

**HUMAN RESOURCE (HR) FACTORS AND PERFORMANCE OF
NURSES IN GOVERNMENT HOSPITALS IN KENYA**

By

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**A Thesis submitted to the School of Business in Partial Fulfilment of the
Requirements for the Award of the Degree of Doctor of Philosophy of Dedan
Kimathi University of Technology**

March, 2014

DECLARATION

This thesis is my original work and has not been presented in any other university or college for examination purposes

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DEDICATION

TO

All the mothers who chose to go back to school to further their education in spite of their many responsibilities.

AND

To the memory of my late Dad Ndambuki Somba and Mum Kasiva Ndambuki for believing in me as a girl and encouraging me to study even as a woman. I owe them a huge debt of gratitude.

ACKNOWLEDGEMENTS

First and foremost my sincere gratitude goes to my Heavenly Father for giving me the strength and grace through very difficult moments.

I also wish to sincerely appreciate the following people;

- My supervisor Professor Ken Kamoche for his support and wisdom
- Professor Waiguchu for his guidance, encouragement and support
- Professor Marwa for his support
- My sincere gratitude to the staff and nurses from all the hospitals visited for assistance and support
- Last but not least to my husband and children for their understanding and support during very difficult moments

ABSTRACT

Nurses are the principal caregivers to patients in any hospital. They help identify patients' actual or potential health care problems in order to deliver specific nursing interventions. This research was done to investigate, identify and create awareness on the HR factors that influence performance outcome of nurses in Government hospitals in Kenya.

This study examined the influence of Work environment and tools, Remuneration and Workload stress on performance outcome of nurses. Studies show that HR factors are important in determining performance and in the theory of motivation. The purpose of this study was to determine whether there is a significant relationship between these HR factors and performance outcome of nurses.

The study design utilized for this research was descriptive survey and correlation design, using questionnaires, focus group interviews and observation to collect data. A sample population of 845 nurses was drawn from all six levels of government hospitals using Taro Yamanes sample size selection formula. Questionnaires were randomly delivered to 1,087 nurses in different government hospitals. 780 questionnaires were collected as duly filled and acceptable for analysis. This is a 71.7% return rate.

Presentation of data was done in two levels: descriptive analysis and inferential statistics. Data gathered was cleaned, coded and analysed using Statistical Package for Social Science (SPSS). Pearson's Correlation analysis was done to determine if there is a significant relationship between the dependent and independent variables. Frequency distribution analysis provided an overview of the data using some statistical methods such as population mean and P-value. To test

the hypotheses three types of analyses were used: Multiple regression, analysis of variance (ANOVA) and correlation analysis.

The research findings show that all the HR factors tested have influence on performance outcome of nurses. Some factor have a weak influence while others have a strong and significant influence. Majority of the respondents identified remuneration as the key factor that influence their performance significantly, with a significant P-value of 0.05 with majority (64.5%) saying that remuneration influenced their performance to a great extent followed by work environment and tools, and then workload stress.

Based on the research findings the study recommends that more nurses be employed to reduce workload stress, Ministry of health should provide adequate equipment to all government hospitals and urgent measures must be taken by management and stakeholders to provide conducive work environment. The study further recommends that effort and education of nurses should be recognized and rewarded.

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ABBREVIATIONS AND ACRONYMNS

Acronym	Meaning
AIDS	Acquired Immune Deficiency Syndrome
ANOVA	Analysis of Variance
ASK	Attitude, Skills and Knowledge
ERG	Existence-Relatedness-Growth
FBOs	Faith Based Organizations
GDP	Gross Domestic Product
HA	Alternative Hypothesis
HIV	Human Immunodeficiency Virus
HR	Human Resources
HRM	Human Resources Management
HO	Null Hypothesis
ICU	Intensive Care Unit
IMR	Infant Mortality Rate
MDG	Millennium Development Goals
MDR	Multi Drug Resistant
NHSSPI	National Health Sector Strategy Paper
PESTEL	Political, Economic, Socio-cultural, Technological, Environmental and Legal Factors
PESTGCO	Political, Economic, Socio-cultural, Technological, Geological and Competitive Factors
SHRM	Strategic Human Resources Management
SPSS	Statistical Package for Social Sciences
UK	United Kingdom
U5M	Under five Mortality
VCT	Voluntary Counseling & Testing
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION

1.0 Introduction to the chapter

This study examined selected human resource (HR) factors that influence the work output or performance output of registered nurses in Nairobi County in Kenya. The selected HR factors are work related elements that influence employees' behavior, attitudes, perception and performance; aspects that are significant in the motivation of workers. Such factors are thus part of the process of motivation; the inner force that energizes action in human beings (Zurn *et al.*, 2005; Franco *et al.*, 2002; Armstrong, 2009; Schermerhorn, 2010). The HR factors considered in this study were: Work environment and tools, Remuneration and Work load stress. HR factors, including the ones under this study, are the concern of managers at all levels and in all kinds of organizations as managers must get things done through the efforts of others. These HR factors were the most cited by nurses during the pilot phase of this study and were confirmed through literature reviews and during focus group interviews. The selection of the specific HR factors for study was done through a pilot survey and literature review. Further confirmation that the selected factors were the most critical factors influencing the work output of nurses in Government hospitals in Nairobi County was obtained through a focus group interview.

This study examined how each of the selected HR factors influenced work output and to what extent. Kenya government's reports such as the Kenya's Health policy Frame work (1994-2010); NHSSPI (1999-2004) and NHSSP II (2003-2007) and available literature (Chege *et al.*, 1999 and Kirui and Mbithi, 2012) observe that there has been a serious decline in health service delivery in Kenyan government hospitals. The causes of this decline are not well known and not well established except that the government acknowledges that the causes are related to human

resources and that various human resource factors may be to blame for the decline as observed in Kenya's Health policy Framework (1994-2010); NHSSPI (1999-2004) and NHSSP II (2003-2007). The Joint Programme of Work and Funding for the Kenya Health Sector report (2006/7 - 2009/10: Section 4.1) acknowledges that staffing and staffing issues ***“is the rate limiting step to all the key reform objectives”*** in the health sector. Staffing and staffing issues are HR factors. Staffing is about filling and keeping filled staff positions in an organization. Issues of recruitment, placement, motivation, stress at work, remuneration and related factors such as allowances and incentives are all related to staffing and staffing issues (Rogo *et al.*, 2001). Many other studies and government reports, other than those mentioned above, carry the same conclusion that HR factors are to blame for the decline in health service delivery in African Countries including Kenya (Chege and Trangsrud, 1999; Mawere *et al.*, 2010; Seboni *et al.*, 2013). Thus, human resource factors are central in this regard and therefore a need arose for an empirical study to establish the extent to which human resource (HR) factors influence work performance or work output of nurses in the Kenya Government Hospitals and the significance of the influence. This study worked on the assumption that “what gets measured gets done”, meaning that where a system of performance assessment existed or where work output of workers was assessed it made sense to examine the factors that should be considered important in determining work output or performance (Drucker 1955; 1964; 1975; LeBoeuf, 1985).

At the time of this study no known study in Kenya had been done to investigate the specific human resource factors in the public health sector and how they influence work output. It is hoped that the findings of this study will be important in influencing interventions meant to stem the decline in service provision in the health sector and help to save lives of patients. Improvement of health services is an important issue because health care provision and access to

health care is a basic human right of global concern. Health care for all is a key goal for any government. Health is also a key issue in the Millennium Development Goals (MDGs). Health care is indeed a global agenda item.

In this research the hospitals studied were: Kenyatta National Hospital, Armed Forces Memorial Hospital, Nairobi Hospice, Mbagathi Hospital, National Spinal Injury Hospital, Mama Lucy Kibaki Hospital, Mathare Hospital and many Health Centers and Community Health Centers in Nairobi County. The Kenya Bureau of Statistics gave the total number of nurses working in government hospitals in Nairobi County in 2012 as 32,941.

Government hospitals in Kenya are categorized into six levels. Level 1 is the Community centers where Community Health workers such as birth attendants provide services. Level 2 incorporates all Dispensaries. These are manned by nurses. Level 3 is constituted by Health Centers. Health Centers are manned by Clinical Officers assisted by Nurse Managers. District Hospitals and Sub District hospitals constitute Level 4. They are manned by Medical Doctors and senior nurses (Nurse Managers). Provincial General Hospitals comprise Level 5 while Level 6 is made up of Teaching and Referral hospitals such as Kenyatta National Hospital in Nairobi and Moi Teaching and Referral hospital in Rift Valley province. For ease of analysis in this study and taking into account the volumes of through put in the different levels, Levels 1, 2 & 3 were classified as Category 1 hospitals. Level 4 was classified as category 11 while Levels 5 & 6 were classified as Category 111.

In addition to examining the identified Human Resource (HR) factors the study also investigated the extent and nature of the challenges nurses faced as they carried out their duties in relation to

their performance under a system where performance assessment exists. Issues such as leadership, management, communication, delegation and related ones were also investigated.

Before the commencement of this study a pilot study was undertaken. The HR factors focused on and investigated here were the most frequently mentioned during the pilot study and were also the most frequently mentioned in the available literature. The factors were also the most frequently advanced to explain the frequent strikes in hospitals in Africa as well as in Kenya (Dhai *et al.*, 2011; Mawere *et al.*, 2010). The key demands by striking nurses were identified as salaries and incentives, poor working conditions, heavy workload and staff shortage (Health Systems Trust Bulletin, 2011; Ojwang *et al.*, 2010). The issues raised during the strikes are of major concern always and therefore deserve serious study and analysis. Therefore the purpose of this quantitative descriptive correlational study was to establish how the Human Resource (HR) factors of work environment & tools, remuneration, and work load stress affected the performance output of nurses in government hospitals in Nairobi County either positively or negatively. The study also examined if differences existed between the different categories of hospitals in terms of the HR factors and performance assessment.

It is a well known fact that well trained, qualified and motivated human resources (HR) are essential for adequate health service provision (WHO, 2006; Hongoro and Normand, 2006). Where human resources are compromised in whatever way then one can conclude without any contradiction that service provision also gets compromised. As WHO (2006) observed, HR shortages have reached critical levels in many resource-poor settings especially in Africa. Strategies for improving performance are therefore essential to address the issues of poor service delivery and decline in service provision. This study's conclusion sheds light on the issues of

interest and some recommendations that could be implemented in addressing the issues of concern in terms of work output or performance of nurses are made.

Improving job performance for nurses in government hospitals in Kenya is a critical factor to the successful service provision, achievement of the Government of Kenya development aspirations such as those contained in Vision 2030 and increased quality and quantity of patient care. Research shows that job performance is influenced by HR factors such as work attitudes and related issues such as job satisfaction and organizational commitment (McGuire *et al.*, 2008; JLI, 2004; WHO, 2006; Van Lerberghe *et al.*, 2003; Rowe *et al.*, 2005; Garcia-Prado and Chawla, 2006). Apart from work attitudes other factors that influence job performance include motivation, remuneration & incentives, work environment, management and leadership issues, and factors from the external environment such as government policies and regulatory frameworks.

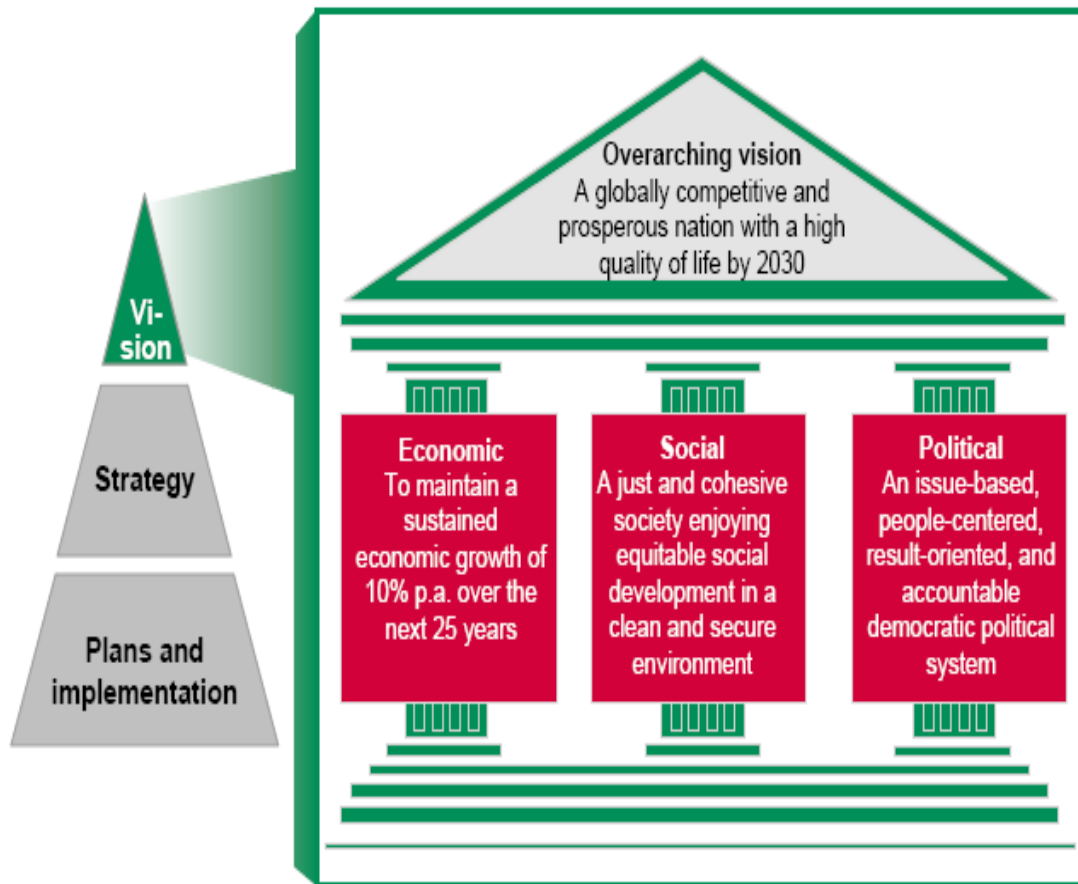
Nurses' attitudes towards their jobs and commitment to the organizations that employ them have been of great concern to researchers because nurses have a great impact on the quality of patient care provided in healthcare institutions. In this study the perceptions of nurses were sought on the selected HR factors using questionnaires and a focus group interview. The area of HR factors and work output or Performance of nurses is an area of interest to many scholars. Many scholars have investigated the performance of nurses in different environments other than Kenya's. These include the following: Parker and Kulik (1995); Borda & Norman (1997); Judge *et al.*, (2004), Siu (2002), Albualrub (2004); Tieng (2004); Mrayyan (2006) and Hall (2007) among others. In Kenya studies have tended to ignore the issue of job outcomes and the factors influencing performance of nurses. This is the gap this present study sought to address.

The rest of this chapter provides the background to the study. It also discusses the statement of the problem, research questions, the purpose and objectives of the study, hypotheses and significance of the study as well as providing the limitations and delimitations of the study.

1.1 Background

Kenya's economy is predicted to grow at an average rate of 10 per cent per annum in its GDP up to the year 2030 (Vision 2030). This growth will depend on improved service delivery in all the sectors of the economy. According to Kenya Vision 2030, which is the country's new development blueprint covering the period 2008 to 2030, the aim of this dream is to "transform Kenya into a newly industrializing, middle-income country providing a high quality life to all its citizens by the year 2030". A high quality of life is very much dependent on a good health care delivery system. Nurses constitute an important part of the health care system of any country. They are expected to play an important role in helping the health sector of Kenya achieve its strategic objectives.

The Vision 2030 has been developed through an all-inclusive and participatory stakeholder consultative process, involving Kenyans from all parts of the country. The Vision is anchored on three "pillars": the economic, the social and the political pillars. The three pillars of Vision 2030 can be illustrated diagrammatically in Fig. 1 below as in the Vision 2030 Blueprint.



Source: Vision 2030 (Blue Print)

The economic pillar aims to achieve an economic growth rate of 10 per cent per annum. This growth cannot occur without a healthy population. The social pillar seeks to build a just, cohesive and equitable social development in a clean and secure environment. Eight key social sectors are targeted under the social pillar. These are health; education and training; water and sanitation; environment; housing and urbanization; as well as gender, youth and vulnerable groups.

Within the social sector is health which is the sub sector of interest in this research. The interventions in the health sector will consider the interests, needs and values of Kenyans from

all walks of life. The involvement of the public and other stakeholders in health matters will be encouraged in order to enhance their ownership, acceptability, compliance and support decision-making. Public participation will also enhance problem solving and help deal with inherent resistance and malpractices in the health sector. The idea is to improve service provision in the sector. One can ask a question at this point: What are the issues surrounding performance of the workers, and especially nurses in this sector? It is a well known and established factor that increased performance is a function of the motivation of workers, among other factors. It is therefore important to investigate factors that are critical to improved performance and hence productivity in this sector.

The political pillar aims to realize issue-based, people centered, result-oriented and a transparent and accountable democratic system that respects the rule of law, and protects the rights and freedoms of every individual in the Kenyan society. The political transformation of the country cannot take place in the absence of a healthy population and health interventions for that matter given the important place of the Health sector in Kenya's economy. It is well established that health and freedom from disease is a human rights issue. Another question can be posed at this point: What strategies can be applied to improve the performance and productivity of workers and especially nurses in this sector? Yet still another question can be asked: Given that the bedrock of the health sector's service delivery is the worker called a Nurse, what can be done to enhance the motivation of workers in the nursing profession?

The Government has committed itself to create an enabling environment to promote the health of the Kenyan people in an equitable, transparent and efficient manner as per the provisions of the 2010 constitution and other government policy documents [Vision 2030; Household Health

Expenditure Report, 2003; Kenya's Health policy Framework (1994-2010); NHSSPI (1999-2004); NHSSP II (2003 – 2007)]. This means that service delivery has to be improved in order to achieve this ambition. In order to improve service delivery, increased performance and hence productivity of nurses is critical. This is anchored on factors such as favourable working environment, motivation, appraisal, remuneration and incentives, and other human resource factors that impact their operations.

Research on key issues affecting health worker and the health sector is important in order to provide information on how job output, performance and productivity of workers in the health sector can be increased. This study is an attempt towards addressing this issue. The need to address the issues affecting the health sector in African countries has been an issue of concern for a long time. Studies are needed to examine the issues in question in depth.

The Global Ministerial Forum on Research for Health reached this same conclusion way back in 2008. The Forum was hosted by the Government of Mali from 17 -19 November 2008. The event was opened by the President of Mali, His Excellency Amadou Toumani Touré. On the final day delegates from 53 countries launched "**a Call to Action**" setting out targets for increasing investments in **research** for health. The Call to Action urged governments to allocate at **least 2%** of budgets of ministries of health to **research and development** agencies and to earmark at **least 5%** of funding for research, including support to knowledge translation and evaluation as part of the research process. Governments were also urged to pursue innovative financing mechanisms for research for health. "*The implementation of the Bamako Call to Action starts today*" said Dr Maiga Diakiti, research adviser to the Minister of Health in Mali, reflecting the urgent need for immediate action. Kenya has not been able to fund research and development in the health sector to the levels set out in the call for action [NHSSP II (2003 –

2007)]. Although the Kenya government did not fund this research, the researcher felt the need to make a contribution towards “the Call for Action” by carrying out a detailed investigation on the HR factors influencing the performance of nurses in Kenya.

This current research on the HR factors that influence the work outcome of nurses in Kenya is expected to make a contribution in regard to the “Call for Action” besides contributing in other ways. The Call to Action sets out and highlights a number of crucial priorities and objectives. These include:-

- A need for greater equity in research. The Call to Action urges countries, ministries, agencies and the private sector to join forces to improve the health of the world's poorer nations. Improvements cannot be realized without human capital development. One key aspect of this is improved skills of workers in the health sector in order to enable them improve performance and productivity in the sector. Thus, this research on the performance of nurses is a welcome development in support of this call to action.
- A need to make knowledge translation a priority for governments - to link evidence to policy-making. Thus, research that provides evidence on issues of performance and productivity of nurses would be a welcome addition to literature. This current research no doubt contributes towards this aspiration.
- A need to create stronger institutions for research and capacity-building. This current research provides recommendations to be considered in building the capacity of health workers, in particular nurses, who I describe in this work as the ‘bedrock’ of the health sector.

It suffices at this point to put the issue of the job output or performance of nurses within context by providing important background information on the health sector of Kenya.

Government of Kenya policy documents and reports on the health sector indicate that majority of Kenyans do not have access to affordable health care. Furthermore, nearly half (46 per cent) of the population live below the poverty line. According to the Household Health Expenditure Report (2003) 44 per cent of Kenyans who fall sick do not seek health services due to lack of finance and other frustrations. This implies that low income remains a major hindrance to accessing health care services in the country. Anecdotal evidence suggests that there is so much frustration in hospitals and especially government hospitals that many people opt not to seek medical attention. Long queues in health facilities have been observed all over the country. People have died in queues waiting to be attended to. The many strikes by nurses in Kenya always point out that these issues frustrate nurses to the extent that their morale is impacted negatively. Improved productivity of nurses, the face of hospitals in any nation, can certainly lead to improvements in health services and hence encouragement of the poor to seek medical attention. This research makes a contribution towards this end by providing answers to questions relating to HR factors that affect the work output of nurses in Kenyan hospitals.

Improved performance of nurses can certainly have a positive impact in terms of reduced mortality rates of the country's population and national productivity levels in all the sectors of the economy. Mortality rates still remain high, particularly among women and children. For instance, the Infant Mortality Rate (IMR) increased from 71 per 1,000 live births in 1998, to 77 per 1,000 live births in 2003. In addition, the Under-five Mortality (U5M) increased from 105 to 115 per 1,000 live births during the same period. Mortality rate among under-fives show marked regional disparities, ranging from 54 per 1,000 live births in Central Province, to 163 in North

Eastern province and 206 in Nyanza province. The overall concern is that if the current national trend continues, the Under-five Mortality related MDG may not be achieved. Maternal mortality rate stands at 414 maternal deaths per 100,000 live births. Approximately 14,700 women of reproductive age die annually due to pregnancy related complications. Recent statistics show that 60 per cent of births in Kenya take place outside health facilities and only 40 per cent of deliveries are attended by skilled personnel. Doesn't this therefore suggest that a lot can be improved by increasing the performance and productivity in the health sector and especially the work output of nurses, who are the bed rock of the health sector? The Joint Programme of Work and Funding for the Kenya Health Sector report (2006/7 - 2009/10: Section 4.1) alludes to the fact that HR factors are to blame for the falling standards of service in the health sector of Kenya including the increasing mortality rates. The report observes that staffing and staffing issues (HR factors) *"is the rate limiting step to all the key reform objectives"* in the health sector.

The nursing staff in various hospitals in Kenya handle various issues relating to preventive and curative health, nutrition and health education. Interventions in their working can help in significant ways in addressing some of the key issues and problems relating to the health sector. Problems of the health sector are many and they include, communicable and infectious diseases, nutrition deficiency disorders and parasitic infections still dominate the morbidity profile in the country. Other problems include Malaria, a leading cause of outpatient morbidity, accounting for 30 per cent of the total disease burden in Kenya; diseases of the respiratory system, pneumonia, skin diseases, diarrhoea diseases, and intestinal worms; and HIV/AIDS which continues to pose health and socioeconomic challenges. The health sector problems are important and especially when viewed from the point of view of those who provide services, including nurses. The performance and work outcomes of nurses should therefore be of concern to all and especially

policy makers who are expected to formulate policies and strategies that should improve the working modus operandi of nurses in Kenya.

Nursing staff also play a critical issue in regard to nutrition. They educate patients, especially mothers, on the basics of good nutrition. Indeed, nutrition is a major area of concern to the government of Kenya. Poor nutritional status remains a challenge in Kenya because malnutrition is an underlying factor accounting for 54 per cent of deaths among children under-five years. At national level, one out of every three children under-five years of age exhibits stunted growth, due to long term deprivation of quality nutrition. An estimated 55 per cent of women of reproductive age are anaemic and over 70 per cent of children below 5 years suffer from Vitamin A deficiency. Indeed, these nutritional outcomes are totally unacceptable because of their negative consequences on the human and economic development in the country. Nurses play a critical role in the education of mothers in health Centres and other hospital service providers. With improved performance and productivity of nurses one can expect improvements in terms of the above problems [Household Health Expenditure Report, 2003; Kenya's Health policy Framework (1994-2010); NHSSPI (1999-2004); NHSSP II (2003 – 2007)]The government has invested more in health service provision in urban Centres. It is imperative to investigate issues relating to health services where the government spends most of its resources in the health sector. Currently, the health expenditure in rural areas account for 30 per cent of the government's spending on health services. Of this figure, urban areas account for 70 per cent. Quality health care services are low because of many factors and especially lack of supplies/stocks and human resource factors [Kenya's Health policy Framework (1994-2010); NHSSPI (1999-2004); NHSSP II (2003 - 2007)]. Lack of essential working tools not only demotivates nurses but also affects many aspects of performance and productivity. With a total of 6,194 health facilities, 51

per cent are Ministry of Health facilities, while the remaining 49 per cent are Faith Based Organizations (FBOs) and private facilities. Hence, the need in this study arose to investigate hospitals under the Ministry of Health or simply Government Hospitals. However, only 52 per cent of Kenyans are within 5 kilometers to the health facilities [Kenya's Health policy Framework (1994-2010); NHSSPI (1999-2004); NHSSP II (2003 - 2007)].

In order to deliver improved health, several strategic thrusts have been identified for the Health sector based on their relationship to the Social, economic and political pillars of the Vision 2030 and as contained in Kenya's Health policy Framework (1994-2010).

- Health Research utilization in policy-making and policy makers' decision making
- A health system strengthening
- Role of non-state sector in health service provision Climate change, environment and health- global warming, rising sea level, drying & dying lakes
- Burden of Communicable, infectious, and parasitic diseases - Malaria, HIV/AIDS, Tuberculosis
- Neglected diseases – leishmaniasis and trypanosomiasis
- Burden of Non-communicable diseases is of serious concern in the health sector.

One may ask at this point why the above issues are important in regard to the objectives of this research. It is important to recognise that all the above issues point to the need to improve the performance in the health sector. This researcher went into this research with the firm belief that the performance of nurses is a critical factor worth of investigation. But where do the priorities lie in the health sector according to the government of Kenya? The Government of Kenya has

identified five strategic priorities for the health sector. These have been summarized in the Vision 2030 as follows:-

- (i) Identifying, and supporting implementation of defined, cost effective Public Health interventions
- (ii) Strengthening coverage and effectiveness of the defined public health interventions with a focus on services at the community
- (iii) Improving the coordination of delivery of public health interventions through building, and strengthening Government, and non Governmental partnerships in public health
- (iv) Strengthening the efficiency and budget effectiveness for resources used in public health
- (v) Health care financing

The above challenges cannot be addressed without addressing the motivation of staff through improving their performance and productivity. In other words, no good results can occur without addressing the HR aspects engendered by the issues outlined above.

It suffices at this point to put the issues in perspective through a narration of the statement of the problem of this research.

1.2 Statement of the problem

This study identified the HR factors of remuneration, work environment and tools, and workload stress as the critical factors that influence performance outcome of nurses in government hospitals through literature review, government reports, observation and factor analysis. Addressing these issues would involve examining the issue of motivation of nurses. Addressing these HR issues that are important in motivation would lead to improved service delivery, high

performance and achievement of Kenya's vision 2030 dream and the millennium development goals on health.

One of the assumptions in human resource (HR) practice is that people are the organizations key resources and that the performance of any organization largely depends on them (Armstrong, 2006; 2009; 1955; 1964). Nurses form the back bone of human Resource in any hospital because they are the majority among the employees. They therefore have a great impact on the organization's work output, whether it is high performance or low performance.

Literature reviews, government reports, observations and the record of the constant strikes witnessed among health works in Kenya over the years attest to the decline in health care service delivery in government hospitals [Karani, 2004; Nyangena *et al.*, 2012; Dhai *et al.*, 2011; NHSSP11 (2003-2004)]. This calls for research to establish the issues affecting nurses at their workplace in order to suggest strategies to mitigate the problems. The research gap this study attempts to fill is to investigate, identify and create awareness on the critical HR factors that significantly influence performance outcome of nurses in government hospitals.

In Kenya it is widely acknowledged in government reports and literature that health care workers are not producing the desired work out put in health service delivery (Kirui and Mbithi, 2012, Rogo *et al.*, 2001, NHSSPII 2002 - 2007). This poor service is evident in long queues of patients waiting to be served in government hospitals, whereby keen observers would notice that the queues do not seem to move for hours. According to Kirui and Mbithi (2012) nurses show poor utilization of nursing process which affects the flow of patients into and out of different caring rooms. This therefore calls for investigations to establish the issues affecting nurses at their work place in order to recommend strategies for mitigation. Therefore the statement of

research can be written down as “The influence of human resource (HR) factors on performance outcome of registered nurses, under a system of performance assessment, in Nairobi County, Kenya”

1.3 Scope of the study

This study identified and examined workload stress, work environment and tools, and remunerations as the key HR factors, because they were the most cited by the respondents interviewed during a pilot study. These HR factors are also supported by literature as critical issues that influence performance output. The same issues are always raised during strikes.

Nairobi County was adopted as the area of study because it is the capital city of Kenya and it is representative of all other counties. It was also chosen because all the six levels of government hospitals which exist throughout the county are found in Nairobi County. The relationship between the selected HR factors and performance output was established through descriptive statistics and inferential statistic using multiple regression analysis.

1.4 Research objectives

The general objective of this study was to critically identify, examine and create awareness on key HR factors which influence the work output or performance of nurses in government hospitals in Nairobi County – Kenya. The specific objectives of this study are to:

1. Find out how remuneration influences performance outcome of nurses under situations where staff assessment is carried out
2. Investigate the relationship between work environment and tools, and performance outcome of nurses under a system where staff assessment is carried out

3. Find out how workload stress affects performance outcome of nurses under situations where staff assessment takes place
4. Identify the differences and similarities in performance assessment of nurses in the three categories of hospitals under study

1.5 Research questions

Research questions are meant to assist the researcher remain focused in addressing the set objectives of a study (Kothari, 2003). This study aimed to answer the following questions:-

1. Does remuneration influence the performance outcome of nurses?
2. What is the relationship between work environment and tools, and the performance outcome of nurses?
3. What is the nature of workload stress and how does it affect the work outcome of nurses?
4. Is the performance assessment of nurses in the three categories of hospitals different ?

1.6 Hypotheses

Hypotheses predict relationships between variables. According to Creswell (2005) they can be categorized into the null hypotheses and alternative hypotheses. The null hypothesis predicts that no relationship exists between variables, and the alternative hypothesis is a true statement if the results of statistical analyses are used to reject the null hypothesis.

Based on the research objectives and questions, the following null hypotheses were formulated to guide this study:

H1₀: There is no relationship between remuneration & incentives and performance outcome

H1_A: There is a significant relationship between remuneration & incentives and performance outcome

H2₀: There is no relationship between work environment & tools and performance outcome.

H2_A: There is a significant relationship between work environment & tools and performance outcome.

H3₀: There is no relationship between workload stress and performance outcome

H3_A: There is a significant relationship between workload stress and performance outcome

H4₀: There is no significant difference in the performance assessment and outcome of nurses for all categories of hospitals

H4_A: There is a significant difference in the performance assessment and outcome of nurses in all the categories of hospitals.

1.7 Significance of the study

To the best knowledge of this researcher this study is the first in Kenya to identify and examine specific HR factors that influence the work outcome of nurses in government hospitals.

Addressing these HR factors is important to the realization of Kenya's vision 2030 dream of improving health service delivery and improvement of nursing processes and standards.

The study suggests strategies that policy makers, players in the health sector and the Ministry of health can use to monitor, manage and improve the work outcome or performance of nurses. Its

findings will suggest possible interventions to aid reduce the high turnover of nurses and also reduce the migration of nurses to other countries.

Further the findings of the study will assist future researchers interested in the dynamics of high performance and other related areas to use as reference material. The findings of the study can also assist administrators in the health sector to understand how to motivate their employees especially nurses in attempts to increase their productivity.

1.8 Assumptions of the study

In order to arrive at credible results the study made some assumptions in regard to some areas that these would have no effect on the results interpretation (i.e. internal and external validity). These assumptions relating to validity and reliability of measuring instruments, representativeness of the sample taken and honesty of the subjects of study in making appropriate responses. The assumptions made it possible for the researcher to continue to undertake the study with a reasonable degree of confidence. All the measuring instruments met the thresholds for reliability and the sample taken was adequate.

1.9 Study limitations

Factors that affect the performance outcome of nurses are found in both the internal and external environments of nursing. The factors are interrelated. A study that isolates only some of the factors such as the current study cannot claim to adequately address all the issues. This is therefore the major limitation in this work. This study addressed this issue through a pilot study done to isolate the key issues of concern in the Kenyan context.

Various factors influence work outcome or performance of nurses. They relate to the individual nurse, work environment and related factors, motivation of workers, leadership and management,

and external environment factors such as human resources policy and planning. It would be impossible and almost impracticable to study all the factors in one study.

Work outcomes are as a result of what happens at both personal and work-related factors levels. Sometimes it is difficult to separate the factors. Studies attempting to investigate the issues can focus on macro or health-system level, such as HR policy and planning, recruitment and training. They can also focus on the micro or facility level, aimed at improving job satisfaction by addressing working conditions, providing incentives and offering professional development. This researcher chose to concentrate on the identified HR factors that were seen as critical in terms of the work outcome of nurses in Kenyan context. The study was therefore more focused on the micro or facility level while acknowledging the significance of the macro environment level.

1.10 Operational definition of terms

Category of hospital in this thesis category of hospital is used to mean our classification of hospitals in either category 1, II or III from the six levels of government hospitals in Kenya. For ease of analysis in this study and taking into account the volumes of throughput in the different levels of government hospitals, Levels 2 & 3 were classified as Category 1. Level 4 was classified as category II while Levels 5 & 6 were classified as Category III.

Environment is the context and this includes internal as well as external elements affecting work (Pearce and Robinson, 2007). Environment of work or work environment is an all encompassing term meaning the sum total of all the factors affecting workers in the context of their internal environment. It is the context of work. The context of work constitutes the working conditions

Equity theory is concerned with the perceptions people have about how they are being treated compared to others. Equity exists where a person is treated fairly in comparison with another person in a reference group or another person deemed to be in similar circumstances and with similar qualifications. This theory explains satisfaction in relation to a perception of being fairly treated in comparison to others: either other colleagues in the same organization or in other organizations (Adams, 1965; Armstrong, 2006).

Expectancy theory attempts to answer the question of what determines the willingness of an individual to perform specific tasks. The theory posits that motivation is determined by an individual's belief regarding effort. It follows from this that "motivation is only likely when a clearly perceived and usable relationship exists between performance and outcome, and outcome is seen as a means of satisfying needs (Armstrong, 2006).

Goal theory explains that motivation and performance of workers are higher when individuals work towards specific goals, when goals are difficult but accepted, and when feedback is given on performance (Locke, 1979). According to this theory individuals make rational decisions about the goals they expect to achieve. It is the goals they have in mind that guide their behavior. Our assumption is that individuals have desire and aspirations to work towards set goals or targets

Human Resources Management is the utilization of individuals to achieve organizational objectives (Mondy & Noe, 2005)

Human Resources (HR) in this thesis is taken to mean individuals; and the Attitude, Skills and Knowledge (ASK), and perception that they possess

Human Resource (HR) factors are the internal work environment factors that influence job performance and they include individual perceptions, experience of work, individual level work outcomes or performance, and organizational factors such as strategic coherence, performance management style, social norms and how they influence behavior, and standards at work, communication, supportive supervision or leadership functions, resources, shared expectations about appropriate behavior at work, structures and work culture. These factors form the context in which work is done (David, 2001)

Job Performance outcome in this thesis is taken as synonymous with work performance outcome or work outputs or job outcomes or simply performance outcomes. This agrees with the definition of Campbell (1990) who declaimed that job performance can be easily defined as all behaviors in work. He further pointed out that these behaviors should make some contribution to organizational goals

Levels of analysis mean either of the two ways of analyzing data chosen in this thesis. In this thesis data is analyzed and interpreted on the basis of descriptive statistics (Level 1 of analysis) and on the basis of inferential statistics (Level 2 of analysis).

Level of hospital means the class into which a hospital is placed by government. There are six levels of hospitals in Kenya. Level 1 is the Community health Centers. Level 2 incorporates all Dispensaries. Level 3 is constituted by Health Centers. District Hospitals and Sub District hospitals constitute Level 4. Provincial General Hospitals comprise Level 5 while Level 6 is made up of Teaching and Referral hospitals such as Kenyatta National Hospital in Nairobi and Moi Teaching and Referral hospital in Rift Valley province.

Motivation can be defined as “the willingness to exert and maintain an effort towards organizational goals” (Franco *et al.*, 2002), implying that staff perceive themselves as able to do their work, that they are willing to work and that they have the means to do their work (Zurn *et al.*, 2005). Motivation is a process that leads people to behave in certain ways. The theory of motivation explains why people at work behave the way they do in terms of their efforts and the directions they are taking

Perception is a belief or opinion that you have. It also means the awareness of things that you have by means of your senses (Collins CoBuild Dictionary, Birmingham University)

Performance is a record of outcomes achieved on an individual basis and as a record of a person’s accomplishment. Performance is often defined simply in terms of output, the achievement of quantified objectives. It is the end result of human effort at work. It is a matter of not only what people achieve but also how they achieve it. How people work (behavior) and the end result (output) are both elements of performance. One cannot exist without the other.

Armstrong (2006)

Performance Improvement is about the delivery of higher performance or achievement of improved levels of performance. Improved levels of performance depend on many factors including the collective effort of individuals

Performance Management is used in this research as a term that includes performance planning, performance review and performance assessment or appraisal (Plach and Planchy, 1988). Performance management therefore consists of all organizational processes that determine how well employees, teams, and ultimately, the organization perform.

Process theory focuses on psychological processes or forces that affect motivation, as well as on basic needs, by reference to expectations. It is also called **cognitive theory** because it is concerned with people's perceptions of their working environment and the ways in which they interpret and understand it

Remuneration is the value of all cash payments (total earnings) and benefits received by employees (Armstrong, 2007). Remuneration includes rewards and incentives. Incentives include all types of rewards, indirect as well as direct, and intrinsic as well as extrinsic elements. Each aspect of reward, namely base pay, contingent pay, employee benefits and non-financial rewards, which include intrinsic rewards from the work itself, are linked together and treated as an integrated and coherent whole.

Registered nurses are health care workers who provide critical services in the health sector of any country including Kenya. WHO defines nursing as follows; 'Nursing helps families and groups to determine and achieve their physical, mental and social potential and do so within the changing context of the environment within which they live and work. Nursing also includes the planning and giving of care during illness and rehabilitation and encompasses physical, mental and social aspects of life as they affect health.'

Staff assessment is taken to mean staff appraisal. It is also taken to mean performance assessment of staff. This is a system of review and evaluation of individual task performance

Work load stress in this thesis is taken to mean occupational stress or stress arising from what one does. There is no agreed definition of the term workload stress; some writers use the term to mean input loading, others take it to mean how hard one has to work, still others take it to mean speed and accuracy of response (Alluisi and Fleishman, 1982). Others take workload stress to

include physiological and psychological abnormalities and work situation problems caused by overloading physical and psychological demands (stressors) at work (Kahn & Byosiere, 1992).

All the above meanings of work load stress are embraced in this thesis.

Chapter summary

Chapter 1 covers back ground to the study, problem statement, research objectives, research questions, hypotheses, significance of the study, assumptions of the study, limitations, and operational definition of terms.

Chapter 2 reviews various theoretical and conceptual frame works, relevant motivational theories, performance, performance management, performance improvement, remuneration, work environment, workload stress, and the operational conceptual model developed by this researcher to show the relationship between HR factors and performance of nurses.

Chapter 3 discusses the research philosophy utilized in this study, data collection and data analysis methods, population, null and alternative hypotheses, validity, reliability and ethical issues.

Chapter 4 covers several sections on discussions and findings starting with descriptive and inferential statistics, presentation of findings on each category of hospital, inferential statistical analysis and interpretation, summary of research questions and hypotheses interpretation.

Chapter 5 covers summary, conclusions, recommendations, limitations and delimitations, contribution to knowledge, and implications of the study.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction to the chapter

To gather the current state of knowledge on how this research fits into the wider context and to help clarify the research questions and objectives, this study reviewed literature on Motivation as the various elements in the process of motivation affect the work output or performance of workers. The term motivation as used in management theory describes forces *“that account for the level, direction and persistence of effort expended at work. Simply put, a highly motivated person works hard at a job; an unmotivated person does not. A manager who leads through motivation does so by creating conditions under which other people feel consistently inspired to work”* (Schermerhorn, 2010:350; Fisher *et al.*, 2003; Noe *et al.*, 2003; Armstrong, 2010; Katz and Green, 1997).

Many theories of motivation exist. The theories discuss issues around the worker and his/her perception and orientation including expectations; what energizes the worker at work; the work or job itself and the context or environment of work; stress at work; leadership and management issues; compensation for the effort put at work; how people make choices to work hard or not based on their individual preferences, the available rewards, and possible work outcomes; and external environmental factors (outside the individual) and their consequences in determining human behavior at work among other factors (Schermerhorn, 2010; Armstrong, 2010; Winch *et al.*, 2003; Hicks and Adams, 2003; Stajkovic and Luthans, 2001).

The Key theories of motivation are outlined below.

Needs theories offer insights on individual differences and how managers can deal positively with them. The Needs theories are: Hierarchy of needs theory, ERG theory, Two-factor theory, and acquired needs theory.

The **Process theories** of motivation add further to this understanding. They are: equity theory, Expectancy theory, Goal-setting theory, and self-efficacy theory.

Reinforcement theories involve the process of controlling behavior by manipulating its consequences. In management, the goal is to use reinforcement principles to systematically reinforce desirable work behavior so work output can be positive. The key elements of reinforcement are: Reinforcement strategies, Positive reinforcement, and punishment. Other motivation theories attempt to explain issues relating to job design; the process of arranging work tasks for individuals and groups. The key elements considered here are: Scientific management, Job rotation and enlargement, Job enrichment, and Alternative work schedules (Schermerhorn, 2010:350; Pillay, 2009; Manus and Graham, 2003; Mathis and Jackson, 2004).

Some management thinkers and theorists have contributed in various ways to the development of the motivation theories and these theories have a lot in common in terms of human motivation, and hence the motivation of workers in the work place. For example, Maslow's hierarchy of **needs theory** examines how fulfillment of different levels of human needs in hierarchical order affect human behavior at work; Herzberg's **two-factor theory** attempts to explain things relating to the nature of a job that Herzberg calls satisfier factors (achievement, recognition, work itself, advancement, responsibility, personal growth) and things relating to the work itself and the environment of work that he describes as hygiene factors (working conditions, policies & rules, base wage/salary and supervisor quality). **Process theories** of motivation attempt to explain how

people make choices to work hard or not; **acquired needs theory** associated with McClelland examines three needs of people that motivate them (need for achievement, need for power and need for affiliation), and **reinforcement theory** views human behavior as determined by its environmental consequences.

All theories of motivation describe forces within the individual that account for the level, direction, and persistence of effort expended at work (Schermerhorn, 2010; Armstrong, 2010; Mondy and Noe, 2005; Brockner, 2006; Hughes *et al.*, 2002). The motivation theories examined in this study were: **Instrumentality, Content (needs), Two-factor, and Process/Cognitive theories** (Expectancy, Goal and Equity). Literature was also reviewed on the related concepts of Human Resource Management & Human Resource factors, Performance, Performance Management, Performance Assessment, Performance improvement, Remuneration, Work environment and Work load stress. Published and non published theses, Journal articles, Books, and other literature found to be relevant to this work were also reviewed.

This study utilized the **Process theories** of motivation whose focus is *“how people make choices to work hard or not, based on their individual preferences, the available rewards, and possible work outcomes”* (Adams, 1965; Lawler, 1990; Dolea and Adams, 2005; Schermerhorn, 2010:354). Consequently, issues relating to the individual worker such as perception and response to issues of working conditions, compensation and stress at work were given close attention in this study. Process theories of motivation were judged as the best to apply in the present study as they deal with issues that were of interest and focus in this study.

The issues of interest in this study were those found in the human resource management paradigm. They are the same ones studied under motivation theory in the available literature and in many existing studies. It suffices at this point to discuss these factors.

2.1 Human Resource Factors and their influence on work output or performance

This study presents an exploration of how the HR factors of remuneration, work load stress and environment and tools individually and in combination affect the work outcome or performance of nurses in government hospitals in Nairobi County under a situation where staff assessment takes place within a performance appraisal system. These factors are some of the critical elements considered in motivation theory. According to human resource theory, the goal of human resource management is to build organizational performance capacity through people; to ensure that highly capable and enthusiastic people are always in the right positions and working with the support they need to be successful. Successful working requires motivated staff (Armstrong, 2009; Schermerhorn, 2010; Drucker, 1973; 1979).

HRM includes all management decisions and practices that directly influence people at work. People at work constitute human resources (HR). HR is critical to the success of an organization (Fisher *et al.*, 2003). All theories of motivation content that highly motivated human resources help organizations achieve their objectives. Nurses constitute a large proportion of the human resources in any hospital whether one is talking of developed, developing and emerging economies (Needleman *et al.*, 2002; Decola and Riggins, 2010; Rafferty and Clarke, 2009; Parker and Kulik, 1995; Borda and Norman, 1997; Judge *et al.*, 2004, Siu 2002; Albuhrub, 2004; Tieng, 2004; Mrayyan, 2006; Hall, 2007; Lu *et al.*, 2002). Thus, one can safely say that the nurse is the “Face” of any hospital; that is, a very important constituent of a hospital (Needleman

et al., 2002; Decola and Riggins, 2010; Rafferty and Clarke, 2009; Parker and Kulik, 1995; Lu *et al.*, 2005; Zurn *et al.*, 2004); and hence the motivation of the nurse is critical to the success of a hospital and for the individuals performance.

It is critical that hospital systems implement human resource practices that enhance staff motivation, performance and high productivity in order to be able to achieve their objectives. A key assumption in human resources practices, widely acknowledged today, is that people are the organization's key resource and the performance of an organization largely depends on them (Kamoche *et al.*, 2004; Armstrong, 2009). Thus, factors that influence how people work and their motivation must be important in determining job outcomes, performance and productivity. Armstrong (2006; 2009) observes that if appropriate range of human resource practices and processes are developed and implemented in an organization, then the human resource function will make a substantial impact on a firm's performance. This is true for hospitals where nurses constitute the largest proportion of staff. Nurses are found in all sections of a hospital, be it in theater, emergency units, ante natal and post natal units, general wards, ICU, labor wards, hospital corridors, admission units and so on. Nurses are indeed what this researcher describes as the "face" of any hospital and are the back bone of the human resources in hospitals. They therefore have a great impact on the quality of patient care provision and performance of hospitals. So whether performance is high or low in any hospital the nurse will have contributed directly or indirectly positively or negatively.

2.1.1 Empirical Literature Review

Empirical literature on relevant past studies which form the basis of this study are presented in this section. It is important at the onset to state that this researcher established that literature

focusing specifically on the factors affecting the performance of health workers and especially nurses in Kenya and elsewhere was limited. This is a critical gap in Kenya where there is serious dearth of data in this area. In Kenya the main sources of data were reports, a few journals and government documents. Many government documents were said to be “confidential” and therefore could not be accessed by this researcher and the Research Assistants. Outside Kenya the available literature was in form the of research topics, papers, journals, reports and a few theses on related aspects (Parker and Kulik, 1995; Borda and Norman, 1997; Judge *et al.*, 2004; Siu, 2002; Albualrub, 2004; Tieng, 2004; Mrayyan, 2006; Hall, 2007; Needleman *et al.*, 2002; Decola and Riggins, 2010; Rafferty and Clarke, 2009; Parker and Kulik, 1995; Lu *et al.*, 2005; Kelly *et al.*, 2001; Royal, 2009). The researcher had to make reference to some of the most reliable and respected popular press publications, reports and observations in Kenya to acquire understanding of the issues and claims that were of a general nature in regard to the issue of nurses in Kenya.

The focus in this study was on the job outcomes or performance of nursing staff who work in different areas of a hospital under the supervision of senior nurses or doctors. Campbell (1990) declaimed that job performance can be easily defined as all behaviors in work. He further pointed out that these behaviors should make some contribution to organizational goals. Additionally, he divided performance into efficiency, production and effectiveness. Efficiency can evaluate the outcome of an employee’s work behaviors. Production is usually used to determine the cost of efficiency. Effectiveness stands for the value of efficiency and production. It is a known fact that the job performance of nursing staff is critical in health care delivery (Siu, 2002; Albualrub, 2004; Tieng, 2004; Mrayyan, 2006; Hall, 2007; Needleman *et al.*, 2002; Decola

and Riggins, 2010; Rafferty and Clarke, 2009; Parker and Kulik, 1995; Lu *et al.*, 2005; Kelly *et al.*, 2001; Royal, 2009). This study looks at performance outcome as efficiency.

Health-care delivery is a function of many factors. These factors include the person (the nurse), the organization, the environment of work, education and training, motivation, remuneration and incentives, and appraisal of workers among others. Existing studies have categorized the factors in several ways but all seem to agree that these fall under human resource factors (Parker and Kulik, 1995; Borda and Norman, 1997; Judge *et al.*, 2004; Siu, 2002; Albualrub, 2004; Tieng, 2004; Mrayyan, 2006; Hall, 2007).

A study in Thailand in 1998 by Watana Vinitwatanakhun on factors affecting organizational effectiveness of Nursing Institutes in Thailand concluded that promoting group cohesiveness and team effort increased opportunities for personal satisfaction in work performance. It also led to reduction of stress. The study also concluded that external control seemed to indicate that leadership style is a very important factor in combining or synergizing other significant factors to determine organizational effectiveness. Even though the study was on organizational effectiveness, issues of performance of nursing staff, environment of work, work stress, technology at work and human resource development were considered. The study did not however try to examine the special place of motivation in regard to performance or work output of nursing staff. However, the factors of human resources and work environment were part of the independent variables studied. The study's conclusions agreed with the theory of motivation that motivated workers were a major asset to organizational performance (Armstrong, 2010; Kamoche *et al.*, 2004; Fisher *et al.*, 2003; Noe *et al.*, 2003; Schersmerhorn, 2010).

The Agency for Healthcare Research and Quality (AHRQ) in 2003 carried out a detailed study on the aspects of the working environment that impact patient safety. Five categories of working conditions were evaluated: workforce staffing, workflow design, personal/social issues, physical environment, and organizational factors. The strongest evidence linking working conditions to aspects of patient safety was found to be in the areas of workforce staffing and workflow design. Specific working conditions in these two categories affected both rates of medical errors and the incidence of patient outcomes related to patient safety. This pointed out to the significance of working conditions in terms of productivity or performance of nurses; an important concern in our present study. The findings agreed with motivation theory that working conditions, which can be called hygiene factors, according to the Herzberg's two-factor theory of motivation, are critical for good performance. Job dissatisfaction leading to poor performance arises in situations where hygiene is poor. Hygiene here includes factors such as working conditions, interpersonal relations, organizational policies and administration, technical quality of supervision, and base wage or salary (Schermerhorn, 2010).

In 2004 a study on the performance of maternal health care providers was conducted in Armenia by Fort and Voltero (2004). Its conclusion was that performance of the workers was strongly associated with having practical knowledge and skills to use every day tools of the trade and with receiving recognition for their work, as well as having performance feedback. The study concluded that work environment, stress at work and issues of remuneration affect performance. These are important aspects of HRM and motivation of workers. Our present study utilizes some of the factors examined in the Armenia study and tries to rank them in terms of how significant they are in regard to performance. The theory of motivation and the literature on motivation

holds that motivated workers can be relied upon to achieve high performance at work. (Fisher *et al.*, 2003; Noe *et al.*, 2003; Mondy and Noe, 2005; Schermerhorn, 2010; Armstrong, 2010).

A very comprehensive WHO study in Netherlands in 2006 carried out by the Royal Tropical Institute examined the issue of “**Improving Health Worker Performance**”. The study focused on issues of interventions to retain staff and improve their productivity, competence at work and responsiveness. Human resource factors that were important for motivation purposes were studied in the process of undertaking the study. The study concluded that the interventions to look for improvements in work output or performance of nurses could be applied at both the micro and macro level because both contexts were important in regard to the performance of nurses. The study showed how significant both the internal and external contexts were to the performance of nurses but did not attempt to rank the factors in terms of significance. The internal context factors considered in the study included work environment, work load and remuneration, among other related factors. The study conclusions agreed with literature that both internal and external factors influenced the performance of workers (Bennett and Franco, 1999; Porter and Lawler, 1968; Sharpley, 2002; Armstrong, 2010).

A doctoral level study in Australia entitled “**From ‘uncertainty’ to ‘certainty’?** A discourse analysis of nursing professionalization in South Australia since the 1950s” by Mayumi Kako in 2008 discussed many issues such as nursing education, roles of professional nurse and knowledge management. The study was important in discussing the history of nursing in South Australia and the changing paradigms in the area of professional nursing but did not examine the issues of motivation and human resource factors and their relationship to work output. However, the study helped to show how important both the internal and external context had been in the developments of the nursing sector in Australia. Our present study, even though focusing on the

internal context, makes reference to the role of external context in terms of the performance or job outcomes of nurses.

A study at PhD level in the US by Dawn Renee Royal in 2009 on nurses' perceptions of organizational justice, commitment and job satisfaction in the work place concluded that significant relationships existed between distributive justice, commitment to work and job satisfaction. This study concluded that issues of internal work environment were significant in terms of motivation of nurses. Also important were years of study/preparation in school or college and years with the employer. Long working experience could also be relied upon to make judgments about the perception of nurses in regard to the issues of motivation. The study examined some of the issues of interest in our current study and provided a basis for examining the significance of HR factors in the Kenyan context.

Another study at PhD level in the US in 2009 by Josie Marie Solomon studied the influence of leadership characteristics on nurses' job satisfaction. The conclusion of the study was that leadership characteristics had a positive relationship with nurses' job satisfaction. The study utilized path-goal theory among others. The study could be faulted for concentrating on leadership as though that was the most significant issue in regard to the performance of nurses. However, its conclusions are quite relevant to the current study as it examined the perception of nurses in reaching its conclusions; a factor the present study examines too. Perceptions of nurses are important in reaching conclusions in regard to issues of their performance or work output.

In Africa there is a general paucity of studies in the area of motivation and also HRM. Studying performance of nurses in Africa deserves attention because such relates to human resource factors that are important especially in regard to motivation of nursing staff. The problem of

deterioration of human resources in Africa is a serious problem affecting the economies of African countries. A study at graduate level in Kitgum local government district in Uganda in 2008 studied motivation and performance of workers, including nurses, using Herzberg's two-factor theory. The study in Uganda did not cover the entire country and so it was very much localized. In the study, the perception of respondents was analyzed in regard to the factors affecting performance. The study concluded that the satisfiers and hygiene factors were all important in motivating workers. It made a very interesting observation that there were cases of poor performance against good motivation, meaning that there were possibly other influences outside the work environment (internal context) that influenced motivation. This supported Herzberg's two-factor theory's contention that improving hygiene factors is a good thing and may remove dissatisfaction at work but may not increase job satisfaction and motivation (Schermerhorn, 2010:352). This implies that a study on motivation of workers has to examine both the internal and external contexts and also pay attention to both satisfier factors and hygiene factors. It also means that a single set of theories such as Herzberg's two-factor theory may not be adequate in studying motivation issues. Our present study attempts to utilize several motivation theories within the category of process theories and brings into focus the significance of both the internal and external contexts in studying aspects of performance of nurses.

Magdalene Hilda Awases studied, at doctoral level in 2006, the factors that affected the performance of professional nurses in Namibia. The study revealed that hospitals faced deficiency in human resource management aspects such as recognition of employees who performed well, working conditions, implementation of performance appraisal system, feedback on performance outcomes and management outcomes. The study concluded that the factors were strongly associated with level of performance of health personnel. The study did not attempt to

rank the factors in terms of significance. It did not isolate the most critical human resource factors in terms of their effect on work performance. The study, however, supported the conclusion that African countries did not regard human resources as strategic and tended to utilize them poorly (Kamoche *et al.*, 2004).

The area of work output or outcomes of registered nurses in the context of performance under a staff assessment system has not been adequately addressed in Kenya. This being the case then one can observe that understanding the factors that influence the job performance or work outcome of registered nurses in Kenya under a staff assessment system is a welcome addition to literature and the discourse on the issue of performance of nurses. This is also important in the context of meeting the Millennium Development Goals (MDGs) and the formulation of policies and strategies to improve health services provision in Kenya.

Registered nurses are health care workers who provide critical services in the health sector of any country including Kenya. As a result it is important that serious attention, policy support and resources should be directed towards supporting them to ensure that they operate efficiently and effectively in service provision. Effective and efficient operations should lead to improved job outcomes or performance and high productivity. This present study sought to establish if this was the case in government hospitals in Nairobi County.

Studies in Kenya on this important issue of HR factors affecting performance of nurses are very few indeed. There is none on performance outcomes under a system of performance assessment. Elijah Nyangena, Alfred Mutema, and Anna Karani in 2011 carried out a study on evaluation of clinical training in nursing in Kenya. The study concluded that clinical training provided by the baccalaureate nursing programs in Kenya was of high quality. Thus, adequacy of skills and

knowledge exist among the nurses and therefore the issues of low performance outcomes may have more to do with shortage of nurses and factors affecting motivation such as those found in the working environment. The study findings agreed with our earlier observations and government reports that the major problem leading to low performance and hence decline in health services is staff problems in the work environment (Chapter 1, section 1.2; and Chapter 2, section 2.1).

A study by Rogo *et al.*, (2001) on factors affecting delivery of maternal health services in a rural district of Kenya concluded that the quality of local services and other environment of work issues adversely affected the quality of services given. Even though this study was on mortality and what factors affected mortality rates its conclusion that underlying factors such as state of local facilities and quality of care given impacted the level of work output. The study did not fault the skills of the care givers or the leadership of staff. It did not address the issue of remuneration but had a lot to say about tools and incentives available to nurses and how these affected performance.

A USAID study in 1999 on defining a performance improvement for Kenya reproductive health supervisors concluded that supervisors of nursing staff lacked knowledge and skills in supervision but also faced other problems such as lack of incentives such as transportation allowances that affected performance negatively (USAID, 1999). The aspect of incentives and remuneration are investigated thoroughly in this present study. The issue of leadership and supervision is also addressed in this present study.

Kamoche *et al.*, (2004), observe that Kenya provides an interesting case of the poor utilization of human resources because managers have shifted their attention away from investing in people to cost management. The government of Kenya has done exactly this; it has reduced health budgets

over time. Under the circumstances budgets are cut with the consequence that salaries, wages, incentives and other financial benefits are affected. Reduction in these benefits affects the morale and hence the motivation of the workers (Armstrong, 2006; 2009). The health sector of Kenya has been affected in significant ways as a result of the above. As observed previously, in the last decade there have been many strikes by the health sector workers demanding to be paid better, to be provided with better working conditions, to be given allowances for uniform and to be recognized for the good work they do for the country among other reasons given to justify the strikes. These are common reasons given whenever there are strikes. They are well captured in the despatches publication (<http://news.bbc.co.uk/2/hi/despaches/45208.stm>).

Health Policy Frame Work Report (1994-2010) and other literature (Rogo *et al.*, 2001; Chege and Trangsrud, 1999; Karani, 2004 and Seboni *et al.*, 2013) have observed that there has been a serious decline in health service delivery in many government hospitals in Kenya. This is alarming to say the least. They show a serious decline in job performance and hence in service delivery and call for interventions to address the decline (National Health Sector Strategy Paper (NHSSP) I, 1999-2004; National Health Sector Strategy Paper (NHSSP) II, 2003-2007; Rogo *et al.*, 2001 and Chege and Trangsrud, 1999). The reports categorically state that the problem is caused by staff or human resource issues, but does not identify specific HR factors. As stated earlier in chapter 1, the purpose of this study was to critically examine the relationship between work outcomes or performance of nurses and the human resource factors of remuneration, work load stress, and environment & tools in a situation where performance assessment existed. Issues relating to human resource factors have been argued to be the root cause of the declining health service delivery in many countries in Africa including Kenya (Kirui and Mbithi, 2011; Keegan, 2004; Dhai *et al.*, 2011). Human resource factors are also important in the other sectors of

African economies and declines in service delivery in the other sectors can be explained largely by the poor management of human resource factors (Kamoche *et al.*, 2004).

Intervention in the health sector of Kenya has been isolated as critical in Kenya's Vision 2030 that aims at making Kenya a middle income country with a high quality of life for the citizens (Vision, 2030). The call for intervention in the health sector of Kenya is necessitated by the fact that health service delivery has been declining to a point where there is serious concern as to the causes (Kenya's Health Policy Frame Work, 1994-2010; National Health Sector Strategy Paper (NHSSP) I, 1999-2004; National Health Sector Strategy Paper (NHSSP) II, 2003-2007; Kirui and Mbithi, 2012; Kigan, 2004; Nyangena, 2011).

A common phenomenon in Kenya that has contributed to the declining health care service delivery is nationwide strikes by nurses, which have been described as one major threat to the health system (The Lancet, 1997; Kirui and Mbithi, 2012; Kigan, 2004; Nyangena, 2011). Strikes by nurses in Kenya and in many government hospitals in Africa have impacted the health care system in significant ways (Dhai 2011; Mawere *et al.*, 2010). A report by Reuters on the fate of Kenyan nurses carried the heading "*Underpaid and Undervalued: Kenyan Nurses Lured away*" (Health Systems Trust Bulletin, 2011). It hinted at the critical issue of inadequate remuneration of nursing staff. Strikes have been described as "frequent" (The Lancet, 2012; Ojwang *et al.*, 2010; Mawere *et al.*, 2010). Strikes by nurses in Kenya (and also in other countries in Africa) have been held to demand primarily for better pay, better working conditions and payment of incentives (The Lancet, 1997; Decola and Riggins, 2010; Dhai, 2011). For example, in 1997 Kenya's 40,000 nurses went on strike pressing for higher wages and better terms of service. They demanded 400% - 500% salary increases. As the strike went on clinical officers and Laboratory technicians joined in also allegedly demanding better pay, better terms of

service and improved working conditions (The Lancet, 1997; Dhai, 2011). Thus, the issues of remuneration and incentives, environment and tools, and work load stress are critical in terms of the performance of nurses in Kenya. These factors were the same issues identified through a pilot study carried out by this researcher before the commencement of this present study and therefore deserve serious research attention. But how significant are these factors and to what extent do they affect the job outcomes or output of nurses in Kenya under a system of staff assessment? This was the focus of this present study.

One would want to establish whether the negligence, low morale, bad customer care, inadequate clinical supervision, mistakes in diagnosis, too many delays, and care less mistakes exhibited by nurses (Seboni *et al.*, 2013; Kirui and Mbithi, 2012; Karani, 2004), has any relationship with the Human Resource (HR) factors of remuneration, environment and tools, and work load stress to the extent of affecting the performance outcome of nurses. These are the same concerns addressed by various authors outside Kenya (Kelly *et al.*, 2001; Decola and Riggins, 2010; Lu *et al.*, 2005). The Joint Program of Work and Funding for the Kenya Health Sector report (2006/7-2009/10: Section 4.1) acknowledges that staffing and staffing issues “*is the rate limiting step to all the key reform objectives*” in the health sector. Thus, HR factors are really the key to improving the quality and effectiveness of health services (Lu *et al.*, 2005; Kigan, 2004; Rogo *et al.*, 2001; Chege *et al.*, 1999). Improvement of health services is an important issue because health care provision is a basic human right of global concern and health care for all is a key goal for any government. How and to what extent the HR factors identified above influence the job outcomes of nurses under a system of performance assessment was therefore a matter worthy of investigation in this research. The concern in this study thus, was how the HR factors affect job outcomes both negatively or positively and also singly or in combination.

What follows next is a review of the relevant theories guiding this research.

2.2 Theoretical Framework

The parent (base) theory or the broad theoretical foundation for this descriptive co-relational research study was motivation theory. Motivation theory attempts to explain the process that energizes people to work. Motivation is a process that leads people to behave or work in certain ways. The theory of motivation explains why people at work behave the way they do in terms of their efforts and the directions they are taking (Armstrong, 2009). According to Armstrong, the most influential theories of motivation are classified into three: *Instrumentality theory*, *Content theory*, and *process (cognitive) theory*. Authors explaining motivation and job satisfaction (*and hence work output or performance*) often use the same theories (Hughes *et al.*, 2002). This is because of the close relationships and similarities between the variables discussed under the different theories of motivation.

Instrumentality theory, part of Reinforcement theories, states that rewards or punishments (carrots or sticks) serve as the means of ensuring that people behave as expected. “Instrumentality” is the belief that if we do one thing it will lead to another. The theory emerged in the second half of the 19th century with its key emphasis on the need to rationalize work and economic outcomes. This theory is based on the principle of reinforcement as influenced by B.F. Skinner’s concept of conditioning (Skinner, 1974), that is, the assumption that people can be “conditioned” to act in certain ways if they are rewarded for behaving as required. It makes the assumption that a person will be motivated to work if rewards and penalties are tied directly to his or her performance (Armstrong, 2006; 2009b). The implication of this is that remuneration and rewards are contingent upon effective performance. Thus, workers can be conditioned or made to act in certain ways if they are rewarded for behaving in the defined ways. Armstrong

observes that this approach is still widely adopted and can be successful under some circumstances. It is however, based exclusively on a system of external controls and fails to recognize the role of other HR factors especially those within the individual worker. The theory also fails to appreciate the fact that formal control systems can be seriously affected by the informal relationships that usually exist between workers (Armstrong, 2009). Our present study applies instrumentality theory to determine whether remuneration reinforces performance of nurses.

Content theory, part of individual needs and motivation theories, is based on the belief that the content of motivation consists of needs. It states that motivation is about taking action to satisfy needs, and identifies the main needs that influence behavior. The main needs-based theories are Maslow's hierarchy of needs (Maslow, 1954), which distinguishes five levels of needs that drive people to behave in certain ways or perform, and Herzberg's two-factor theory, which distinguishes between motivators – or satisfiers – and job dissatisfiers or hygiene factors (Armstrong, 2009; Dolea and Adams, 2005; Zurn *et al.*, 2005). According to Herzberg *et al.*, (1959) if hygiene HR factors are not present, employees will be demotivated. These factors include: organization's policy, relationship with supervisor, work conditions, salary and wages, status, security, relationship with subordinates, and personal life. Another often-used content theory is Alderfer's ERG (existence-relatedness-growth needs) theory, which categorizes needs into three different types (Alderfer, 1972; Armstrong 2006; 2009). This theory is similar to Maslow's hierarchy of needs, but states that people can satisfy more than one need at a time, and that people who attempt to satisfy a higher need (but are unable to do so) then regress to satisfy a lower need (Hughes *et al.*, 2002).

Process theory focuses on psychological processes or forces that affect motivation, as well as on basic needs, by reference to expectations. It is also called **cognitive theory** because it is concerned with people's perceptions of their working environment and the ways in which they interpret and understand it. This is the research problem theory utilized for this study because of its relevance to the research objectives. Moreover, the theory relates job efforts to desirable outcomes, and relies on the fact that people take rational decisions in their work. This is quite relevant to nurses and how they operate.

The main facets of the **process theory** are goal achievement (**goal theory**), expectations (**expectancy theory**) and feelings about equity (**equity theory**). According to Guest (1992), process theory provides a much more relevant approach to motivation than the other theories of motivation. Process theory tries to explain how people start, direct, sustain and stop particular behaviors. It further brings out the relationship of needs in influencing one another to produce certain behaviors. It also deals with the individual's internal workings of motivation. The theory further focuses on internal choice that an individual makes about a particular behavior and the goals an individual sets for himself (Armstrong, 2006; 2009; Vroom, 1964; Lathan and Locke, 1979; Adams, 1965).

The issues addressed by the various theories under the process theory category appear to fit into today's work environment of nurses better than the other theories of motivation. The work atmosphere of nurses has changed in major and diverse ways in the face of such issues as health sector reforms, migration of nurses, and hospital restructuring and downsizing (Burke, 2003). The health care environments of work today are under intense pressure to deliver high-quality care within very complex conditions brought about by factors such as increased workloads and decreased staff (Dendaas, 2004). Developing policies and strategies to enhance employee

satisfaction has been a major priority and preoccupation of leaders, especially those in the health sector (Shaver and Lacey, 2003; Campbell *et al.*, 2004; and Laschinger and Finegan, 2005).

What follows below is a review of each of the theories under the category of the **Process Theory** of motivation.

2.2.1 Goal Theory

Goal theory was developed by Latham and Locke (1979). It states that motivation and performance of workers are higher when individuals work towards specific goals, when goals are difficult but accepted, and when feedback is given on performance. The assumption of the theory is that individuals make rational decisions about the goals they expect to achieve. It is the goals they have in mind that guide their behavior. This theory is based on the belief that individuals have desire and aspirations to work towards. By using adequate remuneration and incentives, managers can ensure that workers' goals match those of the organization, thus influencing the behavior of the workers (Dolea and Adams, 2005). In the Kenyan context, the issues of remuneration, rewards and non-financial incentives are important in terms of performance outcome in Kenya government hospitals (Kelly *et al.*, 2001; Oulton, 2008). These issues are explored further in the present study. It is not clear from previous studies in Kenya to what extent remuneration factors affect performance. Available studies in Kenya have not specifically addressed the issue of remuneration and performance (Seboni *et al.*, 2013; Kirui and Mbithi, 2012; Karani, 2004). The findings of this study will provide information on this aspect.

2.2.2 Expectancy Theory

The concept of “expectancy” owes its origin to the Valency-Instrumentability-Expectancy (VIE) theory formulated by Vroom (1964). Valency stands for value; instrumentality is the belief that if

a person does one thing, it will lead to another, and expectancy is the probability that action or effort expended at work will lead to an outcome. In other words, inputs lead to outputs; actions at work have consequences. It follows from this that “motivation is only likely when a clearly perceived and usable relationship exists between performance and outcome, and outcome is seen as a means of satisfying needs” (Armstrong, 2006; 2009b). Thus, it makes sense to examine the HR factors that motivate or demotivate nurses in the health sector as the present study attempts to do.

Expectancy theory tries to answer the question of what determines the willingness of an individual to perform specific tasks. The theory posits that motivation is determined by an individual’s belief regarding effort. It is based on the logic that people will do what they can do when they want to. It has an assumption that people’s behavior is voluntary and that people are free to choose those behaviors suggested by their own expectancy calculations. It also posits that people will choose in a rational manner so as to optimize actual or perceived outcomes, that is, they will try to behave in a way that optimizes their own gain (Lawler, 1990; Porter and Lawler, 1968; Armstrong, 2006; 2009). This explains why, for example, extrinsic financial motivation such as an incentive, bonus, or financial allowance of some sort, works only if the link between effort and reward can be clearly established by the worker and the worker sees or perceives that the reward is worth the effort. It also explains why intrinsic motivation, more under the control of the worker, can be a more powerful tool than extrinsic motivation in getting workers to put more effort in their work. Expectancy theory concept also has some effects on managerial behavior. Managers can positively influence employees’ motivation by identifying the type and amount of behavior that will be judged as good performance (Porter and Lawler, 1968). In the Kenyan context there was a felt need for a study that would provide answers to questions such as

“What is the relationship between remuneration and incentives and job performance of nurses”? How significant are these issues in the Kenyan context in terms of the job performance of nurses? In this pioneer study the perception of nurses on HR factors were conclusively studied as discussed in Chapter 4 of this thesis.

2.2.3 Equity Theory

Equity theory is concerned with the perceptions people have about how they are being treated compared to others. Individuals in any organization want equitable treatment, not only for themselves, but also for others. Equity exists where a person is treated fairly in comparison with another person in a reference group or another person deemed to be in similar circumstances and with similar qualifications. This theory explains satisfaction in relation to a perception of being fairly treated in comparison to others: either other colleagues in the same organization or in other organizations (Adams, 1965; Armstrong, 2009). For instance, anecdotal evidence suggests that nurses in government hospitals in Kenya perceive their payment as unfair because nurses performing similar tasks in the private hospitals earn more, or colleagues performing the same tasks have more opportunities for training or are given better treatment. This does not necessarily mean that all people should be treated equally. It is not synonymous with equality. Equity theory involves a social comparison of existing conditions against some standards. This is a common phenomenon with people anywhere in the world; they look at those around them and make judgment about their equity or inequity of the present conditions. It deals with the relationship between two variables, input and outcome. Input being what an individual contributes to an exchange, outcome being what an individual receives from the exchange. Individuals attach weight to inputs and outcomes according to what they view to being important. Thus, staff will be more satisfied if they feel they are treated fairly within the organization. According to Hughes

et al., (2002) the theory of equity provides three components in regard to fairness or justice: obtaining sufficient information (interactional justice); gaining rewards according to performance (distributional justice); and, when being punished, receiving sufficient warning (procedural justice). There are also perceived equity, perceived inequity, and also negative inequity. A negative inequity exists when an individual feels he/she has received relatively more than others. A perceived negative equity exist when an individual feels he she has received relatively less than others in proportion to work input. This results to the individual comparison with that of others and hence they make judgment of their present condition. Either positive or negative inequity has motivational consequences due to the fact that the individual wishes to restore a sense of equity. Equity theory states, in effect, that people will be better motivated if they are treated equitably and will be demotivated if they are treated inequitably. The theory focuses on one aspect of the process of motivation and job satisfaction. It may be significant in terms of morale (Armstrong, 2006; 2009). The consequences of managing under the equity theory are fairly clear, yet it is difficult to implement. The real difficulty results because the feelings of equity or inequity are determined solely by the individual interpretations of the situation. Most research on equity theory has centered on pay level (remuneration) as the outcome, with performance level as input (Decola and Riggins, 2010). In Africa issues of remuneration, incentives and non-financial benefits are significant in the management of human resources (Kamoche *et al.*, 2004; Kamoche *et al.*, 2000).

In Kenya, whenever nurses go on strike they claim that they are underpaid, not treated the same as their equivalents, are overworked and work in very poor work environments (Health Systems Trust Bulletin, 2011; Ojwang *et al.*, 2010). Thus, nurses in Kenya, like all employees, perceive underpayment as an inequity (Greenberg, 1990). Employees will experience satisfaction as long

as they see the process of treatment as fair (Brockner, 2006). Thus, for nurses, feeling trust and justice at work is important (Laschinger and Finegan, 2005). Whenever employees, including nurses, do not see a sense of justice they are most likely to strike back, causing decreased productivity and poor job engagement (Brockner, 2006). Is it possible that the many strikes by nurses in Kenya have something to do with equity issues? It is important that answers are provided to this question and many others in order to address the issues affecting the job performance of nurses in Kenya.

The three theories reviewed above under the category of the process theory of motivation are all important in terms of their contribution to the motivation and performance outcome of nurses in Kenya government hospitals. Even though each focuses on a particular aspect, all the aspects are interrelated. Taking into account the various aspects discussed under each theory we can say that well-motivated nurses will be those with clearly defined goals (goal theory), those who see a clear relationship between their performance and performance outcomes (expectation theory) and those who perceive fairness and a sense of justice at work (equity theory). In addition, organizational factors are important and have significant influence on performance. The hospitals or organizations nurses work for are required to “provide the context within which high levels of motivation can be achieved by providing incentives and rewards, satisfying work, and opportunities for learning and growth” (Armstrong, 2006). But managers have a major part to play in ensuring that they use their motivating skills to get people to give their best, and to make good use of the various motivational tools and processes that their organizations provide or should provide. Performance will also be influenced by external context factors. One can conclude that in order to get health workers to have high performance their employers must be

aware of the complex web of factors that come into play between work motivation, job performance and organizational factors.

2.2.4 Performance

It is a truism that motivated workers perform better than non motivated ones or demotivated staff (Armstrong, 2009). Organizations must have performance systems in place to aid performance or work output of staff. Performance is part of performance management. Every HR function contributes to performance (Mondy and Noe, 2005). Different authors have different views about what performance is. Some see performance as a record of outcomes achieved on an individual basis and as a record of a person's accomplishment. According to Armstrong (2006; 2009b) performance is often defined simply in terms of output, the achievement of quantified objectives. It is the end result of human effort at work. It is a matter of not only what people achieve but also how they achieve it. How people work (behavior) and the end result (output) are both elements of performance. One cannot exist without the other. This is the view adopted in this current study. Other people see performance as behavior. According to Bates and Holton (1995) performance is a multi-dimensional construct, the measurement of which varies depending on a variety of factors. Boxall (2003) describes performance as "a function of employee ability, motivation and opportunity to participate or contribute." To ensure good performance, staff members need to be competent and have an adequate working environment in terms of an acceptable workload, with adequate supplies and equipment. Apart from this, staff also need to be motivated (Hughes *et al.*, 2002). Armstrong (2009) looks at performance as how a person does work or a particular function, how a particular thing is done, well or badly or in the way indicated. Kones (1996) observes that performance is something that a person leaves behind and that exists apart from the purpose; what someone does or says as performance when they are

saying or doing in order to produce a particular effect on people. Brumbrach (1988) looks at performance as both behavior and outcome. He observes that “performance means both behavior and results and transforms from abstract to action. Not just the instrument or results, behaviors are also outcomes in their own right – the product of mental or physical effort applied to tasks – and can be judged apart from results.” Mathis and Jackson (2004) assert that many factors affect performance of individuals and give three factors that are mostly seen to affect how a given individual performs. These factors are individual ability to do the work, effort level expended, and organizational support. The relationship of these factors is widely acknowledged in management literature and presented in an equation as follows:

$$\text{Performance (P)} = \text{Ability (A)} \times \text{Effort} \times \text{Support (S)}$$

It is widely acknowledged that the performance of an individual is enhanced to the degree that all the three components are present within an individual employee (Mathis and Jackson, 2004). Performance is diminished if any of the three factors is reduced or absent. For example, if an organization engages workers who have the skills to do their jobs but provides them with outmoded equipment or the reward system is poor, individual performance is likely to be less than in situations where all the three components are present (Mathis and Jackson, 2004). There seems to be a consensus that performance is both behavior and performance outcomes. In this study therefore performance is taken to include both behavior and outcome of one’s work; that is, input and output which gives results. This brings out the need to establish if the element of support for nurses is sufficiently present in government hospitals.

In this study the human resource factors are examined in the context of organizational support in the equation given earlier i.e. [**Performance (P) = Ability (A) x Effort x Support (S)**].

Organizational support (S) when combined with ability and effort engender key issues which contribute to the competitive performance of hospitals both in the context of the organization and in the context of the individual nurse. Individual motivation is often one of the missing variables which is affected by issues of equity and expectations as discussed earlier in the two theories of Equity and Expectancy (Sections 2.2.1 and 2.2.3).

As Mathis and Jackson (2004) observe in their book, individual performance factors are important in determining organizational success. Individual performance factors include human resource factors, their improvement of which leads to improved performance in terms of job outcomes and behavior as well as in terms of the organization's performance. This study examines three of these factors; that is, remuneration, workload stress and work environment & tools; all of which also cover other HR factors which influence the job performance of nurses.

2.2.5. Performance Management

The meaning of performance management is nebulous. Different authors give different definitions of the concept. According to Mondy and Noe (2005) "Performance management consists of all organizational processes that determine how well employees, teams, and ultimately, the organization perform." According to Armstrong (2009b) performance management is a strategic and integrated process that delivers sustained success to organizations by improving the performance of people who work in them and by developing capabilities of individual contribution and that of teams. Plach and Planchy (1988) look at performance management as a term that includes performance planning, performance review and performance appraisal. These are important aspects in human resource operations. Performance management plays a crucial role in determining the performance outcome of employees including the performance outcome of nurses. According to Price and Mueller (1986) performance

management is a way of establishing mechanisms for reviewing the performance of staff and helping them to effectively contribute towards the achievement of organizational objectives. Performance of staff can be positive or negative depending on the kind of working environment, management support, pay, workload and other human resources related factors such as behavioral and social norms (Kamoche *et al.*, 2002). Katz and Green (1997) define performance management as a system composed of an orderly series of programs designed to define, measure and improve organizational performance. The Institute of Personnel Management as quoted by Martinez (2003) defines performance management as a strategy which relates to every activity of the organization set in the context of human resources' policies, culture, style and communication systems. The nature of the strategy depends on the organizational context and can vary from organization to organization. It therefore makes sense in this study of performance of nurses to study all the levels of hospitals in order to see what differences and similarities may be there among other factors of interest in the research. Armstrong (2006; 2009b) observes that the aim of performance management and human resource management are similar, that is, to achieve sustained improved performance of organizations and employees in order to ensure that staff develop and achieve their fullest capacity and potential for their own benefit and that of the organization. It is also commonly known that modern performance management also aims at creating an environment which values people and empowers them in a way that latent potential can be realized, and to strengthen or change positively the organization's culture.

Performance management is based on agreed objectives, competencies required to undertake work and development plans for achieving the objectives (Torrington and Hall, 1998). According to Armstrong and Baron (2007) measurement or assessment is an important concept in performance management. It is the basis for providing and generating feedback. It identifies

where things are going well to provide the foundation for building further success and it indicates where things are not going well so that corrective action can be taken. In general, it provides the basis for answering two fundamental questions: “is what is being done worth doing?” and “has it been done well?” Further, Armstrong and Baron observe that the process of performance management starts with a definition of expectations in terms of targets, standards and the required capabilities. These can be achieved if there are agreed and reliable performance measures which can be monitored. So it is important that as government hospitals in Kenya seek to address the declining health care provision, they should establish practices of measuring performance in order to improve performance outcomes of their staff, particularly nurses; described in this study as the “face of the hospital.” Performance improvement is a critical issue in job performance and therefore deserves some attention.

2.2.6. Performance Improvement

Performance Improvement is about the delivery of higher performance or achievement of improved levels of performance. Improved levels of performance depend on many factors including the collective effort of individuals. The efforts people put at work are a function of Attitude, Skills and Knowledge (ASK) that they have. In management literature it is assumed that once individuals are provided with these through education and training, with the aim of improving their performance, then they will perform better and have higher productivity (Schoenfeldt and Shaw, 2003; Schuler and Jackson (1999). The ASK factors must work in tandem with other factors such as work environment & tools, pay, work assignments and management and leadership support in order to bring about higher performance of staff. Katz and Green (1997) observe that it is important to have performance improvement programmes as part of performance management. The programmes or any performance improvement plans

should address the question of how to improve the levels of performance of staff. Performance improvement is a response to make the services of an organization better, affordable and faster. It seeks to rectify any problems that exist in the work environment and build upon those performance levels that are already good (Katz and Green, 1997). Further, these authors argue that performance improvement involves“the resolution of performance problems and the exploitation of opportunitiesconsist of those occasions, when, although the performance target is adequate, an opportunity exists to improve the outcome of the service or the process by which the services are delivered.” Winch *et al.*, (2003) in their work on performance improvement process for health workers, who administer home based care, describe clear steps to be followed by health managers to ensure that interventions applied to improve health work performance are consistent with the identified gap in performance. They recommend the following steps in the performance improvement process:

- Stakeholder agreement – everyone involved agrees on the intended interventions. This includes the necessary staff mix
- Organizational context – assessment of various factors including goals, strategies of health care delivery systems and other organizational factors such as culture, clients and community perspectives
- Performance analysis and design of desired performance – the gap between desired and actual performance is defined; guidelines explain how to achieve the desired performance as well as develop standards, job descriptions and competencies required to perform optimally

- Conducting performance analysis and assessment – procedures include direct observation, interviews, assessment of records, surveys, focus group discussion and feedback
- Find the root cause of the gap in performance – the most relevant and effective actions to be taken should be identified through root cause analysis
- Selection of best solutions and interventions for the gap - one factor of gap may require several solutions

The steps outlined above seem to suggest that performance improvement occurs once strategies or plans to improve incorporate the stakeholders (workers and other interested parties such as the community and patients), factors within and without the organization (internal environment and external environment factors), human resources factors, and leadership and management actions in creating a work environment for optimum performance of staff.

Parsons *et al.*, (2003) found that turnover was linked strongly to job dissatisfaction which occurs when human resource factors at work are not favourable to employees. Job satisfaction is influenced by working conditions, pay, and benefits. Each of the factors may differ from organization to organization. When hospitals must replace staff because of high turnover or absenteeism, much expense is incurred and the remaining staff's workload is increased. This is most likely to lead to poor job outcomes and performance because of the engendered stress.

The above factors are linked to the efforts staff put at work. The efforts staff put at work are a function of motivation.

It suffices at this point to discuss the issue of remuneration and performance.

2.2.7. Remuneration and Performance

In this present study, the elements of remuneration and rewards, and remuneration systems and reward systems are used jointly and interchangeably respectively. The elements are treated in some past studies as an integrated and coherent whole (Manus and Graham, 2003). Many studies exist on remuneration and rewards as important factors that influence performance outcome of workers. Some studies have been done on the relationship between remuneration and rewards and productivity of nurses (Hicks and Adams, 2003; Pillay, 2009; Manus and Graham, 2003; Ojokuku and Salami, 2011). In a study conducted at the University of Ilorin Teaching Hospital in Nigeria, it was found that nurses constituted the greatest proportion of health workers who felt that they were not satisfied with their remuneration (Ojokuku and Salami, 2011). The reward system is one of the managerial tools for driving organizational performance; it must reward short term as well as long term achievements because “business must perform in the present to succeed in the future” (Fombrun *et al.*, 1994). But what do the concepts of remuneration and rewards embrace? Different authors define remuneration and rewards differently. According to Armstrong (2009) remuneration is the value of all cash payments (total earnings) and benefits received by employees while reward is the combination of financial and non-financial benefits available to employees. Manus and Graham (2003) define total reward as “all types of rewards, indirect as well as direct, and intrinsic as well as extrinsic.” They go on to observe that each aspect of reward, namely base pay, contingent pay, employee benefits and non-financial rewards, which include intrinsic rewards from the work itself, are linked together and treated as an integrated and coherent whole.

Hicks and Adams (2003) define remuneration as “...the total income of an individual and may comprise a range of separate payments determined according to different rules.” Financial

incentives comprise of both direct and indirect elements. The direct elements include pay, pension, health insurance, dependent allowances, clothing and housing allowances. The indirect elements include indirect financial benefits such as subsidies for transport, meals and child care, and non-financial incentives such as flexible working hours, sabbatical leaves, study leave, planned career breaks, occupational health and counseling, access to support for training and education (Hicks and Adams, 2003).

Having established the meaning and scope of remuneration and incentives one can ask at this point whether people work harder if reward is tied to performance. Do people work harder if remuneration and incentives are tied to performance? Will nurses work harder if their remuneration and incentives are tied to their performance outcomes? It is widely believed that the answer is “yes” under the right circumstances. The many definitions and explanations of the meanings of remuneration and reward point towards the importance of proper and adequate compensation for work done as this leads to improved job performance (Noe *et al.*, 2010, Stajkovic and Luthans, 2001, Armstrong, 2009). According to Kamoche *et al.*, (2004) the commonly held view nowadays on compensation is that people should be valued for the knowledge they possess and rewarded for it. Numerous human resource surveys and studies have concluded that there is a positive relationship between rewards and performance (Mathis, 2004). According to CHSRF (2001), there is a positive relationship between nurses’ satisfaction with their salary and their job satisfaction. However, salary becomes an issue of concern usually in the absence of other reward factors of satisfaction such as recognition, opportunities for personal development and growth, flexible working hours and other non-financial benefits such as sabbatical leaves, study leave, and planned career breaks. According to the WHO (2003a) the current situation in the African continent portrays a poor picture of remuneration and reward

packages for health workers in several countries. Some countries pay health workers relatively low salaries. Other countries pay relatively higher salaries but generally speaking health workers in Africa are paid very poorly compared to workers in Europe or America or in most countries in the ASEAN region. This perhaps explains why there has been such a serious brain drain of trained health professionals in Africa and Kenya in particular. For example, according to the Ministry of Education (2006) National Strategy for University Education 2007 - 2015, out of every 1000 Medical Doctors who graduate from Kenyan Universities, 666 leave the country for greener pastures almost as soon as they graduate and definitely within the first year after their graduation. Anecdotal evidence suggests that registered nurses leave for other countries in even larger numbers every year. No wonder then there is admission in government circles that all is not well in the health sector of Kenya and that in the last two decades health service provision and hence productivity of staff, has been declining at an alarming rate in Kenya government hospitals.

The situation in Kenya is reflective of the serious problems facing human resources in Africa. HR practices in Africa face serious problems that lead to poor services (Kamoche *et al.*, 2004) especially in the health sectors of African countries that are facing declining quality of health care services (WHO, 2003a; Awases *et al.*, 2004). One such problem is poor remuneration & incentives. The WHO (2003b) in a research study found that remuneration has a profound impact on work performance. The WHO in the said study observed that raising the wages and non-financial incentives of health workers who were paid less will lead to increase in their productivity. Of course all health workers should feel that they are treated in an equitable way in matters of remuneration and incentives. Williams (2006) implies that fairness in reward systems for nurses is important because of the need to allot resources in various areas such as patient

care, salaries and working conditions because of limited resources. In the face of limited resources, there is a real possibility of under rewarding nurses. This has a serious implication on their work performance and productivity. According to Adams (1963) employees' responses to being under rewarded can vary. Response may be in the form of decrease in work inputs or an employee can respond by leaving the organization. According to Armstrong (2009) rewards and remuneration affect performance in that they motivate employees and obtain their engagement and commitment, help to attract and retain the high quality employees, and help to develop a positive employment relationship and enhance the psychological contract. Further, rewards make employees feel that they are treated justly in accordance with what is due to them. This motivates employees to be more productive.

Watson and Wyatt (2001) carried out a survey of companies that had linked together human resource management practices and market value. They found that there were four major categories of human resource factors that could be linked to a 30% increase in shareholder value creation. Out of these the issue of rewards took top position with a contribution of 16.5 % to shareholder value creation. Thus, rewards influence value which also influences performance outcomes and productivity. Mathis *et al.*, (2004) assert that many employees cite the lure for better remuneration & incentives or higher compensation as the reason for leaving an employer or for staying.

Several questions can be posed at this point. What is the relationship between remuneration & rewards of nurses and their job performance in government hospitals in Kenya? How important is this issue of remuneration in terms of the job outcomes or performance of nurses in Kenya? To what extent does remuneration and rewards affect the job outcomes and performance of nurses in Kenya? It is important to understand this issue in order to address the issues affecting nursing

staff as well as the broader issue of the declining health services in Kenya. This study is an attempt to answer these questions and other related ones. It is hoped that policy makers will benefit from the findings provided in this study in formulating appropriate remuneration policies and strategies for nursing staff and other health workers. From the discussion above, one can agree with the conclusion of Mathews and Dickson (2000) that people, including nurses, do spend more time working when offered incentives to do so above the base pay they receive for the hours worked. Because of the changing paradigms in the management of human resources today, workers demand more of rewards than entitlements. The reward system must take cognizance of this fact. The economist as quoted in Mathews and Dickson (2000) makes an interesting observation that “*The new world of work demands employee performance instead of loyalty, creativity instead of compliance, and earned rewards instead of entitlements*” Thus, the government and other employers in the health sector in Kenya may need to address the issue of employee performance in the context of remuneration and incentives to see if they are meeting the expectations of today’s world of work. This study does contribute to this issue in the context of registered nurses in Kenya. Consequently the following hypotheses are proposed:

H1A: There is a positive relationship between remuneration and performance outcome of nurses.

H1o: There is no relationship between remuneration and the performance outcome of nurses

Apart from the issue of remuneration and rewards, other human resources factors such as work environment & tools, work load stress and other related factors have an effect on performance outcomes in government hospitals in Kenya. How and to what extent do these factors affect work

performance outcomes? These issues have not been researched in the context of Kenya, hence the need for a study such as the current one.

A good work environment and availability of the tools required affects work output. It suffices at this point to examine the relationship between work environment & tools and performance outcomes.

2.2.8 Work environment and Performance

Environment of work or work environment is an all encompassing term meaning the sum total of all the factors affecting workers in the context of their internal environment. It is the context of work. The context of work constitutes the working conditions. Working conditions has been defined as “----- the interaction of an employee with the physical work environment” (Bezuidenhout, 1994). The components of the physical environment include elements such as working tools, equipment, materials, schedules, space, temperature controls, lighting, protective devices, emergency exits and many other factors which affect the performance of nurses (Alluisi and Fleishman, 1982; Milisen *et al.*, 2006). For example, according to Ostfelt and D’Atri (1977) the phenomenon of crowding at work and also in real life affects performance at work in terms of general satisfaction, health, accidents and job satisfaction with habitability conditions. Psychological conditions are also part of the work environment and working conditions. Psychological conditions include work pressure and stress. According to Alluisi and Fleishman (1982) for the nurse to function effectively and efficiently, it is imperative to have the right physical and psychological environment. Working conditions together with remuneration and incentives have been argued in past studies to be the main causes of dissatisfaction and explain why nurses leave their jobs (Awases *et al.*, 2004).

Employees are the most crucial asset in an organization, and this asset appreciates with the progress of time. Organizations have realized that employees are the ferry that can take them across the ocean of failure to the island of corporate success. Being vital organs of an organization, the environment that surrounds employees should activate their positive output in order to increase productivity and the general performance of the organization (Cole, 2002). As the Mayo studies show, the environment can greatly influence the productivity of employees (Cole, 2002). Generally, people want to work for an organization that provides appreciation for work done, ample opportunities to grow, a friendly and cooperative environment and a feeling that the organization is second home to the employee. It is a known fact that a conducive work environment in place portends numerous benefits to the organization, while a hostile work environment impacts negatively on the well being and performance of the organization. People who are happy with their work environment are far more effective and happy than those who are uncomfortable (Armstrong, 2006; 2009; Newbold, 2008; Lu *et al.*, 2002).

Work environment of an organization is dependent on the internal environment and organizational processes in an organization. Other elements that make up work environment according to Ivancevich (2004) are: culture, nature of the task, and leadership. Cole (2002) gives more variables that encompass the work environment of an organization vis a vis corporate values, company reputation, quality of people in the organization, trust, structure of the organization and the level of technology use within that organization. The following hypotheses are therefore proposed:-

H2A: There is a positive relationship between work environment and performance outcome of nurses.

H2o: There is no relationship between work environment and performance outcome of nurses

2.2.9 Work load stress and Performance

There is no agreed definition of the term workload stress; some writers use the term to mean input loading, others take it to mean how hard one has to work, still others take it to mean speed and accuracy of response (Alluisi and Fleishman, 1982). Others take workload stress to include physiological and psychological abnormalities and work situation problems caused by overloading physical and psychological demands (stressors) at work (Kahn and Byosiore, 1992). The study of stressors is imperative, argues Pool (2000), because of its potential relationship with job performance, organizational commitment, and job satisfaction.

In this study work load stress is looked at in terms of the total of the task demands placed on the worker by the system which he/she is part of as argued by Alluisi and Flesihman (1982). These authors observe that demands placed on a worker may be overt or covert, physical or mental, perceptual or oral or even a combination of all these. Literature agrees that among the stress factors that influence performance and can change the individual's level of performance or reduce the probability that the performance will be maintained at a satisfactory level are: job demands or workload; the task characteristics; and the broad category of situational influence (Alluisi and Fleishman, 1982). In a study conducted at the university of Ilorin teaching hospital in Nigeria nurses were found to be the health workers who felt most overloaded with work and were among the most stressed (Ojokuku and Salami, 2011). This affected the nurses' levels of work satisfaction. It is firmly established that work dissatisfaction is positively correlated to increased absenteeism, turnover, nurse morale, productivity and clinical outcomes (Pillay, 2009).

Cooper and Marshall (1978) highlighted a number of job stressors in the leadership role. Even though these were also considered under leadership, they affected all the workers in their job environment. First, there are factors intrinsic to the leadership role; characteristics such as long working hours, travel, attending numerous meetings, work overload and so on. Work overload affects human beings in the same way whether they are in leadership or not. Southerland and Cooper (1995) on the other hand undertook a survey on the lifestyle and pressures faced by 118 chief executives from “The Times” top 100 European companies and their spouses / partners. The most significant stressor, “time pressures and deadlines” was rated as a source of pressure by 52 per cent of the chief executives. The next two major sources of strain were found to be “the demands of work on my private and social life”, and “the demands of work on my relationship with my family”. An international study of executive stress done by Cooper (1984) found that Japanese executives suffered from pressure to “keep up with new technology”, while managers in a developing country like Egypt could not cope with the “increasing emphasis on new technology”, with untrained staff and inappropriate infrastructure. In studies of heart disease and working hours, it has been found that individuals working consistently long hours (i.e. over 48 hours every week) are much more vulnerable to coronary artery disease (Warshaw, 1979). Second, role stressors (role conflict & role ambiguity) are potential stressors that can create low levels of job satisfaction and higher anxiety levels among those in leadership roles and, in addition, leads to elevated blood pressure and cardiovascular ill health (Ivansevich and Matteson, 1980). Role stressors have been found to affect all cadres of workers. Jamal (1984) and Rabinowitz and Stumpf (1987) examined empirical studies supporting the relationship between role stressors and job performance and concluded that *role conflict* adversely affects employee’s performance. Other researchers have found that *role ambiguity* adversely affects job

performance (Leicester *et al.*, 1991). Performance of nurses is affected by this factor. Bagozzi (1980), Breugh (1980) and Jamal (1984) have supported these results in the past with similar outcomes involving the relationship between role ambiguity and job performance. Role ambiguity and role conflict have also been associated with low organizational commitment (Welsch and LeVan, 1981; Fisher and Gitelson, 1983; Morris and Koch, 1978; Igharia *et al.*, 1992). Understanding how role stressors negatively impact organizations and identifying the corporate culture, which may reduce the effect of stressors, is a critical issue for management (Pool, 2000). Third, managerial stress can also develop from relationships at work, with colleagues, subordinates and bosses. Research into work relationships has concluded that many stress-related symptoms and illnesses derive particularly when the relationship between a subordinate and a boss is psychologically unhealthy for one reason or another (Cooper and Payne, 1991). Fourth, career development issues can surface and become stressors for leaders and subordinates alike during their tenure. Ivancevich and Matteson (1978) suggest that individuals suffering from “career stress” often show high job dissatisfaction, high job mobility, burnout, poor work performance and less effective interpersonal relations at work. These are important issues to examine in any study on the performance of nurses.

Fifth, the organization itself can present a threat to a leader’s sense of autonomy and control. Leaders sometimes complain that they do not have a sense of belonging, lack adequate opportunities to participate or be involved in decisions, or feel that their behavior is unduly restricted. This affects subordinates as well. The organizational culture or climate can therefore play a significant role in work satisfaction and health. Organizations that create trusting and open communication systems are more likely to enhance autonomy and creativity in workers and managers, while those that do not, lay the “seed corn” for stress among workers or executive

stress (Pool, 2000). Finally, managerial stress can come from the interface between work and the home. With organizations demanding more and more commitment and time from executives and workers alike, the family-life of business leaders is beginning to show signs of stress. At the same time with increased demands by organizations for more commitment, an increasing number of managers are now in dual career marriages, with both partners working. This is adding even more strain to the marriage and to the relationship (Cooper and Lewis, 1993).

A cross-cultural study done by Miller *et al.*, (2000), using data from South Africa, United Kingdom, United States of America and Taiwan examined the interaction of gender and culture in managers' experiences of work stress. Virtually no differences in sources of work stress (stressors) were found when the sample as a whole was examined, but there were differences in the consequences of work stress (strain) for male and female managers. Wong *et al.*, (2002) found that perceived sources of work stress in Chinese offshore workers were different from those reported in earlier studies on UK offshore workers. The study suggests that more cross-cultural comparative studies would be useful in elucidating the influence of socio-cultural and environmental factors on stress perception. Consequently, the following hypotheses are proposed:-

H3A: There is a positive relationship between workload stress and performance outcome of nurses.

H3o: There is no relationship between workload stress and performance outcome of nurses.

This study also involved examination of performance outcome of nurses in different levels of hospitals that were put into three categories. The study sought to establish if there were similarities and differences between the different categories of hospitals in Nairobi county. In

order to establish the status in regard to differences or similarities the following hypotheses were proposed:-

H4A: There is a significant difference in the performance assessment and outcome of nurses in the three categories of hospitals

H4o: There is no significant difference in the performance assessment and outcome of nurses in the three categories of hospitals

The above hypotheses on the differences and similarities between the different categories of hospitals were addressed after the analysis of field data.

What follows below is the examination of several conceptual frameworks reviewed and utilized in this study.

2.3 Conceptual Framework

According to Bogdan and Biklen (2003) a conceptual framework is a basic structure that consists of certain abstract blocks which represent the observational, the experiential and the analytical/synthetical aspect of a process or system being conceived. Many models developed to explain human resource factors and their influence on performance or work output contain many of the elements considered under the process of motivation. Some of the models are studied in this study as they contain elements of interest in this study.

Several authors modeled the relationship between human resource factors and job outcomes or performance of staff. Porter and Lawler (1968) developed a simple model, following Vroom's ideas in expectancy theory reviewed earlier in **section 2.2.2** to explain that **motivation** is only likely when a clearly perceived and usable relationship exists between performance and

outcome, and the outcome is seen as a means of satisfying needs (Vroom, 1964). This is one of the gaps this study sought to establish, whether the performance outcome of nurses satisfied their needs. The conceptual model of Porter and Lawler is depicted in Fig. 2.1 below.

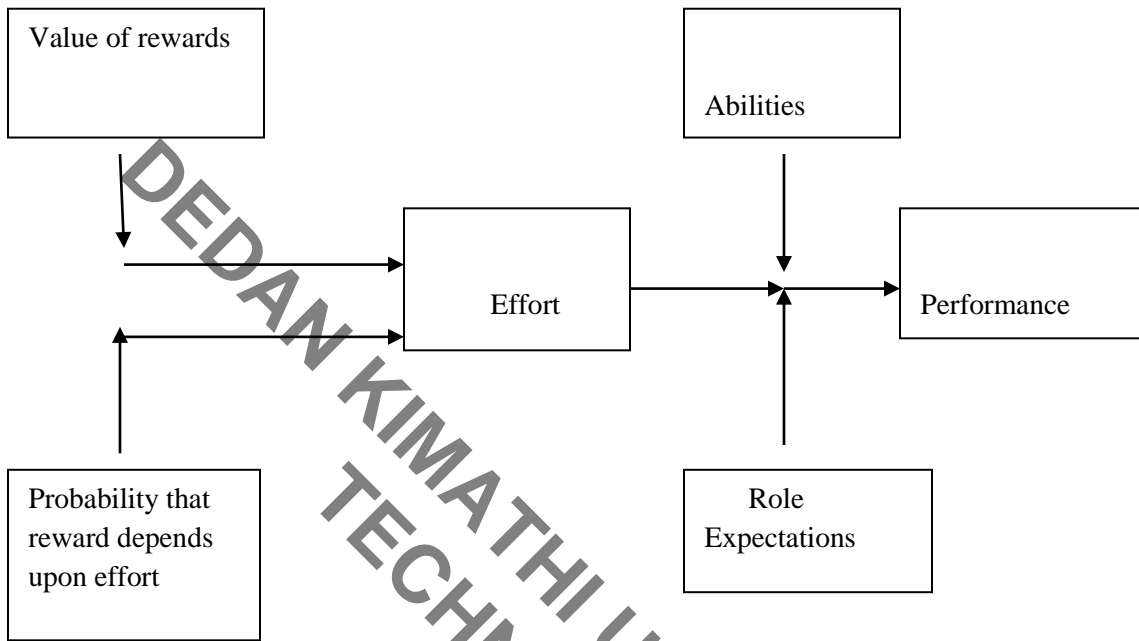


Fig. 2.1 Motivation Model

Source: Porter and Lawler (1968)

According to the above model there are two main factors determining the effort people put into their jobs:

- (i) The value of the rewards to individuals in so far as they satisfy their needs such as security, esteem, and self actualization. The question to ask here is whether nurses feel that their remuneration and allowances are adequate to meet their basic needs. In this study the perception of nurses in regard to this issue was sought. Questions posed to nurses incorporated the motivation issues contained in the framework.

- (ii) The probability that rewards given depend on effort, that is, individuals perceive that their effort or work output is rewarded adequately and the two are at par. One would wish to establish if this kind of relationship exists and what the perception of nurses in regard to the issues under consideration.

Porter and Lawler emphasized that mere effort is not enough. It is effective effort that produces the desired performance. Effective effort is a function of the value of rewards and probability that rewards depend on effort and also ability and role perceptions of individuals (**Fig. 1**). Ability has to do with individual characteristics such as intelligence, manual skills, and know-how. Role perceptions is about what the individual wants to do or thinks he or she is required to do (Porter and Lawler, 1968). Thus, the model is only limited to the individual factors and organizational factors, and this is its major weakness. The model is, however, useful in proposing critical internal environment and individual factors to examine in studying work performance such as perception, roles, skills and expectations relating to work and work output. Other factors, from the external environment, however, also influence performance of workers. Other models have been proposed in attempt to incorporate other factors and as a way of addressing the weaknesses of the Porter and Lawler model of 1968. One such model was proposed by Bennet and Franco in 1999 to discuss motivation issues in the health sector. Because the model is specific to the health sector, it was found useful to review in this present study. The model is considered below.

The Bennet and Franco model is specific about factors of motivation that influence workers in the health care sector. The model is presented in Fig. 2.2 below.

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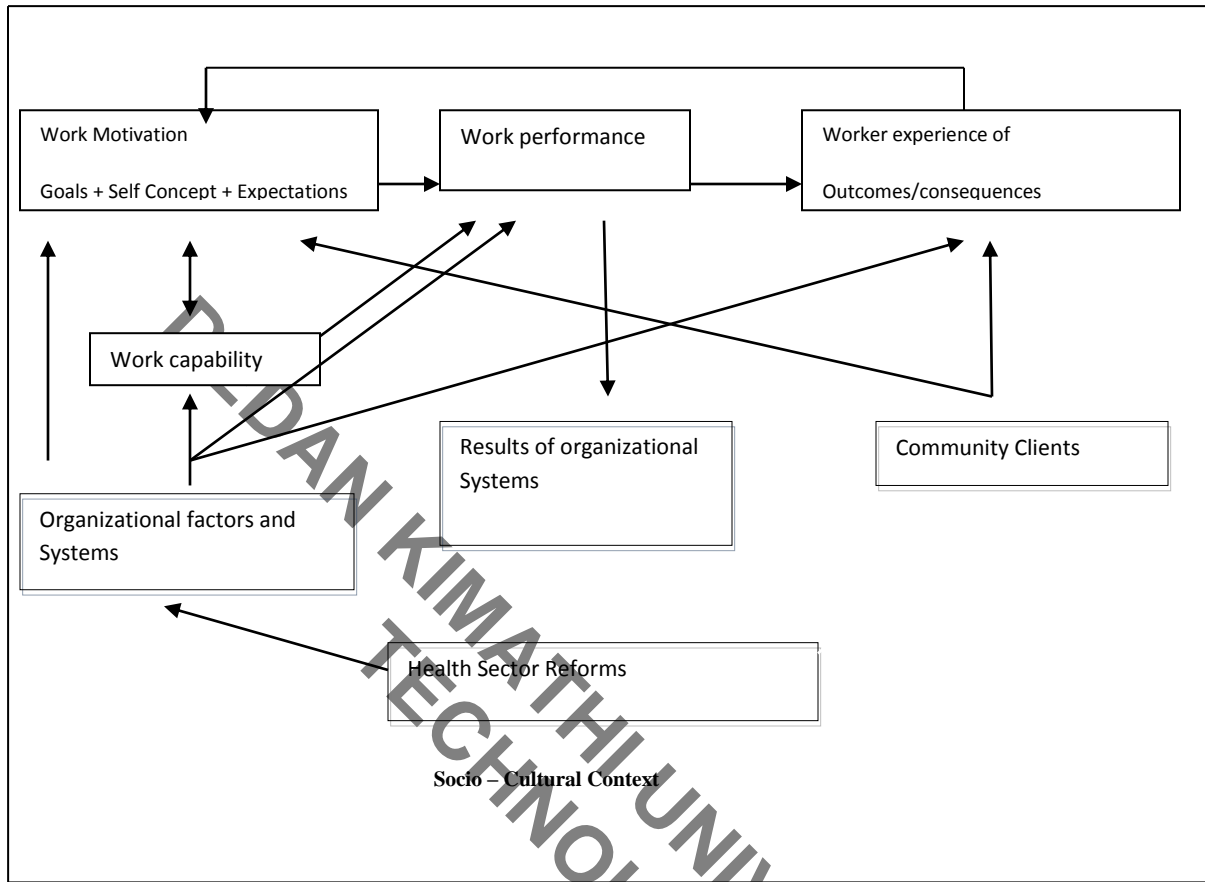


Fig. 2.2 Work Motivation in the Health Sector Environment

Source: Bennett and Franco (1999)

The above model shows that work outcomes of staff within the health sector environment is as a result of a complex interaction of such factors as motivation, performance, organizational factors and external environment factors in the socio-cultural context. This interaction has been recognized as a key dimension of work performance and organizational performance in general [Bennett and Franco, 1999; Kamoche *et al.*, 2000 (pp. 42 – 48); Rafferty and Clarke, 2009].

According to Bennett and Franco the determinants of individual motivation include such individual needs' factors such as goals, self concepts and expectations. The organizational factors and systems provide a work environment where factors such as performance appraisal

and feedback, tools, supplies and adequacy of essential items, physical environment and support by the organization and superiors will affect performance outcome. This study utilized this model in the formulation of research questions and established that majority of the respondents had experienced performance assessment in their hospitals but they were never given feedback by the supervisors, this was a point of disconnect and demotivation.

According to the model, outside the immediate organizational environment are social and cultural factors that affect motivation and performance. The factors in this broader social and cultural context include issues such as the interaction between nurses and other health care staff, patients, politics, economic factors, technological factors and the expectations from the community on how health care services ought to be delivered. Bennett and Franco Model (1999) can be faulted for not recognizing the other external environment elements other than the socio-cultural context such as politics, economic variables, technology and environment.

The external context of any organization has many elements that affect the job performance of workers. These are well recognized and were categorized by this researcher into Political, Economic, Socio-cultural, Technological, Geological or Ecological, and Competitive or Task environment (PESTGCO) factors. They are popularly known as PESTEL in the literature on strategic management (Pearce and Robinson, 2007; Hunger, 2001; Kamoche *et al.*, 2000; Thompson and Strickland, 1987; Glueck, 1990, Hegarty, 1976, Herold, 1972, Ansoff, 1976, Karger *et al.*, 1975). PESTEL stands for Political factors, Economic factors, Socio-cultural factors, technological factors, Environmental factors and Legal factors. Political factors relates to the Government. For example, the government always has a big say on wages and salary levels in an economy in line with its fiscal and monetary policies. On the other hand the economy and its performance will have a major influence on the levels of wages and employment that can be

sustained at any time. It was the contention of this researcher from the onset that a study on work performance of nurses has to recognize the influence of such factors and that such factors must show on any model purporting to capture all the factors that influence performance of workers and job outcomes. Hence, the need for this study to come up with an Operational Performance Model which this researcher calls “**The composite job performance model.**” (Fig. 2.5; page 94)

Sharpley (2003) proposed a model on perception, motivation and performance that incorporated the key variables that could be examined in a study of work performance. The variables are: individual perceptions, experience of work and work outcomes. This model is presented in **Fig. 2.3** below.

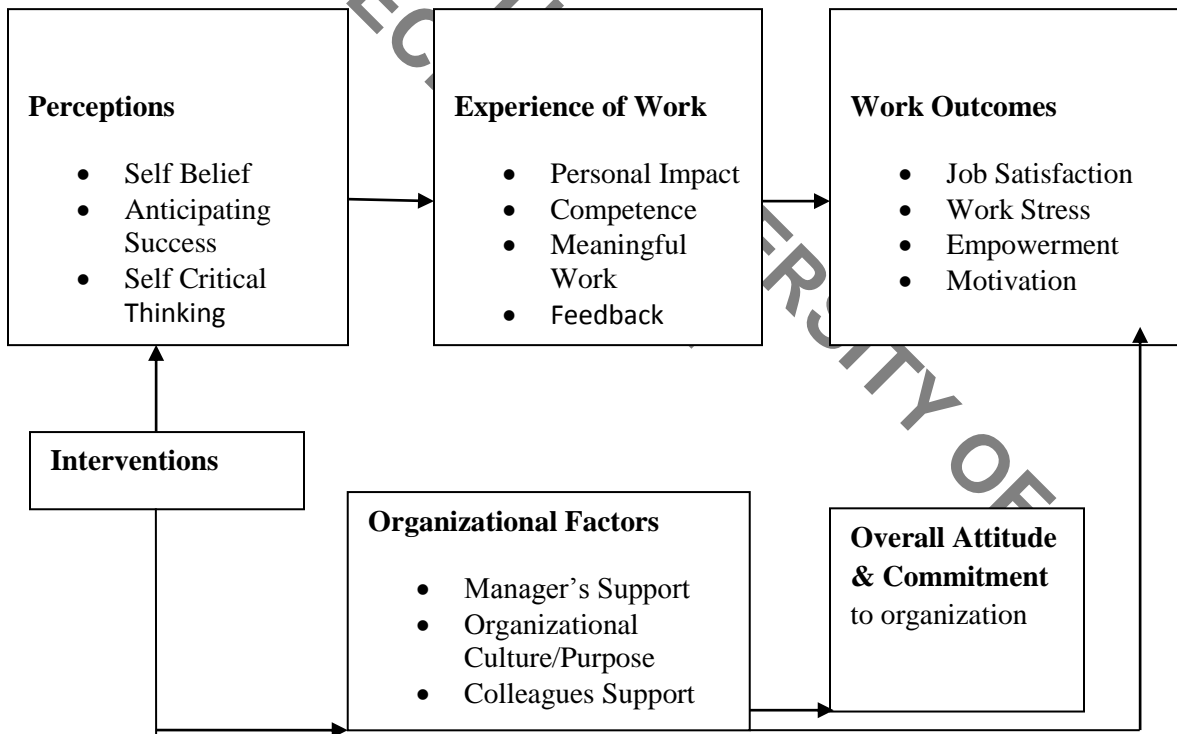


Fig. 2.3: The Perception, Motivation and Performance Model

Source: Sharpley (2002)

The variables in the model above include Individual perceptions (self belief, anticipation of success and critical thinking), experience of work (personal impact, competency, meaningful work, feedback, and discretion) and work outcomes (job satisfaction, work stress, empowerment and motivation). In addition, organizational factors such as the support of bosses and colleagues, organizational intent/vision and culture of the organization impact performance. Sharpley (2002) suggests that interventions depend on all the factors depicted in the model as well as the overall attitude and commitments by the organization to organizational purpose and goals.

This study utilized the provisions of this model in the sense that the issue of perception of nurses in the context of the other factors in the model was studied. The factors included in the model have been studied widely (Nickols, 2003; Kamoche *et al.*, 2000; Flanagan and Henry, 1994; Rafferty and Clarke, 2009). There is consensus that the organization has the responsibility of creating a healthy working environment. Thus, a good and conducive working environment leads to high performance. In the context of the health sector one can agree with Flanagan and Henry (1994) that health providers who create and provide conditions conducive to good working of workers realize good health care provision and high performance. One can ask at this point whether this is the case in the health sector of Nairobi county of Kenya. This issue was addressed in this study and findings presented in Chapter 4 of this thesis.

The Sharpley model (2002), like the Bennett and Franco model (1999), does not include the wider external environment factors that are also important in that they affect the operations of organizations. In terms of organizational performance these external environment factors are important (Kamoche *et al.*, 2000). In the health sector the factors are significant in regard to such issues as wage levels, financing, remuneration, employment levels, availability of the tools of work, work environments, and work stress.

This researcher's composite model was constructed in order to incorporate all the variables. This composite model is discussed later in this chapter.

Another model suggested by Guest *et al.*, (2000) tries to show the relationship between HRM and financial performance. It is in the context of HRM that HR factors influence performance.

The model is depicted in Fig. 2.4 below.

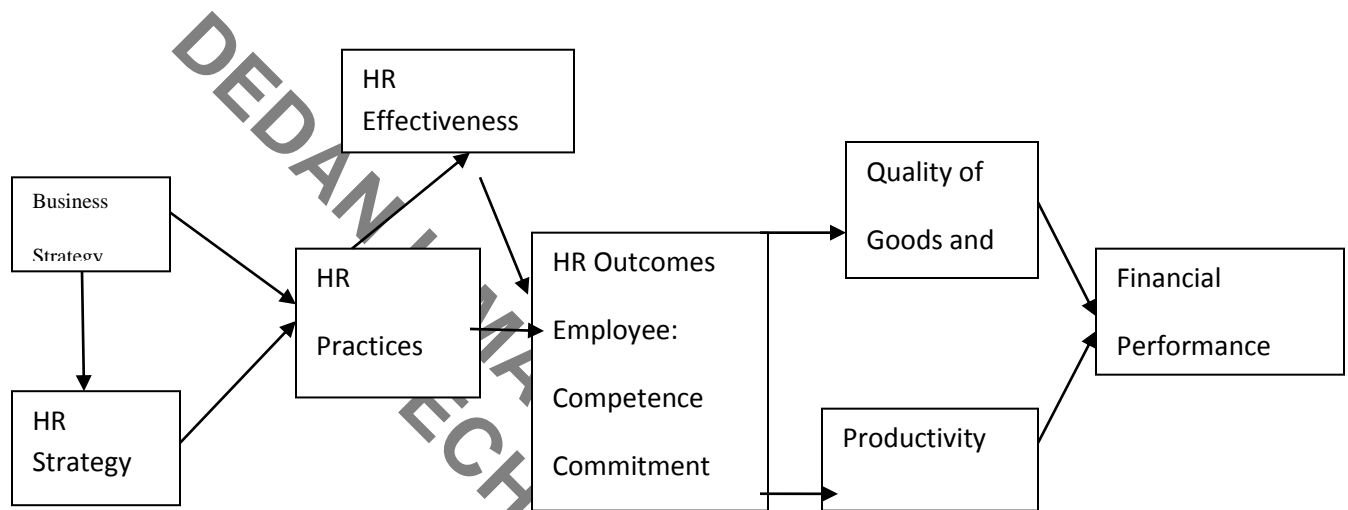


Fig. 2.4 Model of the link between HRM and Performance

Source: Guest *et al.*, 2000

The model in the figure above shows the interaction of an organization's business strategy and Human Resources strategy. Good HR and effective practices are important parts of motivation theory and their implementation lead to HR outcomes key among them employee competence, commitment and flexibility. These outcomes lead to the production of quality goods and services, and increased productivity. These in turn lead to improved performance and especially financial performance (Harrison and John, 2002; Hunger and Wheelen, 2001; Kamoche *et al.*, 2000). The above model proposed by Guest *et al.*, (2000) is a broad model dealing with HR outcomes and financial performance. However, it does imply that factors such as job and work design, remuneration and reward, good physical working, increased employee motivation and

policies that meet the needs of individuals will impact performance outcomes. This agrees with this research and with conclusions by researchers, HR theory and Motivation theory that HR factors are very important in terms of organizational performance (Kamoche *et al.*, 2004; Purcell *et al.*, 2003; Kamoche *et al.*, 2000).

Like the other models presented earlier, the above model does not bring out all the essential factors of interest in regard to the HR factors and job performance within the health sector. However, by including the aspect of business strategy the model implies that external environment factors that impact an organization are important as business strategy is formulated through consideration of both the internal and external environments of a business (Pearce and Robinson 2007; Hunger, 2001; Kamoche *et al.*, 2000; Glueck, 1990; Thompson and Strickland, 1987; Newman and Logan, 1981).

According to Schuler and Jackson (1999) all the major HRM models suggest that HRM has the critical role of managing an inner context in relation to an outer context. The four conceptual models presented above, in combination, bring out the key organizational and human Resource factors that affect the job performance of workers. HR factors are elements of the internal context. None of the models incorporates all the factors found in both the internal and external environments of an organization. They all concentrate on the internal environment context. However, it is a truism that organizational and human resource factors that are found in the internal environment of an organization are also part of a larger context that exists beyond the organizational context (Kamoche *et al.*, 2000; Schuler and Jackson, 1999). Schuler and Jackson (1999) in support of this claim observe that ***“all these models therefore suggest the importance of the situational forces (especially the socio-economic and the political/legal context) in predetermining the strategic choices available to a firm. HR factors cannot therefore be***

studied in isolation of the external context.” The implication of the above is that a model that attempts to bring out and link everything together would suffice in a research such as the current one. It suffices at this point therefore to put the organizational and human resource factors in the context of the external or wider environment in which they exist. This is carried out in the composite model below that this researcher has proposed and utilized in this research.

The model in fig. 2.5 below is therefore the operational conceptual framework/model proposed by this researcher.

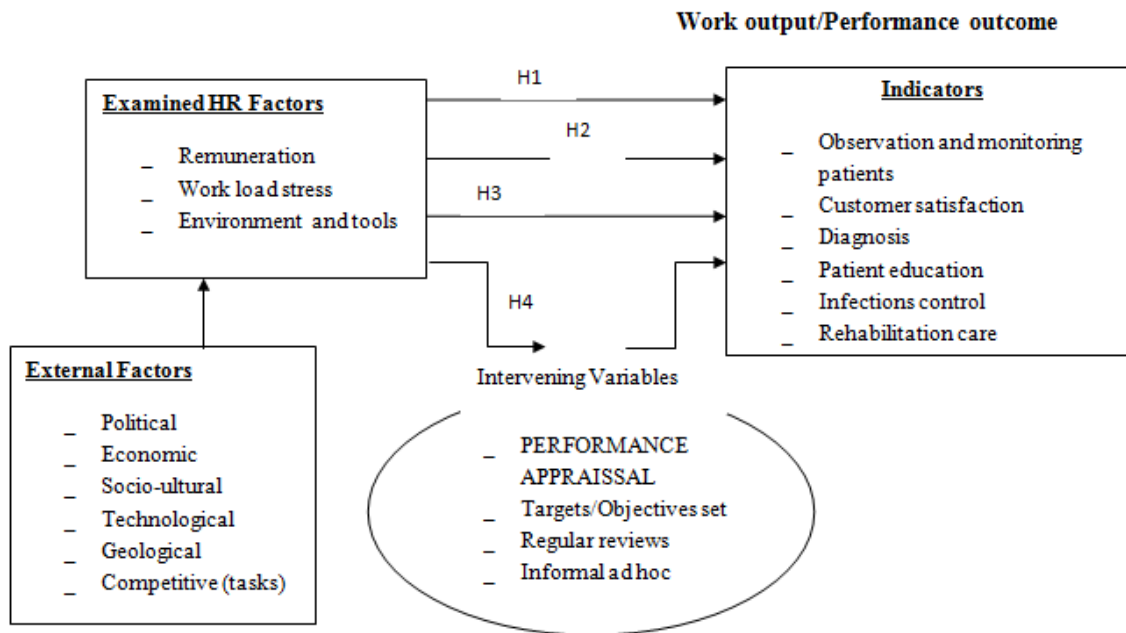


Fig. 2.5: Operational Conceptual Model: HR factors and performance

Source: Researcher, 2013

The above model is much a more encompassing model than all the other models so far depicted. The model, while accepting the contribution of other models, attempts to show the special place

of the Political, Economic, Technological and other external environment factors, in the Kenyan context. These factors affect the performance of organizations and individual workers (Kamoche *et al.*, 2000; Aosa, 1992). The model takes into account both the internal context and the external context factors. Even though this research did not consider the external environment factors in detail, the composite model contributes by showing that the external environment factors are important considerations. Future researchers should benefit from the use of the composite model in research in the health sector on issues of human resource factors. This present research concentrates on some selected HR factors as already indicated previously.

Workers in the health sector are influenced by many factors in both the internal and external environment of an organization. The internal work environment factors that influence job performance include individual perceptions, experience of work, individual level work outcomes or performance, and organizational factors such as strategic coherence, performance management style, social norms and how they influence behavior, and standards at work, communication, supportive supervision or leadership functions, resources, shared expectations about appropriate behavior at work, structures and work culture. These factors form the context in which work is done (Kamoche, *et al.*, 2002; Hunger, 2001). It is these internal work environment factors that one finds variables such as remuneration and incentives, education and training, efforts management puts in motivating workers, work environment and tools of work, work load stress, performance management systems, cultural orientation of workers, and related factors.

Many studies on performance of nurses invariably call the factors “human resource factors” (Parker and Kulik, 1995; Borda and Norman, 1997; Judge *et al.*, 2004; Siu, 2002; Albualrub, 2004; Tieng, 2004; Mrayyan, 2006 and Hall, 2007). As already observed elsewhere, previous

studies have investigated these factors without putting them in the context of the wider or external environment factors and in the context of staff assessment. It is the contention of this researcher that a study of HR factors should be put in the context of staff assessment because what gets measured is what has been agreed in terms of performance targets. It is also the contention of this researcher that the external environment factors that affect work outcomes should be acknowledged in any study on performance. It is with this contentions in mind that the conceptual framework used in this research was constructed (Fig. 2.5 above). As already indicated, the model borrows from the other models that have been presented already. With the exception of the Bennett and Franco model (1999) earlier depicted in Fig. 2.2., that incorporates the socio-cultural phenomena in the wider environment, the other models do not include the wider external context factors. But Bennett and Franco's model is also considered insufficient as it excludes other external environment factors that also influence job performance of nurses albeit remotely. The model developed by this researcher to show the scope of what ought to be considered in studies similar to this (Fig. 2.5 above) shows that the external environment factors include Political & Legal factors, Economic factors, Socio-cultural factors, Technological factors, and Competitive factors or Task environment factors (PESTGCO). As already observed elsewhere these factors have been studied widely especially in the discipline of strategic management and strategic human resource management (Wit and Meyer, 2010; Pearce and Robinson, 2007; Hunger, 2001; Kamoche *et al.*, 2000; Glueck, 1990; Ansoff and McDonnell, 1990; Thompson and Strickland, 1987; Newman and Logan, 1981; Fisher, Schoenfeldt and Shaw, 2003; Schuler and Jackson, 1999).

The political-legal forces allocate power and provide constraining and protecting laws and regulations (Fisher, Schoenfeldt and Shaw, 2003; Harrison, 2002; Hunger and Wheelen, 2001;

Hill and Jones, 2004). Some important variables here include tax laws, special incentives, setting of wages, laws on hiring and promotion, and stability of government (Hunger and Wheelen, 2001). In the context of health services these forces result in government policy and regulations on such issues as wage, remuneration and employment levels, incentives relating to work and other factors such as leave allowances, the tools to be provided for work such as uniforms and protective gear, skills levels and training, laws on hiring and promotion, and taxation.

Economic forces or factors regulate the exchange of materials, money, energy and information (Pearce and Robinson, 2007; Hunger and Wheelen, 2001; Thompson and Strickland, 1987; Wit and Meyer, 2010; Glueck, 1990; Ansoff and McDonnell, 1990; Newman and Logan, 1981). Some important factors under economic forces include GDP trends, money supply, unemployment levels, wage/price controls, disposable and discretionary incomes (Hunger and Wheelen, 2001). In the context of health services provision these forces will influence the level of employment, wages, salaries and allowances as well as special incentives and will help determine the relevant price controls. They will also provide guidance in terms of tax levels to be maintained in the economy.

The Socio-cultural factors regulate the values, morals and customs of society. (Hunger and Wheelen, 2001; Newman and Logan, 1981; Pearce and Robinson, 2007; Wit and Meyer, 2010). Under the socio-cultural environment we find such variables as career expectations, age distribution and population, life expectancies and birth rates (Hunger and Wheelen, 2001). In the context of health services provision these factors will influence such issues as work ethics, commitment to values, life expectancies, self management at work, career expectations, lifestyle changes, age distribution of population and birth rates.

Technological factors generate problem solving inventions useful for application in the work place (Ansoff and McDonnell, 1990; Pearce and Robinson, 2007; Hunger and Wheelen, 2001; Thompson and Strickland, 1987; Wit and Meyer, 2010). Here we find such factors as total government spending on R&D, focus of technological efforts, new developments in technology transfer from lab to market/work place, and productivity improvements through automation (Hunger and Wheelen, 2001). In the context of the health sub sector these forces influence such elements as new technology to use in the work place, education & training, productivity improvements through automation, and the application of the internet.

Competitive forces are those found in the task environment or industry sector and in the health sector they include stakeholders (nurses, suppliers of health supplies, alternative medicine providers, patients, and alternative employment), self employment, associations, trade unions, communities and special interest groups (Ansoff and McDonnell, 1990; Pearce and Robinson, 2007; Wit and Meyer, 2010). In the context of the health sector these factors are important as they have a bearing on the job outcomes or performance of health workers. For example, whenever the relevant Association of the nursing fraternity in Kenya calls for a national strike, delivery of health services is impacted negatively. Another example is that private and mission hospitals that have better pay and terms attract nurses away from government hospitals. The next chapter is on research methodology applied in this study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction to the chapter

Guided by the research philosophy of interpretivism this study utilized a descriptive co-relational and quantitative survey design to investigate the relationship between human resource factors and the performance of registered nurses in all the levels of government hospitals Nairobi County in Kenya. Data was collected using a questionnaire designed for the purpose. Data was also collected using a checklist for focus group interviews and also through observation of phenomena in all the hospitals that were sampled for the purpose. The researcher and her assistants collected data after the results of a pilot survey that helped to clarify the research questions were discussed and necessary amendments on the questionnaire effected. The data from the pilot survey was not incorporated in the final analysis. The questionnaires were coded and analyzed using SPSS. Before the process of coding was undertaken the findings obtained through the questionnaires and through observation were subjected to focus groups that were composed of all categories of nurses including nurse managers. The focus groups provided clarifications and further information that was useful in the presentation of findings (**Section 4.8**). Descriptive correlational and quantitative survey design was adopted as the primary research method for this study because it was deemed appropriate for a study aimed at coming up with the conclusive findings on the work or performance output of nurses in government hospitals in Nairobi County especially in regard to their perception on the issues of this research.

The rest of this chapter includes a discussion of the details of the research philosophy (**section 3.1**), research design addressing the purpose and problem statements introduced in Chapter 1

(**section 3.2**), research procedures (**section 3.3**), population of study and sample distribution (**section 3.4**), sample selection (**section 3.5**), sample size (**section 3.6**), data collection (**section 3.7**), data analysis methods (**section 3.8**), outline of hypotheses guiding this study (**section 3.9**), validity and reliability (**section 3.10**), and chapter summary (**section 3.11**). Further discussion within this chapter includes, instrumentation, pre-testing of data collecting instruments, and also information about ethical concerns is provided.

3.1 Research philosophy

Literature shows that there are three research philosophies. These are: Positivism, Interpretivism and Realism (Saunders *et al.*, 2003). Positivism reflects the philosophical stance of the natural scientist. The end product of such observable social reality can be law-like generalizations similar to those produced by the physical and natural scientist (Remenyi *et al.*, 1998). Those critical of this philosophy argue that rich insights into this complex world are lost if such complexity is reduced entirely to a series of law-like generalizations. However, this philosophy is useful in dealing with phenomenon such as that found in motivation theory and in the discipline of HRM.

Interpretivism looks at what Remenyi *et al.*, (1998) call “the details of the situation to understand the reality or perhaps a reality working behind them.” This follows from interpretivists’ position that, it is necessary to explore the subjective meanings motivating people’s actions in order to be able to understand these (Cooper and Schindler, 2005; Saunders *et al.*, 2003). Many interpretivists consider generalization to be of less value. Interpretivism was relevant in this present study because of its provisions that people’s subjective meanings can be studied and interpreted. In this study when asking respondents to give their perceptions in regard to the HR

issues under this study, the effort expended is to elicit responses that are later interpreted to give meaning to the issues. A human being is subjective and studying motivation of human beings has to go into the subjective meanings they have about situations (Armstrong, 2006; 2009; Saunders *et al.*, 2003; Cooper and Schindler, 2005).

Realism is based on the belief that a reality exists that is independent of human thoughts. Social objects and phenomena that are external to, or independent of, individuals will therefore affect the way in which these people perceive their world, whether they are aware or not. Realism recognizes that people are not objects to be studied in the style of natural science (Saunders *et al.*, 2003). It also recognizes the importance of understanding people's socially constructed interpretations and meanings, or subjective reality, within the context of seeking to understand broader social forces, structures or processes that influence, and perhaps constrain the nature of people's views and behaviors.

This study adopted the research philosophy of interpretivism method which is a sub-set of the wider positivist paradigm. According to Saunders *et al.*, (2003) this approach explores the subjective meanings motivating peoples' actions in order to make sense of and understand people's motives, actions, and intentions.

A quantitative, co relational descriptive survey research design utilizing a Likert type scale was used to identify the extent to which the identified HR factors affect job outcomes or performance of nurses positively and negatively. This study method provides a statistical investigation of relationship between the independent variables (workload stress, remuneration and environment and tools) and the dependent variable (performance or work outcomes). Data was collected through use of questionnaires, observation and a checklist utilized in focus group interviews. The

Questionnaires were pilot tested for validity and reliability. The checklist was utilized to guide discussions during Focus Group Interviews. Observation provided additional information that could shed light on some of the operations and actions of nurses in their work places. The target population was all the registered nurses in Government Hospitals in Nairobi County. A sample population was selected using Taro Yamane's sample size selection formula for a finite population (Uzoagulu, 1998 cited in Umoren *et al.*, 2009).

3.2 Research design

A research design is a framework that constitutes the blue print for collection, measurement and analysis of data (Cooper and Schindler, 2005; Saunders *et al.*, 2003). It entails detailing the procedures necessary for getting the information needed to solve the research problem (McMillan and Schumacher, 1993). The above authors further argue that research design describes the procedure for conducting the study, including when, from whom and under what conditions the data would be obtained. On the other hand Seal (2004), describes research design as an intergraded map of the research project that determines the most suitable method of investigation, the nature of the instruments, the sampling plan and the types of data. According to Cooper and Schindler (2005), a number of research designs exist but the main categories are: exploratory, descriptive, and causal and co relational design.

Descriptive survey is designed to describe phenomena associated with a subject population according to Cooper and Schindler (2005). McMillan and Schumacher (1993) observe that a descriptive Survey design assesses the nature of existing conditions, without influencing or manipulating treatment of subjects as the researcher measures them as they are. A survey is the systematic collection of answers to questions that are asked of respondents in questionnaires or interviews in order to gather information about the attitudes, characteristics or behavior of a large

group of persons called the population using a selected representative subset of that population called the sample (Singleton, 1993; Kline, 1980; Schutt, 1996). This study employed the two approaches or forms of survey namely: the descriptive survey research and the analytic survey research. Descriptive survey research aims at describing phenomena or narrating how various behaviors and events occur. The approach is also useful in narrating the challenges or problems undermining the performance of nurses in their work environment. On the other hand, the analytic survey research seeks to establish relationships among phenomena or variables by asking “what” and “why” certain behaviors occur and “how” these behaviors relate to other types of behaviors and other variables. The approach was used in this study to explain among others, the relationship between remuneration, work environment and work load stress on some aspects of performance and their nature in regard to performance of registered nurses in government hospitals.

A correlation study is used when a need exists to study a problem requiring the identification of the direction and degree of association between two sets of scores. It is useful for explaining complex relationships of multiple factors that explain an outcome, and predict an outcome from one or more predictors (Creswell, 2005). In this study co-relational design was used to examine the relationship between nurses’ perception of remuneration, work environment, work load stress and performance outcome in the context of staff assessment. The design is also useful in discovering the extent to which the characteristics vary together (Simon, 2006). The investigation of one or more characteristics of a quantitative co-relational design lessens the degree of bias that exists in qualitative designs that may affect the outcome and accuracy of a study (Colling, 2003). Using a correlation statistical test determines patterns for two or more variables (Creswell, 2005). In this study, a key focus was to understand and identify the

relationships between the variables of remuneration, work environment & tools and workload stress, as well as the relationship of each variable to the work or performance outcome of nurses under situations where staff assessment was practiced or was operational.

3.3 Research procedures

The process of data collection began with the identification and recruitment of five Research Assistants who were knowledgeable in data collection. The main researcher who is me and my five assistants conducted a mock interview exercise by administering questionnaires to one another and recorded findings that were examined and discussed to ensure consistency. The Research Assistants were then facilitated with the resources they required for the exercise including sufficient copies of questionnaires and transportation funds. Each respondent was interviewed in English individually in a face to face interview as they were given questionnaires. The researchers interviewed nurses who were available. Interviews with all respondents were conducted between 8.00 am and 5.00 pm. The researchers converged after every one week to review the progress of the research exercise. The researchers exchanged notes and ideas for the purposes of ensuring that the data collection exercises continued smoothly.

3.4 Population of study

3.4.1 Population

In a research study, population refers to the total collection of elements about which we wish to make inference. It is the universe of people, place or things to be investigated (Koul, 1984; Kline, 1980; Kombo and Tromp, 2006). The total population of interest in this study were all the registered nurses working in Government Hospitals in Kenya. They are 32,941 according to the Kenya National Bureau of Statistics (2012). Taro Yamane's sample size selection formula was used to draw the sample population. Nurses in the hospitals were deemed to be representative of

all registered nurses working in government hospitals in Kenya as they covered all the six levels of hospitals in Kenya. The sample of the study consisted of Registered Nurses who were at work at the time of the sampling and were willing to participate in the research. Registered Nurses are professionals who have different responsibilities, experiences, and job titles and sharing common factors such as education, professional training, and professional practice. Experiences make Registered Nurses a homogenous group who provide healthcare services, support, and education to patients and their families. Registered Nurses provide unique perspectives and variety in experiences about their working environments, tools, remuneration and incentives, and job related stress. Informed Consent was sought from nurses before the administration of the questionnaire. The researchers explained the purpose of the research, and an assurance of participant anonymity was given. The researchers also explained the benefits and risks of the research study to participants. The researchers explained that the study might be useful in future educational presentations or publications. Participation in the study was thus voluntary. Participants would be free not to accept to go on with the research without any risk or penalty whatsoever.

Table 3.1: Number of Nurses in Government Hospitals in Kenya

Category of Hospital	Total Population
Category I	10,708
Category II	7,576
Category III	14,657
Total	32,941

Source: Kenya Bureau of Statistics 2012

3.4.2 Sample Design

A research sampling design is that part of the research plan that indicates how cases are to be selected for observation (Singleton, 1993). The design therefore maps out the procedure to be followed to draw the study's sample. Literature shows that sampling can be divided into two broad categories: probability or representative sampling and non-probability sampling (Saunders *et al.*, 2003; Kothari, 2003; Kombo and Tromp, 2009). Non-probability sampling is used in large-scale surveys where the subjects are not known and thus non-random selection is used (Kothari, 2003; Kombo and Tromp, 2009). According to Saunders *et al.*, (2003) four types of non-probability sampling have been identified: convenient, snowball, quota and purposive or judgmental sampling. On the other hand probability sampling allows for the calculation of the desired sample size for the margin of error the researcher will agree to (Polit and Beck, 2004). Four types of probability sampling are: systematic, simple random, stratified random and cluster sampling (Cooper and Schindler, 2005; Saunders *et al.*, 2003; Polit and Beck 2004). This study used simple random, and cluster sampling which are types of probability sampling. All the government hospitals in Nairobi County were visited and questionnaires dropped randomly to individual nurses after permission was given. The hospitals were chosen if they were Government sponsored and had registered nurses and also on the basis of representativeness for the whole country. Cluster sampling was used to ensure that hospitals selected for the study had a representative population. Excluded are those nurses who were away for a number of reasons including study leave, annual leave and other reasons for absence. However, those who were present in their duty stations were chosen randomly because they were generally assumed to represent the large mass of nurses in each of the hospitals. Choosing Nurses from different hospitals helped provide participants who had diverse background and experience which was deemed representative of all the nurses in Kenya government hospitals.

Table 3.2: Distribution of Respondents

Category of Hospital	Level of Hospital (1-6)	Respondents
Category I	2 & 3	200
Category II	4	180
Category III	5 & 6	400
Total		780

Source: Survey Data, 2012

3.5 Sample population selection

Good sample selection includes maximizing the degree to which the selected group represents the population (Salkind, 2003). Simple random sampling is a form of probability sampling which was adopted for this study as already explained. Probability sampling was chosen because this was a survey based research and the population had large numbers of respondents in each category of hospital. According to Patton (2002) it is better some times to use information-rich cases than to be statistically representative in probability sampling. Generalization is a very important aspect in the results of a study. It extends the study results to the larger population. According to De vos *et al.*, (2005), a small sample size can impact on statistical tests and can make them insensitive or over-sensitive. On the other hand he argues that large samples allow for drawing more representative and accurate conclusions. That is, the larger the sample, the smaller the sampling error. Consequently this research used government hospitals in Nairobi County as they were viewed to have large enough population to be generalized.

With regard to estimating the correct size of a sample, Seaberg (1988), Grinnel and Williams (1990) as quoted by De Vos *et al.*, (2005) state that a 10% sample should be sufficient to control any sampling error. Another way of estimating the correct size of a sample is through the

use of power analysis, a method of estimating that the sample is large enough for detecting errors (Brink and Wood 2002).

3.6 Sample Frame

A sample size is the number of respondents that should be surveyed or studied. It is the number of items to be selected from the universe to constitute a sample (Kothari, 2003; Berkowitz, 1995; Kombo and Tromp, 2009). The sample of study was drawn using the formula below from the three categories of hospitals as follows: Category I (200 nurses), Category II (180 nurses), and Category III (400 nurses).

From the target population of 845 a sample size of 780 nurses (equation below) was selected through the application of Taro Yamane's sample size selection formula for a finite population (Uzoagulu, 1998 cited in Umoren *et al.*, 2009)

This sample calculation is based on $n = N / (1 + N * e^2)$. Where n =size of sample size; N = finite population of nurses, e =level of significance (0.01), 1 =Constant

3.7 Methods of Data collection

Research data may be grouped as either quantitative (collection of data in the form of numbers) or qualitative (data in form of words or pictures) [Neuman, 2000]. According to Kumar (2000) a study is classified as qualitative if its purpose is to describe a situation, phenomenon, problem or event; and when the information is gathered through the use of variables measured on nominal or ordinal scales; and the analysis is done to establish the variation in the situation, phenomenon, or problem without quantifying it. This study utilized both qualitative and quantitative methods of data collection.

Data was collected through use of questionnaires which were first pilot tested for reliability and validity. Data was also collected through observation and a checklist was used for a Focus Group Interview. The target population was all the registered nurses in all Government hospitals in Nairobi County. Questionnaires were dropped randomly at the relevant hospitals and collected. Through the questionnaire, the study collected data on individual factors like gender, age, level of formal and professional education and human resource factors relating to performance such as experience, motivation, remuneration, appraisal, environment and tools, and knowledge and skills. The guiding questions were written in English and contained open-ended and closed-ended questions to allow for appropriate flexibility of the respondents as well as to restrict them to relevant issues (Brachos *et al.*, 2007). The structured guiding questions were used to obtain conformity as each respondent was asked exactly the same questions, in the same order and therefore ensuring comparability and reliability. This approach is instrumental in ensuring consistency, accuracy and comparison of the accuracy of the question responses. However, the responses are not limited to the asked questions. During the interviews which were conducted in places where respondents felt comfortable for purposes of creating rapport and ensuring the validity of the data collected, all the respondents were encouraged to speak freely, to elaborate on their answers and to bring out other relevant or important issues not included in the guiding questions. In order to minimize the provision of normative answers, the researcher used “interlocking questions”, that is, a question would be posed repeatedly in different forms in order to enable the respondent understand it. The unstructured interview approach was used at the end of each interview session to allow each respondent to give any other relevant comments or additional information on the subject of the research. This additional information was recorded, analyzed and used in this research.

Preliminary investigations revealed that the area under investigation was of a sensitive nature. This may be due to the general reluctance by institutions in Kenya to give data or due to the need to guard information by hospitals in Kenya or some combination of reasons. Therefore due to the sensitive nature of this research and also in order to cross check the findings from the other data collection methods, a checklist was employed as a data collection tool. A check list contains items for interviewees to discuss freely. The interviewees in this research were allowed to discuss and debate issues within the limits set by the items in the checklist. The interviewees constituted a Focus group. Because of a dearth of secondary data therefore, the researcher relied a lot on primary data, observation, use of in depth interviewing technique, anecdotal evidence and some articles from Kenya Nursing journals.

As already mentioned, a focus group was constituted and interviewing the members was guided by a checklist (See Appendix) containing the items of interest. The checklist was administered by this researcher herself through putting together senior and experienced registered nurses and nurse managers in a focus group. Use of a checklist was established in the early 1970s in agricultural research as a technique that is well suited to obtaining information of a sensitive or complex nature (Magrath, 1992). The technique, however, suffers from "elite bias" (Lipton and More, 1972). To overcome the problem, the responses of the nurses/focus groups were checked against each other. During the focus group interview session with selected nurses responses were cross checked and key issues ranked by the group. The opportunity was also used to cross check information obtained through the questionnaire utilized in this study.

This study also employed the observational technique which is one of the primary tools of scientific inquiry for data collection to supplement the survey (Koul, 1984). Simple observations were carried out in different areas of the hospital including the casualty wings and maternity

waiting bays. This involved accurate watching and noting of phenomena.

3.8 Data analysis methods

This study utilized the Statistical Package for Social Sciences (SPSS) technique in the organization and analysis of quantitative data from closed-ended questions. Data obtained from the open and closed-ended questions was first coded in a code sheet and then the computer was used in organizing, interpreting and presenting the data for the purpose of analysis. Data analysis contained four components: descriptive, variance, correlation, and multiple regression analyses.

Data gathered on background information such as number of years in employment, educational background, gender etc was subjected to descriptive and variance analysis to determine some simple statistical and comparative figures on the sample population. This led to a better understanding of the sample. Pearson's Correlation analysis was done to determine if there is a positive significant relationship between the dependent variable and the independent variables. Frequency distribution analysis provided an overview of the data using some statistical methods such as population mean and P - value. To test the hypotheses three types of analyses were used: Multiple regression, Analysis of Variance (ANOVA), and correlation analysis. Multiple regression analysis was used to determine if there is a linear relationship between the dependent variable (Performance) and two or more independent variables (work environment & tools, remuneration, and work load stress). ANOVA was used to test the equality of the three population means by analyzing sample variances.

A quantitative, correlational descriptive survey research design utilizing a Likert type scale was used to identify the extent to which the identified HR factors affect performance outcomes of

nurses positively and negatively. This study is both qualitative and quantitative. Quantitative research has specific features that distinguish it from qualitative research. These features include the collection and analysis of numerical data using instruments and statistical analyses, developing hypotheses that are measurable and observable on identified study variables and studying a large population (Creswell, 2005).

Based on the results of statistical analyses, the null hypotheses were accepted or rejected. The ability to measure the variables of the study with the selected instruments and test hypotheses engendered the use of correlational analysis. Selecting a correlational design was suitable to support the goals of the study to determine if relationships existed between the variables of the study. Pearson's correlation coefficient statistic and multiple regression analyses were done to determine the degree and direction of the relationships between variables.

3.9 Hypotheses

Hypotheses predict relationship between variables and consist of the null and alternative hypotheses (Creswell, 2005). According to Orodho and Kombo (2002) a hypothesis is a statement that describes an unknown but tentatively reasonable outcome for the existing phenomena. It is a tentative answer to what the researcher considers ought to be the possible outcome of an existing problem. The null hypothesis predicts if a relationship exists between variables. Acceptance of the alternative hypothesis occurs if the results of statistical analyses reject the null hypothesis. Based on the factors influencing the job performance of nurses both null and alternative hypotheses were developed. In order to test an hypothesis, setting the significance level is necessary. A significance level (or alpha level) is a probability level that reflects the maximum risk one is willing to take that any observed differences are due to chance

(Creswell, 2005; Saunders, *et al.*, 2003, Kothari, 2003). The selected significance level in this study was $p \leq .05$.

The hypotheses for this study were stated as follows: -

H1₀: There is no relationship between remuneration & incentives and performance outcome

H1_A: There is a significant relationship between remuneration & incentives and performance outcome

H2₀: There is no relationship between work environment & tools and performance outcome.

H2_A: There is a significant relationship between work environment & tools and performance outcome.

H3₀: There is no relationship between workload stress and performance outcome

H3_A: There is a significant relationship between workload stress and performance outcome

H4₀: There is no significant difference in the performance assessment and outcome of nurses for all categories of hospitals

H4_A: There is a significant difference in the performance assessment and outcome of nurses in all the categories of hospitals.

3.10 Validity and Reliability

Reliability and validity are critical elements of good measurement practices (Salkind, 2003).

Validity refers to the ability to gain meaning and sense from the scores obtained from an instrument (Creswell, 2005; Saunders *et al.*, 2003; De Von *et al.*, 2005; Polit and Beck, 2004).

Structured guiding questions were used to obtain conformity as each respondent was asked

exactly the same question, in the same order and therefore ensuring comparability and reliability. The interviews were conducted in places where the respondents felt comfortable for purposes of creating rapport and ensuring the validity of data collected. All the respondents were encouraged to speak freely, to elaborate on their answers and to bring out other relevant or important issues.

Validity is also important in the sense that it helps in drawing accurate conclusions from scores collected from instruments (Creswell, 2005). In this study content validity was used to assess the validity of the instruments by assessing the adequacy, appropriateness, inclusiveness, and relevancy of the questions to the subject under study.

Reliability refers to the consistency and stability of scores obtained from an instrument, (Creswell, 2005). Cronbach's reliability alpha was used to test for reliability of the constructs used in the analysis. For a construct to be considered reliable, the Cronbach's alpha should have a value ranging between 0.8 and 1.00; for it to be considered acceptable its value should range between 0.70 and 0.80 while Cronbach's alpha with value less than 0.70 is considered unacceptable (Nunnally, 1978).

3.10.1 Internal Validity

The experiences of participants can threaten internal validity and can affect conclusions drawn about a study (Creswell, 2005; Saunders *et al.*, 2003, Kothari, 2003). The process of selecting participants for a study is another internal threat to validity. To reduce the threat of selection bias to internal validity this study used a systematic sampling process which is a variation of simple random sampling as already indicated elsewhere.

3.10.2 External Validity

External validity involves generalizing the results of the study to other areas or populations (Creswell, 2005). To ensure external validity in this study, registered nurses were selected from various departments and wards in each hospital. Further nurses were also drawn from the six (6) levels of government hospitals in Nairobi County, which is representative of all the levels in government hospitals in Kenya. To this end, the study used Cronbach alpha to test for reliability of the constructs namely remuneration, workload stress and work environment. These constructs are measured using a number of items in the combined sample of all hospitals as shown in the results below.

3.10.2.1 Reliability Test for Work Environment

The reliability result for work environment construct has a Cronbach alpha 0.798 with 10 items (Table 3.3. below) According to the cut off points for interpreting the Cronbach alpha, this construct is therefore reliable since 0.798 is greater than 0.70. The value of Cronbach's alpha that is less than 0.70 is considered unacceptable (Nunnally, 1978).

Table 3.3: Reliability Test for work environment

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.798	0.794	10

3.10.2.2 Reliability Test for Remuneration

The reliability result for remuneration construct has a Cronbach alpha 0.825 with 10 items (Table 3.4 below). The Cronbach alpha of 0.825 is greater than Cronbach alpha 0.70 implying that remuneration construct is reliable (Nunnally, 1978).

Table 3.4: Reliability test for remuneration

▲

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No. of Items
0.825	0.801	10

3.10.2.3 Reliability Test for Work Load Stress

The study further tested for reliability of the workload stress construct and found that the Cronbach alpha was 0.951 with 7 items (Table 3.5 below). The Cronbach alpha of 0.951 is greater than the lower bound level of Cronbach alpha 0.70 implying that work load stress construct is reliable.

Table 3.5: Reliability test for workload stress

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No. of Items
0.951	0.914	7

3.10.3 Test for Sampling Adequacy

The study also tested for sampling adequacy using the KMO and Bartlett's Test of Sphericity for each construct used in the analysis. The results of this test are presented as follows.

3.10.3.1 Work Environment

The value of the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.700 with a chi Square that is significant at 1 percent level (Table 3.6 below). This implies that the work environment construct meets the sampling adequacy that is required.

Table 3.6: Sampling adequacy test for work environment

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.700
Bartlett's Test of Sphericity	Approx. Chi-Square	3.065E3
	df	45
	Sig.	0.000

3.10.3.2 Remuneration

The value of the KMO and Bartlett's Test statistic has a value of 0.442 and is significant at 1 percent level implying that the remuneration construct meets the sampling adequacy requirements (Table 3.7 below).

Table 3.7: Sampling adequacy test for remuneration

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.442
Bartlett's Test of	Approx. Chi-Square	2.807E3
Sphericity	df	45
	Sig.	0.000

3.10.3. 3 Work Load Stress

The KMO and Bartlett's Test results for workload stress construct has a value of 0.654 which is significant at 1 percent level implying that workload stress meets the sampling adequacy required (Table 3.8 below).

Table 3.8: Sampling adequacy test for work load stress

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.654
Bartlett's Test of	Approx. Chi-Square	1.740E3
Sphericity	df	21
	Sig.	.000

3.10.4 Ethical Considerations

In research, ethics refer to the appropriateness of behavior and conduct in relation to the rights of those who become the subject of the study or are affected by it (Creswell, 2005; Saunders *et al.*, 2003, Kothari, 2003, Saunders *et al.*, 2007). Wells (1994) defines ethics in terms of a code of behavior appropriate to academics and the conduct of research.

In this study efforts were made to avoid as much as possible violation of ethical principles. Basic principles guiding ethical considerations for research includes; privacy of participants, voluntary participation, consent and freedom to withdraw from the process, confidentiality of information provided and anonymity, participants being fully informed about the aims, methods, and benefits of the research (Creswell, 2005; Kothari, 2003). Babbie (2005) stressed the importance of protection against any physical or physiological harm. To the best knowledge of this researcher, all the above principles were followed.

An introduction letter from Kimathi University was given to each hospital which participated in the research explaining the purpose of the research and introducing the researcher. A covering letter accompanied each questionnaire, stressing that anonymity of participants and confidentiality will be maintained.

3.11 Chapter summary

The purpose of this quantitative descriptive correlational study was to examine the nature of the relationships that exist between performance outcome of nurses and the variables of work environment & tools, remuneration, and work load stress under situations where staff assessments took place. The study was also conducted to assist stakeholders such as government and other healthcare providers and decision makers in gaining a better understanding of factors that are important in determining performance outcome of nurses and improving awareness about the variables of the study, which may lead to increased efficiency and effectiveness in service delivery of nurses.

CHAPTER 4

FINDINGS AND DISCUSSIONS

4.0 Introduction

The purpose of this both qualitative and quantitative correlational study was to investigate the performance outcome of nurses in all government hospitals in Nairobi County in Kenya. The study examined identified HR factors, which are all elements of the process of motivation. The basic assumption was that where performance assessment existed as part of a performance management system, the nurse's job performance was capable of being assessed with confidence since targets would be in existence. Assessment systems enable workers to have targets that they must attempt to meet. This means that since what is to be done is known, measurement would enable conclusions to be made in regard to performance. In Kenya assessment of workers in the public sector has now been made mandatory through the process of performance contracting in the public service. This development is good because it makes research into performance management justifiable since a system of encouraging staff to improve their work output exists.

In this study, the researcher sought first to gain an understanding of the relationship between performance assessment of nurses and the impact of such assessment before delving deep into the identified human resource factors that affect the performance outcome of nurses. Many past studies on the human resource factors that influence the performance of nurses focused on the factors without first studying the nature and method of assessment of nurses. Some of the past studies attest to this (Kirui and Mbithi, 2011; Keegan, 2004; Dhai *et al.*, 2011; Ojwang *et al.*, 2010; Mawere, 2010; Parker and Kulik, 1995; Borda and Norman, 1997; Judge *et al.*, 2004; Siu, 2002; Albualrub, 2004; Tieng, 2004; Mrayyan, 2006 and Hall, 2007). It is the contention of this researcher that any study on performance of staff should first engage with the issue of

performance assessment. This focus should then be used to justify any deeper engagement with specific factors that influence performance.

The government hospitals in Nairobi were selected on the basis of their representativeness in terms of the levels or categories of government hospitals in Kenya. Each of the levels of hospitals has similarities in terms of operations, staffing, management, funding, leadership and policy application, among other factors. It made sense therefore to study the various categories of hospitals as per the government's classification.

This study was conducted to examine if relationships existed between the variables of remuneration, environment & tools, and work load stress and to establish the extent to which the performance outcome of nurses was affected by the said variables in terms of the perception of respondents. Other human resource factors that also influence performance were studied but were not the key focus of this study. To obtain information on these other factors and to make clarification about the selected variables of study, several focus group interviews were conducted. The focus group interviews involved intense and free discussions on human resource factors that influenced the performance of nurses but paid more attention to the selected variables of study. Thus, this study on the identified variables and other human resource factors that affect performance of nurses provided useful information on the extent and nature of the challenges nurses faced as they carried out their duties in relation to their work operations and performance. The Researcher with the help of trained Research Assistants collected the survey data through questionnaires, personal observation of the activities in the hospitals and also through Focus group interviews guided by a checklist (See Appendix for the checklist).

The rest of this chapter is organized as follows:-

Section 4.1 provides an outline of the levels of data analysis

Section 4.2 presents the data analysis procedure utilized in this study

Section 4.3 is devoted to the presentation of findings

Section 4.4 Presents findings on the performance assessment in the three categories of hospitals

Section 4.5 provides findings on the similarities and differences in performance assessment outcomes of nurses in the three categories of hospitals

Section 4.6 is on the selected (study) factors influencing performance outcomes of registered nurses in government hospitals in Nairobi County

Section 4.7 presents the selected HR factors influencing performance outcomes of nurses in each category of hospital

Section 4.8 is on the other factors that influence performance outcomes in the various categories of hospitals

Section 4.9 presents the results on the commonalities in the three categories of hospitals

Section 4.10 presents results on the differences in the three categories of hospitals

Section 4.11 is a summary of the descriptive statistics

Section 4.12 is on presentation on the influence of the selected variables of study: remuneration, work environment & tools, and work load stress

Section 4.13 is on inferential statistical analysis and interpretation

Section 4.14 presents results on the link between performance assessment, human resource factors and performance

Section 4.15 provides a summary of the research questions and hypothesis

Section 4.16 is on the conclusion to the chapter

4.1 Levels of data analysis

The overall aim of this chapter is to present data and findings arising from the field research. The presentation of data is on **two levels** depending on the type of analysis and also in agreement with the generally established ways of presentation of numerical data in statistics; that is, the presentation of numerical data in statistics is done on the basis of both **descriptive statistics** and **inferential statistics**. This is a generally accepted way of presenting large amounts of numerical data in statistics (Bancroft and O'Sullivan, 1981). As this research involved large amounts of numerical data there was justification in presenting the data on the two levels of presentation. Further details on justification of the selected way of presenting data and findings in this study are provided below.

The **first level** involves presentation of **descriptive statistics**, meaning that the findings are presented in simple statistics to make it easy for the reader to understand general trends presented in form of such elements as totals, frequencies and percentages. Bancroft and O'Sullivan (1981) in their classical book on Math and Statistics observe that -----

“Given a large amount of numerical information, a statistician would try to arrange it in a form that makes it easy to read and understand. This may include the classification and presentation of the data in a table of frequencies, or, in order to convey its meaning more directly, the data may be presented as diagrams or graphs. Measures, such as proportions or averages, may then

be calculated. This first stage of the statistical function, which includes the organization, presentation, and summarization of data, falls within the domain of descriptive statistics (Bancroft and O’Sullivan, 1981). Our presentation of findings in this first level of presentation thus helps serve the above stated purpose and only provides general conclusions pending the detailed analysis and presentation of inferential statistics where more conclusive evidence on findings can be expected.

The **second level** of presentation is **inferential statistics**, which deals with detailed analysis and presentation of data. This is done so that informed conclusions can be made concerning the population of study (Bancroft and O’Sullivan, 1981).

The data gathered was analyzed using the Statistical Package for Social Science (SPSS). The findings are presented as per the research questions and hypotheses of the study. Pearson’s correlation coefficient statistic, multinomial regression statistical analyses and other statistical analyses and tests were performed and provide evidence to show support or lack of support for the hypotheses of the study.

4.2 Data analysis procedure

To begin with, descriptive statistics were used to describe in quantitative terms the main features of the collected data. Figures and tables giving the overall sample size, demographic characteristics, the proportion of subjects with each objective of the study are outlined. Following this, inferential statistics are presented and interpreted in order to address the hypotheses of the study.

The first stage was to report all the information related to each of the respondents’ personal profiles. This was followed by data analysis in relation to the research objectives outlined in

chapter one. Descriptive analysis was done to report on the respondents including the results of the measurement variables. Reliability tests of measurement scales were done. This depicts the results of factor loading, the evaluation of the item-to-total correlation, cumulative explanation, and Cronbach's Alpha among others. Then the results of regression to test the relationships between constructs were done. A summary of the data was then used to test the hypotheses.

4.3 Presentation of findings

The study findings are presented in several tables that are included in the text of this thesis while others are presented in the appendix. Discussions accompany the pictorial presentations to give information on general trends. Later presentation of a more detailed analysis using inferential statistics is given.

4.3.1 Distribution of hospitals by respondents

The respondents in the study were nurses, selected from three categories of hospitals constituted from the six levels of government hospitals in Kenya. Majority of hospitals in Kenya are government owned. We also have private and mission hospitals. This study focused on Government hospitals in Nairobi County only. Government hospitals in Kenya are categorized into six levels as previously indicated. Our analysis in this thesis is on the basis of three categories of hospitals constituted by this researcher from the six levels of government hospitals in Kenya as already indicated in chapter 1. Nairobi Country has all the levels of hospitals found in Kenya and the hospitals are structured and managed in the same way. Thus, Nairobi County government hospitals are representative of government hospitals in Kenya.

The survey had targeted to interview 1087 nurses but only 780 duly filled questionnaires were accepted upon scrutiny as already observed. They were distributed as follows: Category III had 400 duly filled questionnaires; Category II had 180; and category I had 200, resulting in a

return rate of 73.6%. According to Polit and Beck (2004) a return rate of 73.6% is a very good return rate. The return rate was statistically representative, therefore, enhancing generalization of the research results. However, the statistical results were triangulated with extensive literature to draw lessons learnt from other similar works where research in the factors influencing performance in the health sector has been carried out.

Figure 4.1 below presents the distribution of respondents by hospital category. 51 % was taken by Category III (longest bar). Category II took 23% (shortest bar) while category I took 26% (2nd longest bar).

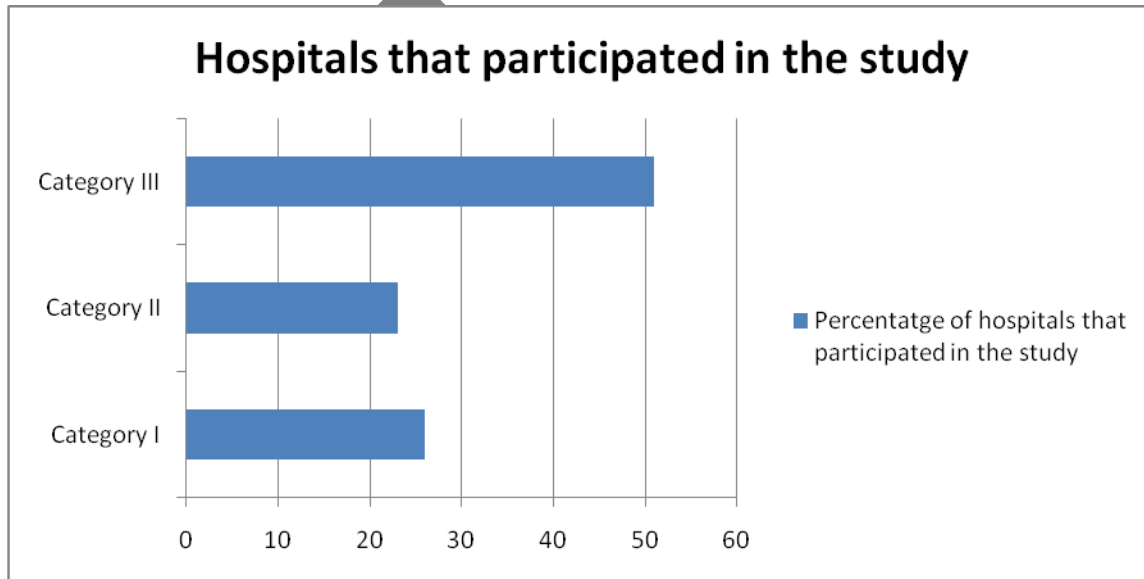


Figure 4.1: Distribution of hospitals by respondents

The information in the figure above can be presented in a table for further clarity as follows:

Table 4.1: Distribution of Hospitals by respondents

Category of Hospital	Level of hospital (1 – 6)	Respondents	Percentage
Category I	2,3	200	26
Category II	4	180	23
Category III	5,6	400	51
TOTAL		780	100

The data in the figure and the table above shows that majority of the respondents (51%) were drawn from category III hospitals and the least number of respondents (23%) were drawn from category II hospitals. Category I hospitals took 26%. The sample was deemed adequate for the purposes of the research.

4.3.2 Age Distribution of Respondents

The researcher sought to determine the relationship between age and work output or performance. The respondents were asked to indicate the age bracket to which they belonged. The responses are summarized and presented in table 4.2 below.

Table 4.2: Age Distribution of Respondents

Age Category	Frequency	Percent
20 years or lower	17	2.2
21-29 years	212	27.2
30-39 years	369	47.3
40-49 years	152	19.5
50-59 years	30	3.8
Total	780	100.0

The findings in table 4.2 above indicate that majority of the respondents (47.3%) were aged between 30 and 39, followed by those aged between 21 and 29 years (27.2%) and the age of between 40-49 had 19.5% of the nurses. The least number of respondents were in age bracket of 20 or lower (2.2%) while those aged 50 to 59 constituted (3.8%). The results could be relied upon because of the cumulative experience of nurses in the survey even though we know that age does not necessarily influence performance (Fisher *et al.*, 2003:495). It is the cumulative experience that was of interest in this research and not necessarily how old a respondent was. This is because research has generally shown that there is no relationship between age and performance, despite the prevalence of a stereotype of older workers being less effective (Glenn *et al.*, 1989). The data presented above reveal that nurses joined nursing profession at around the age of 20 years and above, supporting the fact that registered nurses in Kenya must have completed form four level of education as the minimum academic requirement before joining professional nursing training. Further this suggests that those above 50 years leave the profession because it was a Kenya government requirement to retire at the age 55 years before this was moved to 60 years in 2011.

4.3.3 Gender Distribution of Respondents

Both gender (Male and female) are presumed to have equal abilities when deployed to perform given nursing tasks. The study sought to determine the gender distribution of the nurses in the hospitals that participated in the study. The responses are summarized and presented in figure 4.2 below.

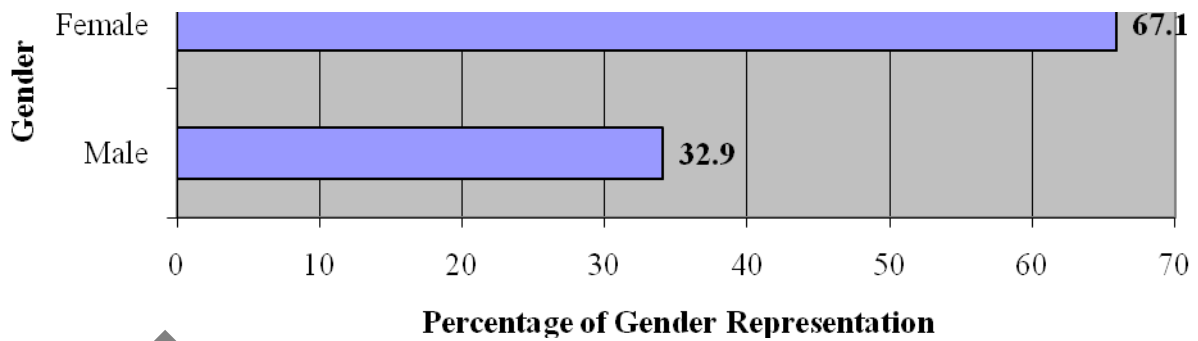


Figure 4.2: Gender Distribution of Respondents

The findings in figure 4.2 above show that majority of the respondents (67.1%) were female, while 32.9% were male. The finding of this study indicates that the nursing profession is female dominated. This sex distribution of the respondents is reflective of the overall distribution in the nursing profession where there is a skewed enrollment in favor of females in respect to the traditional gender choice of nursing courses where females are the majority. This correlates with the literature which indicates that the nursing work force in the health sector is mostly female (WHO, 2002c). Thus, the nursing profession is female dominated as is expected and as is the norm everywhere.

4.3.4 Highest Academic Qualification

The study sought to establish the highest academic qualifications of respondents in order to establish the skills and knowledge base of the nurses. The respondents were asked to indicate the highest academic qualifications they had attained. The responses are summarized and presented in table 4.3 below.

Table 4.3: Highest Academic Qualification

Academic Qualification	Frequency	Percent
O" level	48	6.2
Certificate	45	5.8
Diploma	552	70.8
Bachelor's Degree	61	7.8
Others	74	9.5
Total	780	100.0

The findings indicate that majority of the nurses (70.8%) had attained a diploma in nursing, followed by 7.8% who had other type of qualifications and those who had Bachelors Degree were 7.8%. The respondents who had attained “O” Level qualifications constituted 6.2%. This suggests that majority of nurses had acquired more than the basic ordinary level training in nursing at diploma level but majority have not received higher education and training at degree level. Diploma level training is a professional training level for nurses in Kenya. The respondents could therefore be relied upon in terms of skills and knowledge. Education empowers employees and they therefore could be expected to provide relevant and exact information as expected in an interview (Laurie *et al.*, 1996).

4.3.5 Number of years worked as Registered Nurses

The respondents were asked to indicate the number of years they had worked as registered nurses. The responses are summarized and presented in table 4.4 below.

Table 4.4: Number of years worked as a Registered Nurse

Number of years worked	Frequency	Percent
0-10 Years	330	42.3
11-15 Years	362	46.4
16-20 Years	88	11.3
21-25 Years	0	0
26 Years and over	0	0
Total	780	100.0

The findings in table 4.4 above indicate that majority of the respondents (46.4%) are those who had worked as registered nurses for a period 11 to 15 years, followed by 42.3% who had worked as registered nurses for a period of 10 years and below. 11.3% of the nurses had worked as registered nurses for a period between 16 and 20 years while no nurse had experience as a registered nurse for more than 20 years. The extensive experience in the profession provides a solid back ground for nursing activities. What is noteworthy is that the cumulative experience of the respondents who had worked for more than 10 years is substantial. This then suggests that the responses they gave on the issues of human resource factors affecting performance in their work could be relied upon. We can conclude at this point that majority of the respondents were well experienced, well educated, trained and qualified to perform the jobs nurses ordinarily performed in hospitals. Thus, prior training had provided the nurses with the necessary skills and knowledge to perform their tasks. Training and development of staff provide necessary attitude, skills, and knowledge (Mondy and Noe, 2005:202). The conclusions above do not, however, speak of the adequacy of the numbers of nurses in a given category of hospital.

4.3.6 Period of time respondents worked in the current hospital

The respondents were asked to indicate the period of time they had worked in the same hospital. The responses are summarized and presented in table 4.5 below.

Table 4.5: Period of time respondents worked in the current hospital

Time Period (Years)	Frequency	Percent
0-5 Years	304	39.0
6-10 Years	138	17.7
11-15 Years	252	32.3
16-20 Years	86	11.0
21-26 Years	0	0
Total	780	100.0

The findings in table 4.5 above indicate that majority of the respondents (39.0%) had been in their current place of work at the same hospital for up to 5 years or less, another 32.3% had been in their current place of work for between 11 and 15 years and 17.7% had been in their current place for between 6 and 10 years. Another 11.0% of the respondents had been in their current employment for a period between 16 to 20 years while none had been in their current employment for a period beyond 21 years. Cumulatively, a large number of nurses had been with one hospital for a substantial period of time (10 years and below) suggesting that once deployed in a government hospital there was almost no movement to another government hospital. Thus, majority of nurses had worked for a substantial period of time in their current hospital. Their responses to questions could therefore be taken as a true reflection of what they had experienced for a long time in one particular environment of work. This is also supported by the results of the Focus group interview. The nurses in the focus group confirmed that many of them hardly

moved to other government hospitals during their working career. This may pose issues of bad inbreeding. However, each respondent had spent adequate time in a given hospital to be able to provide adequate and reliable information during the interview process.

4.4 Performance assessment in the three categories of hospitals

The respondents were asked to indicate their response to various issues on performance including how performance was assessed in their respective hospitals by ticking as appropriate against given alternatives. Performance assessment is important because it encourages and hence influences performance. The responses on performance assessment are summarized and presented in table 4.6 below.

Table 4.6: Performance Assessment Process

Performance Assessment	Frequency	Percent
A formal system of regular appraisals reviewed for various categories of nurses	465	59.6
Performance, setting of objectives	164	21.0
Informal, but regular reviews involving discussions about past performance	16	2.1
Informal ad hoc reviews especially when there is a problem	90	11.5
Not reviewed	45	5.8
Total	780	100.0

The findings in table 4.6 above indicate that for all the categories of hospitals under study, “A formal system of regular appraisals reviewed for various categories of nurses” was the highest ranked performance method, as indicated by 59.6%, followed by “Performance, setting of objectives” at 21.0%. The least ranked was “Informal ad hoc reviews especially when there is a

problem”, as indicated by 2.1% of the respondents. From the findings it can be concluded that performance appraisal was carried out in all the hospitals. Armstrong and Baron (1998; 2007) observe that measurement or assessment is an important concept in performance management. It is the basis for providing and generating feedback. In Kenyan hospitals in Nairobi County such a basis existed. However, a question arises as to the nature of assessment and whether the performance assessment results were used for further improvements in performance. The findings below will help shed light on the above concern even though not necessarily conclusively as the issue was not a key focus in this study. Only the perception of the nurses was sought here.

The respondents were asked to show their perception of performance system used by indicating the extent to which they agreed/disagreed that listed statements with respect to performance assessment methods were used in their respective hospitals. The respondents were requested to tick as appropriate along a five-point scale. The responses are summarized and presented in table 4.7 below.

Table 4.7: Respondents’ Perception of Performance Assessment Process used

Performance statements 5 = Strongly Agree 1 = Strongly Disagree	Strongly Agree (%)	Agree (%)	Uncertain (%)	Disagree (%)	Strongly disagree (%)	Total %
Objectives to be achieved are known by individuals to be assessed	15.1	29.5	15.0	18.1	22.3	100
Performance standards expected from nurses are clear and understood by all	24.2	20.6	17.2	26.3	11.7	100

Constructive feedback of how staff is performing is provided throughout the year	6.5	6.4	5.6	42.8	38.6	100
Prompt action is taken when performance falls below standard	10.9	30.0	19.1	23.7	16.3	100
My supervisor inspires me to do my best	14.6	30.8	33.7	9.4	11.5	100
Workers are given opportunity to make comments on the result of their performance	5.5	31.3	14.7	20.6	27.8	100

Findings in table 4.7 above indicate that for all the categories of hospitals, nurses strongly agreed that performance assessment system was clear as **“Performance standards expected from nurses are clear and understood by all”**, followed by **“Objectives to be achieved are known by individuals to be assessed”**. On the other hand, nurses strongly disagreed that **“Constructive feedback of how staff is performing is provided throughout the year”**. The findings show that government hospitals in Kenya carry out performance assessment of workers meaning that a system exists that sets performance targets and monitors performance. The findings also show that the professional training that nurses go through gives them an idea of the expected performance standards and clear objectives. A good proportion of the respondents (27.8%) felt that nurses were not given opportunity to input or air their views in regard to the targets set for them as part of the performance management system. Generally speaking therefore, we can agree with Armstrong (2006; 2009) and Armstrong and Baron (2007) that employees can be expected to achieve sustained improved performance of organizations since they knew what was expected of them and their performance was assessed. Arising from this we can conclude that nurses are aware of the objectives of performance appraisal and that this was therefore important in terms

of performance. Since they know that appraisal exists then they can be expected to be influenced by assessment in terms of performance as this encouraged them to move towards the set targets. However, failure for some staff to get opportunity to air their views could influence their motivation and could result in working in a negative way.

4.5 Similarities and differences in performance assessment outcomes of nurses in the three categories of hospitals

The fourth objective of the study was to establish the similarities and differences in performance appraisal of nurses in the three categories of hospitals. This was done in order to answer the third research question “**Is the performance assessment in the three categories of hospitals similar or different?**” The findings are presented in the sections that follow below starting with the issue of assessment. The responses are summarized and presented for each hospital in tables.

4.5.1 Performance Assessment in Category 1 Hospitals

The respondents were asked to indicate how performance was assessed in their hospital by ticking as appropriate against given alternatives.

Table 4.8: Performance Assessment process in Category 1 Hospitals

Performance Assessment	Frequency	Percent
A formal system of regular appraisals reviewed for various categories of nurses	97	48.5
Performance, setting of objectives	66	33.0
Informal, but regular reviews involving discussions about past performance	10	5.0
Informal ad hoc reviews especially when there is a problem	19	9.5
Not reviewed	8	4.0
Total	200	100

The findings in table 4.8 above indicate that “A formal system of regular appraisals reviewed for various categories of nurses” at 48.5%, followed by “Performance setting of objectives” was the second highest ranked performance method, as indicated by 33.0%. The least ranked was “Not reviewed” as indicated by 4.0% of the respondents.

The respondents in category 1 hospitals were asked to show their perception of performance assessment methods used by indicating the extent to which they agreed/disagreed that listed statements with respect to performance assessment methods were used in their hospital. The respondents were requested to tick as appropriate along a five-point scale. The responses for are presented below.

Table 4.9: Category 1 Hospitals Respondents’ Perception of Performance Assessment process used

Performance statements 5 = Strongly Agree 1 = Strongly Disagree	Strongly Agree (%)	Agree (%)	Uncertain (%)	Disagree (%)	Strongly disagree (%)	Total %
Objectives to be achieved are known by individuals to be assessed	17.5	34.0	14.5	17.5	16.5	100
Performance standards expected from nurses are clear and understood by all	24.5	27.5	12.5	25.5	10.0	100
Constructive feedback of how staff is performing is provided throughout the year	7.0	15.0	8.0	38.5	31.5	100
Prompt action is taken when performance falls below standard	8.0	45.5	15.0	19.5	12.0	100
My supervisor inspires me to do my best	17.5	39.5	24.0	10.5	8.5	100
Workers are given opportunity to make comments on the result of their performance	4.0	38.0	16.5	20.0	21.5	100

Findings in table 4.9 above indicate that nurses strongly agreed that “performance standards expected from nurses are clear and understood by all”, followed by both “Objectives to be achieved are known by individuals to be assessed” and “My supervisor inspires me to do my best”. Majority of the nurses strongly disagreed that “Constructive feedback of how staff is performing is provided throughout the year”. The results show that a system of assessment existed and the staff were aware and could therefore be expected to perform towards set targets because of the motivation provided by the performance assessment system (Armstrong and Baron, 2007; Armstrong, 2009).

4.5.2 Performance of Assessment in Category 11 Hospitals

The respondents were asked to indicate how performance was assessed in their level of hospital by ticking as appropriate against given alternatives. The responses are summarized and presented for category II hospitals in the table below.

Table 4.10: Performance Assessment Process used in Category 11 Hospitals

Performance Assessment	Frequency	Percent
A formal system of regular appraisals reviewed for various categories of nurses	58	47.2
Performance, setting of objectives	59	32.8
Informal, but regular reviews involving discussions about past performance	6	3.3
Informal ad hoc reviews especially when there is a problem	20	11.1
Not reviewed	10	5.6
Total	180	100.0

The findings in table 4.10 above indicate that “A formal system of regular appraisals reviewed for various categories of nurses” at 47.2% followed by “Performance, setting of objectives” was the highest ranked performance method, as indicated by 32.8%. The least ranked was “Informal, but regular reviews involving discussions about past performance”, as indicated by 3.3% of the respondents.

The respondents were asked to show their perception of performance assessment methods used by indicating the extent to which they agreed/disagreed that listed statements with respect to performance assessment methods were used in their hospital. The respondents were asked tick as appropriate along a five-point scale. The responses are summarized and presented below.

Table 4.11: Category 11 Hospital Respondents’ Perception of Performance Assessment process used

Performance statements 5 = Strongly Agree 1 = Strongly Disagree	Strongly Agree (%)	Agree (%)	Uncertain (%)	Disagree (%)	Strongly disagree (%)	Total %
Objectives to be achieved are known by individuals to be assessed	17.2	31.1	17.8	15.6	18.3	100
Performance standards expected from nurses are clear and understood by all	21.7	28.3	16.7	23.3	10.0	100
Constructive feedback of how staff is performing is provided throughout the year	6.1	11.1	14.4	37.2	31.1	100
Prompt action is taken when performance falls below standard	9.4	35.0	21.1	21.7	12.8	100
My supervisor inspires me to do my best	15.0	31.1	31.7	11.7	10.6	100
Workers are given opportunity to make comments on the result of their performance	5.0	33.9	16.1	21.1	23.9	100

Findings in table 4.11 above indicate that nurses strongly agreed with the “Performance standards expected from nurses are clear and understood by all” followed by “Objectives to be achieved are known by individuals to be assessed. The respondents strongly disagreed that “Constructive feedback of how staff is performing is provided throughout the year.”

The results are similar to those of category 11 hospitals discussed earlier. Nurses were subjected to performance assessment and were aware of its provisions. Thus, they could be expected to work towards some predetermined targets. One can therefore expect performance assessment to play a crucial role in determining the performance outcome of employees under the circumstances (Price and Mueller, 1986; Plach and Planchy, 1988; Armstrong, 2006; Armstrong and Baron, 2007).

4.5.3 System of Performance Assessment in Category 111 Hospitals

The Nurses in Category III hospitals were asked to indicate how performance was assessed in their hospital by ticking as appropriate against given alternatives. The responses are summarized and presented in the table below.

Table 4.12: Performance Assessment Process in Category 111 Hospitals

Performance Assessment	Frequency	Percent
A formal system of regular appraisals reviewed for various categories of nurses	283	70.8
Performance, setting of objectives	39	9.8
Informal, but regular reviews involving discussions about past performance	0	0.0
Informal ad hoc reviews especially when there is a problem	51	12.8
Not reviewed	27	6.8
Total	400	100.0

The findings in table 4.12 above indicate that “A formal system of regular appraisals reviewed for various categories of nurses” was the highest ranked performance method, as indicated by 70.8%, followed by “Informal ad hoc reviews especially when there is a problem” at 12.8%. The least ranked was “Informal, but regular reviews involving discussions about past performance.”

The respondents were asked to show their perception of performance assessment methods used by indicating the extent to which they agreed/disagreed that listed statements with respect to performance assessment methods were used in their hospital. The respondents were asked to tick as appropriate along a five-point scale. The responses are summarized and presented below.

Table 4.13: Category 111 Hospitals Respondents’ Perception of Performance Assessment Process used

Performance statements 5 = Strongly Agree 1 = Strongly Disagree	Strongly Agree (%)	Agree (%)	Uncertain (%)	Disagree (%)	Strongly disagree (%)	Total %
Objectives to be achieved are known by individuals to be assessed	13.0	26.5	14.0	19.5	27.0	100
Performance standards expected from nurses are clear and understood by all	25.2	13.8	19.8	28.0	13.2	100
Constructive feedback of how staff is performing is provided throughout the year	6.5	0.0	0.5	47.5	45.5	100
Prompt action is taken when performance falls below standard	13.0	20.0	20.2	26.8	20.0	100
My supervisor inspires me to do my best	13.0	26.2	39.5	7.8	13.5	100
Workers are given opportunity to make comments on the result of their performance	6.5	26.8	13.2	20.8	32.8	100

Findings presented in table 4.13 above indicate that majority of the nurses strongly agreed that “Performance standards expected from nurses are clear and understood by all”, followed by “Objectives to be achieved are known by individuals to be assessed”, “My supervisor inspires me to do my best” and “Prompt action is taken when performance falls below standard”. Majority of the nurses strongly disagreed that “Constructive feedback of how staff is performing is provided throughout the year”.

The results for category III hospitals are similar to those of the other two categories. This means that with assessment in existence, the nurses could be expected to work towards certain targets and this would encourage them to be more productive. Under the circumstances their work output or performance could be linked to the performance assessment system. Where the above is the case productivity rises (Price and Mueller, 1986; Plach and Planchy, 1988; Armstrong, 2009; 2009b).

The results above show that in all the categories of hospitals a formal system of staff appraisal and assessment exists in government hospitals and in each category of hospital appraisal objectives are clearly articulated and performance objectives are well known. Since nurses are aware of performance targets we can argue that nurses expend efforts in order to improve their performance. In this context we can further argue that performance outcome can be linked to factors that are found in the context of work environment, remuneration and work load stress. These human resource factors in the study therefore can be argued to influence the job performance of nurses in the context of an appraisal system. (Torrington and Hall, 1998; Armstrong and Baron, 1998; 2007; Price and Mueller, 1986; Plach and Planchy, 1988; Armstrong, 2009).

The sections that follow present findings of this study in regard to the selected human resource factors as identified in chapter 1 of this thesis.

4.6 Identified (study) factors influencing performance outcomes of registered nurses in government hospitals in Nairobi County

This section presents the results of the study as per the objectives stated in chapter one. The variables of interest were: work environment & tools, remuneration, and workload stress. These are key human resource factors. In the sections following below, detailed findings on the factors are presented.

4.6.1.1 Remuneration and Performance outcome

The second objective of this study was to examine how and to what extent remuneration influenced the performance outcome of nurses. This was done in order to answer the second research question “**Does remuneration influence the performance outcome of nurses?**” Salary, bonus awards, flexible working hours, recognition and leaves were assessed.

Table 4.14 below presents findings on “to what extent” remuneration influenced job performance according to the respondents.

Table 4.14: Extent to which remuneration factors influence performance outcome

Extent to which remuneration factors influence job performance	Frequency	Percent
To no extent	96	12.3
To a small extent	208	26.7
To a moderate extent	173	22.2
To a great extent	174	22.3
To a very great extent	127	16.3
Total	780	100

Findings in table 4.14 above show that some respondents 26.7% indicated that remuneration factors influenced job performance “to a small extent”, followed by 22.3%, who indicated “to a great extent”. The respondents who indicated “to no extent” were the least (at 12.3%). But one can ask at this point what the impact of this is on performance of nurses. The respondents provided an answer to this when they indicated their perception on issues relating to remuneration factors. The respondents were asked to show their perception of possible effects of remuneration factors on performance outcome by indicating the extent to which they agreed/disagreed with listed statements with respect to performance outcomes in their respective hospitals. The respondents were to tick as appropriate along a five-point scale. The responses are summarized and presented in table 4.15 below.

Table 4.15: Perception of respondents on Influence of remuneration factors on performance outcome

Statements on influence of work environment factors on job performance 5 = Strongly Agree 1 = Strongly Disagree	Strongly Agree (%)	Agree %	Uncertain (%)	Disagree (%)	Strongly disagree (%)	Total (%)
An increase in my salary would make me perform better and be more motivated	40.5	33.8	14.2	5.8	5.6	100
I am always ready to work extra hours so as to earn over time	30.4	21.2	15.3	21.5	11.7	100
My main motivation for promotion is to earn a higher pay	37.8	23.7	4.1	26.0	7.3	99
I am happy with monetary incentives	11.9	12.3	17.3	31.4	19.1	100
I am happy with non monetary incentives	0.3	27.2	42.2	15.1	14.2	99
I am happy with time off, leaves, and other services provided for nurses	15.6	32.7	11.4	20.9	19.4	100
I am happy with the pension scheme am under	0.3	28.8	43.8	15.0	12.1	100
I am happy with the insurance cover am under	11.7	27.2	18.8	25.5	16.8	100
I am happy with the recognition given to nurses who perform well	5.9	14.1	19.6	23.3	37.1	100
I am happy with the salary ratios in this hospital	0	4.6	17.1	22.3	55.4	99.4

Findings in table 4.15 above indicate that the highest ranked statement with respect to influence of remuneration factors on job performance “An increase in my salary would make me perform better and be more motivated”, followed by “My main motivation for promotion is to earn a higher pay”. The least ranked statement was “I am happy with the salary ratios in this hospital”. This suggests that remuneration is a key factor in the performance of nurses sampled and the fact that they are not happy with current salary ratio implies that they are not performing to their best level. There is thus a relationship between remuneration. This agrees with literature review results presented earlier in **section 2.2.7** and with some past studies (Hicks and Adams, 2003; Pillay, 2009; Manus and Graham, 2003; Ojokuku and Salami, 2011; Awases *et al.*, 2004; Cole, 2002). The interpretation of the inferential statistics on this later in this thesis will provide more detail.

4.6.1.2 Work Environment & tools and Performance outcomes

The first objective of this study was to determine the effects of work environment & tools on the performance outcome of nurses. This was done in order to answer the first research question

“What is the relationship between work environment and tools, and performance outcome of nurses?” Safety, working conditions, leadership style, space, availability of equipment and tools were assessed. Table 4.16 below presents findings on “to what extent” environment & tools influenced job performance according to the respondents.

Table 4.16: Extent to which Work environment & tools influence job performance

Extent to which work environment factors influence job performance	Frequency	Percent
To no extent	1	0.1
To a small extent	95	12.2
To a moderate extent	203	26.0
To a great extent	213	27.3
To a very great extent	268	34.4
Total	780	100.0

Findings in table 4.16 above show that many of the respondents (34.4%) indicated that work environment factors influenced their job performance “to a very great extent”, followed by 27.3%, who indicated “to a great extent”. The respondents who indicated “to no extent” were the least at 0.1%. The results agree with literature that work environment & tools is positively correlated to performance outcome of nurses. The findings here indicate that this was a very important factor, meaning it influenced performance to a large extent.

Further, the respondents were asked to show their perception of the possible effects of work environment & tools on performance outcomes by indicating the extent to which they agreed/disagreed with listed statements with respect to performance outcome in their respective hospitals. The respondents were asked to tick as appropriate along a five-point scale. The responses are summarized and presented in table 4.17 below.

Table 4.17: Perception of respondents on influence of Work environment & tools on performance outcome

Statements on influence of work environment factors on job performance	Strongly Agree (%)	Agree (%)	Uncertain (%)	Disagree (%)	Strongly disagree (%)	Total (%)
I feel motivated working in the present environment	12.4	33.8	34.9	8.7	9.6	99.5
Employees are free to air their views concerning every worker at this hospital	21.3	16.3	18.5	32.2	11.2	99.4
I am happy with the safety precautions, protecting every worker at this hospital	7.7	23.8	24.1	31.9	12.2	99.7
I am happy with the working hours at this hospital	15.3	18.3	18.5	21.3	25.8	99.1
I am able to provide a health balance between work and social life	16.2	19.4	27.7	25.1	11.4	99.7
I am happy with the working relationship with my peers, supervisors, and managers	10.3	21.2	29.9	24.9	13.1	99.2
I am happy with the tools provided for my use at the work place including the working space	3.2	30.8	20.1	21.7	23.2	99.0
I am appreciated and recognized for work done	1.0	33.6	19.9	18.7	25.8	99.0
Most nurses in this hospital are happy while at the place of work	5.3	11.9	29.6	31.0	21.4	99.2
I get trained to use any tools and equipment	2.1	27.3	35.9	27.2	6.3	98.7

Findings presented in table 4.17 above indicate that many nurses strongly disagreed with the statement that “Employees are free to air their views concerning every worker at this hospital”. They also disagreed with the statement that “I am happy with safety”. They also disagreed with the statement “Employees are free to air their views”. Majority of nurses strongly disagreed that “I am happy with the working hours at this hospital” and “I am appreciated and recognized for work done”. This implies that being free to air their views and try to achieve balance between work and social life certainly influences performance. The results also suggest that most of the nurses were unhappy with the working hours and they felt unappreciated for the work done. This correlates with the reports cited in this study in chapter 2 on the many strikes in the health sector with a major complaint about long working hours and poor pay. It further suggests that performance is negatively affected by the negative attitude of nurses.

The findings agree with results of literature review presented earlier in **section 2.2.8** that there is a relationship between work environment and performance of staff (Armstrong, 2009; Newbold, 2008; Lu *et al.*, 2002; Cole 2002; Awases *et al.*, 2004).

4.6.1.3 Work Load Stress and Performance outcome

The third objective of this study was to identify the effects of workload stress on the performance outcome of nurses. This was done in order to answer the third research question **“What is the nature of workload stress and how does it influence the performance outcome of nurses?”**

The factors influencing the quality of health care provision in hospitals including burn out, job demands, fatigue, absenteeism and overcrowding were assessed. Table 4.18 below presents findings on “to what extent” work load stress influenced job performance according to the respondents in the various categories of hospitals.

Table 4.18: Extent to which work load stress influences performance outcome

Extent to which remuneration factors influence job performance		
5 = To A very Great Extent 1 = To No Extent	Frequency	Percent
To no extent	0	0
To a small extent	48	6.2
To a moderate extent	110	14.1
To a great extent	141	18.1
To a very great extent	481	61.7
Total	780	100

Findings in table 4.18 above show that majority of the respondents (61.7%) indicated that work load stress factors influence job performance “to a very great extent”, followed by 18.1%, who indicated “to a great extent”. There were no respondents who indicated “to no extent”. Thus, stress from the job was a very important concern as it affected work output or job performance. This agrees with literature review results presented earlier in **section 2.2.9** that work load stress influences performance (Ojokuku and Salami, 2011; Pillay, 2009; Jamal, 1984; Rabinowitz and Stumpf, 1987; Pool, 2000).

The perception of nurses was sought on issues relating to work load stress. This is why the respondents were asked to show their perception of possible effects of work load stress on the quality of health care provision in their respective hospitals by indicating the frequency of occurrence of the listed statements with respect to performance outcome. The respondents were to tick as appropriate along a five-point scale. The responses are summarized and presented in table 4.19 below.

Table 4.19: Perception of respondents on Influence of work load stress on performance outcome

Statements on influence of work load stress factors on job performance	All the Time	Most of the time (%)	Sometimes (%)	Occasionally %	Never %	Total %
Tense	0	2.9	56.0	32.9	8.1	100
Calm	0	14.7	41.3	42.1	1.9	100
Relaxed	0	19.5	34.6	27.6	18.3	100
Worried	1.2	8.2	33.8	31.0	25.8	100
Un easy	1.2	2.9	30.3	31.4	34.2	100
Contented	8.2	5.5	53.8	24.0	8.5	100
Tired	4.2	26.0	37.1	27.6	5.0	99.9

Findings in table 4.19 above indicate that the 8.2% of the nurses were at all the time “contented” while 26.0% of the nurses were tired most of the time. Interestingly, 34.2% of the nurses were never uneasy. They had probably resigned to their circumstances or had developed coping mechanisms. Overall, findings of the study at the **descriptive level** indicate that work load stress factors had a high influence on job performance, followed by work environment and tools, while remuneration had the least influence on job performance output. Further evidence of this is provided after the interpretation of the inferential statistics and statistical tests results in subsequent sections.

The results above are summarized in terms of “to what extent” each of the selected factors influenced job performance according to the respondents. The table below brings this out clearly.

Table 4.20 Extent to which each of the selected human resource factors influence performance outcome

Human resource factor	To a very great extent, to a great extent, to moderate extent	Others (To no extent, to a small extent)
Work environment & Tools	87.7 %	12.3%
Remuneration	60.8 %	39.2%
Work load stress	93.9 %	6.1%

The results in the table confirm what was observed earlier that work load stress has a very high influence on performance outcome of nurses in government hospitals. The findings also indicate that the other two factors are also important.

What follows below are the findings in regard to each category of hospital.

4.7. Selected HR factors influencing performance outcome in each category of hospital

In order to have proper comparison between the overall results of the various/combined categories of hospitals the findings on each of the study factors for each category of hospital are presented below.

4.7.1 Remuneration and Performance outcome for each category of hospital

The study sought to examine how remuneration affects the performance outcome of nurses. Salary, bonus awards, flexible working hours, and leaves were assessed. The findings on “to what extent” remuneration factors influence job performance are presented in the tables below starting with findings for category 1 hospitals.

4.7.1.1 Remuneration and Performance outcome in category 1 hospitals

The results for Category 1 hospitals on remuneration factors and their influence on job performance are presented below

Table 4.21: Extent to which remuneration factors influence performance outcome in Category 1 Hospitals

Extent to which remuneration factors influence job performance	Frequency	Percent
To no extent	22	11.0
To a small extent	49	24.5
To a moderate extent	39	19.5
To a great extent	49	24.5
To a very great extent	41	20.5
Total	200	100

Findings in table 4.21 above show that a large number of the respondents (24.5%) indicated that remuneration factors influence job performance “to a great extent” the same with “to a small extent.” The respondents who indicated “to no extent” were the least (11.0%).

The results are summarized in table 4.22 below.

Table 4.22: Extent to which remuneration factors influence performance outcome in category 1 hospitals - Summary

Human resource factor	To a very great extent & to a great extent	Others (to no extent, to a small extent)
Remuneration	64.5 %	35.5%

The result in table 4.22 above (64.5 %) is very close to that of the average for all the categories of hospitals given earlier in table 4.19 as 60.8%. This is also supported by existing literature that there is a close relationship between remuneration and work performance (Ojokuku and Salami, 2011; Hicks and Adams, 2003; Pillay, 2009; Manus and Graham, 2003; Awases *et al.*, 2004; Cole, 2002).

The respondents were further asked to show their perception of possible effects of remuneration factors on performance outcome by indicating the extent to which they agreed/disagreed that listed statements with respect to performance outcome in their respective hospitals. The respondents were to tick as appropriate along a five-point scale.

The responses are summarized and presented in the table below.

Table 4.23: Perception on Influence of remuneration factors on performance outcome in

Category 1 Hospitals

Statements on influence of work environment factors on job performance	Strongly Agree (%)	Agree (%)	Uncertain (%)	Disagree (%)	Strongly Disagree (%)	Total (%)
An increase in my salary would make me perform better and be more motivated	42.5	34.0	14.5	5.0	4.0	100
I am always ready to work extra hours so as to earn over time	29.5	22.0	15.5	23.0	10.0	100
My main motivation for promotion is to earn a higher pay	37.0	28.5	5.0	19.5	7.5	97.5
I am happy with monetary incentives	10.5	19.0	23.0	29.0	18.5	100
I am happy with non monetary incentives	0	27.5	38.5	17.0	14.5	97.5
I am happy with time off, leaves, and other services provided for nurses	12.5	31.5	16.5	21.5	18.0	100
I am happy with the pension scheme am under	0	32.5	39.0	18.5	10.0	100
I am happy with the insurance cover am under	11.0	26.5	17.0	24.0	21.5	100
I am happy with the recognition given to nurses who perform well	6.0	14.0	17.0	27.5	35.5	100
I am happy with the salary ratios in this hospital	0	10.0	14.0	25.0	51.0	100

Findings in table 4.23 above indicate that the highest ranked statement with respect to influence of remuneration factors on job performance “An increase in my salary would make me perform better and be more motivated”, followed by “My main motivation for promotion is to earn a higher pay”. The least ranked statement was “I am happy with the salary ratios in this hospital”.

The above results confirm that remuneration factors were seen by the respondents to be important in determining performance as already indicated in **section 4.7.1.1** above.

4.7.1.2 Remuneration Factors and performance outcome in category 11 Hospitals

The results for Category II hospitals on remuneration factors and their influence on job performance are presented below.

Table 4.24: Extent to which remuneration factors influence performance outcome in Category 11 Hospitals

Extent to which remuneration factors influence job performance	Frequency	Percent
To no extent	18	10.0
To a small extent	44	24.4
To a moderate extent	39	21.7
To a great extent	45	25.0
To a very great extent	33	18.3
Total	179	99.4

Findings in table 4.24 above show that a large number of respondents (25.0%) indicated that remuneration factors influence job performance “to a great extent”, followed by (24.4%), who indicated “to a small extent.” Table 4.25 below gives a summary of the findings.

Table 4.25: Extent to which remuneration factors influence performance outcome in category 11 hospitals - Summary

Human resource factor	To a very great extent & to a great extent	Others (to no extent, to a small extent)
Remuneration	65 %	35%

The results are similar to those of category 1 hospitals presented above and are supported by existing literature (Hicks and Adams, 2003; Pillay, 2009; Manus and Graham, 2003; Ojokuku and Salami, 2011; Awases *et al.*, 2004; Cole, 2002)

The respondents were asked to show their perception of possible effects of remuneration factors on performance outcome by indicating the extent to which they agreed/disagreed that listed statements with respect to performance outcome in their respective hospitals. The respondents were to tick as appropriate along a five-point scale. The responses are summarized and presented in table 4.26 below.

Table 4.26: Perception on Influence of remuneration factors on performance outcome in Category 11 Hospitals

Statements on influence of work environment factors on job performance	Strongly Agree (%)	Agree (%)	Uncertain (%)	Disagree (%)	Strongly Disagree (%)	Total (%)
An increase in my salary would make me perform better and be more motivated	40.6	35.0	14.4	4.4	5.6	100
I am always ready to work extra hours so as to earn over time	28.9	22.8	17.8	20.0	10.6	100
My main motivation for promotion is to earn a higher pay	36.1	26.1	8.9	18.9	8.3	98.3
I am happy with monetary incentives	10.6	24.4	19.4	28.3	17.2	100
I am happy with non monetary incentives	1.1	27.8	38.9	15.0	15.6	98.3
I am happy with time off, leaves, and other services provided for nurses	12.8	33.3	14.4	20.0	19.4	100
I am happy with the pension scheme am under	1.1	30.0	42.2	15.0	11.7	100
I am happy with the insurance cover I am under	8.9	29.4	20.6	22.2	18.9	100
I am happy with the recognition given to nurses who perform well	5.0	17.2	20.6	22.8	34.4	100
I am happy with the salary ratios in this hospital	0	8.9	19.4	22.2	49.4	100

Findings in table 4.26 above indicate that the highest ranked statement with respect to influence of remuneration factors on job performance “An increase in my salary would make me perform

better and be more motivated”, followed by “My main motivation for promotion is to earn a higher pay”. The least ranked statement was “I am happy with the salary ratios in this hospital”.

The above results confirm what has been said above that remuneration has a great influence on staff performance and the results are supported by existing literature (Ojokuku and Salami, 2011; Cole 2002; Armstrong, 2009).

4.7.1.3 Remuneration Factors and performance outcome in category 111 Hospitals

The results for category III hospitals on work remuneration factors and their influence on job performance are presented below.

Table 4.27: Extent to which remuneration factors influence performance outcome in Category 111 Hospitals

Extent to which remuneration factors influence job performance	Frequency	Percent
To no extent	56	14.0
To a small extent	115	28.8
To a moderate extent	95	23.8
To a great extent	80	20.0
To a very great extent	53	13.2
Total	399	99.8

Findings in table 4.27 above show that majority of the respondents (28.8%) indicated that remuneration factors influence job performance “to small extent”, followed by (23.8%), who indicated “to a moderate extent”. The respondents who indicated “to no extent” were the least (14.0%). Table 4.28 below presents a summary of the above findings.

Table 4.28: Extent to which remuneration factors influence performance outcome in category 111 hospitals - Summary

Human resource factor	To a very great extent & to a great extent	Others (to no extent, to a small extent)
Remuneration	57%	43%

The results in the table above do not vary much from the results on remuneration for all the categories of hospitals given earlier in table 4.19 as 60.8%. The respondents were asked to show their perception of possible effects of remuneration factors on performance outcome by indicating the extent to which they agreed/disagreed that listed statements with respect to performance outcome in their respective hospitals. The respondents were to tick as appropriate along a five-point scale. The responses are summarized and presented in the tables below.

Table 4.29: Perception on influence of remuneration factors on performance outcome in Category 111 Hospitals

Statements on influence of work environment factors on job performance	Strongly Agree (%)	Agree (%)	Uncertain (%)	Disagree (%)	Strongly Disagree (%)	Total (%)
An increase in my salary would make me perform better and be more motivated	39.5	33.2	14.0	6.8	6.5	100
I am always ready to work extra hours so as to earn over time	31.5	20.0	14.0	21.5	13.0	100
My main motivation for promotion is to earn a higher pay	39.0	20.2	1.5	32.5	6.8	100
I am happy with monetary incentives	13.2	19.0	13.5	34.0	20.2	100
I am happy with non monetary incentives	0	26.8	45.5	14.2	13.5	100
I am happy with time off, leaves, and other services provided for nurses	18.5	33.0	7.5	21.0	20.0	100
I am happy with the pension scheme am under	0	26.5	47.0	13.2	13.2	100
I am happy with the insurance cover am under	13.2	26.5	19.0	27.8	13.5	100
I am happy with the recognition given to nurses who perform well	6.2	12.8	20.5	21.5	39.0	100
I am happy with the salary ratios in this hospital	0	0	17.5	21.0	60.2	98.8

Findings in table 4.29 above indicate that the highest ranked statement with respect to influence of remuneration factors on job performance “An increase in my salary would make me perform

better and be more motivated”, followed by “My main motivation for promotion is to earn a higher pay”. The least ranked statement was “I am happy with the salary ratios in this hospital”.

The results confirm what existing literature holds, that, remuneration is an important factor in regard to staff performance (Pillay, 2009; Manus and Graham, 2003; Awases *et al.*, 2004).

4.7.2.1 Work Environment & tools and Performance Outcomes in category 1 Hospitals

The study sought to determine the effects of work environment and tools on the performance outcome of nurses. Safety, working conditions, leadership style, space, availability of equipment and tools were assessed. The findings are presented in the tables below for category 1 hospitals.

Table 4.30: Extent to which Work environment & tools influence job performance in Category 1 Hospitals

Extent to which work environment factors influence job performance	Frequency	Percent
To no extent	0	0
To a small extent	19	9.5
To a moderate extent	48	24.0
To a great extent	56	28.0
To a very great extent	77	38.5
Total	200	100.0

Findings in table 4.30 above show that majority of the respondents (38.5%) indicated that work environment factors influence job performance “to a very great extent”, followed by (28.0%), who indicated “to a great extent.” Moderate extent was taken up by 24%. The table below gives a summary of the above findings.

Table 4.31: Extent to which work environment factors influence performance outcome in category 1 hospitals - Summary

Human resource factor	To a very great extent & to a great extent	Others (to no extent, to a small extent)
Work environment & Tools	90.5 %	9.5%

The evidence from the table is that work environment & tools influence performance or job outcomes up to 90.5 % in category 1 hospitals. This is very close to the average for all the categories of hospitals (Categories 1, 2, 3) provided earlier in table 4.19 as 87.7%.

Further, the respondents were asked to show their perception of possible effects of work environment and tools on performance outcome by indicating the extent to which they agreed/disagreed that listed statements with respect to performance outcome in their respective hospitals. The respondents were to tick as appropriate along a five-point scale. The responses are summarized and presented in the tables below.

Table 4.32: Perception on influence of Work environment & tools on performance outcome in Category 1 Hospitals

Statements on influence of work environment factors on job performance	Strongly Agree (%)	Agree (%)	Uncertain %	Disagree %	Strongly Disagree %	Total %
I feel motivated working in the present environment	12.5	36.5	31.0	10.5	9.5	100
Employees are free to air their views concerning every worker at this hospital	16.0	12.0	25.0	31.5	15.0	99.5
I am happy with the safety precautions, protecting every worker at this hospital	10.0	28.5	21.0	32.0	8.5	100
I am happy with the working hours at this hospital	11.0	24.0	16.5	19.5	29.0	100
I am able to provide a health balance between work and social life	12.5	18.0	22.0	32.0	15.5	100
I am happy with the working relationship with my peers, supervisors, and managers	7.5	29.5	28.5	22.5	12.0	100
I am happy with the tools provided for my use at the work place including the working space	8.0	34.0	15.5	25.5	16.5	99.5
I am appreciated and recognized for work done	2.5	33.0	18.0	22.0	24.5	100
Most nurses in this hospital are happy while at the place of work	4.5	16.5	24.5	33.5	20.5	99.5
I get trained to use any tools and equipment	5.0	32.5	30.0	27.0	5.0	99.5

Findings in table 4.32 above indicate that the highest ranked statement with respect to influence of work environment factors on job performance “Employees are free to air their views concerning every worker at this hospital” followed by both “I am able to provide a health balance between work and social life” and “I feel motivated working in the present environment”. The least ranked statements were “I am happy with the working hours at this hospital”.

The above results on perception confirm what was observed earlier that the factors of work environment & tools influence performance or job outcomes and are very significant factors (Table 4.31).

4.7.2.2 Work Environment & tools and Performance Outcomes in category II Hospitals

The results for category II hospitals on work environment factors and their influence on job performance are presented in table 4.33 below.

Table 4.33: Extent to which work environment & Tools factors influence performance outcome in Category II Hospitals

Extent to which work environment factors influence job performance	Frequency	Percent
To no extent	1	0.6
To a small extent	20	11.1
To a moderate extent	41	22.8
To a great extent	54	30.0
To a very great extent	64	35.6
Total	180	100

Findings in table 4.33 above show that a large number of respondents (35.6%) indicated that work environment factors influenced job performance “to a very great extent”, followed by (30.0%), who indicated “to a great extent”. The table below gives a summary of the findings.

Table 4.34: Extent to which work environment factors influenced performance outcome in category II hospitals - Summary

Human resource factor	To a very great extent, to a great extent, to moderate extent	Others (to no extent, to a small extent)
Work environment & Tools	88.4 %	11.6%

The results in the table above almost match those given earlier in table 4.19 for the average of all the categories of hospitals as 87.7% and those for category 1 hospitals presented in table 4.31 (90.5%).

Further, the respondents were asked to show their perception of possible effects of work environment and tools on performance outcome by indicating the extent to which they agreed/disagreed that listed statements with respect to performance outcome in their respective hospitals. The respondents were to tick as appropriate along a five-point scale. The responses are summarized and presented in the table below.

**Table 4.35: Perception on Influence of Work environment & tools on performance outcome
in category 11 Hospitals**

Statements on influence of work environment factors on job performance	Strongly Agree (%)	Agree (%)	Uncertain (%)	Disagree (%)	Strongly Disagree (%)	Total (%)
I feel motivated working in the present environment	11.1	31.1	37.8	9.4	10.0	99.4
Employees are free to air their views concerning every worker at this hospital	16.7	12.2	26.1	30.6	13.9	99.4
I am happy with the safety precautions, protecting every worker at this hospital	7.8	25.6	26.1	29.4	11.1	100
I am happy with the working hours at this hospital	11.7	19.4	18.3	19.4	30.0	98.9
I am able to provide a health balance between work and social life	12.8	18.3	27.8	26.7	14.4	100
I am happy with the working relationship with my peers, supervisors, and managers	8.3	27.2	30.0	22.2	11.1	98.9
I am happy with the tools provided for my use at the work place including the working space	5.0	35.0	18.3	21.1	19.4	98.9
I am appreciated and recognized for work done	1.7	35.6	17.2	21.7	22.2	98.3
Most nurses in this hospital are happy while at the place of work	3.9	17.8	26.7	29.4	21.7	99.4
I get trained to use any tools and equipment	3.3	33.9	30.0	25.6	5.0	97.8

Findings in table 4.35 above indicate that the highest ranked statement with respect to influence of work environment factors on job performance “Employees are free to air their views concerning every worker at this hospital”, followed by “I am able to provide a health balance between work and social life”. The least ranked statement was “I am happy with the working hours at this hospital”. These results agree with results for category 1 hospitals presented earlier in the previous section.

4.7.2.3 Work Environment & tools and Performance Outcomes in category 111 Hospitals

The results for category III hospitals on work environment factors and their influence on job performance are presented below.

Table 4.36: Extent to which work environment factors & tools influence performance outcome in Category III Hospitals

Extent to which work environment factors influence job performance	Frequency	Percent
To no extent	0	0.0
To a small extent	56	14.0
To a moderate extent	114	28.5
To a great extent	103	25.8
To a very great extent	127	31.8
Total	400	100

Findings in table 4.36 above show that majority of the respondents (31.8%) indicated that work environment factors influence job performance “to a very great extent”, followed by (28.5%), who indicated “to a moderate extent” and 25.8% indicating “to a great extent”. Table 4.37 below gives a summary of the above findings.

Table 4.37: Extent to which work environment factors influenced performance outcome in category III hospitals - Summary

Human resource factor	To a very great extent & to a great extent	Others (to no extent, to a small extent)
Work environment & Tools	90.5 %	9.5%

The result is very close to the one for all categories of hospitals given earlier in table 4.19 as 87.7%. They confirm the significance of work environment factors in regard to staff performance. Existing literature shows that there is a close relationship between work environment and performance of staff (Armstrong, 2009; Newbold, 2008; Lu *et al.*, 2002 Cole, 2002). Further, the respondents were asked to show their perception of possible effects of work environment and tools on performance outcome in their hospitals by indicating the extent to which they agreed/disagreed with listed statements with respect to performance outcome. The respondents were to tick as appropriate along a five-point scale. The responses are summarized and presented in the tables below

**Table 4.38: Perception on Influence of Work environment & tools on performance outcome
in Category III Hospitals**

Statements on influence of work environment factors on job performance	Strongly Agree (%)	Agree (%)	Uncertain (%)	Disagree (%)	Strongly Disagree (%)	Total (%)
I feel motivated working in the present environment	13.0	33.8	35.5	7.5	9.5	99.2
Employees are free to air their views concerning every worker at this hospital	26.0	20.2	11.8	33.2	8.0	99.2
I am happy with the safety precautions, protecting every worker at this hospital	6.5	20.8	24.8	33.0	14.5	99.5
I am happy with the working hours at this hospital	19.0	15.0	19.5	23.0	22.2	98.8
I am able to provide a health balance between work and social life	19.5	20.5	30.5	21.0	8.0	99.5
I am happy with the working relationship with my peers, supervisors, and managers	12.5	14.2	30.5	27.2	14.5	99.0
I am happy with the tools provided for my use at the work place including the working space	0	27.2	23.2	20.0	28.2	98.8
I am appreciated and recognized for work done	0	33.0	22.0	15.8	28.0	98.8
Most nurses in this hospital are happy while at the place of work	6.2	7.0	33.5	30.5	21.8	99.0
I get trained to use any tools and equipment	0	21.8	41.5	28.0	7.5	98.8

Findings in table 4.38 above indicate that the highest ranked statement with respect to influence of work environment factors on job performance “Employees are free to air their views concerning every worker at this hospital”, followed by “I am able to provide a health balance between work and social life”. The least ranked statement was “I am happy with the tools provided for my use at the work place”.

The results above show that staff perceived all the environment factors to be important in explaining their performance.

4.7.3.1 Work Load Stress and Performance outcome in category 1 Hospitals

The study sought to identify the effects of workload stress on the performance outcome of nurses. The factors influencing the quality of health care provision in hospitals, including burn out, job demands, fatigue, absenteeism and overcrowding were assessed.

The findings on “to what extent” work load stress influenced job performance are presented in the tables below.

Table 4.39: Extent to which work load stress influence performance outcome in Category 1 Hospitals

Extent to which work load stress factors influence job performance	Frequency	Percent
To no extent	0	0
To a small extent	10	5.0
To a moderate extent	28	14.0
To a great extent	43	21.5
To a very great extent	119	59.5
Total	200	100

Findings in table 4.39 above show that majority of the respondents (59.5%) indicated that work load stress factors influence job performance “to a very great extent”, followed by (21.5%), who indicated “to a great extent”. A summary of these findings is provided below in table 4.40.

Table 4.40: Extent to which work load stress factors influence performance outcome in category 1 hospitals – Summary

Human resource factor	To a very great extent, to a great extent, to moderate extent	Others (to no extent, to a small extent)
Work load stress	95%	5%

The results do not show much difference from those of the average for all categories of hospitals given earlier in table 4.19 as 93.9%. Thus, work load stress was a significant factor in terms of performance of staff. Health workers who felt most overloaded with work and were among the most stressed (Ojokuku and Salami, 2011). Stress at work was a major factor in determining staff performance (Pool, 2002).

The respondents were asked to show their perception of possible effects of work load stress on the quality of health care provision in their respective hospitals by indicating the frequency of occurrence of the listed statements with respect to performance outcome. The respondents were to tick as appropriate along a five-point scale. The responses are summarized and presented in table 4.41 below.

Table 4.41: Perception on influence of work load stress factors on performance outcome in Category 1 Hospitals

Statements on influence of work load stress factors on job performance 5 = All the time 1 = Never	All the time (%)	Most of the time %	Sometimes %	Occasionally %	Never %	Total %
Tense	0	6.5	52.5	32.0	9.0	100
Calm	0	16.0	35.5	45.5	3.0	100
Relaxed	0	18.0	30.5	34.5	17.0	100
Worried	2.5	9.5	33.0	30.0	25.0	100
Un easy	2.5	5.5	35.5	28.5	28.5	100
Contented	11.0	4.0	48.5	26.5	10.0	100
Tired	8.0	26.5	36.5	24.0	5.0	100

Findings in table 4.41 above indicate that 11.0% of the nurses were tired at all time while 26.5 were tired at most of the time. Moreover, 28.5% of the nurses were never uneasy. One can then see that according to the nurses stress factors were an important part of their operations. This conclusion is supported by literature that exists on the issues of stress and job performance (Ojokuku and Salami, 2011; Pillay, 2009; Jamal, 1984; Rabinowitz and Stumpf, 1987; Pool, 2000).

4.7.3.2 Work Load Stress and performance outcome in Category II Hospitals

The study sought to identify the effects of workload stress on the performance outcome of nurses. The factors influencing the quality of health care provision in hospitals, including burn out, job demands, fatigue, absenteeism and overcrowding were assessed. The findings on “to what extent” work load stress influenced job performance are presented in the table below.

Table 4.42: Extent to which work load stress influence performance outcome in Category 11 Hospitals

Extent to which workload stress factors influence job performance	Frequency	Percent
To no extent	0	0
To a small extent	10	5.6
To a moderate extent	24	13.3
To a great extent	43	23.9
To a very great extent	103	57.2
Total	180	100

Findings in table 4.42 above show that majority of the respondents (57.2%) indicated that work load stress factors influence job performance “to a very great extent”, followed by (23.9%), who indicated “to a great extent.” A summary of the above results is given below in table 4.43 below.

Table 4.43: Extent to which work load stress factors influence performance outcome in category 11 hospitals - Summary

Human resource factor	To a very great extent, to a great extent, to moderate extent	Others (to no extent, to a small extent)
Work load stress	94.4%	5.6%

The result above confirms what was presented in table 4.19 earlier that remuneration factors affect performance outcome greatly. The result of 94.4% compares well with the result for all the categories of hospitals given as 93.9% (table 4.19). Existing literature supports the conclusion

that stress and job performance are closely related (Ojokuku and Salami, 2011; Pillay, 2009; Jamal, 1984; Rabinowitz and Stumpf, 1987; Pool, 2000).

The respondents were asked to show their perception of possible effects of work load stress on the quality of health care provision in their respective hospitals by indicating the frequency of occurrence of the listed statements with respect to performance outcome. The respondents were to tick as appropriate along a five-point scale. The responses are summarized and presented in table 4.44 below.

Table 4.44: Perception of Influence of work load stress factors on performance outcome in Category 11 Hospitals

Statements on influence of work load stress factors on job performance 5 = All the time 1 = Never	All the time (%)	Most of the time (%)	Sometimes %	Occasionally %	Never %	Total %
Tense	0	5.0	55.6	29.4	10.0	100
Calm	0	16.7	37.8	41.1	4.4	100
Relaxed	0	19.4	28.3	35.0	17.2	100
Worried	2.2	11.1	36.7	26.7	23.3	100
Un easy	2.2	6.7	34.4	28.9	27.8	100
Contented	9.4	5.6	47.8	26.7	10.6	100
Tired	9.4	27.8	36.7	23.3	2.8	100

Findings in table 4.44 above indicate that the highest ranked statements with respect to influence of workload stress factors on job performance at all time are “Tired” and “Contented”. The least

ranked statement was “Uneasy”. The above results confirm the significance of stress factors in respect to work performance.

4.7.3.3 Work Load Stress and Performance outcome in Category 111 Hospitals

The study sought to identify the effects of workload stress on the performance outcome of nurses. The factors influencing the quality of health care provision in hospitals, including burn out, job demands, fatigue, absenteeism and overcrowding were assessed. The findings on “to what extent” work load stress influenced job performance in category III hospitals are presented in the tables below.

Table 4.45: Extent to which work load stress influences performance outcome in Category 111 Hospitals

Extent to which remuneration factors influence job performance	Frequency	Percent
To no extent	0	0
To a small extent	28	7.0
To a moderate extent	58	14.5
To a great extent	55	13.8
To a very great extent	259	64.8
Total	400	100

Findings in table 4.45 above show that majority of the respondents (64.8%) indicated that work load stress factors influence job performance “to a very great extent”, followed by (14.5%), who indicated “to a moderate extent.” A summary of the above findings is provided below in table 4.46 below.

Table 4.46: Extent to which work load stress factors influence performance outcome in category 111 hospitals - Summary

Human resource factor	To a very great extent, to a great extent, to moderate extent	Others (to no extent, to a small extent)
Work load stress	93.1%	6.9%

The results in the table above are similar to those reported for all categories of hospitals in table 4.19 as 93.9%. Thus, for category III hospitals stress has a significance influence on staff performance. This is the same conclusion for category 1 and category II hospitals presented earlier that stress impacts performance greatly. This is a well established fact (Ojokuku and Salami, 2011; Pillay, 2009; Jamal, 1984; Rabinowitz and Stumpf, 1987; Pool, 2000).

Further, the respondents were asked to show their perception of possible effects of work load stress on the quality of health care provision in their respective hospitals by indicating the frequency of occurrence of the listed statements with respect to performance outcome. The respondents were to tick as appropriate along a five-point scale. The responses are summarized and presented in table 4.47 below.

Table 4.47: Perception on Influence of work load stress factors on performance outcome in Category 111 Hospitals

Statements on influence of work load stress factors on job performance	All the time (%)	Most of the time %	Sometimes %	Occasionally %	Never %	Total %
Tense	0	0.2	58.0	35.0	6.8	100
Calm	0	13.2	45.8	40.8	0.2	100
Relaxed	0	20.2	39.5	20.8	19.5	100
Worried	0	6.2	33.0	33.5	27.2	100
Un easy	0	0	26.0	34.0	40.0	100
Contented	6.2	6.2	59.2	21.5	6.8	100
Tired	0	25.0	37.5	31.2	6.0	99.8

Findings in table 4.47 above indicate that the highest ranked statement with respect to influence of workload stress factors on job performance at all the time and at most of the time was “Tired”. The least ranked statement was “Uneasy”.

In each of the categories of hospitals, work load stress is more significant than all the other factors and agrees with the joint result discussed earlier and whose results were presented in table 4.19. This is also confirmed by the results on the analysis of the perception of the respondents in terms of the key elements examined under each factor.

4.8 Other factors that influence performance outcomes in the various categories of hospitals

In seeking out information on other factors influencing performance out comes, multiple responses were allowed. The respondents were put together in a Focus Group Interview for each

category of hospital. Apart from providing the responses, the participants were asked to clarify some of the findings from the field survey. They were also asked to comment on the selected HR factors that were the focus of the study. Issues were cross checked and clarified. The responses on specific variables are summarized and presented in table 4.48 below in terms of each category of hospital starting with category 1 Hospitals.

The results for Category 1 hospitals are presented below.

Table 4.48: Other factors that influence performance outcome in category 1 Hospitals

Other factors that influence performance outcomes in the hospitals	Frequency	Percentage
Insufficient staff	18	30.0
Work overload	22	36.6
Lack of remuneration for overtime work	8	13.3
High rate of staff turn over	2	3.3
Relatively poor compensation	16	26.6
Poor leadership styles	2	3.3
Inconsistent disciplinary procedures	6	10.0
Lack of team work	8	13.3
Long working hours	18	30.0
Inconsistency in performance evaluation	6	10.0
Insensitivity to personal staff needs by management	2	3.3
Intimidation of nurses by doctors	6	10.0
Fatigue	4	6.6
Overcrowding of patients	2	3.3
Lack of training opportunities	4	6.6
Lack of job security	12	20.0
Lack of unions to represent nurses	2	3.3
Lack of staff motivation	6	10.0
Lack of promotion	2	3.3
Non conducive work environment	2	3.3
The misconception that nursing is for women only (men feel looked down upon)	4	6.6
Lack of recognition for good performance	2	3.3
Poor time management	2	3.3
N = 163		

The results for category 1 hospitals in the table above show that the critical factors are: work load; staff shortage; long working hours; poor remuneration especially for overtime work; lack of job security; lack of team work; inconsistencies in disciplinary procedures and performance evaluation; intimidation by doctors, and lack of staff motivation. The implication of the findings in the above table is that other factors other than the selected study factors also influenced work output of nurses. One senior nurse known as Mary made a very interesting comment during the focus group interview. All present nodded in agreement. She observed “Hospitals in this country face a plethora of problems. These problems include all known human resource factors and the problem of poor management by the doctors in charge. These people load it over us and they do not care we have families to go and cook for when they demand that we work beyond office hours”. Another elderly nurse supported these sentiments and observed that “the government must deal with errant doctors who make us do all the work but at the same time abuse us because we have not done certain things”. Many of the older nurses expressed the general feeling that they worked because they were waiting for retirement and that if they were young they would have left the nursing profession in Kenya for other occupations due to the many inherent problems. These same sentiments appear to agree with those expressed in another study done in Kenya titled “Contextual influences on health worker motivation in district hospitals in Kenya” by Mbindyo *et al.*, (2009). In Mbindyo’s study some of the nurses were quoted as saying *‘We just work because we need to, but we are not happy. Even if we retire, utaninginia kwa kaburi kabla ya kupata marupurupu yako (you will teeter by the grave before you get your benefits).’* [Small Group Interview of Nurses]. In the study “it was found out that the younger workers in comparison were happy just to have a job, but did not trust the system to look after them in the long term. For example, a few of the young workers accepted the fact that ‘salary’ is a significant

de-motivator but I have no problem with it at the moment as I am looking for experience and move on.” (Mbindyo *et al.*, 2009). The factors the nurses were talking about and as presented in the table above (Table 4.48) are those found in the internal environment of an organization. They were discussed exhaustively in chapter 2. Findings from existing literature show that these HR factors have an important influence on staff performance and are critical in regard to performance of nurses (Bennet and Franco, 1999). Porter and Lawler (1968) were among the earliest contributors in this area who reached the same conclusion. The significance of these factors, other than the selected study factors, would need to be studied in future studies in order to show how significant they are in comparison to the selected human resource factors of remuneration, work environment and work load stress.

The results for focus group interview for Category II Hospitals are presented below.

Table 4.49: Other factors that influence performance outcomes category 11 Hospitals

Other factors that influence performance outcomes in the hospitals	Frequency	Percentage
Lack of promotion	2	2.9
Un conducive work environment	2	2.9
Relatively poor compensation	6	8.7
Poor leadership	18	26.1
The misconception that nursing is for women only (men feel looked down upon)	2	2.9
Insufficient staff	2	2.9
High rate of staff turn over	6	8.7
Work overload	2	2.9
Poor placement	2	2.9
Insufficient equipment and working tools	6	8.7
Poor feedback system	2	2.9
Harassment from hospital administrators	6	8.7
Poor staff relations	4	5.8
Poor patient attitude	6	8.7
Lack of uniforms	4	5.8
Lack of motivation	6	8.7
Absenteeism by senior nurses	4	5.8
Lack of training opportunities	2	2.9
Little involvement in decision making	2	2.9
Lack of team work	6	8.7
Un conducive work environment	2	2.9
Non standardized procedures	4	5.8
Lack of job security (contract employment)	2	2.9
Favoritism	2	2.9
Frequent job rotations	2	2.9
N = 187		

The results for Category II hospitals in the table above show that the key factors here are poor leadership; poor remuneration; high staff turnover; inadequate working tools and equipment; harassment by hospital administrators; poor patient attitude; lack of motivation; and lack of team work. The implication of the findings in the above table is that other factors other than the

selected study factors, as already observed above also influence work output of nurses. These agree with Mbindyo's study findings referred to earlier (Mbindyo *et al.*, 2009) that hospitals in Kenya face numerous problems that were captured very well in the focus group interview in category II hospitals as presented in table 4.49 above. However, these other factors would need to be studied in future studies in order to show how significant they are in comparison to the selected human resource factors.

The results for focus group interview for Category III hospitals are presented below.

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Table 4.50: Other factors that influence performance outcomes in category 111 Hospitals

Other factors that influence performance outcomes in the hospitals	Frequency	Percentage
Promotion (Lack of promotion or delayed promotion)	20	12.7
Salary increments/reviews	12	7.6
unavailability of equipments and working tools	46	29.1
Work load (Number of patients is overwhelming)/Patient to nurse ratio	48	30.4
Training opportunities	32	20.3
Inadequate number of staff in designated areas/Staff shortage	38	24.1
Unavailability of supplies	44	27.8
Staff attitude	4	2.5
Facility expansion	2	1.3
Lack of motivation	22	13.9
Long working hours (Reporting for duty at 5.30 pm and leaving at 8.30 am) without supper or breakfast being provided	14	8.9
Leadership/Management styles /The management being insensitive to the needs of the subordinates	28	17.7
Proper staff orientation	2	1.3
Involvement of staff in decisions that affect them	8	5.1
Outdated equipment	2	1.3
Poor patient preparedness	6	3.8
Duties that are imposed on the staff, which are out of their job descriptions	4	2.5
Lack of recognition/appreciation for excellent performance/work that exceed expectations	16	10.1
Team work/Interpersonal relationships	8	5.1
Positive performance appraisal results	2	1.3
Lack of compensation to staff who get injured in the course of duty – including trauma	2	1.3
Low entry point – the staff who join service from private institutions enter at the lowest grade (No. III) despite their long time experience with good professions skills. They lag behind their equal colleagues from the public sector who are even their juniors in training, skills and experience	2	1.3
Lack of nearby housing facilities	2	1.3
Procurement of substandard/faulty equipment and tools (too many break ups and time wasting)	8	5.1
Poor and inconsistent disciplinary mechanisms	6	3.8
Lack specialization in using certain procedures e.g. surgical procedures	2	1.3
Review of admission procedures	4	2.5
Provision of meals (breakfast, lunch and supper) for staff on duty at night	4	2.5
Lack of staff meetings	6	3.8
Overcrowding of patients/Large patient turn out/Congestion	38	24.1
Fair remuneration/good pay	24	15.2
A conducive working environment	14	8.9
Poor time management, especially by the surgeons	6	3.8
Lack of standardized tool on job rotation/placement	6	3.8
Lack of standard procedure on entry point for degree holders in all professionals	4	2.5
Discrimination - Tribalism and nepotism	4	2.5
Corruption	4	2.5
General cleanliness is poor	6	3.8
Inadequate specialized staff in certain areas	4	2.5
N = 430		

The critical factors influencing work outcome in Category 111 hospitals are: work load/too much work; unavailability of working tools and equipment; unavailability of supplies; overcrowding of patients; staff shortage, lack of training, and leadership and management problems. As in the previous two tables, the implication of the findings in the above table is that other factors other than the selected HR study factors also influence work output of nurses. A major study of government district hospitals in Kenya identified similar factors as those in the above table. The study isolated job insecurity, unmet expectations, poor relationships with colleagues (doctors), lack of incentives, burnout, poor leadership, poor staff conditions (work conditions), lack of fairness and poor communication as some of the critical factors that affected performance of nurses (Mbindyo *et al.*, 2009). These factors would need to be studied in detail in future studies in order to show how significant they are in comparison to the selected human resource factors, the focus of the current study.

It is important to emphasize here that many factors affect performance of nurses. Internal factors as evidenced by the results discussed above are very important in regard to performance (Bennet and Franco in 1999; Porter and Lawler, 1968). External factors too play an important part in performance (Wit and Meyer, 2010; Pearce and Robinson, 2007; Hunger, 2001; Kamoche *et al.*, 2000; Glueck, 1990; Ansoff and McDonnell, 1990; Thompson and Strickland, 1987; Newman and Logan, 1981; Fisher, Schoenfeldt and Shaw, 2003; Schuler and Jackson, 1999). However, external factors were not the focus of this study. The composite model proposed in this study shows both the internal and external environment factors (Chapter 2 Section 2.3 Fig. 2.5).

4.9 Commonalities in the three categories of hospitals

The data for the three categories of hospitals present findings that are similar. Common among the hospitals are factors such as too much work/work overload, inadequate equipment &

supplies, human resource problems couched in different words such as harassment, poor leadership, lack of motivation, and staff turnover. These are HR factors whose treatment can motivate or demotivate staff (Armstrong, 2009). On the other hand, the differences between the categories of the hospitals are a matter of degree.

4.10 Differences in the three categories of hospitals

There are very minor differences in terms of what the respondents considered important in regard to these other factors. For example, in category 1 hospitals key issues related to: insufficient numbers of staff, work overload, long working hours and poor compensation. In category 11 hospitals key issues related to poor leadership, poor compensation, high staff turnover and harassment by bosses. In category 111 hospitals key issues related to: Work load, lack of working tools & supplies, inadequate numbers of staff and lack of training opportunities. These issues were brought out clearly in the focus group interviews.

The results for similarities and differences have been discussed above but it suffices at this point to present the summary results in tabular form. Table 4.51 below presents the necessary information.

Table 4.51: Similarities and Differences between the three categories of hospitals

Factor	Average score for all categories of hospitals	Score for category I hospitals	Score for category II hospitals	Score for Category III hospitals
Work environment & tools	87.7%	90.5%	88.4%	90.5%
Remuneration	60.8%	64.5%	65%	57%
Work load stress	93.9%	95%	94.4%	93.1%

The results in table 4.51 above show that there are very minor differences in the scores for all categories of hospitals in regard to work environment & tools. The scores for each category of hospital are close to the average score for all hospitals. This implies that the influence of the environment & tools is similar across all categories of hospitals meaning that they have similar or same concerns. In regard to remuneration the score for category 1 & 11 are more or less the same (64.5%, 65% respectively) and they are close to the average of 60.8%. The score for category 111 hospitals is below the average and is 57%. This means that while the influence of remuneration on work output is similar for category 1 & 11 hospitals, category 111 hospitals do not appear to be influenced in the same way implying that for majority of registered nurses remuneration did not influence them in as a big a way as in the other categories. This could be explained by factors such as better facilities, larger number of nurses that allow for offs and shifts to be given, and perhaps the substantial incentives that exist in the larger more resourced hospitals.

In terms of work load stress, all the categories of hospitals have similar scores and these are close to the average for all the categories. This implies that workload stress is not only a major factor in all hospitals but has similar consequences on work output.

What follows below is a summary of the results arising from the **descriptive statistics** presented and discussed in previous sections. This summary is useful in providing a quick over view of the findings so far on the basis of descriptive statistics.

4.11 Summary of descriptive statistics

It suffices at this point for the sake of bringing out the main issues so far from the descriptive statistics to provide a summary of the same at this point. Below therefore is a summary of the findings based on descriptive statistics discussed in previous sections.

4.11.1 Age profiles

Majority of the nurses' understudy were aged between 30 to 39 years while the minorities were 20 or below 20 years of age. Specifically, out of the 780 nurses under this study, 2.2 percent were aged 20 and below, 27.2 percent were aged between 21 to 29, 47.3 percent were aged between 30 to 39, 19.5 were aged between 40 to 49 and 3.8 percent were aged between 50 to 59 percent as shown in Appendix 1. From **Table B2** in the appendix, majority of the nurses were female with 67.1 percent while male nurses were 32.9 percent of the nurses' understudy. Majority of nurses were thus female implying that the profession of nursing is still female dominated in Kenya as is the case in other developing nations.

4.11.2 Education level

Table B3 in the Appendix reveals that out of the 780 nurses understudy, 6.2 percent had "O" level qualification, 5.8 percent had certificate qualification, 70.8 percent had diploma qualification, 7.8 percent had bachelor degree qualification, and 9.5 percent had other types of qualifications. This shows that majority of the nurses are diploma holders. Regarding work experience as a nurse, 42.3 percent of the nurses' understudy had 0 to 10 years of work experience, 46.4 percent had 11 to 15 years of work experience and 11.3 percent had 16 to 20 years of work experience as illustrated in **Table B4** in the Appendix. Specifically, 39 percent of the nurses had worked in their current hospital for 0 to 5 years, 17.7 percent had worked for 6 to 10 years, 32.3 percent of the nurses had worked for 11 to 15 years and 11 percent of all the

nurses understudy had worked for 16 to 20 years in their current hospital (**Table B5** in the Appendix)

4.11.3 Performance appraisal

From **Table B6** in the Appendix, the majority of the nurses, 59.6 percent, indicated that the method of performance assessment is through a formal system of regular appraisals reviewed for various categories of nurses followed by 21 percent who indicated the method of performance assessment as performance and setting of objectives. 11.5, 5.8 and 2.1 percent of the nurses indicated the method of performance assessment as informal ad hoc reviews especially when there is a performance problem, no performance reviews and finally the informal but regular reviews involving discussions about past performance respectively. Thus, systems of performance management and appraisal existed. Our study was not focused on how effective and efficient the systems of assessment were but on whether they existed to provide the basis for work performance evaluation on the basis of the three selected human resource factors. A summary of the key finding on these selected factors follows below.

4.12 Influence of the selected variables of study: remuneration; work environment & tools; and work load stress

It has so far been established; using descriptive statistics that, majority of nurses indicated that remuneration had a small influence on their performance. Majority of the nurses indicated that work environment and tools had a great influence on their performance. Further, majority of the nurses in our study indicated that work load stress had the greatest influence on their performance as also shown in Appendix in **Tables B7, B8 and B9** respectively. The findings on remuneration (from the descriptive statistics analysis only) appear to disagree with the common public view in Kenya that the frequent strikes of nurses in Kenya are as a result of inadequate

remuneration for their efforts at work. This does not suggest in any way that remuneration is not an important factor.

The results presented above from the descriptive statistics become clearer after the detailed presentation of regression results and interpretations that follow below in our **second level of analysis** which is on the basis of **inferential statistical** analyses.

4.13 Inferential statistical analysis and interpretation

This section presents the results of regression analysis and the interpretation. This is the second level of presentation of findings as previously indicated. As the results are presented, the results in regard to the tests of hypotheses are presented as well. The results in the appendix contained in Tables A1 to A15 together with those contained in tables B1 to B15 and also those presented in the text of this thesis were used to arrive at the conclusions that follow below in subsequent sections.

4.13.1 Hypotheses 1, 2 and 3

To answer **hypotheses 1, 2 and 3** we ran Ordered Multinomial Logit Regression models for all the categories of hospitals in this study. Ordered Multinomial Logit regression takes into account the ranking of the dependent variable. We follow the model proposed by Greene (2002) as shown in Equation 4.1.

$$Y^* = X'\beta + \varepsilon \dots \dots \dots 4.1$$

Where Y^* is unobserved latent variable which we replace with the observed variable y by imposing ranking. In our case the dependent variable, performance score, is ordered starting with

Table 4.52: Performance score for all categories of hospitals

Performance Score	Category I Hospitals	Category II Hospitals	Category III Hospitals	All Hospitals
Very Low	84	23	50	157
Low	92	29	50	171
High	135	76	57	268
Very High	82	36	43	161
Missing Values	7	16	0	23

We ran Equation 4.2 and the results for Ordered Multinomial Logit Regression models are shown in Table 4.53 below and also in **Tables B10.1 to B13.5, B14 and B15** in the Appendix.

The Parameter estimate tables below present information on the slope coefficient for each independent variable, standard errors, Wald test statistics, degree of freedom, values of significance level and lower and upper bounds for confidence interval. Further, threshold levels are also reported.

Table 4.53: Parameter Estimates for Category 1 Hospitals

		Coefficient	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[performance score = 1]	-2.807	.932	9.064	1	.003	-4.635	-.980
	[performance score = 2]	-1.693	.926	3.348	1	.067	-3.507	.121
	[performance score = 3]	-.131	.922	.020	1	.887	-1.938	1.676
Location	age	-.135	.125	1.153	1	.283	-.380	.111
	gender	-.351	.201	3.041	1	.081	-.746	.044
	Education qualification	-.145	.136	1.128	1	.288	-.411	.122
	Work experience	.011	.155	.005	1	.942	-.293	.316
	Work environment	.130	.110	1.399	1	.237	-.085	.345
	remuneration	-.178	.085	4.413	1	.036	-.345	-.012
	work load stress	-.010	.122	.007	1	.932	-.250	.229

Link function: Logit.

OF

Table 4.54: Parameter Estimates for Category II Hospitals

	Coefficient	Std. Error	Wald	df	Sig.	95% Confidence Interval		
						Lower Bound	Upper Bound	
Thresh old	[performance score = 1]	-3.267	1.269	6.624	1	.010	-5.755	-.779
	[performance score = 2]	-2.237	1.256	3.174	1	.075	-4.698	.224
	[performance score = 3]	-.154	1.241	.015	1	.901	-2.587	2.279
Locatio n	age	-.183	.201	.831	1	.362	-.576	.210
	gender	.093	.324	.083	1	.773	-.542	.728
	Education qualification	.148	.229	.415	1	.520	-.302	.597
	Work experience	.072	.265	.074	1	.785	-.448	.592
	Work environment	-.049	.175	.079	1	.778	-.393	.295
	remuneration	-.056	.134	.178	1	.673	-.319	.206
	work load stress	-.294	.192	2.331	1	.127	-.671	.083

Table 4.55: Parameter Estimates for Category III

	Coefficient	Std. Error	Wald	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Threshold [performance score = 1]	.868	1.208	.517	1	.472	-1.499	3.235
[performance score = 2]	1.997	1.214	2.707	1	.100	-.382	4.376
[performance score = 3]	3.327	1.228	7.341	1	.007	.920	5.734
Location age	.391	.170	5.274	1	.022	.057	.725
gender	.000	.294	.000	1	.999	-.577	.576
Education qualification	-.127	.198	.411	1	.522	-.514	.261
Work experience	.016	.216	.005	1	.943	-.409	.440
work environment	.290	.163	3.181	1	.074	-.029	.609
remuneration	-.108	.117	.846	1	.358	-.337	.122
work load stress	.103	.167	.382	1	.537	-.224	.430

Link function: Logit.

Y OF

Table 4.56: Parameter Estimates for All Hospitals

	Coefficient	Std. Error	Wald	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Threshold [performance score = 1]	-1.874	.625	9.006	1	.003	-3.099	-.650
[performance score = 2]	-.799	.621	1.654	1	.198	-2.017	.419
[performance score = 3]	.788	.622	1.607	1	.205	-.430	2.006
Location age	-.003	.088	.001	1	.975	-.175	.169
gender	-.152	.145	1.088	1	.297	-.436	.133
Education qualification	-.071	.099	.513	1	.474	-.264	.123
Work experience	.000	.111	.000	1	.995	-.218	.216
work environment	.119	.080	2.205	1	.138	-.038	.275
remuneration	-.117	.060	3.748	1	.053	-.235	.001
work load stress	-.034	.086	.160	1	.689	-.203	.134

Link function: Logit.

OF

4.13.2: Measures of Best Fit

From the Ordered Multinomial Regression for category one, two, three and all hospitals, the SPSS output also presents information on the model fit. Since the dependent variable is discrete, the measures of goodness of fit are Pearson Chi-Square, Deviance Chi-Square and Pseudo R-Square. For regression models with a categorical dependent variable, it is not possible to compute a single R square statistic that has all of the characteristics of R square in the linear regression model, so the following methods are used to estimate the coefficient of determination. **Cox and Snell's R Square** is based on the log likelihood for the model compared to the log likelihood for a baseline model. However, with categorical outcomes, it has a theoretical maximum value of less than 1, even for a "perfect" model. **Nagelkerke's R Square** is an adjusted version of the Cox & Snell R-square that adjusts the scale of the statistic to cover the full range from 0 to 1 and finally, **McFadden's R Square** is based on the log-likelihood kernels for the intercept-only model and the full estimated model (Nunnally, J. C., 1978). These results for chi square and Pseudo R square are presented as follows.

4.13.2.1: Category I Hospitals

The results show that Pearson Chi Square has a value of 361.963 and is statistically significant at 5 percent level of significance but the Deviance Chi Square is statistically insignificant. Further, various versions of Pseudo R square suggest that the model is a good fit.

Table 4.57: Goodness-of-Fit: Category I Hospitals

	Chi-Square	df	Sig.
Pearson	361.963	329	.0102
Deviance	350.737	329	.196

Link function: Logit.

Table 4.58: Pseudo R-Square: Category I Hospitals

Cox and Snell	.018
Nagelkerke	.019
McFadden	.006

Link function: Logit.

4.13.2.2: Category II Hospitals

For category two hospitals, both the Pearson Chi Square and Deviance Chi Square are statistically insignificant but the various version of Pseudo R squares suggest that the model is a good fit.

Table 4.59: Goodness-of-Fit: Category II hospitals

	Chi-Square	df	Sig.
Pearson	204.767	227	.853
Deviance	205.373	227	.846

Link function: Logit.

Table 4.60: Pseudo R-Square: Category II Hospitals

Cox and Snell	.021
Nagelkerke	.023
McFadden	.008

Link function: Logit.

4.13.2.3: Category III Hospitals

For category three hospitals, only Pearson Chi Square with a value of 233 is statistically significant but the Deviance Chi Square is statistically insignificant. Several of Pseudo R squares suggest that the model is a good fit.

Table 4.61: Goodness-of-Fit: Category III hospitals

	Chi-Square	df	Sig.
Pearson	257.653	233	.00013
Deviance	256.451	233	.140

Link function: Logit.

Table 4.62: Pseudo R-Square: Category III Hospitals

Cox and Snell	.044
Nagelkerke	.047
McFadden	.016

Link function: Logit.

4.13.2.4: All Hospitals

For all categories of hospitals, both Pearson Chi Square and Deviance Chi Square are statistically insignificant. However, several versions of Pseudo R squares suggest that the model is a good fit.

Table 4.63: Goodness-of-fit for all hospitals

Goodness-of-Fit			
	Chi-Square	df	Sig.
Pearson	394.434	407	.663
Deviance	429.065	407	.217

Link function: Logit.

Table 4.64: Pseudo R-Square for all hospitals

Cox and Snell	.007
Nagelkerke	.008
McFadden	.003

Link function: Logit.

4.14: Test for Joint Significance

The study tested for joint significance of the independent variables used in the analysis. Specifically, log likelihood test was used to compare the model with the intercept only and the model with the independent variables. The null and alternative hypothesis can be specified as shown.

$$H_0: \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = \beta_7 = 0$$

$$H_a: \text{At least one of } \beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7 \neq 0$$

Where

β 's are coefficients of independent variables. The results for each category of hospital are presented as follows.

4.14.1: Category I Hospitals

For category one hospitals, the log likelihood value is 519.370 with a chi square of 6.905 and significance level of 0.0004 that is significant at 1 percent. This implies that the final model is preferred to the model with intercept only. Therefore, the independent variables that is age, gender, education qualification, work experience, work environment, remuneration and work load stress jointly influences performance.

Table 4.65: Model Fitting Information: Category I Hospitals

Model	-2 Log Likelihood	Chi-Square	Df	Sig.
Intercept Only	526.275			
Final	519.370	6.905	7	.0004

Link function: Logit.

4.14.2: Category II Hospitals

For category two hospitals, the log likelihood value is 287.271 with a chi square of 3.446 and significance level of 0.00084 that is significant at 1 percent. This implies that the final model is preferred to the model with intercept only. Therefore, the independent variables that is age, gender, education qualification, work experience, work environment, remuneration and work load stress jointly influence performance.

Table 4.66: Model Fitting Information: Category II Hospitals

Model	-2 Log Likelihood	Chi-Square	Df	Sig.
Intercept Only	290.718			
Final	287.271	3.446	7	0.00084

Link function: Logit.

4.14.3: Category III Hospitals

For category three hospitals, the log likelihood value is 354.535 with a chi square of 8.928 and significance level of 0.00025 that is significant at 1 percent. This implies that the final model is preferred to the model with intercept only. Therefore, the independent variables that is age, gender, education qualification, work experience, work environment, remuneration and work load stress jointly influences performance.



Table 4.67: Model Fitting Information: Category III Hospitals

Model	-2 Log Likelihood	Chi-Square	Df	Sig.
Intercept Only	363.464			
Final	354.535	8.928	7	0.00025

Link function: Logit.

4.14.4: All Hospitals - Test for joint significance

The log likelihood value is 805.576 with a chi square of 5.461 and significance level of 0.0006 that is significant at 1 percent. This implies that the final model is preferred to the model with intercept only. Therefore, the independent variables that is age, gender, education qualification, work experience, work environment, remuneration and work load stress jointly influences performance.

Table 4.68: Model Fitting Information – All hospitals

Model	-2 Log Likelihood	Chi-Square	Df	Sig.
Intercept Only	811.037			
Final	805.576	5.461	7	0.00060

Link function: Logit.

Finally, the study summarised the information for parameter estimates and measures of goodness of fit for each category of hospital as shown in the table below.

Table 4.69: Ordered Multinomial Logit Regression Results for various categories of Hospitals (NB: Dependent Variable: Performance Score)

Variable	Category I Hospitals	Category II Hospitals	Category III Hospitals	All Hospitals
	Coefficient	Coefficient	Coefficient	Coefficient
Age	-0.135	-0.183	0.391**	-0.003
Gender	-0.351***	0.093	0.000	-0.152
Education	-0.145	0.148	-0.127	-0.071
Work experience	0.011	0.072	0.016	0.000
Work environment	0.130	-0.049	0.290***	0.119
Remuneration	-0.178**	-0.056	-0.108	-0.117***
Work load stress	-0.010	-0.294	0.103	-0.034
Cut Off 1	-2.807	-3.267	0.868	-1.874
Cut Off 2	-1.693	-2.237	1.997	-0.799
Cut Off 3	-0.131	-0.154	3.327	0.788
Likelihood Ratio Test, Chi Square	6.905*	3.446*	8.928*	5.461*
Pearson Chi Square	361.963**	204.767	257.653*	394.434
Pseudo R Square (Nagelkerke)	0.019	0.023	0.047	0.008

(*), (**) and (***) denotes 1%, 5% and 10% level of significance, H_0 versus H_a Decision Rule:

Reject Null if computed P value > 0.05

In the ordered multinomial logit regression models, the dependent variable takes more than two categories. In this case, performance score, which is our dependent variable, takes four levels of performance score card as follows: Very low, low, high and very high. These categories are ranked from the lowest to the highest.

Table 4.69 reveals that performance of a nurse in category I hospitals is influenced by gender and **remuneration** while in category III hospitals performance is influenced by age of the nurse and the **work environment**. However, we find that, age, gender, education level, work experience, work environment, remuneration and work load stress do not significantly influence performance of nurses of category II hospitals even though they do have an influence. However, the perception of nurses in the descriptive responses showed that remuneration had a significant influence on performance. The difference between the descriptive and inferential statistics results could be attributed to the fact that the results from the inferential analysis did not meet the threshold established for significance. This finding should, however, interest future researchers. HR issues relating to the hospitals in this category should be subjected to further research.

We ran a model which combined all categories of hospitals with a view to establishing which of the selected HR factors influenced performance of nurses in Kenya. We found at the descriptive level of statistics that only **remuneration** influenced performance of nurses in Kenya for all levels of hospitals. Work environment factors were significant for category III hospitals. None of the selected HR factors explained performance of nurses in category II hospitals. This means that the other factors identified through focus group interviews such as leadership, emotional intelligence, management orientation and related factors perhaps explained performance of nurses in category II hospitals.

The results do not show that the variables (Independent) under study have no relationships with performance (Dependent variable) as is apparent from the results of further statistical tests that were carried out. These results are reported later in this chapter.

For **Category 1 hospitals**, gender has a coefficient of -0.351 and is statistically significant at 10 percent level of significance while remuneration has a coefficient of -0.178 and is statistically significant at 5 percent level of significance. This therefore implies that being a male nurse (male is coded 1 and female 0), we expect a 0.351 reduction in the log odds of being in a higher performance level assuming all other factors in the model are held constant. This could be explained by the higher percentage of female nurses as shown in **Table B2** in the appendix. Further, for remuneration, a one unit increase in remuneration we expect a 0.178 reduction in the log odds of being in a higher performance level holding all other variables in the model constant. This could be justified by the high cumulative percent (61.3%) of nurses who view remuneration as having no, small and moderate influence on their performance (**Table B8** in the Appendix). Age of the nurse, education level, work experience, **work environment and work load stress** were found to have insignificant influence on performance of the nurses for category 1 hospitals.

In the case of **Category II hospitals**, age of the nurse, gender, education level, work experience, work environment, remuneration and work load stress were all found to have insignificant influence on performance of the nurses for category II hospitals. In the case of Category II hospitals **there is no variable that is statistically significant in explaining the performance for nurses in Kenya**. Perhaps this is explained by the fact that at the lower echelons of the six levels of hospitals in Kenya the directive to carry out performance assessment has not cascaded down below as it is a new policy of government.

In **Category III hospitals**, only **age** and **work environment** are statistically significant in explaining performance of nurses in Kenya. The coefficient of age is 0.391 and is statistically significant at 5 percent level of significance while the coefficient for work environment is 0.29 and is statistically significant at 10 percent level of significance. Specifically, for a one unit increase in the age of a nurse, we expect a 0.391 increase in the log of odds of being in the higher performance level assuming all other variables in the model are held constant. For a one unit increase in the status of the work environment we expect a 0.290 increase in the log of odds of being in the higher performance level. This is also reinforced by a high cumulative percent of nurses who view work environment to have very great influence on their performance as reported in **Table B7** in the appendix.

For the **combined categories of hospitals**, only **remuneration is statistically significant** though with a negative sign. This implies that for a one unit increase in remuneration we expect a 0.117 reduction in the log odds of being in a higher performance level holding other variables in the model constant. The coefficient of remuneration is -0.117 and is statistically significant at 10 percent level of significance. What is significant to observe at this point is that the results discussed above on performance of nurses give the justification for using individual models for each category of hospitals so as to unmask the influence of independent variables on performance of nurses across various categories of hospitals.

Further statistical tests were carried out in order to bring out the relationships between the variables clearly. The cut off points 1, 2 and 3 as reported in **Table 4.69** show where the latent variable (dependent variable) is cut to make the three levels of performance scores that we observe in the data. Finally from **Table 4.69**, the log likelihood tests for category I, category II, category III and for combined hospitals have chi square values that are **statistically significant**

at 1 percent implying that there exists a relationship between the independent variables and the dependent variable. The values of log likelihood are also reported in **Table B 10.2 and B 11.2, B 12.2** in the appendix.

The Pearson Chi Square is significant for both category I and category III hospitals but insignificant for category II and for combined hospitals. The values of Pearson Chi Square are also reported in **Table B 12.3, B 11.3 and B 10.3** in Appendix. For testing the model fit we used the Nagelkerke Pseudo R square. For category I, category II, category III and combined hospitals the Pseudo R square is 0.019, 0.023, 0.047 and 0.008 respectively. These values are also reported in Table B 12.4, B 11.4 and B 10.4 in Appendix.

Finally, for all categories of hospitals, the log likelihood values for model with intercept only is 811.037 and for the final model it is 805.576 with a chi square of 5.461. The likelihood ratio test is used to test the presence of a relationship between the dependent variable and combination of independent variables. It follows from **Table B 13.2** that the **chi square** has a value of 5.461 is statistically insignificant while the Nagelkerke Pseudo R square has a value of 0.008 as shown in **Table B13.4** in the Appendix. We used **Tables B 10.6, B 11.6 and B 12.6** in the appendix to extract values that are reported in **Table 4.69 and Tables 4.54 – 4.58.**

4.15: Hypothesis 4

To test hypothesis 4, we used the Analysis of Variance (ANOVA) to assess whether there was a significant difference in the performance assessment for all categories of hospitals. The null hypothesis of ANOVA is that the means of all the categories of hospitals are equal and the test statistic is the F test. In this case a large F is evidence against the null hypothesis, since it indicates that there is more difference between groups than within groups.

From **Table B14** in the Appendix, the sum of squares of between groups and within groups are 8.467 and 812.860 respectively with a significant F statistic of 3.927 implying that there is a difference between groups and within groups. In other words, the means of performance for category III, category II and category I hospitals are different. There is a difference in performance scoring of various categories of hospitals.

From the **Table B14** in the Appendix we have seen that a significant F value indicates that means of performance for the three groups of hospitals are not the same, but this does not tell us where the differences are, e.g. mean of performance for big hospitals might be different from that of small hospitals. To isolate where the differences are, we use multiple comparisons of group means by specifying the Least Significant Difference test (LSD) and Bonferroni.

The LSD test does not control the overall probability of rejecting the hypotheses that some pairs of means are different, while in fact they are equal, i.e. it doesn't matter if you are comparing one (1) pair of means or a 100, no adjustment is made for the number of comparisons. However, Bonferroni test basically multiplies each of the significance levels from the LSD test by the number of tests performed, i.e. $J*(J-1)/2$. If this value is greater than 1, then a significance level of 1 is used. If you compare the significance levels of LSD and Bonferroni, you'll see that Bonferroni is always 6 times larger than LSD.

The LSD in **Table B15** in the Appendix reports a statistically significant mean difference between category I, category II with a value of -0.215 implying that the means of the performance between category I and category II is not the same. For category I and III, the mean difference is 0.297 and is statistically significant at 1 percent significance level implying that the means of the performance between category II and category III is not the same. However, mean

difference between category I and III has a value of -0.082 and is therefore statistically insignificant implying that the mean of performance for category I and III hospitals is the same. The results from Bonferroni test also give the same interpretation. Therefore, using the LSD and Bonferroni test, we conclude that there is a difference in the means of performance assessment of nurses for category I, category II and category III hospitals.

4.16 Link between performance assessment, human resource factors and performance outcomes

The link between performance and human resource factors affecting performance has been established in all the categories of hospitals except in category II hospitals. **Table 4.69** provided earlier shows the Ordered Multinomial Logit Regression results for the various categories of Hospitals. In the case of **Category I hospitals, remuneration** is found to be statistically significant at 5 percent level of confidence. In the case of Category II hospitals there is **no variable** that is statistically significant in explaining the performance of nurses in Kenya. In **category III hospitals**, it is only **work environment** that is statistically significant at 10 percent level of confidence. Using LSD and Bonferroni test, we conclude that there is a difference in the means of performance assessment for category I, II and III hospitals in Nairobi County and by extension in the whole of Kenya.

4.17 Summary of the research questions and hypotheses

What follows below is a summary of the findings as they relate to the research questions and the hypotheses.

From **Table 4.69** the log likelihood tests for category I hospitals, category II hospitals and category III hospitals have **chi square values** that are significant at 1 percent implying that there **exists a relationship** between the independent variables and the dependent variable. The Pearson

Chi Square is significant for both category I and category III but insignificant for category II hospitals. The Pseudo R square is 0.019, 0.023 and 0.047 for the category I, II and III respectively. It is important to reiterate here that the existence of performance appraisal in all the categories of hospitals provides a good basis for investigating and making conclusions on work output or performance in regard to the selected human resource factors. What then follows after this is to accept or reject the hypotheses.

Research Question 1

1. Does remuneration influence performance outcome of nurses significantly?

Hypothesis 1

H1₀: Remuneration does not influence performance outcome.

H1_a: Remuneration influences performance outcome.

The coefficient for remuneration has an estimated value of -0.117, standard error of 0.06, Wald test of 3.748 with a significance level of 0.053. Thus the influence of remuneration is statistically significant since the significance level, 0.053, is smaller than the p value of 0.1. **Therefore the null hypothesis is not supported, consequently accepting the alternative hypothesis.**

From data in **Table 4.69**, we find that remuneration has a **negative but statistically** significant influence on job performance outcome of nurses in Kenya. This could be explained by the fact that very few nurses see remuneration as having very great influence on performance. For category I hospitals 24.5 % and 20.5 % viewed remuneration to influence performance outcome to a great and very great extent respectively while for category II hospitals 25% and 18.3 % of the respondent viewed remuneration to influence performance outcome to a great and very great extent respectively. For category III hospitals 20 % and 13.2 % of the respondent viewed remuneration to influence performance outcome to a great and very great extent respectively.

Finally for the combined hospitals only 22.3 % and 16.3 % of the respondent viewed remuneration to influence performance outcome to a great and very great extent respectively. Therefore we conclude that few of the respondents viewed remuneration to have no great influence on performance outcome, thus we **reject the null hypothesis** that there is no relationship between remuneration & incentives and the performance outcome. Thus, remuneration influences performance outcome of nurses in Kenya. **This means we accept the alternative hypothesis that states that there is a relationship.** Thus, remuneration influences performance of nurses.

Research Question 2

2. What is the relationship between work environment and tools and performance outcome of nurses in a situation where performance assessment is carried out?

Hypothesis 2

H2₀: There is no relationship between work environment & tools and the performance outcomes of nurses in Kenya.

H2_A: There is a relationship between work environment & tools and the performance outcomes of nurses in Kenya.

The coefficient for work environment & tools has an estimated value of 0.119, standard error of 0.080, Wald test of 2.205 with a significance level of 0.138. Thus the influence of work environment & tools is statistically insignificant since the significance level, 0.138, is greater than the p value of 0.1. Therefore there is enough evidence to **support or accept the null hypothesis thereby rejecting the alternative hypothesis.**

From **Table B7** in the Appendix we see that majority of respondents (61.7%) see work environment as having a great influence on performance (to a great extent and to a very great extent). Specifically, 28% and 38.5% of the category I respondents viewed work environment influenced performance outcome to great extent and very great extent respectively. For category II hospitals, 30 % and 35.6 % of the respondent viewed work environment and tools to influence performance outcome to a great and very great extent respectively. Finally, for category III hospitals, 28.5 % and 31.8 % viewed work environment and tools to influence performance outcome to a moderate extent and very great extent respectively. Given that estimating the impacts of human resources factors on job performance for the combined hospitals masks the relationship between the dependent and the independent variables for various categories of hospitals, Table 4.69 reveals that work environment and tools has a positive significant influence on performance outcome of nurses. Therefore we conclude that there is a positive relationship between work environment & tools and performance outcome. But looking at the joint effect for all categories of hospitals we **accept the null hypothesis** for all categories of hospitals. However, the study found that work environment factors are important in impacting work output of nurses especially for **category III hospitals**.

Research Question 3

3. What is the nature of workload stress and how does it influence the performance outcomes of nurses in Government Hospitals in Nairobi County?

Hypothesis 3

H3₀: There is no relationship between workload stress and the performance outcome of nurses

H3_A: There is relationship between workload stress and the performance outcome of nurses

The coefficient for workload stress has an estimated value of -0.034, standard error of 0.086, Wald test of 0.160 with a significance level of 0.689. Thus the influence of workload stress is statistically insignificant since the significance level, 0.689, is greater than the p value of 0.1.

Therefore there is enough evidence to **support or accept the null hypothesis thereby rejecting the alternative hypothesis.**

Data in **Table 4.69** shows that work load stress is statistically insignificant in influencing job performance outcome of nurses for all categories of hospitals in Kenya. In regard to the combined hospitals we **accept the null hypothesis.** However, this is not the case for the specific categories of hospitals as can be seen in the table. It has been established that there is a relationship between remuneration and performance but the relationship is not a very significant one. This goes against the common view in Kenya that remuneration issues are the cause of the many strikes of nurses in Kenya. In future, a detailed study on this issue will be important.

Research Question 4

4. Is the performance assessment in the three categories of hospitals similar or different?

Hypothesis 4

H4₀: There is no significant difference in performance assessment in the three categories of hospitals

H4_A: There is a significant difference in performance assessment in the three categories of hospitals

The sum of squares of between groups and within groups are 8.467 and 812.860 respectively with a significant F statistic of 3.927 implying that there is a difference between groups and within groups.

From **Table B14** in the Appendix, the sum of squares of between groups and within groups are 8.467 and 812.860 respectively with a significant F statistic of 3.927 implying that there is a difference between groups and within groups. In other words, the means of performance for category I, category II and category III hospitals are not equal. Further, the post hoc results shown in **Table B15** in the Appendix shows that, for LSD and Bonferroni tests, the mean

difference between category I and II is -0.215 and is statistically significant at 5 % significance level. On the other hand the mean difference between category I and III is 0.082 and is statistically insignificant at 10 % level of significance. Finally, the mean difference between category II and III hospitals 0.297 and is statistically significant at 1 % significance level. Thus we conclude that the mean difference between the various hospital categories is statistically significant hence we reject the null hypothesis that there is no significant difference in the performance assessment for all categories of hospitals. Thus, **the null hypothesis is rejected**, meaning there are differences between the various categories of hospitals.

4.18 Conclusion

Although further studies of this nature are needed to delve further into all the human resource factors influencing work output of nurses and to assess the relative importance of each factor beyond the three main factors in this study, in this study it is interesting to find that performance appraisal systems exist in all the categories of hospitals in Nairobi County and that there is a good justification for examining in detail the influence of the selected key HR factors since “what gets measured gets done” (Drucker, 1955; 2008; 1964; Armstrong and Baron, 2007; LeBoeuf, 1985). The key findings are that the three factors of work environment & tools, Remuneration, and work stress are all important influences in terms of work output. However, from the analysis of data at both descriptive and inferential levels, the most important factor is **work load stress**, followed by **work environment and tools**. Contrary to the commonly held view that the frequent strikes are as a result of pay related issues, remuneration was not found to be a very significant factor. Thus, Kenya government needs to take cognizance of this and address occupational stress of nurses and the work environment and tools. The findings found in the section on the tests of hypotheses and the Focus Group Interviews confirm this finding.

Chapter 5 that follows below presents a summary, conclusion, recommendations and other discussions such as implications and contribution of this study to knowledge.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction to the chapter

This chapter is organized in several sections as follows:

Section 5.1 provides an introduction to the chapter. **Section 5.2** gives a summary. **Section 5.3** provides a conclusion. Limitations and delimitations are presented in **sections 5.4** and **5.5** respectively. The implications of this study are discussed briefly in **section 5.6**. **Section 5.7** is devoted to contribution to knowledge. The recommendations arising out of this study are outlined in **section 5.8** while the implications for further research are examined in **section 5.9**.

5.1 Introduction

The purpose of this both qualitative and quantitative descriptive correlational study was to investigate the job performance outcome of nurses in all government hospitals in Nairobi County in Kenya. The various levels of government hospitals in Nairobi County were studied. The levels of hospitals were put into three categories on the basis of volume of throughput and similarity. This categorization was done through consultation with senior health officials.

This study was conducted to examine if relationships existed between the variables of remuneration & incentives, environment & tools, and work load stress and the performance outcome of nurses and also in terms of the perception of respondents in the context of performance assessment. A key assumption, originated by the foremost Management Guru, the late Peter Drucker (Drucker, 1955; LeBoeuf, 1985) was that *“What gets measured gets done”*. This is why the study had to relate the variables of study to performance assessment. To obtain the required information a questionnaire was used. In order to supplement the information

obtained through use of questionnaires and to make clarifications about the selected variables of study, focus group interviews were conducted. The focus group interviews involved intense and free discussions on the selected variables of study and other human resource factors that affected the work output or performance of nurses.

The study was guided by the following questions:

1. How does remuneration affect the work outcomes of nurses under a situation where staff assessment takes place?
2. To what extent does work environment and tools affect the work outcomes of nurses under a system of performance assessment?
3. What is the nature of workload stress and how does it affect the work outcomes of nurses under situations where staff assessment takes place?
4. To what extent is the performance assessment of nurses in the three categories of hospitals similar or different?

The following hypotheses were formulated for this study.

H1₀: There is no significant relationship between remuneration and the performance outcome

H1_A: There is a significant relationship between remuneration and the performance outcome

H2₀: There is no significant relationship between work environment & tools and the performance outcome.

H2_A: There is a significant relationship between work environment & tools and the performance outcome.

H3₀: There is no significant relationship between workload stress and the performance outcome

H3A: There is a significant relationship between workload stress and the performance outcome

H4o: There is no significant difference in the performance assessment of nurses form all categories of hospitals

H4A: There is a significant difference in the performance assessment of nurses in all the categories of hospitals

5.2 Summary

The importance of this current qualitative and quantitative descriptive correlational study was to demonstrate the influence of human resource factors on job performance outcome of nurses in all government hospitals in Nairobi County in Kenya. It was focused on what was seen to be the most important factors. The key assumption in this study was that where a system of staff assessment existed as part of a performance management system, the nurse's job performance or outcome was enhanced and therefore there was justification in studying the influence of selected human resource factors on work outcomes. It is widely established and also a clarion call in government circles in Kenya that "what gets measured gets done." (Drucker, 1955; 1964; LeBoeuf, 1985). In Kenya the assessment of workers in the public sector has now been made mandatory through the process of performance contracting in the public service.

The conclusion drawn from the data analysis is that the selected human resource factors had a marked influence on the work outcome of nurses in government hospitals in Nairobi County.

The focus of this study was on the Human Resource (HR) factors of remuneration, environment and tools, and work load stress and their relationship to performance outcome of nurses in the context of performance assessment. Various Government of Kenya reports content that there has been a serious decline in health service delivery in government hospitals. Some interventions are

therefore necessary in stemming this decline. Improvement of health services is an important issue because health care provision is a basic human right of global concern and health care for all is a key goal for any government.

This study adopted a research philosophy of interpretivism and multiple methods. According to Saunders *et al.*, (2003) this approach explores the subjective meanings motivating peoples' actions in order to make sense of and understand people's motives, actions, and intentions. The perceptions of nurses in regard to the issues of interest were studied

Data was collected through use of questionnaires which were first pilot tested for reliability and validity. A Focus Group Interview was also conducted to aid in cross checking issues and providing additional information. The Focus Group Interview brought together carefully selected and knowledgeable individuals (both nurses and nurse managers) whose required qualification was level of registered nurse. The target population was all the registered nurses in all the levels of government hospitals in Nairobi County. A total of 850 questionnaires were hand delivered by the researcher and her assistants to the respondents in all the government hospitals in Nairobi County. Out of the total of 1,087 questionnaires hand delivered to the hospitals, a total of 780 were accepted back by the research team as they were duly completed. Thus, there was a 92% return rate. The 25 questionnaires that were used for pre-testing were omitted from the data analysis.

To gather the current state of knowledge on how this research fits into the wider context and to help clarify the research questions and objectives, this study reviewed literature on Human Resource Management (HRM) and in particular Motivation theory; performance and

performance assessment; Human Resource (HR) factors, and published and non published theses, journal articles, and other works that were found relevant to the topic of this research.

The study established that in all the categories of hospitals there is a strong link between performance assessment and the selected human resource factors. In the case of Category I hospitals there is no variable that is statistically significant in explaining the method of performance assessment for nurses in Kenya. In the case of Category II hospitals, the probability of having regular appraisals relative to no performance reviews is statistically significant at 5 percent level of confidence for both remuneration and workload stress. In category III hospitals, it is only work load stress that is statistically significant at 1 percent level of confidence. Using Bonferroni test, the most applicable test in this case, we conclude that there is no difference in the means of performance assessment for category III, category II and category I hospitals in Nairobi County and by extension in Kenya. Thus, all the levels of hospitals in Nairobi County have a system of regular performance appraisal. Our concern in this study was not on how well the assessments were carried out within the performance management system in existence. We were also not concerned about the nature and scope of the embryonic performance management system used in the government sector in Kenya under the performance contracting regime.

The key findings of this study are that the three selected factors of Work environment & tools, Remuneration, and Work load stress are all important influences in terms of work output or performance of nurses. However, from the analysis of data at both descriptive and inferential levels, the most important factor is **work load stress**, followed by **work environment & tools**. Contrary to the commonly held view that the frequent strikes in Kenya are as a result of pay related issues, remuneration was not found to be a very significant factor. With this finding in mind, then conclusions were drawn on the hypotheses as discussed previously in chapter 4.

5.3 Conclusion

In all the categories and hence in all the levels of hospitals in Nairobi County, assessment or appraisal of nurses took place as per the requirements by the central government under the newly established performance contracting regime. Our results show that in all hospitals a formal system of appraisal exists and in each category of hospital appraisal objectives are clearly articulated and performance objectives are well known. Majority of nurses agreed with the statements that “Performance standards expected from nurses are clear and understood by all” and “Objectives to be achieved are known by individuals to be assessed.” Thus, in all categories of hospitals the basis for performance assessment was firmly established through the existence of a performance system.

This study examined selected human resource factors and their influence on performance outcome of registered nurses. The human resource factors of interest were: work environment & tools, remuneration & incentives, and workload stress. Majority of the respondents (61.74%) indicated that work environment factors were important influences on job performance. They observed that poor working conditions made them perform poorly. A large number of respondents (79.8%) indicated that workload stress was a very significant factor in terms of performance. A majority of the respondents (61.7%) indicated that work load stress factors influence job performance “to a very great extent”, followed by (18.1%), who indicated “to a great extent”. There were no respondents who indicated “to no extent”. Thus, stress from the job was a very important concern as it affected work output in a significant way according to the perception of the respondents.

There was a relationship between remuneration and performance as established in this study. Majority of the respondents (26.7%) indicated that remuneration factors influenced job

performance “to a small extent”, followed by (22.3%), who indicated “to a great extent”. Thus, about half the total number of respondents (49%) saw a relationship between remuneration and performance. The other lot (51%) did not attach such a big significance between the factors.

The above findings apply to each category of hospitals even though there were minor differences in terms of the responses in the context of each of the factors in question. We can summarize the key finding by observing that the three factors of work environment & tools, Remuneration, and work stress are all important influences in terms of work output. However, from the analysis of data at both the descriptive and inferential levels, it became clear that the most important factor is **work load stress**, followed by **work environment & tools**. **Remuneration** and related factors, even though important, was not as significant as the other two factors.

Our study also examined the influence of other factors on work output. These were not the focus of the study but the findings led to the conclusion that the following factors are also important and should be studied in depth in future studies:

- Occupational stress and apparent cases of burnout
- Inadequate numbers of nurses
- High turnover of nurses
- Inadequate leadership
- Failure to implement performance assessment report findings
- Failure to reward performance
- Poor time management
- Inadequate training of staff
- Poor working relationships between nurses and their bosses

- Poor physical working conditions and inadequate tools of work
- Inadequate motivation through incentives and remuneration related factors

Our conclusions in regard to the hypotheses of study are as follows:

- (i) The coefficient for remuneration has an estimated value of -0.117, standard error of 0.06, Wald test of 3.748 with a significance level of 0.053. Thus the influence of remuneration is statistically significant since the significance level, 0.053, is equal to the p value of 0.05. **Therefore the null hypothesis is not supported, consequently accepting the alternative hypothesis.** This means that remuneration influences performance of nurses greatly in Kenya. However, we need to be cognizant of the argument presented by Herzberg and other theorists who support his Two-Factor theory that the key to motivating employees was not through monetary considerations but through the redesign of their jobs to make their work more meaningful (Herzberg, 1987: 109 – 20; 1968).
- (ii) The coefficient for work environment & tools has an estimated value of 0.119, standard error of 0.080, Wald test of 2.205 with a significance level of 0.138. Thus the influence of work environment & tools is statistically insignificant since the significance level, 0.138, is greater than the p value of 0.1. Therefore there is enough evidence to **support or accept the null hypothesis thereby rejecting the alternative hypothesis.** This does not suggest that work environment is not important but does imply, statistically, speaking that there are other more important factors other than work environment. However, a good working environment is a necessary prerequisite to performance according to the theory of motivation by Herzberg (1987, pp. 109-20; 1968). Herzberg argues in his Two-Factor theory of motivation that

individuals are motivated more by intrinsic aspects of work such as the meaningfulness of the job content than by extrinsic characteristics such as pay.

- (iii) The coefficient for workload stress has an estimated value of -0.034, standard error of 0.086, Wald test of 0.160 with a significance level of 0.689. Thus the influence of workload stress is statistically insignificant since the significance level, 0.689, is greater than the p value of 0.1. Therefore there is enough evidence to **support or accept the null hypothesis thereby rejecting the alternative hypothesis**. This does not suggest that stress is not an important factor. The result may seem to imply that nurses have developed coping mechanisms at work and that they did not relate stress to performance during the interview sessions. The descriptive statistics and the focus group interviews suggested the existence of stressful situations. Nurses argued that they were stressed at work.

The sum of squares of between groups and within groups are 8.467 and 812.860 respectively with a significant F statistic of 3.927 implying that there is a difference between groups and within groups. Further, the post hoc results shown in **Table B15** in the Appendix shows that, for LSD and Bonferroni tests, the mean difference between category I and II is -0.215 and is statistically significant at 5 % significance level. On the other hand the mean difference between category I and III is 0.082 and is statistically insignificant at 10 % level of significance. Finally, the mean difference between category II and III hospitals 0.297 and is statistically significant at 1 % significance level. Thus we conclude that the mean difference between the various hospital categories is statistically significant hence we reject the null hypothesis that there is no significant difference in the performance assessment for all categories of hospitals. Thus, **the null hypothesis is rejected**, meaning there are differences between the various categories of hospitals.

The findings of this study will benefit several key stakeholders. Key among these are:

- (1) **Future Researchers:** The study would be used as a reference by future researchers on the issues of interest and other related ones
- (2) **Health Administrators:** The study hopes to benefit health administrators to create more awareness on the performance of their employees especially nurses who are the “face of any hospital”
- (3) **Scholars:** Scholars with an interest on the dynamics of high performance outcomes would benefit from this study
- (4) **Government Policy Makers:** The Government of Kenya would benefit on the implementation of the envisaged health sector reforms in its Vision 2030 Blue Print

5.4 Limitations

This study concentrated on registered nurses only. This was a limitation. The study did not examine every government hospital in Kenya. It would have been too expensive to carry out a nationwide study. The study did not include Nairobi city council managed hospitals in Nairobi County. The 700 plus City managed health facilities and hospitals in Nairobi are public hospitals that occasionally get policy support from government. In the view of many people in Kenya these City council facilities are seen as government hospitals even though they do not get direct funding from the central government.

The costs to conduct this study and time constraints were the reasons why more questionnaires were not administered. However, the questionnaires received as dully filled met research requirements in terms of numbers as already indicated in chapter 3.

Finally, the relevant ministry did not provide all the required information especially reports on the frequent (almost yearly) strikes by nurses. It was argued that these reports are confidential.

The researcher had to rely on a focus group interview to try to gather the relevant data and information and also to cross check responses obtained through questionnaires. The popular press, even though not cited in this thesis, provided interesting readings in terms of the strikes and gave the opinion of the writers. This helped this researcher to appreciate the issues in question more. However, the researcher avoided citing such sources.

5.5 Delimitations

The study focused on experienced registered nurses and these were seen to have the relevant experience to respond adequately to the research questions. The choice to focus on registered nurses was made to ascertain their perception about human resource factors that influenced their work output in the context of staff assessment. Their experience could be relied upon to draw conclusions. There are future research opportunities to include medical doctors and other health care professionals in a study of human resource factors and work output in the health sector of Kenya.

A pilot survey confirmed that it was in order to proceed with the registered nurses only as they showed understanding of the issues. A focus group interview was conducted as a way of providing further information, cross checking issues contained in the responses in the questionnaires and for providing additional information for supplementing the responses in the questionnaires. The focus group interview had some nurse managers. They did not show any differences in perception or orientation. The nurse managers also helped throw further light on the frequent (almost yearly) strikes, thus helping in addressing some of the limitations identified earlier. The responses were compared with the reports given in the popular press even though these reports from the popular press were not cited in this study as earlier indicated. The reports

from the popular press only provided general indications in terms of the key issues regarding the strikes.

5.6 IMPLICATIONS

Understanding nurses' perception of human resource factors and their influence on work output of nurses has major implications for health care actors and leaders not only in Kenya but also in other countries. The results of this study show that a relationship exists between nurses' perception of the human resource factors studied and work output. The results show that the three selected factors were the most important in terms of work output but factors of stress and work environment were more critical. Remuneration factors were not as significant as is popularly thought and frequently reported in Kenyan popular press and common parlance in public discussions.

Health care actors and leaders are challenged by the need to develop policies and strategies to improve working conditions, to manage stress at work, provide leadership, develop the skills and core competencies of nurses and to reduce nurse shortages in government hospitals.

Staff assessment was seen to be important in improving health care services as nurses were aware of the objectives of the assessments. Staff assessments in most situations and in all levels of hospitals are not well managed. Assessments should therefore be improved for the sake of improving health services delivery. It is a truism that provision of high quality health services and hence improved access to proper health care is a human rights issue everywhere.

Actors and leaders in the health care system can improve health care service delivery by addressing the opinions as expressed through perceptions of nurses in this study in regard to the human resource factors that influence their work output in a situation where staff assessment

takes place. The staff assessment system should be operationalized well and its results handled professionally.

5.7 Contribution to knowledge

Many past studies on the human resource factors that influence the work output or performance of nurses focused on the factors without first studying the nature and method of assessment of nurses. This study contextualized the study of human resource factors affecting nurses on assessment or appraisal of nurses in government hospitals in Nairobi County. The contention of this researcher is that existence of performance management system and hence assessment of staff provides a firm base on which to base a study of factors affecting the work output or outcomes of nurses. This is the point of departure in this study. This study while attempting to understand the HR factors that influence work outcomes in public hospitals in Kenya studied performance assessment of nurses and its relationship to the selected factors in the work situation in Nairobi County. What followed after this was then to delve deep into the factors influencing the job performance of nurses. Past studies, to the best knowledge of this researcher, simply concentrated on establishing the factors that influenced job performance of nurses in both developed and developing countries. They ignored staff assessment as the beginning point of studies on performance or work outcomes of nurses. This connection between assessment and factors affecting performance of nurses is a major contribution to the discourse on the human resource factors that affect the performance of nurses.

Where a system of performance assessment exists then one can argue that work gets done in the context of the existing system that encourages workers to pursue their targets as set out in the performance assessment system. In Kenya assessment of workers has now been made mandatory through the process of performance contracting in the public service. Past studies in this area did

not give attention to the issue of performance management and assessment and the influence of assessment on performance outcomes of nurses and other health care workers in the developing economies (Javier, 2001). Performance management in the health sectors of developing countries is underdeveloped. It is a recent phenomenon.

Research shows that few healthcare systems in developing countries have performance management systems in place. The systems are not used to enhance staff performance (Javier, 2001). They are used as an afterthought to blame staff for failures in the organization and are mostly abused and do not therefore serve their purposes as expected (Armstrong and Baron, 1998; 2007). This study has established that government hospitals in Nairobi County carry out staff assessments within a government directed system of performance management. The performance management systems are embryonic because they are a recent phenomenon, but the systems ensure that assessment of the performance of nurses is carried out. This study, through its findings, makes an important contribution in that scholars and other parties interested in the study of human resource factors, work output assessment, and performance of nurses now have critical study findings contained in this work that they can refer to.

The variables or factors of interest in this study were identified from the relevant literature and from focus group interviews during the pilot phase of this study. At the time the factors that were ranked highly were: Work environment & tools, Remuneration & incentives, and Work stress.

The findings of this study suggest that the three factors are the most important but Stress and Work environment & tools appear to be the most important in terms of the influence on work output or performance respectively. This finding challenges the common assumption that the remuneration factor is the most critical factor influencing work output of nurses in Kenya.

Remuneration is seen as the main cause of the frequent strikes of nurses in Kenya. The findings

of this study contradict this popular view. This finding should interest government policy makers, researchers, academics and other interested parties in making policy decisions and in carrying out further research in this area. Perhaps they need to delve deep into work environment and occupational stress issues in order to try to understand the frustrations of nurses that lead them to stage national strikes frequently. There are of course remuneration related incentives that are critical considerations in terms of work output. These need to be identified and addressed in any form of intervention conducted.

Past studies relied on established frameworks for studying performance of nurses. All the established models or frameworks have mostly focused on the internal environment of work and nearly all of them make little reference to the external environment factors that also influence the performance of nurses at work. Literature on Strategic Human Resource Management (SHRM) shows that both the internal and external factors are important in influencing performance (Kamoche, 2003 ; Jackson and Schuler, 2003; Hall-L and Hall – L, 2003). This study has developed a composite model that shows the relevant factors to the study of work output or performance. The composite model was adapted from several models as summarized below.

One of the earliest models is by Porter and Lawler (1968). The model examined one internal environment factor: **the person** (in our case the nurse). According to this model rewards to individuals motivated them to work harder, that is, where individuals perceive that their effort or output is rewarded adequately and the two are at par.

Sharpley (2003) proposed a model on perception, motivation and performance that incorporated the key variables that can be examined in the study of work performance. The variables are individual perceptions, experience of work and work outcomes. In addition, organizational

factors such as the support of bosses and colleagues, organizational intent/vision and culture of the organization impact performance. This model does not include external environment factors but is much more comprehensive than the 1968 model of Porter and Lawler.

Bennett and Franco (1999) proposed a conceptual framework of factors that influence the motivation of workers within the health sector environment. This model is much more comprehensive than the two models above. This model shows that the motivation of health workers is as a result of a complex interaction of internal factors and external environment factors in the socio-cultural context. The model thus recognizes the role of some external environment factors but does not include all the external environment factors.

Another model was suggested by Guest *et al.*, (2000) to show the relationship between HRM and performance. It is in the context of HRM that HR factors influence performance. The model proposed by Guest *et al.*, (2000) is a broad model dealing with HR outcomes and financial performance. It acknowledges that internal work environment factors policies that meet the needs of individuals will impact performance outcomes. This agrees with this research and with conclusions by researchers that HR factors are very important in terms of organizational performance (Kamoche *et al.*, 2004; Purcell *et al.*, 2003; Kamoche *et al.*, 2000). This model, however, does not bring out all the essential factors of interest in regard to the HR factors and job performance within the health sector. However, by including the aspect of business strategy the model implies that external environment factors that impact an organization are important. The external context of any organization has many elements that affect the job performance of workers and these can be categorized as Political, Economic, Socio-cultural, Technological, Geological or Ecological, and Competitive or Task environment (PESTGCO). The popular categorization in the discipline of strategic management is Political, Economic, Social,

Technological, Environmental and Legal (PESTEL) factors. The factors have been studied widely in the discipline of strategic management and also in studies in other disciplines (Pearce and Robinson, 2007; Kamoche *et al.*, 2000; Glueck, 1990; Thompson and Strickland, 1987; Ansoff, 1976, Karger *et al.*, 1975). In our current study, a composite model that incorporates all possible internal and external environment factors has been proposed in this study. Even though our current study has not examined all the variables in the proposed composite model for obvious reasons given in this study, the development of the composite model is a major contribution in this study as future researchers in the health sector could use the model in their research endeavors. The composite model would also be useful in the study of HR and performance in other sectors other than the health sector.

5.8 Recommendations

The results of this study can provide increased awareness to leaders and players in the health care sector aimed to address the issues of assessment and performance of nurses. In addition the results can provide nurses, nurse managers, policy makers and medical personnel in general with information about what critical factors impact the performance of nurses.

The following are the recommendations arising out of this work.

- (i) The issue of occupational stress and related issues such as burnout needs to be addressed in all levels of hospitals even though the inferential statistical tests do not show that stress influences performance to a great extent. It would appear that nurses have developed coping mechanism. Nurses reported that burnout was said to be a common problem, overload in work schedules, inadequate numbers of nurses, frequent illnesses, having no social life, always ready to leave the job for greener

- pastures, family conflicts because of work schedules and readiness to resign in case of opportunity were said to be the major causes of stress. These need to be addressed urgently in order to improve the quality of services provided by nurses.
- (ii) Work environment & tools came across in this study as a major area of concern even though the inferential statistics tests suggest that this variable is not significant in determining performance. This does not imply that work environment was not an important factor of concern. Nurses observed that working conditions are poor and not conducive for good performance, materials and supplies were not adequate and that basic supplies such as septic hand washing solutions were not provided. These appear to be what are popularly described in HR literature as hygiene factors. These must be addressed as without them motivation of staff is said to be difficult to achieve.
- (iii) Remuneration was said to be comparable with that of other similar organizations. Statistical tests show that remuneration had a significant influence on performance in the hospitals studied. The respondents observed that nurses were dissatisfied with fringe benefits, remuneration was not in accordance to job responsibilities of nurses, and overtime work was not paid for and that non monetary incentives were absent. Under the circumstances one wonders what happens to the quality of service and patient care. These issues need to be addressed further in future studies.
- (iv) Interesting responses were received on other issues that were not the direct focus of this thesis. These led to the findings that should interest policy makers and researchers interested in studying various aspects of the health sector. There was poor leadership of health facilities, there was poor time management, the emotional

intelligence of superiors was put into question, allowing nurses to manage their affairs at work was limited through poor leadership, interpersonal relations were poor, patient counseling skills were not provided to nurses, health care education was not given priority, and nurses were not happy at work. Accurately identifying nurses' perception of these issues may help improve the quality of service in government hospitals.

- (v) It is recommended that assessment of leadership and personal relationship issues should be carried out frequently as part of the mandatory employee satisfaction surveys that the government requires must be conducted in government institutions as part of performance contracting regime. However, what is important is the use by top management in hospitals of the reports produced through the surveys.
- (vi) It is recommended that suggestion boxes or suggestion cards be instituted for nurses to give their opinions on various issues affecting performance. These could done as part of the monitoring and evaluation systems that the government has requested to be instituted as part of the performance contracting process.
- (vii) It is recommended that frequent meetings and daily interaction of nurses and their managers as well as medical doctors is vital for improving the work climate. The power distance between nurses and their managers appears to be wide from the results of the focus group interview. This might as well be a cultural thing where the boss ensures that he/she is on a higher level even in normal communications issues. In a globalized environment where workers are increasingly interacting on the basis of first names no matter what rank they are in is what is sustainable. Nurse Managers and medical doctors require urgent training to change some of their modus operandi

at the work place. Training on clear communication appears to be urgently needed in the health sector.

5.9 Implications for further research

Future opportunities exist to improve the results of this study. To improve the response rate of the study, delivering questionnaires to a random sample of registered nurses from different counties in Kenya could be useful. Also studying all the hospitals (The Government of Kenya, the Nairobi County Government and hospitals in the City of Nairobi) could provide a better understanding of what factors are important in influencing work output in all government funded and supported hospitals. It is proposed that in future studies, both private and government hospitals should be studied. The idea is to investigate critical factors impacting the level of service. Achieving the targets in the health sector, MDGs and the aspirations of the Vision 2030 blue print requires the efforts of both private and public hospitals. More diversity could provide a rich source of data and information for future studies and interventions in the health sector.

Seeking information and collecting responses from all categories of health care workers could provide a multidimensional view of the opinions and perceptions of various health care workers who have various roles, duties and responsibilities to patients. Involving all individuals who provide health services is necessary and a comparison can be made in future research studies between the various groups. Opportunities exist to conduct qualitative, mixed and even longitudinal and phenomenological studies to provide insights into the perception of all health care workers about their perceptions of key human resource factors that influence their work output.

Future studies could attempt to categorize, in order of priority and influence, all the human resource factors that influence performance. Thus, building on this study future research can study more factors and try to prioritize them. Such research would find the composite model developed in this study very useful.

This study has used performance assessment as the basis for studying human resource factors in the health sector and has concentrated on registered nurses. Future research can go a step further to examine all health workers, incorporate more human resource factors and try to establish the linkage between performance assessment and each of the factors. Moreover, a larger study on performance management system and human resource factors and how these influence performance in a more detailed way than this current study has examined would be a welcome addition to the discourse on human resource factors and their influence on performance under situations where performance management systems exist and are implemented professionally.

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APPENDIX A

TABLE A1

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
How, if at all, is performance assessed in this hospital?	780	1.77	1.001	.059
Indicate your responses to the following statements: Circle the appropriate answer box after reading each item. use the following code definitions: 1. Strongly disagree 2. Disagree 3. Uncertain 4. Agree 5. Strongly Agree	0(a,b)	.	.	.
Objectives to be achieved are known by individuals to be assessed	780	3.51	1.170	.069
Performance standards expected from nurses are clear and understood by all	780	3.52	1.140	.067
Constructive feedback of how staff is performing is provided throughout the year	780	2.73	1.266	.075
Prompt action is taken when performance falls below standard	780	3.19	1.201	.071
my supervisor inspires me to do my best	780	3.12	1.304	.077
workers are given opportunity to make comments on the result of their performance.	780	2.97	1.352	.080

To what extent do you think work environment factors of safety, working conditions, leadership style, space, availability of equipment and tools influence performance outcome in this hospital?	780	3.99	.924	.055
indicate your responses to the following statements, by circling your choice in the appropriate box, according to the following code definitions:1. Strongly disagree 2. Disagree 3. Uncertain 4. Agree 5.Strongly Agree	0(a,b)	.	.	.
I feel motivated working in the present environment.	780	3.12	1.190	.070
Employees are free to air their views concerning their work	780	2.97	1.245	.074
I am happy with the safety precautions, protecting every worker at this hospital	780	3.05	1.150	.068
I am happy with the working hours at this hospital	780	2.73	1.334	.079
I am able to provide a health balance between work and social life	780	2.77	1.215	.072
I am happy with the working relationship with my peers, supervisors, and managers	780	3.13	1.141	.067
I am happy with the tools provided for my use at the work place including the working space	780	3.03	1.243	.073
I am appreciated and recognized for work done	780	2.79	1.199	.071
Most nurses in this hospital are happy while at the place of work	780	2.54	1.089	.064
I get trained to use any new tools and equipment	780	3.43	1.141	.067

To what extent do you think remuneration factors of salary, bonus awards, flexible working hours, leaves, influence performance outcomes in this hospital?	780	3.79	1.137	.067
Indicate your responses to the following statements regarding remuneration. circle your choice in the appropriate answer box, according to the following code definitions: 1. Strongly disagree 2. Disagree 3. Uncertain 4. Agree 5. Strongly Agree	0(a,b)	.	.	.
An increase in my salary would make me perform better and be more motivated.	780	4.17	1.115	.066
I am always ready to work extra hours so as to earn over time.	780	3.40	1.467	.087
My main motivation for promotion is to earn a higher pay.	780	3.60	1.403	.083
I am happy with monetary incentives.	780	3.08	1.325	.078
I am happy with non monetary incentives	780	2.99	1.213	.072
I am happy with time off, leaves, and other services provided for nurses.	780	3.25	1.314	.078
I am happy with the pension scheme am under	780	3.00	1.223	.072
I am happy with the insurance cover am under	780	3.18	1.318	.078
I am happy with the recognition given nurses who perform well	780	2.75	1.333	.079
I am happy with the salary ratios in this hospital	780	2.20	1.248	.074

To what extent do you think workload stress factors of burnout, job demands, fatigue, absenteeism and overcrowding influence the quality of health care provision in this hospital?	780	4.35	.807	.048
Please indicate your responses to the following statements regarding how you feel while at work. read each item in the statement, and then mark X in the appropriate box. mark only one item per column.	0(a,b)	.	.	.
Tense	283	2.54	.880	.052
Calm	283	2.63	1.035	.062
Relaxed	281	2.38	.982	.059
Worried	282	2.50	1.065	.063
Uneasy	281	2.42	1.056	.063
Contented	283	2.76	1.117	.066
Tired	283	3.59	.975	.058

a t cannot be computed because the sum of case weights is less than or equal 1.

b t cannot be computed. There are no valid cases for this analysis because all case weights are not positive.

TABLE A2

One-Sample Test

	Test Value = 0.05					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
	Lower	Upper	Lower	Upper	Lower	Upper
How, if at all, is performance assessed in this hospital?	29.097	286	.000	1.720	1.60	1.84
Objectives to be achieved are known by individuals to be assessed	50.066	286	.000	3.459	3.32	3.59
Performance standards expected from nurses are clear and understood by all	51.557	286	.000	3.469	3.34	3.60
Constructive feedback of how staff is performing is provided throughout the year	35.887	286	.000	2.682	2.53	2.83
Prompt action is taken when performance falls below standard	44.319	286	.000	3.142	3.00	3.28
my supervisor inspires me to do my best	39.879	286	.000	3.068	2.92	3.22
workers are given opportunity to make comments on the result of their	36.574	286	.000	2.919	2.76	3.08

performance.						
To what extent do you think work environment factors of safety, working conditions, leadership style, space, availability of equipment and tools influence performance outcome in this hospital?	72.201	286	.000	3.936	3.83	4.04
I feel motivated working in the present environment.	43.748	286	.000	3.072	2.93	3.21
Employees are free to air their views concerning their work	39.652	286	.000	2.915	2.77	3.06
I am happy with the safety precautions, protecting every worker at this hospital	44.115	286	.000	2.995	2.86	3.13
I am happy with the working hours at this hospital	34.017	286	.000	2.678	2.52	2.83
I am able to provide a health balance between work and social life	37.971	286	.000	2.724	2.58	2.86
I am happy with the working relationship with my peers, supervisors, and managers	45.721	286	.000	3.079	2.95	3.21
I am happy with the tools provided for my use at the work place	40.591	286	.000	2.978	2.83	3.12

including the working space						
I am appreciated and recognized for work done	38.713	286	.000	2.741	2.60	2.88
Most nurses in this hospital are happy while at the place of work	38.789	286	.000	2.494	2.37	2.62
I get trained to use any new tools and equipment	50.125	286	.000	3.375	3.24	3.51
To what extent do you think remuneration factors of salary, bonus awards, flexible working hours, leaves, influence performance outcomes in this hospital?	55.760	286	.000	3.741	3.61	3.87
An increase in my salary would make me perform better and be more motivated.	62.687	286	.000	4.124	3.99	4.25
I am always ready to work extra hours so as to earn over time.	38.746	286	.000	3.354	3.18	3.52
My main motivation for promotion is to earn a higher pay.	42.810	286	.000	3.546	3.38	3.71
I am happy with monetary incentives.	38.690	286	.000	3.027	2.87	3.18
I am happy with non monetary incentives	40.858	284	.000	2.936	2.79	3.08
I am happy with time off, leaves, and other services provided for	41.239	286	.000	3.197	3.04	3.35

nurses.						
I am happy with the pension scheme am under	40.853	286	.000	2.950	2.81	3.09
I am happy with the insurance cover am under	40.006	283	.000	3.130	2.98	3.28
I am happy with the recognition given nurses who perform well	34.312	286	.000	2.699	2.54	2.85
I am happy with the salary ratios in this hospital	29.159	286	.000	2.149	2.00	2.29
To what extent do you think workload stress factors of burnout, job demands, fatigue, absenteeism and overcrowding influence the quality of health care provision in this hospital?	89.982	284	.000	4.301	4.21	4.39
Tense	47.547	282	.000	2.487	2.38	2.59
Calm	41.921	282	.000	2.579	2.46	2.70
Relaxed	39.726	280	.000	2.327	2.21	2.44
Worried	38.645	281	.000	2.450	2.33	2.57
Uneasy	37.608	280	.000	2.370	2.25	2.49
Contented	40.821	282	.000	2.710	2.58	2.84
Tired	61.120	282	.000	3.544	3.43	3.66

Table A3

Univariate Analysis of Variance
Between-Subjects Factors

	Value Label	N
In which hospital do you work?	Level 1 Hospital	163
	Level 2 Hospital	187
	Level 3 Hospital	430

Table A4**Levene's Test of Equality of Error Variances(a)**

Dependent Variable: How, if at all, is performance assessed in this hospital?

F	df1	df2	Sig.
3.734	2	284	.025

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a Design: Intercept+q7.1+q7.2+q7.3+q7.4+q7.5+q

Table A5**Tests of Between-Subjects Effects**

Dependent Variable: How, if at all, is performance assessed in this hospital?

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected	52.618(a)	7	7.517	8.955	.000	.183

Model							
Intercept	149.492	1	149.492	178.085	.000	.390	
q7.1	2.131	1	2.131	2.538	.112	.009	
q7.2	2.766	1	2.766	3.295	.071	.012	
q7.3	5.801	1	5.801	6.910	.009	.024	
q7.4	1.891	1	1.891	2.253	.134	.008	
q7.5	.662	1	.662	.789	.375	.003	
q	28.503	2	14.252	16.978	.000	.108	
Error	234.204	279	.839				
Total	1186.000	287					
Corrected Total	286.822	286					

a R Squared = .183 (Adjusted R Squared = .163)

Table A6

Between-Subjects Factors

	Value Label	N
In which hospital do you work?	Level 1 Hospital	163
	Level 2 Hospital	187
	Level 3 Hospital	430

Table A7**Levene's Test of Equality of Error Variances(a)**

Dependent Variable: To what extent do you think work environment factors of safety, working conditions, leadership style, space, availability of equipment and tools influence performance outcome in this hospital?

F	df1	df2	Sig.
5.027	2	284	.007

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept+q9.1+q9.2+q9.3+q9.4+q9.5+q9.6+q9.7+q9.8+q9.9+q9.10+q

Table A8 : Tests of Between-Subjects Effects

Dependent Variable: To what extent do you think work environment factors of safety, working conditions, leadership style, space, availability of equipment and tools influence performance outcome in this hospital?

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	54.244(a)	12	4.520	6.529	.000	.222
Intercept	198.160	1	198.160	286.219	.000	.511
q9.1	.087	1	.087	.126	.723	.000
q9.2	4.051	1	4.051	5.851	.016	.021
q9.3	4.331	1	4.331	6.256	.013	.022
q9.4	2.504	1	2.504	3.617	.058	.013
q9.5	2.410	1	2.410	3.481	.063	.013
q9.6	.121	1	.121	.174	.677	.001
q9.7	7.975	1	7.975	11.519	.001	.040

q9.8	9.080	1	9.080	13.114	.000	.046
q9.9	5.846	1	5.846	8.444	.004	.030
q9.10	.831	1	.831	1.200	.274	.004
q	13.039	2	6.519	9.416	.000	.064
Error	189.700	274	.692			
Total	4804.000	287				
Corrected Total	243.944	286				

a R Squared = .222 (Adjusted R Squared = .188)

Table A9: Between-Subjects Factors

	Value Label	N
In which hospital do you work?	1 Category 1 Hospital	163
	2 Category 2 Hospital	187
	3 Category 3 Hospital	430

Table A10: Levene's Test of Equality of Error Variances(a)

Dependent Variable: To what extent do you think remuneration factors of salary, bonus awards, flexible working hours, leaves, influence performance outcomes in this hospital?

F	df1	df2	Sig.
.345	2	279	.709

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a Design: Intercept+q11.1+q11.2+q11.3+q11.4+q11.5+q11.6+q11.7+q11.8+q11.9+q11.10+q

Table A 11 : Tests of Between-Subjects Effects

Dependent Variable: To what extent do you think remuneration factors of salary, bonus awards, flexible working hours, leaves, influence performance outcomes in this hospital?

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	35.535(a)	12	2.961	2.401	.006	.097
Intercept	98.117	1	98.117	79.570	.000	.228
q11.1	.899	1	.899	.729	.394	.003
q11.2	2.63E-005	1	2.63E-005	.000	.996	.000
q11.3	3.310	1	3.310	2.684	.102	.010
q11.4	7.091	1	7.091	5.751	.017	.021
q11.5	7.818	1	7.818	6.340	.012	.023
q11.6	1.738	1	1.738	1.409	.236	.005
q11.7	.315	1	.315	.256	.614	.001
q11.8	1.813	1	1.813	1.470	.226	.005
q11.9	3.435	1	3.435	2.786	.096	.010
q11.10	.028	1	.028	.023	.880	.000
q	4.919	2	2.460	1.995	.138	.015
Error	331.699	269	1.233			
Total	4412.000	282				
Corrected Total	367.234	281				

a R Squared = .097 (Adjusted R Squared = .056)

Table A12: Univariate Analysis of Variance**Between-Subjects Factors**

	Value Label	N
In which hospital do you work?	1 Category 1 Hospitals	163
	2 Category II Hospitals	187
	3 Category III Hospitals	430

Table A13: Levene's Test of Equality of Error Variances(a)

Dependent Variable: To what extent do you think workload stress factors of burnout, job demands, fatigue, absenteeism and overcrowding influence the quality of health care provision in this hospital?

F	df1	df2	Sig.
4.900	2	273	.008

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept+q13.1+q13.2+q13.3+q13.4+q13.5+q13.6+q13.7+q

Table A14: Tests of Between-Subjects Effects

Dependent Variable: To what extent do you think workload stress factors of burnout, job demands, fatigue, absenteeism and overcrowding influence the quality of health care provision in this hospital?

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	12.408(a)	9	1.379	2.206	.022	.069
Intercept	83.674	1	83.674	133.918	.000	.335
q13.1	.696	1	.696	1.114	.292	.004

q13.2	.697	1	.697	1.115	.292	.004
q13.3	.304	1	.304	.487	.486	.002
q13.4	.009	1	.009	.014	.905	.000
q13.5	.118	1	.118	.188	.665	.001
q13.6	6.353	1	6.353	10.167	.002	.037
q13.7	.230	1	.230	.368	.544	.001
q	5.238	2	2.619	4.191	.016	.031
Error	166.201	266	.625			
Total	5396.000	276				
Corrected Total	178.609	275				

a R Squared = .069 (Adjusted R Squared = .038)

Table A 15

One-way Anova

		Sum of Squares	df	Mean Square	F	Sig.
Could you please tell us your age category?	Between Groups	32.611	2	16.306	28.342	.000
	Within Groups	163.389	284	.575		
	Total	196.000	286			
What is your gender?	Between Groups	2.350	2	1.175	5.367	.005
	Within Groups	62.186	284	.219		
	Total	64.537	286			
What is your highest qualification?	Between Groups	1.259	2	.629	2.015	.135
	Within Groups					

	Within Groups	88.713	284	.312		
	Total	89.972	286			
How many years have you worked as a registered nurse?	Between Groups	8.888	2	4.444	7.947	.000
	Within Groups	158.819	284	.559		
	Total	167.707	286			
How long have you worked in this particular hospital?	Between Groups	87.028	2	43.514	49.590	.000
	Within Groups	249.202	284	.877		
	Total	336.230	286			

APPENDIX B

Table B 1: Age of a nurse

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid <=20	17	2.2	2.2	2.2
21-29	212	27.2	27.2	29.4
30-39	369	47.3	47.3	76.7
40-49	152	19.5	19.5	96.2
50-59	30	3.8	3.8	100.0
Total	780	100.0	100.0	

Table B 2: Gender of the nurse

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid male	257	32.9	32.9	32.9
female	523	67.1	67.1	100.0
Total	780	100.0	100.0	

Table B 3: Level of education

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid O level	48	6.2	6.2	6.2
Certificate	45	5.8	5.8	11.9
Diploma	552	70.8	70.8	82.7
Bachelor degree	61	7.8	7.8	90.5
Others	74	9.5	9.5	100.0
Total	780	100.0	100.0	

Table B 4: Years of work experience as a nurse

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0-10	330	42.3	42.3	42.3
11-15	362	46.4	46.4	88.7

16-20	88	11.3	11.3	100.0
Total	780	100.0	100.0	

Table B 5: Years of work at current hospital as a nurse

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0-5	304	39.0	39.0	39.0
6-10	138	17.7	17.7	56.7
11-15	252	32.3	32.3	89.0
16-20	86	11.0	11.0	100.0
Total	780	100.0	100.0	

Table B 6: Method of Performance evaluation

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Regular appraisals	465	59.6	59.6	59.6
setting objectives	164	21.0	21.0	80.6
informal reviews	16	2.1	2.1	82.7
Informal adhoc reviews	90	11.5	11.5	94.2
Not reviewed	45	5.8	5.8	100.0

Table B 6: Method of Performance evaluation

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Regular appraisals	465	59.6	59.6	59.6
setting objectives	164	21.0	21.0	80.6
informal reviews	16	2.1	2.1	82.7
Informal adhoc reviews	90	11.5	11.5	94.2
Not reviewed	45	5.8	5.8	100.0
Total	780	100.0	100.0	

Table B 7: Influence of work environment & tools on performance

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid no extent	1	.1	.1	.1
small extent	95	12.2	12.2	12.3
moderate extent	203	26.0	26.0	38.3
Great extent	213	27.3	27.3	65.6
Very great extent	268	34.4	34.4	100.0
Total	780	100.0	100.0	

Table B 8: Influence of Remuneration on performance

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No extent	96	12.3	12.3	12.3
Small extent	208	26.7	26.7	39.1
Moderate extent	173	22.2	22.2	61.3
Great extent	174	22.3	22.4	83.7
Very great extent	127	16.3	16.3	100.0
Total	778	99.7	100.0	
Missing	2	.3		
Total	780	100.0		

Table B 9: Influence of work stress on performance

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid small extent	48	6.2	6.2	6.2
moderate extent	110	14.1	14.1	20.3

great extent	141	18.1	18.1	38.3
Very great extent	481	61.7	61.7	100.0
Total	780	100.0	100.0	

Tables B 10: Ordered Multinomial Logit Regression Result for Category III Hospitals

Table B 10.1: Case Processing Summary

		N	Marginal Percentage
Performance score	1	50	25.0%
	2	50	25.0%
	3	57	28.5%
	4	43	21.5%
Valid		200	100.0%
Missing		0	
Total		200	

Table B 10.2: Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	363.464			

Final	354.535	8.928	7	.00025
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Link function: Logit.

Table B 10.3: Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	257.653	233	.00013
Deviance	256.451	233	.140

Link function: Logit.

Table B 10.4: Pseudo R-Square

Cox and Snell	.044
Nagelkerke	.047
McFadden	.016

Link function: Logit.

Tables B 11: Ordered Multinomial Logit Regression Result for Category 2 Hospitals

Table B 11.1: Case Processing Summary

		N	Marginal Percentage
Performance score	1	23	14.1%
	2	28	17.2%
	3	76	46.6%

	4	36	22.1%
Valid		163	100.0%
Missing		17	
Total		180	

Table B 11.2: Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	290.718			
Final	287.271	3.446	7	.00084

Link function: Logit.

Table B 11.3: Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	204.767	227	.853
Deviance	205.373	227	.846

Link function: Logit.

Table B 11.4: Pseudo R-Square

Cox and Snell	.021
Nagelkerke	.023
McFadden	.008

Link function: Logit.

Tables B 12: Ordered Multinomial Logit Regression Result for Category 1

Table B 12.1: Case Processing Summary

		N	Marginal Percentage
Performance score	1	84	21.5%
	2	92	23.5%
	3	134	34.3%
	4	81	20.7%
Valid		391	100.0%
Missing		9	
Total		400	

Table B 12.2: Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	526.275			
Final	519.370	6.905	7	.0004

Link function: Logit.

Table B 12.3: Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	361.963	329	.0102
Deviance	350.737	329	.196

Link function: Logit.

Table B 12.4: Pseudo R-Square

Cox and Snell	.018
Nagelkerke	.019
McFadden	.006

Link function: Logit.

Tables B 13: Ordered Multinomial Logit Regression Result for all the categories of Hospitals

Table B 13.1: Case Processing Summary

	N	Marginal Percentage
Performance score 1	157	20.8%
2	170	22.5%
3	267	35.4%
4	160	21.2%
Valid	754	100.0%
Missing	26	
Total	780	

Table B 13.2: Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	811.037			
Final	805.576	5.461	7	.00060

Link function: Logit.

**Table B 13.3: Pseudo R-Square**

Cox and Snell	.007
Nagelkerke	.008
McFadden	.003

Link function: Logit.

**Table B 13.4: Pseudo R-Square**

Cox and Snell	.668
Nagelkerke	.745
McFadden	.487

Table B 14: ANOVA

Performance Score

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.467	2	4.233	3.927	.020

Within Groups	812.860	754	1.078		
Total	821.326	756			

Table B 15: Post Hoc Multiple Comparisons

Dependent Variable: Performance score

	(I) classification	(J) classification	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
LSD	1	2	-.215**	.097	.026	-.40	-.03
		3	.082	.090	.363	-.09	.26
	2	1	.215**	.097	.026	.03	.40
		3	.297*	.109	.007	.08	.51
	3	1	-.082	.090	.363	-.26	.09
		2	-.297*	.109	.007	-.51	-.08
Bonferroni	1	2	-.215***	.097	.078	-.45	.02
		3	.082	.090	1.000	-.13	.30
	2	1	.215***	.097	.078	-.02	.45
		3	.297**	.109	.020	.03	.56
	3	1	-.082	.090	1.000	-.30	.13
		2	-.297**	.109	.020	-.56	-.03

*. The mean difference is significant at the 0.05 level.

Where 1, 2 and 3 represents category 1, category 2 and category 3 hospitals

(*), (**) and (***) Represent 1%, 5% and 10% level of significance

Table B10.6: Parameter Estimates for Category III

	Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Threshold [performance score = 1]	.868	1.208	.517	1	.472	-1.499	3.235
[performance score = 2]	1.997	1.214	2.707	1	.100	-.382	4.376
[performance score = 3]	3.327	1.228	7.341	1	.007	.920	5.734
Location age	.391	.170	5.274	1	.022	.057	.725
gender	.000	.294	.000	1	.999	-.577	.576
Education qualification	-.127	.198	.411	1	.522	-.514	.261
Work experience	.016	.216	.005	1	.943	-.409	.440
Influence of work environment	.290	.163	3.181	1	.074	-.029	.609
Influence of remuneration	-.108	.117	.846	1	.358	-.337	.122
Influence of work load stress	.103	.167	.382	1	.537	-.224	.430

Link function: Logit.

Table B11.6: Parameter Estimates for Category 1 Hospitals

	Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Threshold [performance score = 1]	-2.807	.932	9.064	1	.003	-4.635	-.980
[performance score = 2]	-1.693	.926	3.348	1	.067	-3.507	.121
[performance score = 3]	-.131	.922	.020	1	.887	-1.938	1.676
Location age	-.135	.125	1.153	1	.283	-.380	.111
gender	-.351	.201	3.041	1	.081	-.746	.044
Education qualification	-.145	.136	1.128	1	.288	-.411	.122
Work experience	.011	.155	.005	1	.942	-.293	.316
Influence of work environment	.130	.110	1.399	1	.237	-.085	.345
Influence of remuneration	-.178	.085	4.413	1	.036	-.345	-.012
Influence of work load stress	-.010	.122	.007	1	.932	-.250	.229

Link function: Logit.

Table B12.6: Parameter Estimates for Category II Hospitals

	Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Threshold [performance score = 1]	-3.267	1.269	6.624	1	.010	-5.755	-.779
[performance score = 2]	-2.237	1.256	3.174	1	.075	-4.698	.224
[performance score = 3]	-.154	1.241	.015	1	.901	-2.587	2.279
Location age	-.183	.201	.831	1	.362	-.576	.210
gender	.093	.324	.083	1	.773	-.542	.728
Education qualification	.148	.229	.415	1	.520	-.302	.597
Work experience	.072	.265	.074	1	.785	-.448	.592
Influence of work environment	-.049	.175	.079	1	.778	-.393	.295
Influence of remuneration	-.056	.134	.178	1	.673	-.319	.206
Influence of work load stress	-.294	.192	2.331	1	.127	-.671	.083

Link function: Logit.

Table B13.6: Parameter Estimates for All Hospitals

	Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Threshold [performance score = 1]	-1.874	.625	9.006	1	.003	-3.099	-.650
[performance score = 2]	-.799	.621	1.654	1	.198	-2.017	.419
[performance score = 3]	.788	.622	1.607	1	.205	-.430	2.006
Location age	-.003	.088	.001	1	.975	-.175	.169
gender	-.152	.145	1.088	1	.297	-.436	.133
Education qualification	-.071	.099	.513	1	.474	-.264	.123
Work experience	.000	.111	.000	1	.995	-.218	.216
Influence of work environment	.119	.080	2.205	1	.138	-.038	.275
Influence of remuneration	-.117	.060	3.748	1	.053	-.235	.001
Influence of work load stress	-.034	.086	.160	1	.689	-.203	.134

Link function: Logit.

APPENDIX C

FOCUS GROUP INTERVIEW: CHECKLISTS

Table C1: Performance Appraisal and related issues

ASPECT	PERCENT
Performance appraisal is carried out	
Management action is taken following performance appraisal	
Training is given after performance appraisal	
Good performers are rewarded after performance appraisal	
Promotion or demotion is given after performance appraisal	
Performance appraisal is put into use in other ways other than those above	
Nurses participate in setting objectives for performance appraisal	
Leadership effectiveness exists from superiors	
Emotional intelligence of superiors	
Health education is given priority	
There is good time management in my hospital	
Self management is given priority	
There are concerted efforts to improve the quality of care	
Nurses receive in-service training	
Interpersonal relations are good	
Patient counseling skills are provided	
A good relationship exists between nurses and their seniors	
Infection control policies exist	

Infection control measures are implemented	
Nurses are happy at work	
There are clear job expectations	

Table C2: Remuneration and Incentives

ASPECT	PERCENTAGE
Remuneration is competitive compared to other similar organizations	
Nurses are satisfied with fringe benefits	
Remuneration is in accordance with job responsibilities	
Over time work is accepted and paid for	
Nurses are motivated through non monetary incentives	

Table C3: Work environment & tools

ASPECT	PERCENTAGE
Working conditions are conducive for good performance	
Materials & supplies are sufficient	
Working spaces are adequate	
Working spaces are clean	
Necessary tools of work are provided	
Work environment is safe and free from hazards	
Anti septic hand washing solutions are available for staff	
Anti septic hand washing solutions are available for patients	
Equipment, Supplies & facilities are maintained well	

Training is given to nurses in the use of new equipment	
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Table C4: Work load stress

ASPECT	PERCENTAGE
There are cases of burnout at work	
Overload exists at work	
Staff are inadequate	
A good balance exists between supervisors and staff	
Good management of work load exists	
There are opportunities for flexible work schedules	
Overall work schedule is fair	
Support of staff through counseling at the work place exists	
Working conditions at work encourage excellence in performance	
Nurses complain of frequent illnesses such as colds, flu and body aches	
Many nurses complain of having no social life unless they are on annual leave	
Nurses are always on the lookout for green pastures away from the government hospital	
Many nurses complain of family conflicts because of their work schedules	
Many nurses would opt to resign to do other work if it was available for the same level of pay or less	

APPENDIX D

QUESTIONNAIRE

SELECTED FACTORS INFLUENCING THE WORK OUTPUT OR PERFORMANCE OF REGISTERED NURSES IN KENYA

SECTION A: PERSONAL INFORMATION

Please give your answers to each of the following questions. Read all the answers first and choose the appropriate answer box by clearly circling **only one number** for each question. All information will remain confidential and to maintain anonymity no names are required.

1. Could you please tell us your age category?

20 years or lower	1
21-29 years	2
30-39 years	3
40-49 years	4
50-59 years	5
60 and over	6

2. What is your gender?

Male	1
Female	2

3. What is your highest qualification?

“O” level	1
Certificate	2
Diploma	3
Bachelor’s Degree	4
Others	5

4. How many years have you worked as a registered nurse?

0-10 Years	1
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11-15Years	2
16-20Years	3
21-25Years	4
26 Years and over	5

5. How long have you worked in this particular hospital?

0-5 Years	1
6-10 Years	2
11-15 Years	3
16-20 Years	4
21-26 Years	5

SECTION B: PERFORMANCE ASSESSMENT

6. How, if at all, is performance assessed in this hospital? Circle one.

A formal system of regular appraisals reviewed for various categories of nurses.	1
Performance, setting of objectives	2
Informal, but regular reviews involving discussions about past performance	3
Informal <i>ad hoc</i> reviews especially when there is a performance problem	4
Not reviewed	5

7. Indicate your responses to the following statements: Circle the appropriate answer box after reading each item. Use the following code definitions:

1. Strongly disagree

- 2. Disagree
- 3. Uncertain
- 4. Agree
- 5. Strongly Agree

	STATEMENT	1	2	3	4	5
7.1	Objectives to be achieved are known by individuals to be assessed					
7.2	Performance standards expected from nurses are clear and understood by all					
7.3	Constructive feedback of how staff is performing is provided throughout the year.					
7.4	Prompt action is taken when performance falls below standard					
7.5	My supervisor inspires me to do my best					
7.6	Workers are given opportunity to make comments on the result of their performance.					

SECTION C: WORK ENVIRONMENT AND TOOLS ASSESMENT

8. To what extent do you think work environment factors of safety, working conditions, leadership style, space, availability of equipment and tools influence performance outcome in this hospital? Circle your choice

To no extent	1
To a small extent	2
To a moderate extent	3
To a great extent	4
To a very great extent	5

9. Indicate your responses to the following statements, by circling your choice in the appropriate box, according to the following code definitions:
- 1. Strongly disagree
 - 2. Disagree
 - 3. Uncertain

4. Agree

5. Strongly Agree

STATEMENT	1	2	3	4	5
I feel motivated working in the present environment					
Employees are free to air their views concerning their work.					
I am happy with the safety precautions, protecting every worker at this hospital.					
I am happy with the working hours at this hospital					
I am able to provide a health balance between work and social life					
I am happy with the working relationship with my peers, supervisors, and managers					
I am happy with the tools provided for my use at the work place including the working space					
I am appreciated and recognized for work done.					
Most nurses in this hospital are happy while at the place of work					
I get trained to use any new tools and equipment					

SECTION D: REMUNERATION ASSESSMENT

10. To what extent do you think remuneration factors of salary, bonus awards, flexible working hours, leaves, influence performance outcomes in this hospital?

To no extent	1
To a small extent	2
To a moderate extent	3
To a great extent	4
To a very great extent	5

11. Indicate your responses to the following statements regarding remuneration. Circle your choice in the appropriate answer box, according to the following code definitions:

1. Strongly disagree

2. Disagree

3. Uncertain

4. Agree

5. Strongly Agree

	STATEMENT	1	2	3	4	5
11.1	An increase in my salary would make me perform better and be more motivated.					
11.2	I am always ready to work extra hours so as to earn over time.					
11.3	My main motivation for promotion is to earn a higher pay.					
11.4	I am happy with monetary incentives.					
11.5	I am happy with non monetary incentives.					
11.6	I am happy with time off, leaves, and other services provided for nurses.					
11.7	I am happy with the pension scheme am under					
11.8	I am happy with the insurance cover am under					
11.9	I am happy with the recognition given nurses who perform well.					
11.10	I am happy with the salary ratios in this hospital					

SECTION E: WORK LOAD STRESS ASSESSMENT

12. To what extent do you think workload stress factors of burnout, job demands, fatigue, absenteeism and overcrowding influence the quality of health care provision in this hospital?

To no extent	1
To a small extent	2
To a moderate extent	3
To a great extent	4
To a very great extent	5

13. Please indicate your responses to the following statements regarding how you feel while at work. Read each item in the statement, and then mark **X** in the appropriate box. Mark only one item per column.

The job makes me feel -----	Never 1	Occasionally 2	Sometimes 3	Most of 4 the time	All the time 5
Tense					
Calm					
Relaxed					
Worried					
Un easy					
Contented					
Tired					

14. Please indicate how you were rated in the last performance appraisal in your department. Circle your choice in the appropriate box, according to the following code definitions

1. Very Low
2. Low
3. High
4. Very High

15. Please list other factors that influence performance outcomes in your hospital

- (i) -----
- (ii) -----
- (iii) -----
- (iv) -----
- (v) -----
- (vi) -----
- (vii) -----

Thank you for your responses

END