td>1.100</td>
</tr>
<tr>
<td>Quality of health care depends on performance based earnings</td>
<td>2.96</td>
<td>1.207</td>
</tr>
<tr>
<td>Salary delays affects quality of health care provided to patients</td>
<td>2.74</td>
<td>1.070</td>
</tr>
<tr>
<td>Earnings based on group performance improves quality of care</td>
<td>2.60</td>
<td>1.010</td>
</tr>
<tr>
<td>Performance appraisal is used for rewarding employees</td>
<td>2.50</td>
<td>1.305</td>
</tr>
<tr>
<td>Promotion of health workers results in delivery of quality health care</td>
<td>2.01</td>
<td>1.412</td>
</tr>
<tr>
<td>Aggregate score</td>
<td>2.55</td>
<td>1.184</td>
</tr>
</tbody>
</table>

*Source: Survey Data (2017)*

In Table 4.11 respondents were of the opinion that competitive salary (mean = 2.50), performance based earnings (Mean = 2.96), salary delays (2.74), and group earnings (2.60) had moderate influences on quality of health care. The results also show that respondents were in moderate agreement that performance appraisal serves as a benchmark for rewarding employees (Mean = 2.50). Finally, they agreed to a small extent that promotion of workers results in delivery of quality health care (2.01). Overall, the results in Table 4.11 revealed an aggregate mean score of 2.55 indicating compensation management had a moderate influence on quality of health care. The frequency of strikes by health care workers in Kenya and the opinion by respondents that compensation has a moderate effect on quality of health care is a pointer to inadequate compensation at the facility.
Compensation strategy is seen as one of the most important strategies in HRM function as it influences the productivity and growth of an organization (Obasan, 2012). Very competitive package has been ranked first among the list of factors attracting workers (Howrtz et al., 2003). Wesonga et al. (2011) established that most current employees are ready to quit if offered another job with better terms of service. Compensation can attract and retain employees (Khan, Aslam, & Lodhi, 2014). It may be concluded that the rating showing moderate agreement with statements on the likely influence of adopting the practices points at its being rated as unimportant influence on provision of quality.

The fourth predictor human resource management variable whose adoption was considered in the study is performance management. Previous studies suggest that performance management practices have an influence on performance of organizations. Table 4.12 presents the opinion of clinicians and nurses at JOOTRH on the extent to which performance management practices adopted influenced quality of health care.

**Table 4.12: Performance Management Practices**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality Circles at JOOTRH influences quality of health care</td>
<td>3.83</td>
<td>1.207</td>
</tr>
<tr>
<td>Appraisal once a year motivates quality of health care</td>
<td>3.56</td>
<td>1.100</td>
</tr>
<tr>
<td>Release of appraisal results ensures improved quality of health care</td>
<td>3.55</td>
<td>1.305</td>
</tr>
<tr>
<td>Performance contracting improves quality of health care</td>
<td>3.40</td>
<td>1.021</td>
</tr>
<tr>
<td>Self-directed teams at JOOTRH ensures quality of health care</td>
<td>3.33</td>
<td>1.070</td>
</tr>
<tr>
<td>Promotion of health workers results in delivery of quality health care</td>
<td>2.01</td>
<td>1.012</td>
</tr>
<tr>
<td>Aggregate score</td>
<td>3.28</td>
<td>1.109</td>
</tr>
</tbody>
</table>

*Source: Survey data (2017)*
The results in Table 4.12 shows that respondents agree to a large extent that quality circles (mean = 3.83), annual appraisal (mean = 3.56) and release of appraisal results (3.55) influenced the provision of quality health care at the hospital. The findings in Table 4.12 further revealed that clinicians and nurses surveyed only moderately agreed that performance contracting (Mean = 3.40), self-directed teams (mean = 3.33) and promotion of health workers (mean = 2.01) influenced quality of health care.

The finding in Table 4.12 may be interpreted to mean that the respondents did not regard these practices as having been adopted to an extent that they were important in provision of quality health care. The finding compares well with the assertion by Musyoka (2015) that there was little awareness and use of the performance management practice of performance appraisal at Mbagathi hospital, in Nairobi, and was being implemented to satisfy the requirement by the ministry of health.

The data in table 4.12 provide further support to the assertion by Mathauer and Imhoff, 2006 that performance contracting is inadequately used in the health sector in Kenya. The moderate mean agreement of 3.28, in the current study, confirms earlier results that did not find performance management practices as important in management of human resources by health care facilities in Kenya.

4.1.3.3 Summary of HRM Practices Adopted

Table 4.13 provides a summary of the mean extent and standard deviation of the human resource management practices adopted by the hospital.
Table 4.13: Summary Statistics for Human Resource Management Practices

<table>
<thead>
<tr>
<th>HRM practices</th>
<th>Mean Scores</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recruitment</td>
<td>3.71</td>
<td>1.180</td>
</tr>
<tr>
<td>Training</td>
<td>4.43</td>
<td>0.964</td>
</tr>
<tr>
<td>Compensation</td>
<td>2.55</td>
<td>1.184</td>
</tr>
<tr>
<td>Performance Management</td>
<td>3.28</td>
<td>1.108</td>
</tr>
<tr>
<td>Average Grand Mean Scores</td>
<td>3.49</td>
<td>1.109</td>
</tr>
</tbody>
</table>

Source: Survey data (2017)

The data in Table 4.13 indicates an average grand mean score of 3.49 which shows that clinicians and nurses agreed to a large extent that HRM practices contribution to quality of health care at the hospital. Training had the highest mean score rating of 4.43 while compensation had the lowest means score rating of 2.55.

4.1.4 Regression Analysis and Hypothesis Testing

This study was based on the premise that there is a relationship between human resource management practices and quality of health care. Regression analysis is used to determine relationship between variables and helps to measure strength of association between two or more variables (Kothari, 2004). Multiple regression models attempt to determine whether a given dependent variable is predicted by a group of variables together (Kutner, Nachtsheim, & Neter, 2004). Previous research on HRM practices and organizational performance have used multiple regression (Neal et al., 2005) to see establish the relationship of independent and dependent variables.

To establish the statistical significance of the respective hypotheses, simple and multiple regressions analysis were conducted at 95% confidence level. The results of normality tests required that the statistical package for social scientists (SPSS) is used to develop a log-log
level model of the effect of HRM practices on quality of health care. This involved carrying out log_{10} transformations on both the dependent and predictor variables. As Kothari (1999) explains, log transformations are valuable both for making patterns in the data more interpretable and for helping to meet the assumptions of inferential statistics. Table 4.14 presents the coefficient of determination for the log-log level regression model.

Table 4.14: Goodness of Fit Test for HRM Practices and Quality of Health Care

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.470^a</td>
<td>.221</td>
<td>.178</td>
<td>.07682</td>
</tr>
</tbody>
</table>


Source: Research Data (2017)

The results in Table 4.14 show the coefficient of determination for testing the goodness of fit of the log-log regression model. From the table together, the HRM practices of recruitment, training, compensation management and performance management explained 22.1 % of variation \( R^2 = 0.221 \) in quality of health care.

\( R^2 \) is a statistic that will give some information about the goodness of fit of a model. In regression, the \( R^2 \) coefficient of determination is a statistical measure of how well the regression predictions approximate the real data points. An \( R^2 \) of 1 indicates that the regression predictions perfectly fit the data. Values of \( R^2 \) outside the range 0 to 1 can occur when the wrong model was chosen, or nonsensical constraints were applied by mistake.

While R-squared provides an estimate of the strength of the relationship between your model and the response variable, it does not provide a formal hypothesis test for this relationship. The F-test of overall significance determines whether this relationship is statistically
significant. This test was used to establish the significance of the log-log regression model. The ANOVA report in Table 4.15 assesses overall significance of the regression model.

**Table 4.15: Analysis of Variance for Quality of Health Care and HRM Practices**

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>4</td>
<td>.122</td>
<td>.031</td>
<td>5.180</td>
<td>.001a</td>
</tr>
<tr>
<td>Residual</td>
<td>73</td>
<td>.431</td>
<td>.006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>77</td>
<td>.553</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), \(\log_{10}\)PerformanceManagementPractices, \(\log_{10}\)RecPractices, \(\log_{10}\)TrainingPractices, \(\log_{10}\)CompManagementPractices

b. Dependent Variable: \(\log_{10}\) Quality of Health Care

Source: Research Data (2017)

In Table 4.15 the column labeled Sig. shows the significance of the F test applied to the hypothesis. The columns labeled Sig. are p values which give results of hypothesis test. The p values refer to a list of collection of independent variables. If the Sig. value shown next to the F-test value in Table 4.20 were less than .05, we would conclude that the correlation coefficient is significantly different from 0.

In Table 4.15 the p value is 0.001<0.05 and therefore we accept the alternative hypothesis that at least one independent variable is a significant predictor of the dependent. That is, we would reject the \(H_0\), and conclude that there is a significant positive linear relationship between the predictor variables and response variable.

In this case, Table 4.15 shows that the \(R^2\) = .221 is significant because the probability value (Sig. = .001) is less than .05. With a significant correlation, it now makes sense to examine the regression equation in order to make predictions. Had the correlation not been significant, we would not be able to justify the use of the regression equation. The analysis of
variance proceeded the establishment of significantly each of the independents predicts the dependent variable. This was possible after establishing the coefficients of the regression model and the significance of the statistical test. Testing of the null hypothesis was achieved by running SPSS for the parameter coefficients in the regression model. Table 4.16 presents the parameter coefficients of the regression model.

Table 4.16: Regression model coefficients for HRM practices and quality of health care

<table>
<thead>
<tr>
<th>Variables</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>(Constant)</td>
<td>1.377</td>
<td>.167</td>
</tr>
<tr>
<td>log$_{10}$RecPractices</td>
<td>-.044</td>
<td>.083</td>
</tr>
<tr>
<td>log$_{10}$TrainingPractices</td>
<td>.167</td>
<td>.113</td>
</tr>
<tr>
<td>log$_{10}$CompManagementPractices</td>
<td>-.079</td>
<td>.063</td>
</tr>
<tr>
<td>log$_{10}$PerformanceManagementPractices</td>
<td>.330</td>
<td>.082</td>
</tr>
</tbody>
</table>

a. Dependent Variable: log$_{10}$QHC

Source: Research Data (2017)

In Table 4.16 the research hypotheses were tested by comparing the decision rule p value of 0.05 with predictor variables p values. The decision rule states that if p<0.05 reject the null for non-significance and conclude that the independent variable is a significant predictor of the dependent variable. The study hypothesized no significant influence of recruitment, training, compensation management and performance management on quality of health care.

The significance test in Table 4.16 indicates that the p-value of recruitment practices is >0.05 (p = .598). The study accepted the first null hypothesis, H$_1$ of no statistically significant relationship between recruitment practices and quality of health care and concluded that recruitment practices is not a significant predictor of the quality of health care given the p-value (.598) is greater than the decision p-value p=<0.05.
The finding of the hypothesis test in Table 4.16 that recruitment practices do not significantly predict the quality of health care service does not support findings of related studies. Batt, Nohara and Kwon (2010) found that employee recruitment and selection procedures have a significant impact on employee turnover and productivity, and on short and long term corporate financial performance. Rousseau and Wade-Benzoni (1994) also found that recruitment may be an important predictor of organizational performance.

The of a non-significant and negative relationship between recruitment and quality of health care is not surprising as the hospital does not have an active role to play in recruitment of health care workers. Currently, the Kisumu County Public Service Board handles all recruitment of permanent health workers in line with the policy of managing health at the county level. Clinicians and nurses at JOOTRH who were surveyed were either recruited by the central government or more recently since, 2013, by the County Public Service Board. The respondents were therefore not able to relate how recruitment by the hospital may have influenced their ability to offer quality health care. In regard to the second hypothesis, the results of the hypothesis test in Table 4.16 indicates that the p-value of training practices (p=0.004) is less than the decision p-value (p =<0.05).

Hence the second hypothesis, Ho₂, that there is no significant effect of training practices on quality of health care is rejected and the alternative accepted. It was concluded that training practices has a statistically significant influence on the quality of health care. This finding provides support to earlier results of a positive relationship between training and performance (Ashar et al., 2013; Raja, Furqan, & Muhammad, 2011).
The study by Ashar et al. (2013) found that training leads to a sense of emotional attachment and commitment to the organizations, making it less likely for employees to leave their jobs. In a review of literature on training and development, Raja, Furqan and Muhammad (2011) found that on the job training, training design and delivery style have all been found to be positively related to organizational performance.

The third hypothesis test related to the influence of compensation management practices on quality of health care at JOOTRH. The p-value of compensation management practices in Table 4.16 (p=.210) is greater than the decision rule p-value (p =<0.05) hence the study accepted the third null hypothesis, Ho3, that there is no statistically significant influence of compensation management practices on quality of health care. This finding can be interpreted to mean that compensation management is a practice whose influence is not significant at the hospital. The finding on the positive influence of compensation on performance is not surprising and replicates studies in hospital environments. Ozcan and Hornby (2005) in a study of Turkish government hospitals found concludes that poor performance was due to lack of interest by the managers in government hospitals to provide better conditions to hospital’s staff and develop incentives system. The study recommended the adoption of incentives system and rewards for staff and nurses who perform well. Further it recommended choosing a group each month as a role model for individuals working in the hospital and pay them special bonuses to encourage other staff who have not been selected. Finally, the study found that adopting incentive system improved the performance of all individuals working in the hospital dramatically.
The finding relating that compensation management not being a significant predictor of quality at JOOTRH is explained by recent unrests at public hospitals. Currently, compensation of public hospital staff is decided by the devolved and central government units with hospitals having no say in the design of packages. It may be argued that the hospitals are therefore not able to adopt innovative practices which could be motivating and focused on enhancing quality of health care.

The final hypothesis tested in Table 4.16 related to the influence of performance management on quality of health care at the facility. The p-value of performance management practices (=.003) is less than the decision rule p-value (p= <0.05) hence we reject the hypothesis that there is no significant effect of performance management practices on quality of health care. The study accepted the hypothesis that performance management has a significant effect. The result of the hypothesis test in Table 4.16 on performance management practices is supported by earlier studies. Performance management has been reported to improve health workers effectiveness (Chegenyea, Mbithib & Musiegac, 2015) and service delivery (Musyoka 2015). Further, performance management influences quality of healthcare through motivation of staff (Choudhary & Puranik, 2014; Musyoka, 2015).

An overall summary of the research objectives, hypotheses and results from the hypothesis tests are presented in Table 4.17.
Table 4.17: Summary of Research Objectives, Hypotheses and Results of Statistical Tests

<table>
<thead>
<tr>
<th>Objective</th>
<th>Hypothesis</th>
<th>R</th>
<th>R²</th>
<th>Sig.</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To determine the influence of recruitment on quality of health care at Jaramogi Oginga Odinga teaching and referral hospital.</td>
<td>H₀₁: There is no statistically significant relationship between recruitment practices and quality of health care at Jaramogi Oginga Odinga teaching and referral hospital.</td>
<td>.470</td>
<td>.221</td>
<td>.598</td>
<td>H₀₁ was supported</td>
</tr>
<tr>
<td>2. To assess the influence of training practices on quality of health care at Jaramogi Oginga Odinga teaching and referral hospital.</td>
<td>H₀₂: There is no statistically significant relationship between training practices and quality of health care at Jaramogi Oginga Odinga teaching and referral hospital</td>
<td></td>
<td></td>
<td></td>
<td>H₀₂ was rejected</td>
</tr>
<tr>
<td>3. To establish the influence of compensation on quality of health care at Jaramogi Oginga Odinga teaching and referral hospital.</td>
<td>H₀₃: There is no statistically significant relationship between compensation management practices and quality of health care at Jaramogi Oginga Odinga teaching and referral hospital.</td>
<td></td>
<td></td>
<td></td>
<td>H₀₃ was supported</td>
</tr>
<tr>
<td>4. To examine the influence of performance management on quality of health care at Jaramogi Oginga Odinga teaching and referral hospital.</td>
<td>H₀₄: There is no statistically significant relationship between performance management practices and quality of health care at Jaramogi Oginga Odinga teaching and referral hospital.</td>
<td></td>
<td></td>
<td></td>
<td>H₀₄ was rejected</td>
</tr>
</tbody>
</table>

Source: Research Data (2017)

The findings of the quantitative Phase of the study provided a motivation to use qualitative data for a richer contextual explanation of the phenomenon under investigation. Results of
inferential statistics, summarized in Table 4.17 showed that training and performance management were reported to be statistically significant drivers of health care quality at the facility. This may be interpreted to mean that the efforts by the hospital to train health care providers and to manage their performance, unlike those on remunerating and recruiting qualified staff, had significant influences on quality of health care.

From the findings of the quantitative analysis there was need to further explore the patients satisfaction with the quality of their experience before, during and after consultation, diagnosis, examination and treatment. Training of clinicians and nurses, and management of their performance ought to result in patients that are satisfied if the results are valid. Validity is the degree to which the research results obtained from the analysis of the data represent the phenomenon under study (Mugenda & Mugenda, 2003).

Thus by carrying out a content analysis of the patient complaint data, on the themes of reliability and responsiveness, it was possible to obtain richer explanations of how training and performance management influence quality of health care. Further, an analysis of patient complaint data would also help to validate the claim by clinicians and nurses, in Table 4.8, that to a large extent the hospital provided health care that leads to desired health outcomes and is consistent with current professional knowledge. Further motivations for an analysis of patient complain data derives from the need to corroborate the extent of responsiveness and reliability reported by clinicians and nurses.

In regard to responsiveness, the descriptive results of quantitative analysis, in Table 4.8, shows that clinicians and nurses moderately agree (mean= 3.28) that the hospital staff are
willing or ready to provide services in a timely manner. In relation to reliability, the data in Table 4.8, shows that clinicians and nurses reported were to a large extent (mean =3.67) able to perform the promised service dependably and accurately. To corroborate these results from Phase 1 of the study, patient complaints during the medical consultation process with doctors and nurses were collected and analyzed using QDA Miner Lite statistical tool.

4.2 Qualitative Analysis of Patient Complaint Data

4.2.1 Source and form of complaints

The 105 complaints analyzed in this study were from eyewitness accounts, consisting of complaints filed by patients (n=54), relatives (n=47) and others (n=4). The medium for communication of complaints included telephone calls (n=28), suggestion box letters (n=72), electronic mail (n=3) and visits to the anti-corruption committee (n=3). The data on complaints indicates that the majority of complainants were the actual patients.

4.2.2 Dimensions of Patient Complaints

Table 4.18 presents a summary of the complaints at each of the five stages of medical services in the outpatient facility at the teaching and referral hospital.

Table 4.18 Dimensions of Patient Complaints

<table>
<thead>
<tr>
<th>Dimension of Complaints</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premedical Diagnosis</td>
<td>71</td>
<td>33</td>
</tr>
<tr>
<td>Preliminary Diagnosis</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>Examinations</td>
<td>44</td>
<td>21</td>
</tr>
<tr>
<td>Closure of Consultation</td>
<td>35</td>
<td>18</td>
</tr>
<tr>
<td>Clinician and Nurse attitudes</td>
<td>23</td>
<td>11</td>
</tr>
<tr>
<td>Clinician-Patient Communication</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Perception of Treatment Effect</td>
<td>7</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: Research Data (2017)

The findings in Table 4.18 shows that 202 complaints on reliability and responsiveness were identified from the 105 documented cases, each with almost two items of complaint. From
the data in Table 4.18 slightly over one third of the complaints related to services that occurred before the patient consulted the clinician. On the other hand, only 3% of three complaints related to the effect of treatment. This can be interpreted to mean that patients were largely satisfied with the interaction with the clinicians and nurses during the preliminary diagnosis, examinations, and closure of the consultation.

The findings in Table 4.18 lend support to the findings of the evaluation of quality of health care by clinicians and nurses. During the quantitative phase of the study clinicians and nurses were asked to rate their agreement with statements on quality of health care, based on dimensions from the service performance (SERVPERF) model. The dimensions of health care quality included the tangibility, responsiveness, reliability, assurance and empathy.

The findings of the quantitative analysis of responses, presented in Table 4.8, showed that to a large extent the hospital provided health care that leads to desired health outcomes and is consistent with current professional knowledge. Thus the results of qualitative analysis that only 3% of the complaints related to the perception of patients about the effect of treatment and 35% related to the pre-consultation show that the actual diagnosis, examination and closure of consultation was in accordance with the expectations of the patients. The analysis of content data yielded a count of the complaints for the various themes under the complaint categories in Table 4.18. An overall summary of the detailed results of the content analysis of patient complaints is presented in Table 4.19.
Table 4.19: Summary of Content Analysis of Complaints Data

<table>
<thead>
<tr>
<th>Complaints</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Premedical Diagnosis</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long waiting times –for registration</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Long waiting times –for consultation</td>
<td>56</td>
<td>79</td>
</tr>
<tr>
<td>High cost of registration</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Chaotic Queuing</td>
<td>12</td>
<td>17</td>
</tr>
<tr>
<td><strong>Preliminary Diagnosis</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ignoring medical records and previous reports</td>
<td>5</td>
<td>71</td>
</tr>
<tr>
<td>No observation</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>No inquiries</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td><strong>Examinations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lacking basic examinations</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Too many examinations</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Rude examinations</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>Repeated and Inappropriate Examinations</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Long wait for the results</td>
<td>34</td>
<td>77</td>
</tr>
<tr>
<td>High cost</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Privacy issues</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Closure of Consultation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No lifestyle advises</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>High cost of medication</td>
<td>26</td>
<td>74</td>
</tr>
<tr>
<td>Short time of diagnosis</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Wrong diagnosis</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td><strong>Clinician and Nurse attitudes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impatience</td>
<td>13</td>
<td>57</td>
</tr>
<tr>
<td>Disrespect patients</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Not caring for patients</td>
<td>6</td>
<td>26</td>
</tr>
<tr>
<td>Unavailability of Clinicians and Nurses on Duty</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td><strong>Clinician-Patient Communication</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lacking communication</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>Not answering</td>
<td>7</td>
<td>47</td>
</tr>
<tr>
<td>No time for communications</td>
<td>6</td>
<td>40</td>
</tr>
<tr>
<td><strong>Perception of Effect</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No effect or little effect</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Worse than before</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Inappropriate treatment plan</td>
<td>1</td>
<td>14</td>
</tr>
</tbody>
</table>

Source: Research Data (2017)

Table 4.19 provides a detailed report of the main complain themes during the medical service and the attitudes that shaped the communication with the clinicians and nurses. The results in
Table 4.19 results show that 79% (56/71) of the complaints at the premedical diagnosis phase were related to long waiting times for consultation, followed by chaotic queuing 17% (12/71). The waiting time for registration was not of concern, just like the cost of registration. The long queues for consultation reflects the much documented shortage of clinicians in public health care institutions. In respect of preliminary diagnosis, failure to use medical records and previous reports was the concern by 71% (5/7) of the complaints. The main concerns of patients at the examinations were stage long wait for results 77% (34/44) and rude examinations 11% (5/44). High cost of medication 74% (26/74) was the main complaint at the closure of consultation.

Complaints about attitudes were mainly about impatience of clinicians and nurses 57% (13/23), those about communication related to the clinicians and nurses having no time for communications with patients 40% (6/15). Finally, the effect of the medical service was least complained about as only one patient complaining of inappropriate treatment and two indicating being worse than before. It may be concluded that based on the count of complaint cases, most of them related to problems that were not medical in nature, with waiting being the most frequent, followed by high costs of medication.

4.2.2 Complaints during the premedical consultation stage
The complaints made during the premedical consultation stage were mostly about long waiting times, to register 9% (2/23) and 8% (15/23) to consult the clinician. It is common for patients to feel upset and/or anxious when suffering from a poor health condition that would cause them to have little tolerance for a long waiting time. Some of the complaints about delays at this stage include the following:
The doctor in room 21 keeps our files for too long instead of passing them to the next door, hence we wait for too long.

The reception at the casualty is very poor. The receptionist is taking all his time with just one patient. We have been here for more than one and a half hours, just waiting.

There is a short lady working in room 10 who does not possess office manners and delays with our files, making us wait for very long hours

The complaints reflect the challenge of attracting and retaining health care professionals that public facilities face in Kenya. The WHO (2003) considers the number of health workers a key indicator of capacity to provide health care services. Evidently, being a referral hospital the volume of patients to handle results in clinicians taking long before being able to attend to patients.

4.2.3 Complaints during the consultation stage
4.2.3.1 Clinicians and nurses attitudes toward patients

The attitude of clinicians toward patients in medical settings can be considered crucial, with a total of 23 complaints (11%) isolated during the document analysis. Among them, the impatience of Clinicians was mentioned most frequently (57%). The impatience related to physician responses to patient questions, explanations of medical results and daily communication with patients. Impatience was perceived by complainants as emotional abuse and could exert substantial influence on a patient’s mood. Although the comments mainly concerned the attitude of clinicians, 5 complainants also blamed the nursing staff for poor attitude.
The disrespending of patients came third (9%); disrespectful behaviors are distinguished from general bad attitudes, which encompass detesting, criticizing, and/or blaming of patients, with or without verbal abuse. Patients can be considered emotionally fragile and sensitive and may need more attention than what has previously been experienced. Some of the complaints by patients on attitude of include the following:

*The nurses in the casualty are not good...they cannot help a very sick patient, who has come late than other patients...*

Such complaints paint a picture of desperation by patients who have failed to be assisted at a critical time by an overwhelmed medical team.

**4.2.3.2 Complaints on clinician-patient communication**

Due to the knowledge gap between clinicians and patients, the doctors typically dominate the conversations and may not involve patients in decision making. A total of 7 (47%) complaints related to the clinician not answering their questions, whereas 2 patients felt that they experienced no communication between themselves and the clinician. One patient’s mother wrote about their regret when an occupational therapist used unprofessional language, as follows:

*I have been bringing a patient in occupational therapy for several years. One of the therapists is unprofessional and gets angry any time patients flock the clinic. The therapist even went on to say that cerebral palsy has no cure and could not understand why patients kept bothering to come back.......We felt helpless as relatives of the patient.*

From the complaint it is evident that the staff was not responsive to the needs of the patient’s mother who expected attention despite there being very many patients to be served.
4.2.3.2 Complaints during preliminary diagnosis
The preliminary diagnosis stage is the first form of contact experienced between the patient and physician before a further examination with medical devices is conducted. At this stage, clinicians usually perform a series of diagnostic tasks such as looking, smelling, questioning, and taking the pulse of the patient to find out the cause, severity, or development of the disease or symptoms. One complainant noted that that their clinician had not inquired about their disease or symptoms, whereas another 5 (71%) mentioned that no concern for medical records or previous reports was shown. A patient noted the following:

The laboratory staffs like buying time. I brought a test of sputum and I looked for results for 4 days without success, and decided to go to the district hospital, where I only took a day to get the same result. That’s really unacceptable.

The long wait for results from the labs is attributed to the sheer number of examinations that must be conducted at the facility. Since its elevation to a teaching and referral hospital, the facility has been serving more than 100 district and sub-district hospitals in the Western Kenya Region (JOOTRH, 2016).

4.2.3.3 Complaints during the examination stage
Concerns about rude examinations featured prominently in many complaints, along with concerns about clinician’s conduct of medical examinations and their prescribing behavior. One (2%) complainant stated that the number of examinations conducted on them were too many. Also only 1 patient thought that their examinations were repeats of previous examinations or unnecessary. A total of 34 patients felt that the waiting time for their reports was unacceptable. One patient noted the following:
I come to this lab at 11.40 for a urinal test which was done at 2.30 pm. I was told that the report was sent to the doctor, but going there the doctor said he had not received it. I have spent 5 hours without any result. This is a referral hospital and we expect competent staff.

I was a patient for ultrasound...The person there is very rude and patients are suffering. Please do something about it.

Evidently, the key concerns by those patients during the examination stage were with the inability of the clinicians and nurses to respond to their medical needs. This is attributed to the lack of adequate staff to handle the high volumes of patients at the facility. The concerns relating to privacy issues, lack of basic examinations, that are directly related to the provision of technical quality were only one in each case. Thus it can be concluded that contrary to the perception that staff are not competent, they are able to live to their expected roles even when faced with high volumes of patients.

4.2.3.4 Complaints at the end of the medical service
A total of 4 complainants perceived of the medical service as having no or little effect with only one patient complaining that the treatment plan was inappropriate. The proportion of complaints at the end of the medical service, being only 3% suggests that concerns with technical quality were very few. This may suggest that the technical quality of service is satisfactory and key concerns relate mainly to the manner in which the health care service is delivered. Further exploration reveals that patients are more likely to complain if long waiting times, especially at night leads to disappointing outcomes like death of a loved one.

One complainant noted the following:
The senior doctors’ in-charge should come and help patients from frustrations in the hands of the nurses and doctors working at night. I come to learn from my experience that patients die due to negligence.

Since only 3% (7/202) of the complaints related to satisfaction with medical service, it is clear that from the qualitative analysis the main issues arising for management attention focus on the manner in which health care is provided. Thus the analysis of patient complaint data from the hospital has been useful in isolating the key quality concerns in the facility, from the patient’s perspective.

4.2.4. Complaints during post medical consultation

Following consultation, patients cared most about the improvement in their health condition. A total of 4 patients rated therapeutic effect as unsatisfactory because of the results they expected post consultation. A total of 2 patients mentioned that their health condition had become worse since their premedical consultation. In addition, 1 patient believed that the medical schedule advised may be inappropriate. Some claimed that after consulting another clinician, who made a different diagnosis, their disease was eventually cured. It is highly possible that patients feel unstable and give a low rating to clinicians if they perceive little therapeutic effect. Sometimes, therapeutic effect may outweigh attitude problems experienced. For example, one patient mentioned the following:

The doctor in outpatient is very careful and has a perfect attitude toward us, but he cannot solve our problem. A simple allergic rhinitis, he fails to diagnose, let alone the other ones. He just gave me some painkiller and sent me home.
4.2.5 Conclusion
Throughout the medical consultation, clinician-patient communication is still a key factor that affects patient satisfaction. For the clinicians, a warm heart and a good, friendly attitude is very necessary (Stefani, Teti, & Mazzone, 2017). In Kenya, hostility between clinicians and patients is largely caused by the limited medical resources available to the clinicians. These limited resources cannot satisfy the emerging demands for health care.

In one sense, clinicians must be responsible for patients and improve their quality of health care. From another perspective, patients are expected to understand their clinicians. From the qualitative phase of the study it may be inferred from some patient complaints that the impatience of clinicians may contribute to the overwhelming number of patients and called for mutual understanding between patients and clinicians. Though complaints will not disappear immediately, clinicians may not worry too much about them as many patients make complaints on impulse from their experience. Instead, complaints could be viewed as free advice for both the hospital and physician to enhance the quality of health care provision.

Thanks to the anonymity and convenience of expressing dissatisfaction using suggestion boxes, patients can evaluate their clinicians more precisely without too much consideration being given to social context, such as obeying complex social and cultural norms. From this perspective, clinicians could be more open to negative complaints and learn from their own failures in health care delivery to make further improvement.
4.3 Synthesis of Quantitative and Qualitative Strands of the Study

The current study adopted a mixed methods sequential explanatory design to identify aspects of quantitative analysis that required further explanation through a qualitative investigation. The descriptive results on quality of health care established that clinicians and nurses’ were of the opinion that the hospital was able to provide health care that leads to desired health outcomes and is consistent with current professional knowledge. The qualitative phase of the study confirmed self-reports by clinicians and nurses, as it emerged that very few patients complained of the effect of medical service. The key concerns related to issues with delays in provision of the service. As the results of Phase two revealed these delays were as a result of lack of staff at the consultation rooms and the diagnostic facilities.

The Inferential analysis of the quantitative Phase of the study involved testing the influence of recruitment, training, compensation and performance management on quality of health care. The hypotheses that training and performance management did not have a statistically significant influence on quality of health care were rejected. The results of the second phase of the document analysis support the findings on significance of training and performance management in determining the quality of health care at the referral facility.

The content analysis revealed that only 3% of the complaints related to dissatisfaction with the technical quality, with over 35% relating to consultation and 22% to examinations, mainly because of delays resulting from the volumes of patients. This suggests that the key concerns were with the concerns about service delivery not accuracy of diagnosis and treatment of patients. Thus it was possible to provide a rich explanation of the results that clinicians and nurses are adequately trained and well managed to provide technical service by adopting a mixed methods sequential exploratory design.
4.5 Chapter Summary
This chapter has presented the outcome of data analysis and findings in line with the objectives of the Study. The chapter has presented and discussed findings in both phases of the mixed methods study. For the quantitative Phase, it presented the respondent demographics, descriptive statistics on the extent that the facility has adopted human resource management practices, and employee perceived health care quality. The results of descriptive analysis and hypothesis testing informed the choice of responsiveness and reliability of health care service. The document analysis of complaints date provided corroborative evidence of the findings in Phase one of the investigations. The next chapter presents a summary of the findings, conclusion, recommendations and suggestions for further studies.
CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter presents a summary, conclusion and recommendations of the findings from the study as guided by the research objectives. It provides the theoretical, policy and managerial implications of the research findings. Also included are the recommendations that would guide future investigations into the problem of ensuring quality health care by adopting human resource management practices that can influence provision of quality health care.

5.1 Summary

The first chapter provided a background, formulated the research objectives, the research problem, covered the significance, scope, limitation and organization of the study. The second chapter provided the theoretical and empirical grounding and discussed the relationship between the variables. Chapter three outlined the research design, the population of interest, and provided data collection and analysis techniques. The fourth chapter presented the outcome of data analysis and findings in line with the study objectives while chapter five presented a summary, conclusion and recommendations.

5.1.1 Summary of the Quantitative Phase of the study

The quantitative analysis of the demographics established that the percentage of females employed at the hospital was way above the constitutional gender threshold of a third of county employees being female. The majority of the clinicians and nurses were recruited after the hospital had been elevated to a teaching and referral hospital in 2012. Regarding experience in provision of health care services, nearly all clinicians and nurses had served for more than one year since their initial training. On the highest academic qualifications, data
indicated that over half of the health care workers had attained university level of education. In terms of specialization those who were offering nursing services were slightly more than the clinical officers, medical officers and consultants put together. The personal evaluation of the quality of health care, by clinicians and nurses shows that to a large extent the hospital provided health care that leads to desired health outcomes and is consistent with current professional knowledge quality.

The study revealed that clinicians and nurses moderately agreed that the hospital staffs are willing or ready to provide services in a timely manner. It was also established that to a large extent that the physical service environment of the hospital was conducive to provision of quality health care. Likewise, they were of the opinion that to a large extent the hospital staffs were able to perform the promised service dependably and accurately. Finally, findings revealed that to a large extent that staff were courteous, knowledgeable, and able to inspire trust and confidence in patients, and were caring and able to provide individualized attention to the patients.

The descriptive statistics on the HRM practices adopted showed that clinicians and nurses agreed to a large extent that HRM practices drive quality of health care. Training was considered the most important practice with clinicians agreeing that it influenced quality of health care to very large extent. Compensation management was considered the least important in driving the delivery of quality health care with clinicians and nurses expressing the opinion that it had a moderate a moderate influence on quality of health care. The results also revealed that respondents moderately agreed that performance management influenced provision of quality health care while agreeing to a large extent about the influence of
The hypotheses tests were computed in line with the objectives. The first objective of the study was to determine the influence of recruitment on quality of health care at Jaramogi Oginga Odinga teaching and referral hospital. The study established a negative and non-significant relationship between recruitment practices and quality of health care at Jaramogi Oginga Odinga teaching and referral hospital. The second objective was to assess the influence of training practices on quality of health care at Jaramogi Oginga Odinga teaching and referral hospital. The study established the relationship between training practices and quality of health care at Jaramogi Oginga Odinga teaching and referral hospital to be positive and statistically significant.

The third objective was to establish the influence of compensation on quality of health care at the hospital. The study did not find statistically significant relationship between compensation management practices and quality of health care at the hospital. The fourth study objective was to examine the influence of performance management on quality of health care at the hospital. The results established a statistically significant relationship performance management practices and quality of health care at Jaramogi Oginga Odinga teaching and referral hospital.

The descriptive findings, of the perceived extent of quality, and the inferential analysis of the influence of HRM practices provided a basis for deciding on the results requiring further explanations in the second phase of the study. Perceptions of clinicians and nursing staff on quality is often based on their feelings about the technical aspects of quality and little on the
manner in which the patients are served.

Thus it was deemed necessary to further investigate the perceptions of patients about the extent to which the facility provided functionally acceptable level of health care, for a more complete picture of the extent of quality and its key HRM drivers. Further, the findings relating to the significance of training and compensation management in provision of quality health care required further explanations. In particular, it was not clear as to whether in deed the findings that the staff were well trained and managed to ensure quality of care was supported by the feelings of patients. The analysis of patient complaints aimed at establishing if the clinicians were well trained and managed to offer acceptable services.

5.1.2 Summary of the Qualitative Phase of the study

The second Phase of the study established that the technical quality of health care provided met the expectations of patients since most of the complaints related to delays in obtaining lab results and consulting the clinicians. Further, it was evident that the training and management of clinicians and nurses enabled them to live to the expectations of the patients by providing reliable and responsive health care services before, during and after the consultation and examination stages. Thus by analyzing the frequency that complaints touching on reliability and responsiveness, it was possible to offer further insights into how HRM influenced quality of health care at JOOTRH.

5.2 Conclusions

In conclusion, the thrust of this research has been to investigate the influence of Human Resource Management Practices and Quality of health care in teaching and referral hospitals in Kenya. The study concluded that clinicians are able to offer quality health care owing to their training and how they are managed. While quantitative survey data provided a technical view of quality, the qualitative analysis of patient complaints provided further insight into the
service or functional aspects of quality at JOOTRH.

5.3 Recommendations

Several recommendations for improving quality of health care at JOOTRH from the empirical results. The results of the quantitative phase of the study indicated that whereas the facility offered quality health care, its ability to recruit and remunerate clinicians and nurses was in doubt. Thus it may be recommended that the facility considers investigating how it can adopt a strategic approach to recruitment and compensation, within the devolved framework of managing HR for health in Kenya.

The results of the qualitative Phase of the study suggested that the management can ensure that its patients don’t complain of the responsiveness and reliability of health service by engagement of more staff and adequately compensated them. In this way the facility would minimize the complaints relating to delays in registration, examinations and diagnosis. Further, the management can introduce the use of a ticketing system to reduce delays during registration, lab investigations and dispensing of prescriptions. In that way the overall service experience by the patients will be improved.

The goodness of fit test shows that 77.9 percent of the variability in quality of health care does not explained by HRM practices. Arising from this it can be recommended that the hospital address the deficiency in human resource management by establishing a HRM department that reports to the strategic level of management. Such a department will enable the hospital to develop a strategic focus on management of recruitment and compensation of health care staff. In particular, it will be able to make recommendations to the County Public Service Board on best practices in recruitment and compensation of health care professionals. This
will address the perennial problems of strikes in the health care sector.

Further, since performance management and training practices are the drivers of quality of health care, it is recommended that the new HRM function should strengthen their roles. In particular, the strengthening of performance management techniques like performance contracting and of training practices like training needs analysis can increase quality of health care in TRHs. The third recommendation derives from the finding that recruitment and compensation management practices are negative predictors of quality of health care. It is recommended that the ministry of health carries out more work on ensuring that the potential of these practices are enhanced to ensure a positive influence on quality of health care.

5.4 Suggestions for Further Research

The current study offers insight into the influence of adopting HRM practices on quality of health care within a teaching and referral hospital context. From the current study it is clear that HRM practices have a significant effect on quality of health care. The study however recommends that to build a more complete picture of the quality of health care at teaching and referral hospitals more work be done to capture the influence of organizations internal and external variables.

In particular, further work could incorporate the role of secondary variables that mediate and moderate in the relationship between HRM practices and quality of health care. The inclusion of mediating role of HRM outcomes, such as mediation would enhance our understanding of how HRM practices influence quality of health care. Likewise the assessment of the moderating role of contextual factors, such as social economic, policy and legal contexts may provide further insight into the interventions required to solve HR
problems riddling the sector in a developing country context.

Finally, there is need for a study that tests an integrated model of the HRM practices that captures the combined effect of the key practices, mediating and moderating variables, on the quality of health care in teaching and referral hospitals.
REFERENCES


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Salah, M. D. (2012). Measuring the dimensions of the quality of medical services provided in the Jordanian government hospitals from the perspective of patients and staff.


APPENDICES

Appendix 1: Questionnaire

Kindly respond to each item in the questionnaire by ticking appropriately. The information provided will be used for academic purposes only and will be treated with utmost confidentiality.

SECTION A: RESPONDENT CHARACTERISTICS

Please provide the information sought below by ticking appropriately.

1. **Gender**
   Male ☐ ☐ Female ☐

2. **How long have you worked at JOOTRH?**
   - < 1 year ☐ 1 – 3 years ☐ 4 – 8 years ☐
   - 8 – 12 years ☐ > 12 years ☐

3. **Total years of experience in Health Care Service Delivery**
   - < 1 year ☐ 1 – 3 years ☐ 4 – 8 years ☐
   - 8 – 12 years ☐ > 12 years ☐

4. **Highest academic qualification**
   Ph. D ☐ Masters ☐ Bachelors ☐
   Diploma ☐ H.Diploma ☐ KCSE ☐
   KCPE ☐ Other (Please Specify) .................................................................

5. **Area of specialization**
   Clinical Medicine ☐ Nursing ☐

6. **Job Designation**
   Consultant Medical ☐ Officer ☐
   Clinical Officer ☐ Nursing Officer ☐
SECTION B: HRM PRACTICES ADOPTED BY THE HOSPITAL

7 (i) Recruitment Practices

Please indicate with a tick the extent to which you agree with the following statements regarding recruitment by the hospital on a scale of 1 – 5 where: 1 = Not at all, 2 To a small extent, 3 = To a moderate extent, 4 = To a large extent, 5 = To a very large extent

Statement

a. Interviews aid in identifying workers that can provide quality health care

b. Merit and regional balance ensures staff provide quality health care

c. Newspaper adverts leads to staff able to provide quality health care

d. Recruiting on contract compromises quality of health care

e. Internal promotions result in staff that provide quality health care

7 (ii) Training Practices

Please indicate with a tick the extent to which you agree with the following statements regarding staff training at the hospital on a scale of 1 – 5 where: 1 = Not at all, 2 To a small extent, 3 = To a moderate extent, 4 = To a large extent, 5 = To a very large extent

Statement

a. Training in patient care skills improves provision of quality health care

b. Training in generic skills improves quality of care

c. We are trained more than once per year

d. Career progression plan motivates staff and ensures quality of care

e. Use of TNA to select trainees improves quality of care
7 (iii) Compensation Management Practices

Please indicate with a tick the extent to which you agree with the following statements regarding compensation by the hospital on a scale of 1 – 5 where: 1 = Not at all, 2 To a small extent, 3 =To a moderate extent, 4 =To a large extent, 5 = To a very large extent

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not at all</th>
<th>To a small extent</th>
<th>To a moderate extent</th>
<th>To a large extent</th>
<th>To a very large extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Competitive salary motivates us to offer quality health care</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>b. Quality of health care depends on performance based earnings</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>c. Salary delays affects quality of health care provided to patients</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>d. Earnings based on group performance improves quality of health care</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>e. Performance appraisal provide a benchmark for rewarding employees</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>f. Promotion of health workers results in delivery of quality health care</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

7 (iv) Performance Management Practices

Please indicate with a tick the extent to which you agree with the following statements regarding performance management at the hospital on a scale of 1 – 5 where: 1 = Not at all, 2 To a small extent, 3 =To a moderate extent, 4 =To a large extent, 5 = To a very large extent

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not at all</th>
<th>To a small extent</th>
<th>To a moderate extent</th>
<th>To a large extent</th>
<th>To a very large extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Performance appraisal of doctors and nurses ensures quality care</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>b. The quality circles enhance quality of health care</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>c. Quality is high since we organize self-directed work teams in our work</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>d. Our signing of performance contracts ensures quality in service delivery</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>e. Performance information released improves quality of health care</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>f. Flexible working, e.g sabbatical, improves quality of health care</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
**SECTION 3: QUALITY OF HEALTH CARE**

Please indicate with a tick the extent to which you agree with the following statements regarding quality of health care at the hospital on a scale of 1 – 5 where: 1 = Not at all, 2 = To a small extent, 3 = To a moderate extent, 4 = To a large extent, 5 = To a very large extent

**Statement**

<table>
<thead>
<tr>
<th>8 (i) Tangibles</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a.</strong> We have modern equipment</td>
</tr>
<tr>
<td><strong>b.</strong> The hospital’s physical facilities are visually appealing.</td>
</tr>
<tr>
<td><strong>c.</strong> The hospital’s employees appear neat.</td>
</tr>
<tr>
<td><strong>d.</strong> The materials used in the hospitals are visually appealing</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8 (ii) Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a.</strong> We show sincere interest on solving our patients’ problems</td>
</tr>
<tr>
<td><strong>b.</strong> We perform services right the first time</td>
</tr>
<tr>
<td><strong>c.</strong> We provide services at the time we promise to do so.</td>
</tr>
<tr>
<td><strong>d.</strong> We are accurate in billing our patients</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8 (iii) Responsiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a.</strong> We tell patients exactly when services will be performed.</td>
</tr>
<tr>
<td><strong>b.</strong> We provide prompt services to our patients</td>
</tr>
<tr>
<td><strong>c.</strong> We are always willing to help our patients</td>
</tr>
<tr>
<td><strong>d.</strong> We are never too busy to respond to our patients’ request</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8 (iv) Assurance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a.</strong> Patients feel safe interacting with employees</td>
</tr>
<tr>
<td><strong>b.</strong> We can be trusted by our patients</td>
</tr>
<tr>
<td><strong>c.</strong> We are consistently courteous to our patients</td>
</tr>
<tr>
<td><strong>d.</strong> We have the required knowledge to answer our patients’ questions</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8 (v) Empathy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a.</strong> We give individual attention to our patients</td>
</tr>
<tr>
<td><strong>b.</strong> We have convenient working hours for our patients</td>
</tr>
<tr>
<td><strong>c.</strong> We give personal care to our patients</td>
</tr>
<tr>
<td><strong>d.</strong> We have our patients’ best interest at heart</td>
</tr>
<tr>
<td><strong>e.</strong> We understand the specific needs of our patients</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>
Appendix 2: Introductory Letter

To
WhomItMayConcernDear
Sir/Madam
I am a Master of Business Administration (MBA) candidate at the Kenyatta University’s School of Business in the Department of Business Administration. As part of the requirement for the award of the degree, I am expected to undertake a research study. I am asking for your participation in a study that examines the influence of Human Resource Management Practices on Quality of Health Care at Teaching and Referral Hospitals.

The attached questionnaire will take approximately twenty minutes to complete. Kindly answer all the questions as completely as possible. The research results will be used for academic purposes only and will be treated with utmost confidentiality. Only summary results will be made public.

Your co-operation will be appreciated.

Yours Sincerely
Stephen Otieno Sewe

E-mail: stephensewe@gmail.com
**Appendix 3: Document Analysis Guide**

**Identity of Complainant**
1 = patients themselves; 2 = patient’s close relative, including spouse, parent, or a grown-up child; 3 = patient’s other relative, 4 = friends and other relationships not specified.

**Primary or Referral Case**
1 = Referral Cases 0 = Primary Cases.

**Complaints**

<table>
<thead>
<tr>
<th>Stages</th>
<th>Complaint areas</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premedical consultation</td>
<td>Registration</td>
<td>1=hard to register, 2=long waiting hours, 3=high cost, 4=others</td>
</tr>
<tr>
<td></td>
<td>Waiting for consultation</td>
<td>1=long waiting, 2=chaotic queuing</td>
</tr>
<tr>
<td>Medical consultation</td>
<td>Overall perception</td>
<td>1=impatience, 2=disrespect patients, 3=not caring patients, 4=unavailability of clinicians on duty, 5=do irrelevant things, 6=others</td>
</tr>
<tr>
<td></td>
<td>Doctor or clinical officers attitude</td>
<td>1=lacking communication, 2=not answering, 3=no time for communication, 4=others</td>
</tr>
<tr>
<td></td>
<td>Preliminary diagnosis</td>
<td>1=ignorance of medical records and previous reports, 2=no observation (dermatology issues), 3=no inquiries, 4=others</td>
</tr>
<tr>
<td></td>
<td>Examinations</td>
<td>1=lacking basic examinations, 2=too many examinations, 3=rude examinations, 4=repeated and inappropriate examinations, 5=long wait hours for the results, 6=no analysis for the results, 7=high cost, 8=privacy issue, 9=others</td>
</tr>
<tr>
<td></td>
<td>Closure of consultation</td>
<td>1=no lifestyle advice, 2=no analysis before medical advice, 3=no diagnosis conclusion, 4=high cost of medical, 5=short time for diagnosis, 6=no treatment plan, 7=misdiagnosis</td>
</tr>
<tr>
<td>Post consultation</td>
<td>Patient’s perception of effect</td>
<td>1=no effect or little effect, 2=worse than before, 3=inappropriate treatment plan, 4=others</td>
</tr>
</tbody>
</table>