# IMPACT OF NURSES' MOTIVATION ON PATIENTS' OUTCOMES: A CASE STUDY OF RENAL UNIT AT KENYETTA NATIONAL HOSPITAL, NAIROBI-KENYA

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## REGISTRATION NUMBER: H56/69682/2011

**"THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF DEGREE OF MASTER OF SCIENCE IN NURSING (CRITICAL CARE NURSING) OF THE UNIVERSITY OF NAIROBI"**

## NOVEMBER 2013

## Declaration

I declare that this thesis is the result of my original work and that it has not been submitted either wholly or in part to this or any other university for the award of any degree.

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## Supervisor's Approval

This is to certify that this thesis entitled "Impact of nurses' motivation on patient outcomes; a case study of Renal unit at Kenyatta National Hospital" has been submitted in partial fulfillment for the award of the degree of Masters of Science in Nursing of the University of Nairobi with our approval as internal supervisors.

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## Dedication

I dedicate this work to my loving husband Shouts Makhumbo Galang'anda Simeza, for allowing

me to continue with my education, my brother Mr. David Mulera, my parents Mrs. Rosemary

Mulera and The Late Mr. MacDonald Mulera, my daughter Sibongire and my son Emmanuel.

## Acknowledgements

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# List of Abbreviations / Acronyms

**ANOVA** - Analysis of Variance

**CKD** - Chronic Kidney Disease

**ERC** - Ethical Review Committee

**ICU** - Intensive Care Unit

**KNH** - Kenyatta National Hospital

**MDG** - Millennium Development Goals

**NSAIDS** - Non-Steroidal Anti-Inflammatory Drugs

**RRT** - Renal Replacement Therapy

**SPSS** - Statistical Package for Social Science

**UON** - University Of Nairobi

**USA** - United States of America

**WHO** - World Health Organization

## Operational Definitions

- **Autonomy:** This is the ability of nurses to make an informed decision freely / independently towards the patients' care.

- **Clinical Patient Outcomes:** These are the end results of the nursing interventions where by the nurse together with the client evaluate. It encompasses both the subjective and objective evaluation.

- **Motivation:** This is an inborn or learned attributes that an individual have that gives him / her drive to meet the desired outcome.

- **Outcome:** This is the end result of the nursing interventions / actions. It can either be positive or negative.

- **Patient:** This is a person who is a recipient of health care services. Most often ill or injured and in need of treatment.

- **Patient Outcomes**: this is the end results of particular nursing interventions / actions done on a patient. These are categorized into two namely; quality-related e.g. patient satisfaction, function status and symptom management; and risk- related outcomes e.g. pain, fall, readmission and mortality.

- **Patient Satisfaction:** refers to state of emotional feeling over the nursing care which includes the mental evaluation of the experience and resulting outcome of the services.

- **Recognition**: This refers to the public acknowledgement of person's status or merits.

- **Renal Nurses**: They are specialized nurses who acquire technical skills as well as clinical expertise in providing nursing care to renal patients.

- **Renal Patients**: These are recipients of health care who have kidney insufficiency and most of them are on Renal Replacement Therapy (RRT) thus dialysis and kidney transplant.

- **Renal Unit**: This is the department in a health care institution that caters for patients whose kidneys have failed thus require RRT thus dialysis or transplant.

- **Renumeration**: This is a monetary reward that one receives in exchange for work or services performed.

- **Satisfaction**: This is a subjective view / evaluation of a nursing intervention whereby an individual feels happy with the nursing services provided.

# Abstract

**Introduction:** In the health care systems, motivation plays an important role in retaining health care personnel. This in turn increases productivity of the health care systems which is manifested in patients' outcomes. There are several motivational patterns in the nursing profession such rewards, relationship, challenge, control and drive. Patient satisfaction, quality of life, symptoms, morbidity and mortality are some of the patient outcomes in the health care service.

**Objective:** The study sought to explore the impact of nurses' motivation on the patients' outcome in Renal Unit at Kenyatta National Hospital.

**Methods:** This was a cross sectional descriptive quantitative study whereby semi-structured questionnaires and checklists were used to collect data from 45 nurses and 150 patients from the renal unit at Kenyatta National Hospital (KNH) after the approval from KNH/UON institutional review board. The study period was from January 2013 to June 2013. The purposive sampling was used to get the participants and the site of the study. The data was analyzed using Statistical Packages for Social Sciences (SPSS) version 17. Participation in the study was voluntary and based on respondents' ability to give informed consent.

**Results**: A total of 45 nurses and 150 patients from renal unit participated in the study. From the study findings, it was revealed that male nurses were more motivated with recognition than females nurses at $p=0.046$. It was further noted that married nurses were more motivated with achievement at $p=0.044$ and autonomy at $p=0.026$. The single nurses were less motivated with renumeration than the married and divorced and the relationship was statistically significant. It was noted that nurses who had worked more than seven years were more motivated with achievement at $p=0.044$ and autonomy at $p=0.026$ than their counterpart. Nurses who had

worked for less than seven years were less motivated with renumeration. This relationship was statistically significant P=0.005

The patients' outcomes were also explored in terms of patient satisfaction and other patients' outcomes. It was established that patients were more satisfied with nurses good listening skills, being treated as individuals, nurses positive attitude, nurses responsiveness, and information provision. Their relationships were statistically significant $p<0.05$ with age and marital status. It was also noted that patients who were less than 20 years old were more stressed post dialysis than the other age groups at $p=0.013$. It was further noted that there was a relationship between the nurses' motivation level and the patients' outcomes at renal unit of KNH.

**Conclusion:** The study revealed that nurses in renal unit of KNH are motivated with achievement, recognition, autonomy and renumeration. The patients were satisfied with nurses' good listening skills, being treated as individuals, nurses' responsiveness, and provision of information.

# Chapter One: Introduction

## 1.0. Background

Motivated human resources are the most important assets of any health system. Homedes, et al (2004). This resource, especially nursing department works directly with the health consumers (patients). Once the nurses are motivated, the work productivity increases resulting in good outcome which is good patients' outcomes. In recent years it has been increasingly recognized that improving the motivation of health personnel should be at the core of any sustainable solution to patient outcome. However, it is widely acknowledged that health systems are not producing the desired outcome of health intervention due to factors such as insufficient skilled and experienced health personnel, demotivated health personnel, lack of management skills, poor working conditions and environment and inadequate remuneration.

Ministers of Health during fifty-second session of the WHO Regional Committee for Africa (WHO 2002) stated that insufficient health personnel, in terms of numbers and level of performance is one major constraint in achieving the Millennium Development Goals (MDGs) for reducing poverty and diseases. Some of the actions proposed to rectify this situation include improving motivation, retention, productivity and performance of health workers and mobilizing trained staff who are unemployed or working in other sectors to return to the health sector High-Level Forum (2004)

African countries are trying to improve the function of the health care delivery systems to ensure that the populations they serve receive timely quality care. Health care is labor intensive, making human resources one of the most important inputs in the health care delivery (WHO 2000)

The patient outcomes of the health organization depend on the knowledge, skills and motivation individuals. It is therefore important for the employers to motivate their employees in order to meet the desired outcomes.

It is widely acknowledged that health workers who are motivated facilitate the desired patient outcome. This study designed to determine the relationship / the impact of nurses' motivation on the patient outcome.

## 1.1. Problem Statement

Renal care nursing is one of the developing disciplines in Kenya because more and more nurses are venturing into the field. This field requires nurses who are highly knowledgeable and skilled for the care of patients with Chronic Kidney Disease. Technological and educational advances make it a dynamic field, rich with a wide variety of career opportunities for a new graduate or an experienced practitioner.www.annanurse.org. Renal nurses at KNH are highly knowledgeable, skilled and experienced in their work. Therefore nurses who are working at KNH renal unit are qualified and competent but their work effectiveness can be manifested in the quality of care received by patients.

The aim of this research was to explore the impact of nurses' motivation on the patients' outcomes in renal unit at Kenyatta National Hospital. It also explored the relationship that existed between the nurses' motivation and the patients' outcomes.

Vahey, et al (2003) suggests that future research should focus on the mechanisms through which work environment factors affect nurses and patient outcomes.

**1.2. Justification of the Study**

Benefits of empowering work conditions on patients have been evidenced in higher levels of patient satisfaction and improved quality of care Laschinger, (2008). Measures of patient care quality have been largely based on the nurses' perceptions and have not been tested using objective measures of patient care quality.

Patients' perceived ability to manage their health condition after leaving the hospital and the incidence of adverse events such as falls offer two such measures. As well, there have not been any studies asking patients directly about their satisfaction with nursing care in relationship to the quality of the nurses' work environment. This study addressed these gaps.

**1.3. Expected Benefits of the Study**

It was expected that the study findings would assist in policy and standards review / formulation in renal nursing. The nurses' working conditions would be improved as well, leading to improvement in the patient outcomes of renal patients / clients. The study findings would also add the body of knowledge to nursing profession on how to retain the desirable patients' outcome in renal unit.

**1.4. Research Objectives**

*1.4.1. Broad Objective*

The main objective of the study was to explore the impact of nurses' motivation on the patients' outcome in Renal Unit at Kenyatta National Hospital.

*1.4.2. Specific Objectives*

1.  To document the patient outcomes in the renal unit of KNH.

2.  To determine the motivational factors of nurses working at renal unit of KNH.

3. To examine the relationship between nurses motivation and patient outcomes.

## 1.5. Research Questions

1. What are the patients' outcomes at renal unit of Kenyatta National Hospital?

2. What are the motivation factors of nurses working at renal unit of KNH?

3. Is there a relationship between the nurses' motivational level and patient outcome?

## 1.6. Hypothesis

The hypothesis of the study was that there is no relationship between nurses' level of motivation and the patients' outcomes at renal unit of KNH.

# Chapter Two:  Literature Review

## 2.0. Introduction

This chapter presents literature on motivation including some important conclusions of past research work on motivation. The section provides definition of motivation, motivating factors and patients' outcomes in renal units. Human motivation is one of the key issues in the field of organizational behavior and psychology Benabou, et al (2003). Understanding why we do the things that we do has been investigated and researched in order to find the major drives behind this concept. Motivation energizes and directs certain behavior toward reaching a specific goal Sansone, et al (2000).

Most literature on motivation focuses on nurses in medical – surgical nursing and Intensive Care Units with little focusing on renal care units.

## 2.1. Motivation

### 2.1.1. Definition of Motivation

Motivation is the act of process of providing a motive that causes a person to take action. In most cases motivation comes from some need that leads to behavior those results in some type of reward when the need is fulfilled Shanks, (2010). Any consideration, idea or object prompting the individual to act or move to do what needs to be accomplished is what motivation is. Motivation may therefore be defined as a willingness to exert effort to achieve a goal or objective for rewards.

### 2.1.2. Motivating Factors

According to Herzberg's research, motivators are the conditions that truly encourage employees to try harder. Focusing on hygiene factors will not be enough, and managers should also enrich

jobs by giving employees opportunities for challenging work, greater responsibilities, advancement opportunities, and a job where their subordinates can feel successful. They are factors that are intrinsic to the job, such as achievement, recognition, interesting work, increased responsibilities, advancement, and growth opportunities Clavreal, (2004).

Process theories emphasized subjective expectations or the values of the workers as influencing their motivation and work effort Kanfer, (1999). He builds on these theories to stress the importance of employees' willingness and ability to carry out the goals of the organization in which they work.

### 2.1.2.1. Job Satisfaction

Nurse job satisfaction is a multidimensional phenomenon that is influenced by many variables. Sengin, (2003) identified the following factors that influence nurse satisfaction: Demographic variables: education, experience, position in the hierarchy; job characteristics: autonomy, tasks repetitiveness, salary; and Organizational environment factors: degree of professionalization, type of unit, nursing care delivery model.

The importance of job satisfaction as an outcome of nursing work environments is reflected in its association with turnover intentions. In the Shields, et al (2001), job satisfaction was the most significant predictor of intentions to quit and nurses who were very dissatisfied were 65% more likely to have intentions to quit than those feeling satisfied. Using an economic analysis of the data, the authors predicted that policy initiatives that could impact dissatisfied nurses and change their opinions to a more neutral view (neither satisfied nor dissatisfied with their job), would result in the retention of 6.8% of their workforce (30,828 nurses) with a cost savings of 76 million pounds.

*2.1.2.2. Nurse- Physician Relationship*

Good nurse- Physician relationship creates conducive environment for both personnel and the patients, making the work interesting and the patient receive quality care. Peter, et al (2010) found out that four groups of factors were identified, with those relating to job content and work environment viewed as the most important characteristics of the ideal job, and rated higher than a good income. The five job characteristics with the highest importance rating overall were "good working relationships with colleagues," "physical conditions," "training opportunities," "tools to use skills on the job," and "challenging work," all of which are included in the "job content and work environment' component.

Poor nurse-physician relationships have been identified as an important cause of dissatisfaction and emotional and psychological exhaustion on the part of nurses. Vahey, et al (2004)

*2.1.2.3. Nursing Autonomy*

Nursing Autonomy is concept that is closely related to decision making. "Nursing autonomy" is defined as the right of the nurse to determine her own course of action in accordance with the best judgment of the situation Layman, (2003). In a study conducted by Stewart, et al (2004), nurses described autonomy as their ability to accomplish their patient care goals in good time by using all accumulated knowledge, skills, experience and expertise to understand the condition and needs of a patient and to make a vital contribution to the overall plan for patient care. This contribution would include the assessment of patient needs and conditions, the effective communication of concerns and priorities during the course of patient care, and the assessment and coordination of the resources of the multidisciplinary team.

A study by Varjus, et al (2003) came to the conclusion that the autonomy that is extended to Finnish intensive care unit nurses fundamentally supports their sense of empowerment in the workplace. The majority of nurses in that study reported that they enjoyed more autonomy in decision making about patient care than about unit operations.

A sense of autonomy contributes both to the sense of fulfillment and satisfaction that nurses derives from their jobs. Several studies have provided evidence that autonomy is a strong predictor of job satisfaction Senguin, (2003).

### 2.1.2.4. Career Progression

The materialization of career advancement and promotional opportunities are effective in reducing occupational stress among professionals Senguin, (2003). Medicine is dynamic, so nurses keep on upgrading themselves in order to meet the dynamic demands of their profession.

Batista, et al (2005) found out that among the five motivational factors on the current work of the nurses surveyed, listed in order of priority, are: to love what you do, good relationship multidisciplinary, the possibility of professional growth, the power of problem solving linked to commitment population, working conditions, remuneration standing in seventh place.

During the upgrading, nurses increase their autonomy, salaries and recognition.

### 2.1.2.5. Social Support

The role of social support has been extensively studied by researchers. Maslach, et al (2001) has shown that a lack of proper support from supervisors is even more pernicious than a lack of support from co-workers. Managers have a role in ensuring that the social aspect of their workers is taking into consideration. Japan was successful because it dealt much on the social aspect of employees.

## *2.1.2.6. Rewards*

"You get more of the behavior you reward. You don't get what you hope for, wish for or beg for. You get what you reward" Boshoff, (2004). Reward system is much more than just bonus plans and stock options. It is a process that reinforces behavior to hit the target and meet the standards. Rewarding performance should be an ongoing managerial activity, not just an annual ritual Ketolnikov, (2009).

## *2.1.2.6.1. Monetary Rewards*

 Monetary rewards are certainly the most common approaches used to improve recruitment, retention, motivation and performance, Ketolnikov, (2009). Financial rewards include direct or indirect payment such as wages or salary, bonuses, insurance, merit pay, allowances, loans and tuition reimbursement. Providing adequate and timely reward is important to guarantee the recruitment of motivated and qualified staff.

Batista, et al (2005) stated that it was also requested that respondents cite factors that brought them dissatisfaction in their current job, obtaining the highest number of citations in the working conditions and wages, followed by interpersonal and cross.

## *2.1.2.6.2. Non-Monetary Rewards*

 There are different types of non- monetary rewards, such as work autonomy, recognition from supervisors, so employee will feel their efforts are noticed and valued. Career development and Professional growth opportunities will help employees to develop new skills, expand their knowledge, and increase their visibility within the organization, internal promotion opportunities as a long plan and shift work flexibility. Ketolnikov, (2009) stated that this inquiry showed the recognition of the efforts by the boss. The busses need to recognize the work and the effort of the

employees because they have an effect on the performance and the motivation of the workers. 57% feel that their boss is fair in recognizing their efforts.

## 2.2. Patient Outcomes

The Agency for Health Research and Quality of Health and Human Services describes patient outcomes as "the end results of particular health care practices and interventions. End results include effects that people experience and care about, such as change in the ability to function. In particular, for individuals with chronic conditions— where cure is not always possible— end results include quality of life as well as mortality." Outcomes include measures of health improvements in an individual patient, community, or population Rotter, et al (2003).

Patient outcomes included inpatient mortality, mortality at longest follow-up, hospital readmissions, in-hospital complications, adverse events, admissions and discharge destination, Rotter, et al (2010).

Work effectiveness for nurses is manifested in the quality of care received by patients. Patient outcomes that are sensitive to nursing care include both quality-related outcomes (patient satisfaction, ability to perform self care activities on discharge from hospital, functional status and symptom management) and risk-related or patient safety outcomes (falls, pressure ulcers/sounds, nosocomial infections, medication errors and mortality) Doran, (2003).

### 2.2.1. Quality – Related Outcomes

### 2.2.1.1. Patient's Satisfaction

Patient satisfaction is defined as a customer's overall evaluation of his / her experiences with hospital services Andaleeb, (1998). A legitimate avenue to improve patient care is the examination and monitoring of customer satisfaction. The most important definition of overall

patient satisfaction is when the patient's own expectations for treatment and care met or exceeded Vukmir, (2006). In addition Naidu, (2008) defined patient satisfaction as "an important indicator to evaluation of distinct health care dimensions." Vukmir, (2006) defined five variables directly related to satisfaction including: Waiting before being cared for, degree of nurse caring, staff organization, the degree of physician caring, and the amount of information provided by nursing staff

Over the last years, Patient satisfaction has been increasingly used as one indicator of the quality of health care Alsharif, et al (2008). Measurement of patient satisfaction is used to compare health care programs and to evaluate quality of care and to identify which aspect of a service need improvement. Alsharif, et al (2008) suggested that patient satisfaction is an important and widely accepted measure of care efficiency.

Sochalski, (2004) found that 43% of the variance in nurse-assessed quality of care was accounted for by nursing tasks that were not completed due to lack of time (e.g. patient teaching and counseling, skin care, documentation and discharge planning) as well as the occurrence of medication errors and patient falls.

In a study of patients from seven medical-surgical and step-down units in the United States, Larrabee, et al. (2004) identified that nurse-caring was a critical predictor of patient satisfaction ($\beta$=.72) while contextual factors such as nurse-physician collaboration ($\beta$=.14) exerted a smaller direct influence on patient satisfaction.

### 2.2.1.2. Functional Status
The concept of functional status refers to the behaviors necessary to maintain independence in daily life and encompasses physical, cognitive, and social functioning. It includes three major

components, all geared toward assessing patients' abilities to function in their own world, whether as a lawyer, brick-layer, parent or retiree. Physical functional status measures the ability to perform various physical activities, such as walking, carrying groceries, or climbing stairs. Role functioning assesses the extent to which health interferes with daily activities like work or school. Social functioning determines if health affects normal social activities, such as visiting friends or participating in group activities Salvage, et al (1990). The functional status normally is concerned with the Activities of Living e.g. maintaining safe environment, communicating, breathing, eating and drinking, eliminating, personal cleansing and dressing, controlling body temperature, mobilizing, working and playing, sleeping, expressing sexuality and dying. Salvage, et al, (1990)

### 2.2.1.3. Symptom Management

This is a physical or mental phenomenon, circumstance or change of condition arising from and accompanying a disorder and constituting evidence for it ... specifically a subjective indicator perceptible to the patient and as opposed to an objective one (compare with sign). A symptom represents a clue to something more important, New Oxford Dictionary (2006).

Many physical and psychological symptoms accompany the end of life. In one study, 1,000 cancer patients had a median of eleven symptoms during the terminal phase of illness, many of which affect the patient's quality of life. Assessment and management of common symptoms are thus integral to a balanced approach to end-of-life care. Because of the multidimensional nature of many symptoms, an interdisciplinary team approach to assessment and management is essential. Such an interdisciplinary team calls for the expertise of nurses, physicians, social workers, nursing assistants, spiritual care providers, and expressive therapists, Doran, (2003)

Renal impairment is common in patients with diabetes, cardiovascular disease or cancer (from disease or treatment e.g. chemotherapy, obstructive uropathy, myeloma). Symptom control is complicated by delayed drug clearance, dialysis effects and renal toxicity associated with commonly used medication (e.g. NSAIDs).  50% of dialysis patients have pain. Depression and other symptoms are common, Doran, (2003)

### *2.2.2. Risk-Related or Patient Safety Outcomes*

Risk-related or patient safety outcomes include falls, pressure ulcers/sounds, nosocomial infections, medication errors and mortality Doran, (2003). These are the negative patient outcomes.

Readmission Rates: For instance, researchers in the USA examined the relationship between hospital patient safety climate and rates of re-hospitalization within 30 days of discharge. Survey data from 36,375 staff from 67 hospitals were compared with risk standardized hospital readmission rates. Poorer safety climate was associated with higher readmission rates for heart attacks and heart failure. Frontline staff perceptions of safety climate were associated with readmission rates but senior management perceptions were not, the Health Foundation (2011).

Length of Stay: Other researchers in the USA examined whether safety climate influences patient outcomes in intensive care units. Data from 65,978 patients admitted to 30 intensive care units (ICUs) were analyzed and 2,103 staff was surveyed. After adjusting for patient, hospital and ICU characteristics, perceptions about management were associated with hospital mortality and safety climate was associated with length of stay. For every 10% decrease in safety climate, length of stay increased by 15% The Health Foundation (2011).

Fall is any unwanted event which results in the patient coming to rest unintentionally on the ground or other lower surface Morris, et al (1980). According to a study by Morse, (1998) approximately 14% of falls in hospitals are accidental, another 8% are unanticipated physiological falls, and 78% are anticipated physiologic falls. Accidental falls occur when a patient falls unintentionally.

A Medical Error is a preventable adverse effect of care, whether or not it is evident or harmful to the patient. This might include an inaccurate or incomplete diagnosis or treatment of a disease, injury, syndrome, infection, or other ailment, the free encyclopedia (2011).

A 2006 follow-up to the IOM study found that medication errors are among the most common medical mistakes, harming at least 1.5 million people every year. According to the study, 400,000 preventable drug-related injuries occur each year in hospitals, 800,000 in long-term care settings, and roughly 530,000 among Medicare recipients in outpatient clinics. The report stated that these are likely to be conservative estimates, the Free Encyclopedia (2011)

Mortality Rate is a measure of the number of deaths (in general, or due to a specific cause) in a population, scaled to the size of that population, per unit of time. Mortality rate is typically expressed in units of deaths per 1000 individuals per year; thus, a mortality rate of 9.5 (out of 1000) in a population of 1,000 would mean 9.5 deaths per year in that entire population, or 0.95% out of the total. It is distinct from morbidity rate which refers to the number of individuals in poor health during a given time period (the prevalence rate) or the number of newly appearing cases of the disease per unit of time (incidence rate), the Health Foundation (2011)

Studies have also examined potential associations with clinical outcomes, but not all have found positive trends. In the USA, 6,083 staff from 52 sites was surveyed and data about safety climate were correlated with surgical outcomes. However, teamwork climate, safety climate, working conditions, recognition of stress effects, job satisfaction, and burnout did not correlate with risk-adjusted morbidity and mortality outcomes. Reported levels of communication and collaboration with attending and resident doctors correlated with risk-adjusted morbidity, the Health Foundation (2011).

## 2.3. Summary of Literature Review

Motivated people are those who have made a conscious decision to devote considerable effort to achieving something that they value. What they value will differ greatly from one individual to another. There are a variety of ways to motivate people, including the fear of losing a job, financial incentives, self-fulfillment goals and goals for the organization or groups within the organization.

Numerous studies have been conducted and revealed that motivation is the paramount asset in any progressive organization. According to Herzberg's research, "motivators are the conditions that truly encourage employees to try harder". At times, the managers can employ different motivational patterns but still producing risk related patients' outcome. Therefore any health care services must strive to meet the quality related patients outcome. So the implemented motivational patterns should correlate with the patients' outcome. In the framework, the effort (motivation) employed can determine the outcome whether positive or negative.

Nursing is a backbone of any health care system. The Nursing Task Force (1999) concurs that, "Nurses comprise the largest group of professionals within the healthcare workforce and provide

75% of the care received by patients in hospital settings." This means that, it is the nursing profession that caters for 75% of patient care in any hospital setting.

## 2.4. Theoretical Framework

Expectancy Theory of Motivation (Victor Vroom' Theory, 1964)

Vroom's expectancy theory emphasizes the mental processes regarding choice, or choosing. It looks at self-interest in the alignment of rewards with people's wants and the connections among expected behaviors, rewards and organizational goals; Hellriegel, et al (1989). Vroom's theory assumes that behavior results from conscious choices among alternatives whose purpose it is to maximize pleasure and to minimize pain. Vroom realized that an employee's performance is based on individual factors such as personality, skills, knowledge, experience and abilities. He stated that effort; performance and motivation are linked in a person's motivation Hellriegel, et al (1989). He uses the variables Expectancy, Instrumentality and Valence to account for this.

Expectancy is the belief that increased effort will lead to increased performance i.e. if I work harder than this will be better. This is affected by such things as:

1. Having the right resources available (e.g. raw materials, time)

2. Having the right skills to do the job

3. Having the necessary support to get the job done (e.g. supervisor support, or correct

 information on   the job)

Instrumentality is the belief that if you perform well that a valued outcome will be received. Thus the degree to which a first level outcome will lead to the second level outcome.  i.e. .if I do a good job, there is something in it for me Vroom, (1964). This is affected by such things as:

1. Clear understanding of the relationship between performance and outcomes – e.g. the rules of

the reward 'game'

2. Trust in the people who will take the decisions on who gets what outcome.

3. Transparency of the process that decides who gets what outcome.

Valence is the importance that the individual places upon the expected outcome. For the valence to be positive, the person must prefer attaining the outcome to not attaining it Vroom, (1964).

## 2.5. Conceptual Framework

In the study, the motivation employed (effort) determines a performance towards an outcome. The motivational pattern may lead to either quality related or risk related outcomes. Below is the illustration of the model:

```
┌──────────┐        ┌─────────────────────────────┐                      ┌──────────────────────────┐
│ Effort   │──────▶ │ Independent Variables        │  Instrumentality     │ Intermediate Variables   │
│ level    │        │ (First Order Outcomes)       │  (What are my        │ (Second Order Outcomes)  │
└──────────┘        │                              │  chances of          │                          │
                    │ Nurse Related                │  getting various     │  -  Praise from boss     │
┌──────────┐        │   - Educational level        │  outcome)            │  -  Salary increase      │
│Expectancy│        │   - Years of experience      │                      │  -  Demotion             │
│(What are │        │   - Age                      │                      │  -  Job security         │
│my chances│        │   - Designation              │                      │  -  Acceptance by        │
│of reaching│       │   - Career progression       │                      │     Co-workers           │
│my        │        │   - Job satisfaction         │                      │  -  Recognition          │
│performance)│      │   - Autonomy                 │                      │  -  Communication        │
└──────────┘        │                              │                      └──────────────────────────┘
                    │ Institutional Related        │                                  │ Valence
                    │   - Nurse patient ratio.     │                                  ▼
                    │   - Post HD procedures       │                      ┌──────────────────────────┐
                    │   - Rewards                  │                      │ Dependent Variables      │
                    │   - Social Support           │                      │ (Patient Outcomes)       │
                    │   - Work Environment         │                      │                          │
                    │                              │                      │  -  Satisfaction         │
                    │ Patient Related              │                      │  -  Function Status      │
                    │   - Nurse-patient            │                      │  -  Symptom              │
                    │     relationship.            │                      │     Management           │
                    │   - Duration on HD           │                      │  -  Length of stay       │
                    │   - Type of illness          │                      │  -  Fall                 │
                    └─────────────────────────────┘                      │  -  Mortality            │
                                                                          └──────────────────────────┘
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The Research Study Conceptual Model Modified from Victor Vroom Expectancy Theory (1964)

**Independent Variables**: such as nurse related, institutional related and patient related are factors that determine the effort / motivation that nurses expends on the job. They are also referred to as first order outcomes.

**Intermediate Variables:** Are a result of motivation, whether positive or negative. These are also called Second Order Outcome thus anything good or bad that results from a first-order outcome i.e. praise from boss, salary increase, demotion, Job security and recognition.

**Dependent Variables**: Also called Patient Outcome, is the nursing care end result which is affected by both the first and second order outcomes. This is the overall outcome of the nursing profession. It can either be positive or negative in nature.

# Chapter Three: Methods

## 3.0. Introduction

This chapter presents the study design, study area and the sampling technique employed. The chapter also presents how data was collected analyzed and presented.

## 3.1. Study Design

This was a cross-sectional descriptive quantitative, qualitative study which was aimed at describing the impact of nurses' motivation on patients 'outcomes in renal unit of Kenyatta National Hospital. This design was selected because it helps to describe the association between risk factors and the outcome of interest, which were renal outcomes. Since the study was for academic purposes with a deadline, this design was the best for the study

This study design helped the researcher to look at numerous variables at once such as age, gender, years of experience just to mention a few. The major challenge of this study design was selection bias of participants which was overcome by sampling them randomly as long as they were renal nurses and patients, able to communicate and voluntarily gave consent to participate.

## 3.2. Study Area

The study was conducted in renal unit of Kenyatta National Hospital. KNH is the largest referral hospital in Kenya and the second largest in Africa. It covers 45.7 hectares and within its complex are College of Health Sciences (University of Nairobi), Kenya Medical Training College, Kenya Medical Research Institute and National Laboratory Services (Ministry of Health).

KNH has a bed capacity of 1,800 with 50 wards, 22 out-patient clinics, and 24 theatres (16 specialized). Every other day KNH hosts between 2,500 and 3,000 patients in the wards, 89,000

in- patients and 600,000 out-patients annually and with the total staff of 6,213. In renal unit only, KNH hosts between 250 and 300 renal patients per month with 55 nurses.

### 3.3. Study Population

The study participants were renal patients who were on dialysis at the time of data collection. The population was chosen because most patients that were admitted in unit were generally on hemodialysis and peritoneal dialysis.

The study population also included the nurses who were working in Renal Unit at Kenyatta National Hospital. These were the specialized nurses with special knowledge and skills in managing renal patients needing dialysis.

### 3.4. Inclusions and Exclusions Criteria

Participants were those patients who gave consent to participate, patients of all age groups, males and females who were on dialysis in renal unit of KNH.

The qualified male and female nurses who signed consent form to participate in the study, regardless of age.

Excluded in the study were patients who did not consent to participate, those who could not communicate as well as those who were mentally confused at the time of data collection. The nursing staff, (qualified) that did not consent to participate in the study.

### 3.5. Sampling Technique

The sampling of Kenyatta National Hospital was purposive because it is the national referral as well as a teaching hospital. The selection of renal unit was purposive too. The sample selection was also based on the purposive sampling method.

### 3.6. Sample Size Determination

(i) Fisher formula, 1998 was used to determine the sample size for nurses

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

Where; n=the desired sample

 z=95% confidence interval or 1.96

 d=degree of precision usually set at 0.05

 P= 0.5%

The prevalence of 50% was used as indicated by Mugenda and Mugenda, (2003)

$$n= \frac{1.96^2 \times 0.5\ (0.5)}{0.05^2}$$

$$\frac{1.96^2 \times 0.25}{0.0025}$$

$$1.96^2 \times 100$$

$$3.84 \times 100$$

$$384$$

But for the population less than 10 000, the following formula was used.

**Nf =n/1+ (n/N)** (Mugenda &Mugenda, 2003)

Where; nf =desired sample for population less than 10 000

n=desired sample size for population greater than 10 000.

N=estimate of the population size=51

Hence the desired sample size was

 384/1 (384/51)

nf= 384/ (1+7.53)

nf =384/8.53

nf =45

(ii) Fisher formula, (1998) was used to determine the sample size for patients

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

Where; n=the desired sample

z=95% confidence interval or 1.96

d=degree of precision usually set at 0.05

P= 0.5%

The prevalence of 50% was used as indicated by Mugenda and Mugenda, (2003)

$$n= \frac{1.96^2 \ x \ 0.5 \ (0.5)}{0.05^2}$$

$$\frac{1.96^2 \ x \ 0.25}{0.0025}$$

$1.96^2$ x 100

3.84 x 100

384

But for the population less than 10 000, the following formula was used.

**Nf =n/1+ (n/N)** (Mugenda &Mugenda, 2003)

Where; nf =desired sample for population less than 10 000

n=desired sample size for population greater than 10 000.

N=estimate of the population size=250

Hence the desired sample size was

384/1 (384/250)

nf= 384/ (1+1.54)

nf =384/2.54

nf =150

Therefore the sample sizes were **45** and **150** nurses and patients respectively.

## 3.7. Study Tools

The following study instruments were used; semi-structured questionnaire for nurses was used to assess the motivational levels available in the unit (Appendix II). A semi-structured questionnaires and checklists were also used to collect data from the renal patient on dialysis (Appendix III). The study tools had been operationalized by the investigator to suit the study with some information being modified from Whitaker M.K. (2011) Motivation Checklist.

## 3.8. Data Collection

Data was collected from the participants using the semi-structured questionnaires for both 150 patients and 45 nurses in the renal unit of Kenyatta National Hospital.

Data was collected for a period of two weeks. The questionnaires were administered and the checklist was completed to provide a detailed account of patient's satisfaction and nurses' motivational patterns.

## 3.9. Pretesting of the Study Tools

Pretesting of the questionnaire and checklist schedule was done in renal ward (7A) on 15 patients and 5 nurses due to the similarities in characteristics with renal unit. This helped the researcher

to review and amend questions that were not clearly understood by participants on participants' questionnaire (Appendices II and III). The results of the pretest were not included in the final analysis of the data.

## 3.10. Data Cleaning

After data collection, all questionnaires were checked for completeness and consistency. Any questionnaire that was incomplete was discarded.

## 3.11. Data Analysis

Data was entered using Statistical Package for Social Science (SPSS) software version 17. Comparison of what was reported in questionnaire and observed in the checklist was made. Descriptive statistics such as Mean, Mode, Median and Standard Deviation were used to summarize and describe the data. Inferential statistics such as Chi-square was used to show relationships between variables. P value was set at 0.05.

## 3.12. Data Presentation

The analyzed data was presented in the form of quantitative methods such as tables, pie charts and frequency graphs.

## 3.13. Ethical Considerations

Clearance was sought and obtained from the University of Nairobi and KNH Research and Ethics committee. Permission to carry out study in KNH was sought from the KNH administration. An informed consent form (Appendices I) was developed so that only those who consented to participate in the study signed and were given the questionnaire. No names were included on questionnaires and information gathered was for research purposes only. The study did not involve any invasive procedure. Ethical principles in identifying and interviewing clients

were applied. The first principle of Autonomy was applied to let participants make an informed choice on whether to participate or not. It included disclosing the nature of study to participant, risks, benefits, opportunity to ask questions and no penalty when participant withdrawn. This was expressed in the informed consent document. Another principle used was Beneficence, where the investigator minimized the risks by explaining to participants that no invasive procedures were involved. The last principle of justice was applied by use of equitable selection of participants and avoiding coercion. The participants were adults with a stable mind who were able to make a choice independently.

## 3.14. Dissemination of the Results

Reports on the research findings were compiled, written and presented to the relevant stakeholders for examination purposes, publication and abstract presentation for scientific use.

# Chapter Four: Results

## 4.0. Introduction

This chapter presents the findings of the study. The study had two categories of respondents; the first one being the qualified nurses working in renal unit of KNH and the second category being renal patients who were on dialysis. The results are presented in pie charts, tables and graphs.

## 4.1. Social Demographic Profile of Nurses

### 4.1.1. Gender of Nurses

A total of 45 nurses consented and participated in this study. Majority (91.1%) were females whilst few (8.9%) were males as shown in Figure 1.
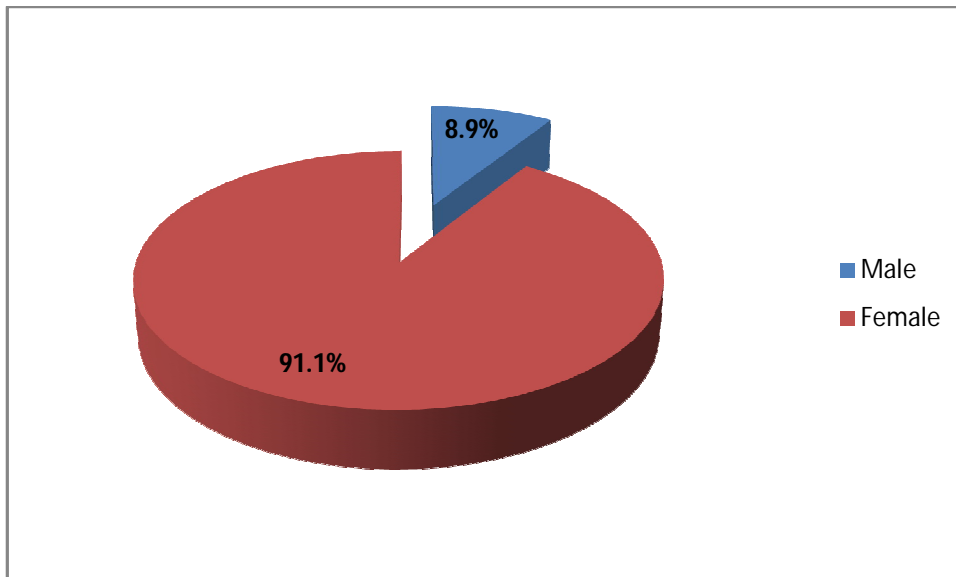


**Figure 1: Gender of Nurses (N=45)**

### 4.1.2. Age of Nurses

The mean age of the nurses was 39.80, median 40.00, with a standard deviation of 6.247. The minimum age was 29 years and maximum age was 55 years giving an age range of 26 years.

The majority (33.3%) was aged between 36-40 years, 26.7% were less than 35 years and 4.4% were above 51 years old (refer figure 2).
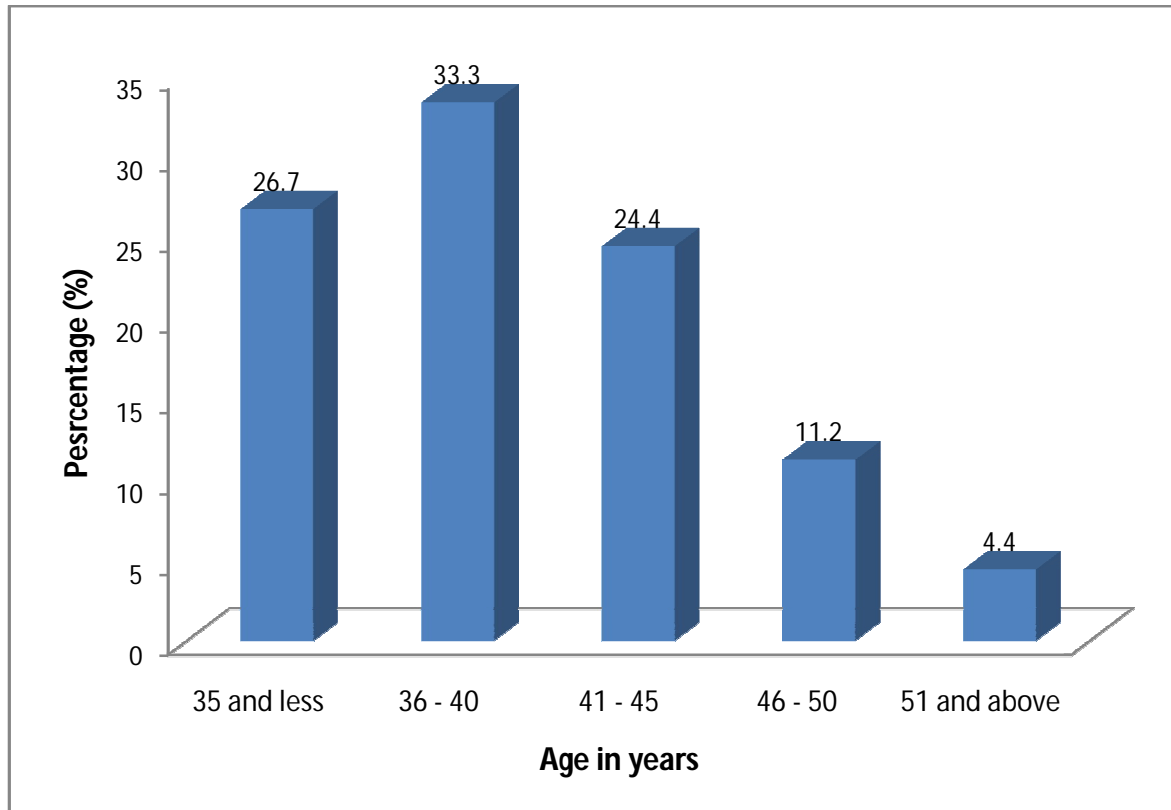


**Figure 2: Age of Nurses (N=45)**

*4.1.3. Marital Status of Nurses*

As illustrated in Figure 3, more than three quarters of the respondents (86.7%) (n=39) were married, 11.1% were single whilst 2.2% were divorced.
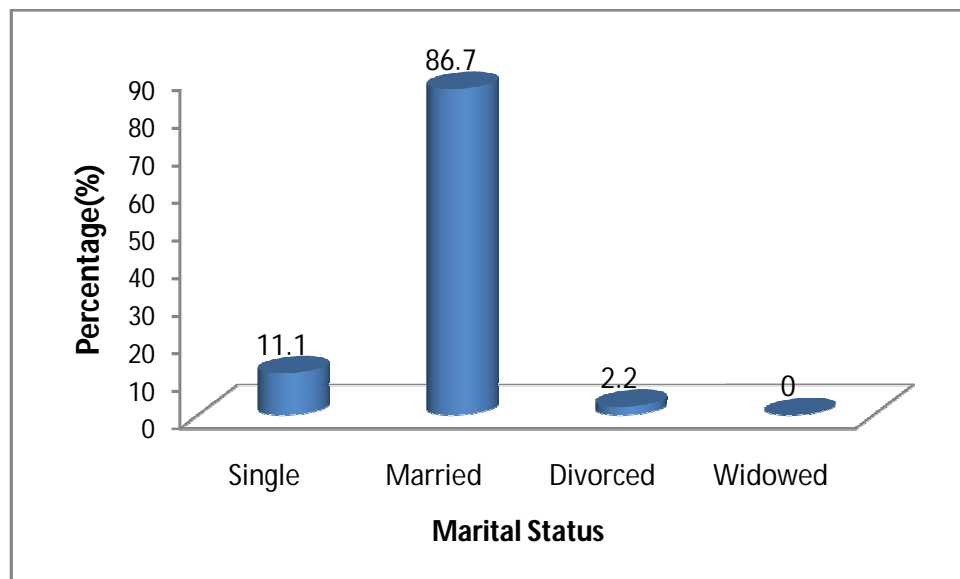
**Figure 3: Marital Status of Nurses (N=45)**

*4.1.4. Other Social Demographic Characteristics of Nurses*

All the respondents (100%) (n = 45) had a college education.

More than half 53.3% (n=24) of the study participants had worked in the renal unit for 5 years whilst 8.9% had worked there for more 10 years.

All the respondents (100%) were Kenyans and fulltime employees as illustrated in Table 1.

**Table 1: Other Social Demographic Characteristics of Nurses (N=45)**

|  | Frequency | Percentage |
|---|---|---|
| Education<br>    College | 45 | 100 |
| Years at renal Unit<br>    1 – 5 years<br>    6 – 10 years<br>    11 – 15 years | 24<br>17<br>4 | 53.3<br>37.8<br>8.9 |
| Working Schedule<br>    Fulltime | 45 | 100 |
| Citizenship<br>    Kenya | 45 | 100 |

**4.2. Patients Who Died After Commencing Dialysis**

Majority of nurses (95.6%) reported that they did not witness any death of the patient soon after undergoing dialysis for the last three months whilst few of them (2.2%) reported to have witnessed death of one to two patients after dialysis for the last three months.

**4.3. Significance between Demographic Characteristics and Motivation Factors N=45**

*4.3.1. Cross Tabulation of Gender of the Nurses and Motivation Factors*

The table 2 shows the relationship between gender and motivation factors. There was a statistical significance between gender of the respondents and recognition p= 0.046. The male gender was more motivated with recognition than their female counterpart.

**Table 2: Cross Tabulation of Gender of the Respondent (Nurses) and Motivation Factors**

| | ANOVA | | | | | | |
|---|---|---|---|---|---|---|---|
| | Strongly Disagree | Disagree | Neither Agree / Disagree | Agree | Strongly Agree | F | P |
| Interesting work: Male | 0 | 0 | 0 | 0 | 4 (100) | 1.582 | 0.215 |
| Female | 0 | 0 | 0 | 12 (29.3) | 29(70.7) | | |
| Career progression: Male | 0 | 0 | 1 (25.0) | 2 (50.0) | 1 (25) | 0.315 | 0.577 |
| Female | 0 | 0 | 10 24.4) | 11(26.8) | 20(48.8) | | |
| Recognition: Male | 0 | 0 | 0 | 0 | 4 (100) | 0.643 | **0.046** |
| Female | 1 (2.4) | 1 (2.4) | 4 (9.8) | 14 (34.1) | 21 (51.2) | | |
| Team work : Male | 0 | 0 | 1(25) | 3(75) | 0 | 0.299 | 0.587 |
| Female | 0 | 2(4.4) | 10(24.4) | 15(36.6) | 14(34.1) | | |
| Work environment: Male | 0 | 0 | 1(25) | 1(25) | 2(50) | 0.642 | 0.427 |
| Female | 1(2.4) | 6(14.6) | 7(17.1) | 14(34.1) | 13(31.7) | | |
| Responsibility: Male | 0 | 0 | 0 | 1(25) | 3(75) | 2.744 | 0.105 |
| Female | 7(17.1) | 5(12.2) | 4(9.8) | 11(26.8) | 14(34.1) | | |
| Achievement: Male | 0 | 0 | 0 | 2(50) | 2(50) | 0.061 | 0.806 |
| Female | 1(2.4) | 0 | 4(9.8) | 13(31.7) | 23(56.1) | | |
| Social Support: Male | 0 | 0 | 0 | 4(100) | 0 | 2.044 | 0.160 |
| Female | 0 | 1(2.4) | 1(2.4) | 16(39.0) | 23(56.1) | | |
| Job security: Male | 0 | 0 | 0 | 3(75) | 1(25) | 0.124 | 0.727 |
| Female | 0 | 3(7.3) | 9(22) | 11(26.8) | 18(43.9) | | |
| Autonomy: Male | 0 | 0 | 1(25) | 3(75) | 0 | 1.144 | 0.291 |
| Female | 2(4.1) | 0 | 2(4.9) | 18(43.9) | 19(46.3) | | |
| Remuneration: Male | 2(50) | 2(50) | 0 | 0 | 0 | 1.151 | 0.289 |
| Female | 17(41.5 | 7(17.1) | 14(34.1) | 2(4.9) | 1(2.4) | | |
| Nurse / patient relationship : Male | 0 | 0 | 0 | 0 | 4(100) | 0.302 | 0.586 |
| Female | 0 | 0 | 0 | 3(7.3) | 38(92.7) | | |

### 4.3.2. Cross Tabulation of Marital Status of Nurses and Motivation Factors N=45

The table 3 shows the relationship between marital status and the motivation factors. Nurses who were married were more motivated by autonomy p=0.026 and achievement p=0.044 whilst those who were single were more motivated by remuneration p=0.005. It was further revealed that those who were divorced were less motivated with remuneration.

**Table 3: Cross Tabulation of Marital Status of Nurses and Motivation Factors N=45**

| | ANOVA | | | | | | |
|---|---|---|---|---|---|---|---|
| | Strongly Disagree | Disagree | Neither Agree or Disagree | Agree | Strongly Agree | F | P |
| Interesting work: Single | 0 | 0 | 0 | 0 | 5(100) | 2.400 | 0.103 |
| Married | 0 | 0 | 0 | 11(28.2) | 28(71.8) | | |
| Divorced | 0 | 0 | 0 | 1(100) | 0 | | |
| Career progression | | | | | | 1.691 | 0.197 |
| Single | 0 | 0 | 1(20) | 0 | 4(80%) | | |
| Married | 0 | 0 | 9(23.1) | 13(33.3) | 17(43.6) | | |
| Divorced | 0 | 0 | 1(100) | 0 | 0 | | |
| Recognition:  Single | 0 | 1(20) | 1(20) | 2(40) | 1(20) | 0.201 | 0.818 |
| Married | 1(2.6) | 0 | 7(17.9) | 12(30.8) | 18(46.2) | | |
| Divorced | 0 | 0 | 0 | 0 | 1(100) | | |
| Team work:  Single | 0 | 1(20) | 1(20) | 1(20) | 2(40) | 0.795 | 0.458 |
| Married | 0 | 1(2.6) | 9(23.1) | 17(43.6) | 12(30.8) | | |
| Divorced | 0 | 0 | 1(100) | 0 | 0 | | |
| Work environment | | | | | | 1.430 | 0.251 |
| Single | 0 | 0 | 0 | 2(40) | 3(60) | | |
| Married | 1(2.6) | 6(15.4) | 8(20.5) | 12(30.8) | 12(30.8) | | |
| Divorced | 0 | 0 | 0 | 1(100) | 0 | | |
| Responsibility:  Single | 0 | 2(40) | 1(20) | 1(20) | 1(20) | 0.833 | 0.442 |
| Married | 7(17.9) | 2(5.1) | 3(7.7) | 7(28.2) | 16(41.0) | | |
| Divorced | 0 | 1(100) | 0 | 0 | 0 | | |
| Achievement:  Single | 1(20) | 0 | 0 | 2(40) | 2(40) | 3.3367 | **0.044** |
| Married | 0 | 0 | 3(7.7) | 13(33.3) | 23(59) | | |
| Divorced | 0 | 0 | 1(100) | 0 | 0 | | |
| Social support:  Single | 0 | 0 | 0 | 2(40) | 3(60) | 0.535 | 0.589 |
| Married | 0 | 1(2.6) | 1(2.6) | 18(46.2) | 19(48.7) | | |
| Divorced | 0 | 0 | 0 | 0 | 1(100) | | |
| Job security:  Single | 0 | 0 | 2(40) | 0 | 3(60) | 0.040 | 0.961 |
| Married | 0 | 3(7.7) | 7(17.1) | 13(33.3) | 16(41) | | |
| Divorced | 0 | 0 | 0 | 1(100) | 0 | | |
| Autonomy:  Single | 1(20) | 0 | 2(40) | 1(20) | 1(20) | 3.968 | **0.026** |
| Married | 1(2.6) | 0 | 1(2.6) | 19(48.7) | 18(46.2) | | |
| Divorced | 0 | 0 | 0 | 1(100) | 0 | | |
| Remuneration: Single | 0 | 0 | 4(80) | 0 | 1(20) | 6.021 | **0.005** |
| Married | 18(46.2) | 9(23.1) | 10(25.6) | 2(5.1) | 0 | | |
| Divorced | 1(100) | 0 | 0 | 0 | 0 | | |
| Nurse/patient relationship | | | | | | 0.233 | 0.793 |
| Single | 0 | 0 | 0 | 0 | 5(100) | | |
| Married | 0 | 0 | 0 | 3(7.7) | 36(92.3) | | |
| Divorced | 0 | 0 | 0 | 0 | 1(100) | | |

### 4.3.3. Cross Tabulation of Duration of Work of Nurses and Motivation Factors

There was a significant relationship between achievement and duration of work p=0.044. Nurses who had worked for more than seven years were more motivated with achievement (71.4%) than those who had worked for less than seven years (48.4%). The relationship between duration of work and autonomy was also significant p=0.026, nurses who had worked for more than seven years were also more motivated by autonomy than those who had worked for less than seven years.

The relationship between renumeration and duration of work was also statistically significant p=0.005. Most respondents (45.2%) who worked for less than seven years were less motivated with renumeration than those who had worked for more than seven years (35.7%).

**Table 4: Cross Tabulation of Duration of Work of Nurses and Motivation Factors**

| | ANOVA | | | | | | |
|---|---|---|---|---|---|---|---|
| | Strongly Disagree | Disagree | Neither Agree or Disagree | Agree | Strongly Agree | F | P |
| Interesting work: | | | | | | 2.400 | 0.103 |
|     1 to 7 years | 0 | 0 | 0 | 7(22.9) | 24(77.4) | | |
|     8 to 14 years | 0 | 0 | 0 | 5(35.7) | 9(64.3) | | |
| Career progression | | | | | | 1.691 | 0.197 |
|     1 to 7 years | 0 | 0 | 8(25.8) | 8(25.8) | 15(48.4) | | |
|     8 to 14 years | 0 | 0 | 3(21.4) | 5(35.7) | 6(42.9) | | |
| Recognition: | | | | | | 0.201 | 0.818 |
|     1 to 7 years | 0 | 1(3.2) | 5(16.1) | 11(35.5) | 13(41.9) | | |
|     8 to 14 years | 1(7.1) | 0 | 3(21.4) | 3(21.4) | 7(50) | | |
| Team work: | | | | | | 0.795 | 0.458 |
|     1 to 7 years | 0 | 1(3.2) | 9(29) | 12(38.7) | 9(29) | | |
|     8 to 14 years | 0 | 1(7.1) | 2(14.3) | 6(42.9) | 5(35.7) | | |
| Work environment | | | | | | 1.430 | 0.251 |
|     1 to 7 years | 0 | 3(9.7) | 6(19.4) | 13(41.9) | 9(29.0) | | |
|     8 to 14 years | 1(7.1) | 3(21.4) | 2(14.3) | 2(14.3) | 6(42.9) | | |
| Responsibility: | | | | | | 0.833 | 0.442 |
|     1 to 7years | 4(12.9) | 4(12.9) | 2(6.5) | 9(29.0) | 12(38.7) | | |
|     8 to 14 years | 3(21.4) | 1(7.1) | 2(14.3) | (21.4) | 5(35.7) | | |
| Achievement: | | | | | | 3.3367 | **0.044** |
|     1 to 7 years | 1(3.2) | 0 | 3(9.7) | 12(38.7) | 15(48.4) | | |
|     8 to 14 years | 0 | 0 | 1(7.1) | 3(21.4) | 10(71.4) | | |
| Social support: | | | | | | 0.535 | 0.589 |
|     1to 7 years | 0 | 0 | 0 | 16(51.6) | 15(48.4) | | |
|     8 to 14 years | 0 | 1(7.1) | 1(7.1) | 4(28.6) | 8(57.1) | | |
| Job security: | | | | | | 0.040 | 0.961 |
|     1 to 7 years | 0 | 1(3.2) | 8(25.8) | 11(35.5) | 11(35.5) | | |
|     8 to 14 years | 0 | 2(14.3) | 1(7.1) | 3(21.4) | 8(57.1) | | |
| Autonomy: | | | | | | 3.968 | **0.026** |
|     1 to 7 years | 2(6.5) | 0 | 3(9.7) | 14(45.2) | 12(38.7) | | |
|     8 to 14 years | 0 | 0 | 0 | 7(50) | 7(50) | | |
| Remuneration : | | | | | | 6.021 | **0.005** |
|     1to 7 years | 14(45.2) | 8(25.8) | 8(25.8) | 0 | 1(3.2) | | |
|     8 to 14 years | 5(35.7) | 1(7.1) | 6(42.9) | 2(14.3) | 0 | | |
| Nurse/patient relationship | | | | | | 0.233 | 0.793 |
|     1 to 7 years | 0 | 0 | 0 | 1(3.2) | 30(96.8) | | |
|     8 to 14 years | 0 | 0 | 0 | 2(14.3) | 12(85.7) | | |

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**4.4. Social Demographic Profile of Respondents (Patients)**

The second category of respondents in this study was the patients admitted at the renal unit of KNH. One hundred and fifty (150) patients consented and participated in this study. The majority (51.3%) (n=77) were males while 48.7% (n=73) were females see the table 5.

The minimum age of the patients was 14 years while the maximum age was 70 years. The mean age was 41.95 while the mode was 39 and the median was 42.0 with a standard deviation of 12.475. Most of the respondents (43.3%) (n=65) were aged between 21-40 years and another 43.3% were within the age bracket of 41-60 years. 10% of the respondents were aged above 60 years and very few (3.4) were aged less than 20 years.

Out of 150 respondents (patients), 70.7% (n=106) were married, 27.7% (n=34) were single, 5.3% were divorced and 1.3% were widowed. Most of the respondents 89.3% were Christians, 10% were Muslims and 0.7% was Buddhist.

**Table 5: Social Demographic Characteristics of the Respondents (Patients) (N=150)**

| Characteristic | Frequency | Percentage (%) |
|---|---|---|
| Gender:        Male | 77 | 51.3 |
|                    Female | 73 | 48.7 |
| Age in years:   20 years and less | 5 | 3.4 |
|                    21-40 | 65 | 43.3 |
|                    41-60 | 65 | 43.3 |
|                    61-80 | 15 | 10.0 |
| Marital Status: Single | 34 | 22.7 |
|                    Married | 106 | 70.7 |
|                    Divorced | 8 | 5.3 |
|                    Widowed | 2 | 1.3 |
| Religion:        Christian | 134 | 89.3 |
|                    Islam | 15 | 10.0 |
|                    Others (Buddhist) | 1 | 0.7 |
| Education Level: Primary | 31 | 20.7 |
|                    Secondary | 56 | 37.3 |
|                    College | 58 | 38.7 |
|                    None | 5 | 3.3 |

**4.5. Significance between Demographic Characteristics of Patients and Satisfaction**

**4.5.1. Cross Tabulation of Age of the Patients and Satisfaction Factors N=150**

Table 6 shows the relationship between age of the respondents and the satisfying factors. The relationship between age of the respondents and good listening skills was statistically significant p=0.018. Those aged between 61-80 years (100%) were more satisfied with nurses' good listening skills than the other age groups.

The relationship between age of the respondents and being treated as individuals was also statistically significant p=0.008. Those aged between 61-80 years (60%) were more satisfied by being treated as individuals than the other age groups.

The relationship between age of the respondents and nurses' positive attitudes was statistically significant p=0.014. Respondents who were less than 20 years old (80%) were more satisfied with nurses' positive attitudes than those respondents in other age groups.

The relationship between age of respondents and nurses' responsiveness was also statistically significant p=0.043. Those who were aged between 61-80 years (66.7%) were more satisfied with nurses' responsiveness than the rest.

The relationship between age of respondents and information provision was also statistically significant p=0.018. The respondents who were aged between 41- 60 years (67.7%) were more satisfied with information provision than the other age groups.

**Table 6: Cross Tabulation of Age of Respondents (Patients) and Satisfaction Factors**

| | Grading of Satisfaction | | | | | | ANOVA | |
|---|---|---|---|---|---|---|---|---|
| | Poor | Fair | Fairly Good | Good | Very Good | Excellent | F | P |
| Respect: >20years | 0 | 0 | 0 | 0 | 0 | 5(100) | 0.356 | 0.785 |
| 21-40 years | 0 | 0 | 1(1.5) | 0 | 7(10.8) | 57(87.7) | | |
| 41-60 years | 0 | 0 | 1(1.5) | 0 | 10(15.4) | 54(83.1) | | |
| 61-80 years | 0 | 0 | 0 | 0 | 2(13.3) | 13(86.7) | | |
| Friendly: >20years | 0 | 0 | 0 | 0 | 2(40) | 3(60.0) | 0.495 | 0.687 |
| 21-40 years | 0 | 0 | 0 | 3(4.6) | 24(36.9) | 38(58.5) | | |
| 41-60 years | 0 | 0 | 0 | 2(3.1) | 23(35.4) | 40(61.5) | | |
| 61-80 years | 0 | 0 | 0 | 0 | 4(26.7) | 11(73.3) | | |
| Anxiety Alleviation | | | | | | | 1.868 | 0.138 |
| >20years | 0 | 0 | 0 | 0 | 3(60.0) | 2(40.0) | | |
| 21-40 years | 0 | 0 | 1(1.5) | 6(9.2) | 35(53.8) | 23(35.4) | | |
| 41-60 years | 0 | 0 | 0 | 6(9.2) | 22(33.8) | 37(56.9) | | |
| 61-80 years | 0 | 0 | 0 | 0 | 7(46.7) | 8(53.3) | | |
| Good Listening kills | | | | | | | 3.977 | **0.018** |
| >20years | 0 | 0 | 0 | 0 | 1(20.0) | 4(80) | | |
| 21-40 years | 0 | 0 | 2(3.1) | 4(6.2) | 10(15.4) | 49(75.4) | | |
| 41-60 years | 0 | 0 | 0 | 0 | 5(7.7) | 60(92.3) | | |
| 61-80 years | 0 | 0 | 0 | 0 | 0 | 15(100) | | |
| Treated as Individual | | | | | | | 4.136 | **0.008** |
| >20years | 0 | 0 | 1(20) | 1(20.0) | 1(20.0) | 2(40.0) | | |
| 21-40 years | 0 | 1(1.5) | 3(4.6) | 11(16.9) | 35(53.8) | 15(23.1) | | |
| 41-60 years | 0 | 1(1.5) | 2(3.1) | 9(13.8) | 22(33.8) | 31(47.7) | | |
| 61-80 years | 0 | 0 | 1(6.7) | 0 | 5(33.3) | 9(60.0) | | |
| Attention to Concerns | | | | | | | 2.338 | 0.076 |
| >20years | 0 | 0 | 1(20.0) | 0 | 3(60.0) | 1(20.0) | | |
| 21-40 years | 0 | 2(3.1) | 3(4.6) | 16(24.6) | 32(49.2) | 12(18.5) | | |
| 41-60 years | 0 | 1(1.5) | 3(4.6) | 4(6.2) | 30(46.2) | 27(41.5) | | |
| 61-80 years | 0 | 0 | 0 | 3(20.0) | 4(26.7) | 8(53.3) | | |
| Positive Attitudes | | | | | | | 3.652 | **0.014** |
| >20years | 0 | 0 | 0 | 0 | 1(20.0) | 4(80.0) | | |
| 21-40 years | 0 | 1(1.5) | 1(1.5) | 9(13.8) | 35(53.8) | 19(29.2) | | |
| 41-60 years | 0 | 1(1.5) | 3(4.6) | 8(12.3) | 28(43.1) | 25(38.5) | | |
| 61-80 years | 0 | 0 | 0 | 1(6.7) | 5(33.3) | 9(60.0) | | |
| Honesty: >20years | 0 | 0 | 0 | 0 | 1(20.0) | 4(80.0) | 2.269 | 0.083 |
| 21-40 years | 0 | 0 | 0 | 11(16.9) | 29(44.6) | 25(38.5) | | |
| 41-60 years | 0 | 1(1.5) | 5(7.7) | 5(7.7) | 29(29.6) | 25(38.5) | | |
| 61-80 years | 0 | 0 | 0 | 0 | 5(33.3) | 10(66.7) | | |
| Responsive: >20years | 0 | 0 | 0 | 0 | 3(60) | 2(40) | 2.791 | **0.043** |
| 21-40 years | 0 | 0 | 3(4.6) | 13(20.0) | 31(47.7) | 18(27.7) | | |
| 41-60 years | 0 | 1(1.5) | 2(3.1) | 8(12.3) | 19(29.2) | 35(53.8) | | |
| 61-80 years | 0 | 0 | 0 | 0 | 5(33.3) | 10(66.7) | | |
| Information Provision | | | | | | | 3.471 | **0.018** |
| >20years | 0 | 0 | 0 | 0 | 2(40.0) | 3(60.0) | | |
| 21-40 years | 0 | 1(1.5) | 0 | 2(3.1) | 28(43.1) | 34(52.3) | | |
| 41-60 years | 1(1.5) | 1(1.5) | 1(1.5) | 1(1.5) | 17(26.2) | 44(67.7) | | |
| 61-80 years | 0 | 0 | 0 | 1(6.7) | 6(40.0) | 8(53.3) | | |
| Decision Making | | | | | | | 0.134 | 0.939 |
| >20years | 0 | 0 | 0 | 0 | 1(20.0) | 4(80.0) | | |
| 21-40 years | 0 | 1(1.5) | 0 | 2(3.1) | 11(16.9) | 51(78.5) | | |
| 41-60 years | 0 | 1(1.5) | 0 | 1(1.5) | 7(10.8) | 56(86.2) | | |
| 61-80 years | 0 | 0 | 0 | 1(6.7) | 2(13.3) | 12(80.0) | | |
| Interaction: >20years | 0 | 0 | 0 | 0 | 1(20.0) | 4(80.0) | 0.240 | 0.868 |
| 21-40 years | 0 | 1(1.5) | 0 | 2(3.1) | 11(16.9) | 51(78.5) | | |
| 41-60 years | 0 | 1(1.5) | 0 | 1(1.5) | 7(10.8) | 56(86.2) | | |
| 61-80 years | 0 | 0 | 0 | 1(6.7) | 2(13.3) | 12(80.0) | | |

### 4.5.2. Cross Tabulation of Gender of the Patients and Satisfaction Factors

The table 7 shows the relationship between gender of the respondents (patients) and satisfying factors. The study showed that the relationship between gender and satisfaction factors was not statistically significant p>0.05).

**Table 7: Cross Tabulation of Gender of Respondents (Patients) and Satisfaction Factors**

| | | Grading of Satisfaction Factors | | | | | | ANOVA | |
|---|---|---|---|---|---|---|---|---|---|
| | | Poor | Fair | Fairly Good | Good | Very Good | Excellent | F | P |
| Respect: | Male | 0 | 0 | 2(2.6) | 10(13.0) | 0 | 65(84.4) | 1.216 | 0.272 |
| | Female | 0 | 0 | 0 | 9(12.3) | 0 | 64(87.7) | | |
| Friendly: | Male | 0 | 0 | 0 | 3(3.9) | 27(35.1) | 47(61.0) | 0.037 | 0.848 |
| | Female | 0 | 0 | 0 | 2(2.7) | 26(35.6) | 45(61.6) | | |
| Anxiety Alleviation: | Male | 0 | 0 | 1(1.3) | 6(7.8) | 31(40.3) | 39(50.6) | 0.309 | 0.579 |
| | Female | 0 | 0 | 0 | 6(8.2) | 36(49.3) | 31(42.5) | | |
| Good Listening Skills: | Male | 0 | 0 | 2(2.6) | 15(19.5) | 34(44.2) | 26(33.8) | 0.062 | 0.804 |
| | Female | 0 | 0 | 3(4.1) | 10(13.7) | 35(47.9) | 25(34.2) | | |
| Treated as Individual: | Male | 0 | 0 | 1(2.6) | 2(2.6) | 5(6.5) | 69(89.6) | 1.045 | 0.308 |
| | Female | 0 | 0 | 1(1.4) | 2(2.7) | 11(15.1) | 59(80.8) | | |
| Attention to Concerns: | Male | 0 | 2(2.6) | 3(3.9) | 15(19.5) | 27(35.1) | 30(39.0) | 0.883 | 0.349 |
| | Female | 0 | 0 | 4(5.5) | 6(8.2) | 36(49.3) | 27(37.0) | | |
| Positive Attitudes: | Male | 0 | 2(2.6) | 3(3.9) | 13(16.9) | 33(42.9) | 26(33.8) | 0.052 | 0.896 |
| | Female | 0 | 1(1.4) | 4(5.5) | 10(13.7) | 36(49.3) | 22(30.1) | | |
| Honesty: | Male | 0 | 2(2.6) | 1(1.3) | 7(9.1) | 35(45.5) | 32(41.6) | 0.657 | 0.419 |
| | Female | 0 | 0 | 3(4.1) | 11(15.1) | 34(46.6) | 25(34.2) | | |
| Responsiveness: | Male | 0 | 1(1.3) | 2(2.6) | 11(14.3) | 32(41.6) | 31(40.3) | 0.973 | 0.326 |
| | Female | 0 | 0 | 3(4.1) | 5(6.8) | 32(43.8) | 33(45.2) | | |
| Information Provision: | Male | 0 | 1(1.3) | 4(5.2) | 8(10.4) | 28(36.4) | 36(46.8) | 0.043 | 0.836 |
| | Female | 0 | 0 | 1(1.4) | 13(17.8) | 30(41.1) | 29(39.7) | | |
| Decision Making: | Male | 1(1.3) | 2(2.6) | 1(1.3) | 2(2.6) | 21(27.3) | 50(64.9) | 0.090 | 0.765 |
| | Female | 0 | 0 | 0 | 2(2.7) | 32(43.8) | 39(53.4) | | |
| Interaction: | Male | 0 | 2(2.6) | 0 | 2(2.6) | 8(10.4) | 65(84.4) | 0.067 | 0.796 |
| | Female | 0 | 0 | 0 | 2(2.7) | 13(17.8) | 58(79.5) | | |

### 4.5.3. Cross Tabulation of Marital Status of Patients and Satisfaction Factors

Table 8 illustrates the relationship between marital status and satisfying factors. The relationship between marital status and good listening skills was statistically significant p=004. Patients who were divorced were more satisfied with good listening skills.

**Table 8: Cross Tabulation of Marital Status of Respondents (Patients) and Satisfaction Factors**

| | Grading of Satisfaction Factors | | | | | | ANOVA | |
|---|---|---|---|---|---|---|---|---|
| | Poor | Fair | Fairly Good | Good | Very Good | Excellent | F | P |
| **Respect:** | | | | | | | 0.186 | 0.906 |
| Single | 0 | 0 | 1(2.9) | 0 | 2(5.9) | 31(91.2) | | |
| Married | 0 | 0 | 1(0.9) | 0 | 15(14.2) | 90(84.9) | | |
| Divorced | 0 | 0 | 0 | 0 | 2(25.0) | 6(75.0) | | |
| Widowed | 0 | 0 | 0 | 0 | 0 | 2(100) | | |
| **Friendly:** Single | 0 | 0 | 0 | 2(5.9) | 14(41.2) | 18(52.9) | 0.585 | 0.626 |
| Married | 0 | 0 | 0 | 3(2.8) | 35(33.0) | 68(64.2) | | |
| Divorced | 0 | 0 | 0 | 0 | 3(37.5) | 5(62.5) | | |
| Widowed | 0 | 0 | 0 | 0 | 1(50.0) | 1(50.0) | | |
| **Anxiety Alleviation:** | | | | | | | 0.318 | 0.812 |
| Single | 0 | 0 | 0 | 3(8.8) | 16(47.1) | 15(44.1) | | |
| Married | 0 | 0 | 1(0.9) | 9(8.5) | 45(42.5) | 51(48.1) | | |
| Divorced | 0 | 0 | 0 | 0 | 4(50.0) | 4(50.0) | | |
| Widowed | 0 | 0 | 0 | 0 | 2(100) | 0 | | |
| **Good Listening Skills:** | | | | | | | 4.289 | **0.004** |
| Single | 0 | 0 | 1(2.9) | 9(26.5) | 15(44.1) | (26.5) | | |
| Married | 0 | 0 | 3(2.8) | 15(14.2) | 50(47.2) | 38(35.8) | | |
| Divorced | 0 | 0 | 0 | 0 | 4(50.0) | 4(50.0) | | |
| Widowed | 0 | 0 | 1(50) | 1(50.0) | 0 | 0 | | |
| **Treated as Individual:** | | | | | | | 0.461 | 0.710 |
| Single | 0 | 0 | 0 | 1(2.9) | 7(20.6) | 26(76.5) | | |
| Married | 0 | 0 | 2(1.9) | 3(2.8) | 7(6.6) | 94(88.7) | | |
| Divorced | 0 | 0 | 0 | 0 | 1(12.5) | 7(87.5) | | |
| Widowed | 0 | 0 | 0 | 0 | 1(50) | 1(50.0) | | |
| **Attention to Concerns:** | | | | | | | 2.203 | 0.090 |
| Single | 0 | 1(0.9) | 2(5.9) | 5(14.7) | 15(44.1) | 11(32.4) | | |
| Married | 0 | 0 | 4(3.8) | 16(15.1) | 44(41.5) | 41(38.7) | | |
| Divorced | 0 | 0 | 0 | 0 | 3(37.5) | 5(62.5) | | |
| Widowed | 0 | 0 | 1(50.0) | 0 | 1(50.0) | 0 | | |
| **Positive Attitudes:** | | | | | | | 0.322 | 0.810 |
| Single | 0 | 1(2.9) | 2(5.9) | 4(11.8) | 18(52.9) | 9(26.5) | | |
| Married | 0 | 2(1.9) | 4(3.8) | 18(17.0) | 45(42.5) | 37(34.9) | | |
| Divorced | 0 | 0 | 1(12.5) | 0 | 5(52.5) | 2(25.0) | | |
| Widowed | 0 | 0 | 0 | 1(50.0) | 1(50.0) | 0 | | |
| **Honesty:** Single | 0 | 1(2.9) | 0 | 1(2.9) | 15(44.1) | 7(50.0) | 1.618 | 0.188 |
| Married | 0 | 1(0.9) | 3(2.8) | 16(15.1) | 51(48.1) | 35(33.0) | | |
| Divorced | 0 | 0 | 0 | 1(12.5) | 3(37.5) | 4(50.0) | | |
| Widowed | 0 | 0 | 1(50.0) | 0 | 0 | 1(50.0) | | |
| **Responsive:** Single | 0 | 0 | 1(2.9) | 5(14.7) | 15(44.1) | 13(38.2) | 1.216 | 0.306 |
| Married | 0 | 1(0.9) | 4(3.8) | 10(9.4) | 48(45.3) | 46(40.6) | | |
| Divorced | 0 | 0 | 0 | 1(12.5) | 0 | 7(87.5) | | |
| Widowed | 0 | 0 | 0 | 0 | 1(50.0) | 1(50.0) | | |
| **Information Provision:** | | | | | | | 1.316 | 0.271 |
| Single | 0 | 0 | 1(2.9) | 4(11.8) | 18(52.9) | 11(32.4) | | |
| Married | 0 | 1(0.9) | 4(3.8) | 17(16.0) | 37(34.9) | 47(44.3) | | |
| Divorced | 0 | 0 | 0 | 0 | 3(37.5) | 5(62.5) | | |
| Widowed | 0 | 0 | 0 | 0 | 0 | 2(100) | | |
| **Decision Making:** | | | | | | | 1.098 | 0.352 |
| Single | 0 | 1(2.9) | 0 | 0 | 17(50.0) | 16(47.1) | | |
| Married | 1(0.9) | 1(0.9) | 1(0.9) | 4(3.8) | 35(33.3) | 64(60.4) | | |
| Divorced | 0 | 0 | 0 | 0 | 1(25.5) | 7(87.5) | | |
| Widowed | 0 | 0 | 0 | 0 | 0 | 2(100) | | |
| **Interaction:** Single | 0 | 1(2.9) | 0 | 1(2.9) | 4(11.8) | 28(82.4) | 0.259 | 0.855 |
| Married | 0 | 1(0.9) | 0 | 3(2.8) | 16(15.1) | 86(81.1) | | |
| Divorced | 0 | 0 | 0 | 0 | 1(12.5) | 7(87.5) | | |
| Widowed | 0 | 0 | 0 | 0 | 0 | 2(100) | | |

### 4.5.4. Cross Tabulation of Education Level of Patients and Satisfaction Factors

The relationship between the patients' educational level and the satisfying factors was not statistically significant p>0.05.

**Table 9: Cross Tabulation of Education Level of Patients and Satisfaction N=150**

| | Grading of Satisfaction Factors | | | | | | ANOVA | |
|---|---|---|---|---|---|---|---|---|
| | Poor | Fair | Fairly Good | Good | Very Good | Excellent | F | P |
| Respect: Primary | 0 | 0 | 1(3.2) | 0 | 4(12.9) | 26(83.9) | 0.593 | 0.620 |
| Secondary | 0 | 0 | 1(1.8) | 0 | 8(14.3) | 47(83.9) | | |
| College | 0 | 0 | 0 | 0 | 6(10.3) | 52(89.7) | | |
| None | 0 | 0 | 0 | 0 | 1(20) | 4(80) | | |
| Friendly: Primary | 0 | 0 | 0 | 1(3.2) | 14(45.2) | 16(51.6) | 0.666 | 0.574 |
| Secondary | 0 | 0 | 0 | 2(3.6) | 20(35.7) | 34(60.7) | | |
| College | 0 | 0 | 0 | 2(3.4) | 18(31) | 38(65.5) | | |
| None | 0 | 0 | 0 | 0 | 1(20) | 4(80) | | |
| Anxiety Alleviation: Primary | 0 | 0 | 1(3.2) | 0 | 4(12.9) | 26(83.9) | 0.956 | 0.416 |
| Secondary | 0 | 0 | 1(1.8) | 0 | 8(14.3) | 47(83.9) | | |
| College | 0 | 0 | 0 | 0 | 6(10.3) | 52(89.7) | | |
| None | 0 | 0 | 0 | 0 | 1(20) | 4(80) | | |
| Good Listening Skills: | | | | | | | | |
| Primary | 0 | 0 | 1(3.2) | 2(6.5) | 16(51.6) | 12(38.7) | 0.234 | 0.873 |
| Secondary | 0 | 0 | 0 | 4(7.1) | 22(39.3) | 30(53.6) | | |
| College | 0 | 0 | 0 | 6(10.3) | 27(46.6) | 25(43.1) | | |
| None | 0 | 0 | 0 | 0 | 2(40) | 3(60) | | |
| Treated as Individual: | | | | | | | | |
| Primary | 0 | 0 | 1(3.2) | 0 | 3(9.7) | 27(87.1) | 1.153 | 0.330 |
| Secondary | 0 | 0 | 1(1.8) | 1(1.8) | 1(1.8) | 53(94.6) | | |
| College | 0 | 0 | 0 | 3(5.2) | 10(17.2) | 45(77.6) | | |
| None | 0 | 0 | 0 | 0 | 2(40) | 3(60) | | |
| Attention to Concerns: | | | | | | | | |
| Primary | 0 | 1(3.2) | 3(9.7) | 3(91.7) | 12(38.7) | 12(38.7) | 0.331 | 0.803 |
| Secondary | 0 | 1(1.8) | 3(5.4) | 9(16.1) | 20(35.7) | 23(41.1) | | |
| College | 0 | 0 | 1(1.7) | 8(13.8) | 28(48.3) | 21(36.2) | | |
| None | 0 | 0 | 0 | 1(20) | 3(60) | 1(20) | | |
| Positive Attitudes: Primary | 0 | 1(3.2) | 2(6.5) | 3(9.7) | 15(48.4) | 10(32.3) | 1.330 | 0.267 |
| Secondary | 0 | 1(1.8) | 2(3.6) | 12(21.4) | 25(44.6) | 16(28.6) | | |
| College | 0 | 1(1.7) | 3(5.2) | 8(13.8) | 28(48.3) | 18(31) | | |
| None | 0 | 0 | 0 | 0 | 1(20) | 4(80) | | |
| Honesty: Primary | 0 | 1(3.2) | 2(6.5) | 1(3.2) | 10(32.3) | 17(54.8) | 0.590 | 0.622 |
| Secondary | 0 | 1(1.8) | 2(3.6) | 9(16.1) | 24(42.9) | 20(35.7) | | |
| College | 0 | 0 | 0 | 8(13.8) | 32(55.2) | 18(31) | | |
| None | 0 | 0 | 0 | 0 | 3(60) | 2(40) | | |
| Responsive: Primary | 0 | 1(3.2) | 2(6.5) | 1(3.2) | 11(35.5) | 16(51.6) | 0.420 | 0.739 |
| Secondary | 0 | 0 | 2(3.6) | 7(12.5) | 26(46.4) | 21(37.5) | | |
| College | 0 | 0 | 1(1.7) | 8(13.8) | 25(43.1) | 24(41.4) | | |
| None | 0 | 0 | 0 | 0 | 2(40) | 3(60) | | |
| Information provision: | | | | | | | | |
| Primary | 0 | 1(3.2) | 0 | 2(6.5) | 11(35.5) | 17(54.8) | 1.121 | 0.343 |
| Secondary | 0 | 0 | 3(5.4) | 9(16.1) | 19(33.9) | 25(44.6) | | |
| College | 0 | 0 | 2(3.4) | 10(17.2) | 26(44.8) | 20(34.5) | | |
| None | 0 | 0 | 0 | 0 | 2(40) | 3(60) | | |
| Decision Making: Primary | 1(3.2) | 0 | 0 | 1(3.2) | 14(45.2) | 15(48.4) | 1.269 | 0.287 |
| Secondary | 0 | 2(3.6) | 0 | 2(3.6) | 18(32.1) | 34(60.7) | | |
| College | 0 | 0 | 1(1.7) | 1(1.7) | 21(36.2) | 35(60.3) | | |
| None | 0 | 0 | 0 | 0 | 0 | 5(100) | | |
| Interaction: Primary | 0 | 1(3.2) | 0 | 2(6.5) | 5(16.1) | 23(74.2) | 1.456 | 0.229 |
| Secondary | 0 | 1(1.8) | 0 | 2(3.6) | 7(12.5) | 46(82.1) | | |
| College | 0 | 0 | 0 | 0 | 9(15.5) | 49(84.5) | | |
| None | 0 | 0 | 0 | 0 | 0 | 5(100) | | |

## 4.6. Relationship between Age of Patients and other Patient Outcomes

The relationship between age of respondents and post procedure stress was statistically significant P value = 0.009. Those who were less than 20 years old were more stressed than the other age groups after dialysis.

## Table 10: Significance between Age of Patients Outcome (N=150)

| | Age | Outcome | | F | P-value (ANOVA) |
|---|---|---|---|---|---|
| | | Yes | No | | |
| I am walking comfortable after dialysis | 20and less<br>21- 40<br>41-60<br>61-80 | 2(40.0)<br>12(18.5)<br>11(16.9)<br>13.3(2) | 3(60.0)<br>53(81.5)<br>54(83.1)<br>13(86.7) | 0.495 | 0.686 |
| I felt pain soon after dialysis | 20and less<br>21- 40<br>41-60<br>61-80 | 5(100)<br>60(92.3)<br>57(87.7)<br>13(86.7) | 0<br>5(7.7)<br>8(12.3)<br>2(13.3) | 0.631 | 0.596 |
| I felt dizzy soon after dialysis | 20and less<br>21- 40<br>41-60<br>61-80 | 0<br>26(40.0)<br>33(50.8)<br>4(26.7) | 5(100)<br>39(60.0)<br>32(49.2)<br>11(73.3) | 2.463 | 0.065 |
| I am breathing with difficulties soon after dialysis | 20and less<br>21- 40<br>41-60<br>61-80 | 0<br>6(9.2)<br>7(10.8)<br>4(26.7) | 5(100)<br>59(90.8)<br>58(89.2)<br>11(73.3) | 1.490 | 0.220 |
| I am talking effectively soon after dialysis | 20 and less<br>21-40<br>41-60<br>61-80 | 4(80.0)<br>59(90.8)<br>61(93.8)<br>14(93.3) | 1(20.0)<br>6(9.2)<br>4(6.2)<br>1(6.7) | 0.475 | 0.700 |
| I am able to clean and dress  myself after the procedure | 20and less<br>21- 40<br>41-60<br>61-80 | 4(80.0)<br>62(95.4)<br>58(89.2)<br>14(93.3) | 1(20.0)<br>3(4.6)<br>7(10.8)<br>1(6.7) | 0.893 | 0.446 |
| I am able to eat and drink independently after the procedure | 20and less<br>21- 40<br>41-60<br>61-80 | 4(80.0)<br>58(89.2)<br>56(86.2)<br>12(80.0) | 1(20.0)<br>7(10.8)<br>9(13.8)<br>3(20.0) | 0.377 | 0.770 |
| I am able to work and play after the procedure | 20and less<br>21- 40<br>41-60<br>61-80 | 3(60.0)<br>51(78.5)<br>53(81.5)<br>9(60.0) | 2(40.0)<br>14(21.5)<br>12(18.5)<br>6(40.0) | 1.378 | 0.252 |
| I slept & felt rested after this procedure | 20and less<br>21- 40<br>41-60<br>61-80 | 2(40.0)<br>26(40.0)<br>25(38.5)<br>5(33.3) | 3(60.0)<br>39(60.0)<br>40(61.5)<br>10(66.7) | 0.076 | 0.973 |
| I felt very hot after this procedure | 20and less<br>21- 40<br>41-60<br>61-80 | 1(20.0)<br>16(24.6)<br>15(23.1)<br>5(33.3) | 4(80.0)<br>49(75.4)<br>50(76.9)<br>10(66.7) | 0.246 | 0.864 |
| I am able to pass urine / stool after the procedure | 20and less<br>21- 40<br>41-60<br>61-80 | 4(80.0)<br>42(64.6)<br>40(61.5)<br>10(66.7) | 1(20.0)<br>23(35.4)<br>25(38.5)<br>5(33.3) | 0.256 | 0.857 |
| I am admitted after the dialysis procedure | 20and less<br>21- 40<br>41-60<br>61-80 | 2(40.0)<br>18(27.7)<br>16(24.6)<br>5(33.3) | 3(60.0)<br>47(72.3)<br>49(75.4)<br>10(66.7) | 0.301 | 0.825 |
| I felt so stressed after the procedure | 20and less<br>21- 40<br>41-60<br>61-80 | 5(100)<br>38(58.5)<br>24(36.9)<br>8(53.3) | 0<br>27(41.5)<br>41(63.1)<br>7(46.7) | 3.993 | **0.009** |

# Chapter Five: Discussion

## 5.0. Introduction

Motivation plays a major role in patient outcomes either positive or negative. The patient outcomes of the health organization depend on the knowledge, skills and motivation of individuals Homedes, et al 2004). It is therefore important for the employers to motivate their employees in order to meet the desired outcomes.

According to Herzberg's research, motivators are the conditions that truly encourage employees to try harder. Focusing on hygiene factors is not enough, managers should also enrich jobs by giving employees opportunities for challenging work, greater responsibilities, advancement opportunities, and a job where their subordinates can feel successful. They are factors that are intrinsic to the job, such as achievement, recognition, interesting work, increased responsibilities, advancement, and growth opportunities, Clavreal, (2004).

## 5.1. Motivating Factors for Nurses Working in Renal Unit

### 5.1.1. Recognition

This is the public acknowledgement of person's status or merits. The study revealed that male nurses were more motivated with recognition as compared to the female nurses at p=0.046. The study conducted by Clavreal, (2004) did not specify gender but stated that recognition is one of the intrinsic motivating factors. Negussie, et al (2012), partially agreed that among the independents variables payment is the most significant factor which affects nurses work motivation while recognition has the weakest correlation with nurses' work motivation. In nursing profession, there are more females than males therefore recognizing the effort of the minority can contribute to their motivation.

### 5.1.2. Autonomy

This is the ability of nurses to make an informed decision freely / independently towards the care of the patients. Stewart, et al (2004) also stated that nurses described autonomy as their ability to accomplish their patient care goals in good time by using all accumulated knowledge, skills, experience and expertise to understand the condition and needs of a patient. The study revealed that nurses who were married were more motivated with autonomy compared to those who were still single and the divorced at p=0.026. The married nurses have extra responsibility thus family; this therefore makes them to be more responsible even at work in order to meet the financial needs of the family. Through their dedication and commitment, they acquire knowledge, skills and attitudes towards the given job, thereafter, they make decisions independently.

It was also noted that nurses who had worked for more than seven years were more motivated with autonomy than those nurses who had worked for less than seven years in renal unit p=0.026. This is in line with the study conducted by  Mutale, et al (2013) who observed that the longer the heath workers stayed in post the more motivated they were. This was also true for age, where older health workers had higher motivation scores than younger ones. Indeed the longer one stays in the department, the more one acquires knowledge, skills and attitudes hence the ability to make decisions independently.

### 5.1.3. Achievement

The study revealed that nurses who were married were more motivated with achievement than nurses who were single and divorced p=0.044.  As already stated, married nurses have a family responsibility that makes them more responsible even at work. This enables them to acquire more knowledge, skills and attitudes which help them achieve their goals. It was also established that two thirds of the nurses who had worked for more than seven years were more motivated with achievement than those nurses who had worked for less than seven years. This is in partial

agreement with the study done in Cyrus by Lambrou, et al (2010) which concluded that the highest ranked motivator was achievements. The survey revealed that achievements were ranked as first among the four main motivators, followed by remuneration, co-workers and job attributes. Achievement requires time and patience, so nurses who had worked more than seven years had the requirements to achieve their goals hence looked at achievement as one of their motivation factors.

### 5.1.4. Renumeration

This is defined as a monetary reward that one receives in exchange for work or services performed. It was established that nurses who were divorced as well as those who were married were less motivated with renumeration compared to those who were single p=0.005. These findings are consistent with those of a study done by Ketolnikov, (2009) which indicated that monetary rewards are certainly the most common approaches used to improve recruitment, retention, motivation and performance. Negussie, et al (2012) conducted the study in Addis Ababa, Ethiopia which concurs that the mean value of payment compare to other variables revealed that nurses appear to be more de-motivated by the payment they are receiving. This finding is consistent with a research done in Ghana, where low salaries are the main source of dissatisfaction for health workers Negussie, et al (2012). This could be related to the many responsibilities the married and the divorced may have hence the need for a better renumeration.

It was also noted that nurses who had worked for less than seven years were less motivated with renumeration than those nurses who had worked for more than seven years p=0.005. Nurses who have worked for more than seven years might have received promotions and through the years they could have upgraded themselves and hence could be receiving a better pay than those who have worked for less years.

## 5.2. Patients' Outcomes

### 5.2.1. Patients Satisfaction

In this study, the researcher explored the level of the satisfaction of the patients. Patients' satisfaction has been increasingly used as one indicator of the quality of health care Alsharif, (2008). It was established that patients were satisfied with nurses' good listening skills, being treated as individual, nurses' positive attitudes, nurses' responsiveness and information provision.

The study revealed that the patients aged between 61-80 years were more satisfied with good listening skills of the nurses than the other age groups p=0.018. These were older patients with chronic illness (chronic kidney disease) therefore they required nurses who would take their time and patience in managing their condition. It was further noted that patients who were divorced were more satisfied with good listening skills of the nurses compared to those who were married p=0.004. Patients who are divorced lack social support which is critical as CKD requires a stable family and adequate social support hence they may need nurses who can spend more time with them. Divorce brings physical, financial, spiritual and social problems to the individual, family and community at large.

It was established that patients aged between 60-80 years were more satisfied with being treated as individuals compared to other age groups p= 0.008. This is in agreement with the study done in Sweden by Larsson, et al (2011) which stated that when nurses care about patients and show a genuine interest, they feel treated and accepted as a unique person. The informants emphasized the importance of not being seen solely as an illness or a bed number. Older patients are likely to suffer from other conditions that affect the elderly like hypertension and diabetes hence they

value individualistic type of care. Therefore nurses who treated them as individuals contributed to their satisfaction.

The results revealed that patients who were less than twenty years old were more satisfied with nurses' positive attitude than the other age groups p=0.014. This is in consistency with Larsson, et al (2011) who stated that when nurses have a bossy or patronizing attitude, this reflects a belief that it is the nurse who knows best what is in the patient's interest. This results in the patient being excluded. Patients who are twenty and less years are still young and are likely to suffer from stress related to the unknown future outcomes of their disease condition since they are approaching the most active and reproductive age with various needs and life expectations therefore handling them with positive attitude would help them to overcome their fears and face the world positively.

It was further noted that patients who were aged between 61-80 years were also more satisfied with nurses' responsiveness compared to the other age groups p=0.043. These are elderly patients with various needs hence require nurses who respond to their needs accordingly.

The study also revealed that patients who were aged between 41-60 years old were more satisfied with information provision compared to the other age groups p=0.018. This is in line with the study done in Sweden by Larsson, et al (2011) who revealed that when nurses provide information adapted to the patient's needs, he/she is motivated to actively participate in own care. Consequently, information needs to be adequate, individually adjusted, coordinated, and univocal. To meet the patients' needs, nurses have to use pedagogical strategies that promote learning such as focusing on the patient's process of reflection. Patients aged between 41 – 60

years old are in the most active and productive age group with a number of responsibilities hence they require information on matters which affect their life.

### *5.2.2. Other Patients' Outcomes*

The results revealed that patients who were less than 20 years old were more stressed post dialysis than the other age groups P value = 0.013. Dialysis is a stressful procedure. The younger ones have little exposure to stressful circumstances and hence their coping mechanisms are inadequate compared to the older patients.

It was further noted that almost all the nurses (95.6%) had never witnessed patients dying soon after commencement of dialysis for the last three months. This was an indication that death was a rare complication for patients undergoing dialysis at Kenyatta renal unit.

## 5.3. Relationship between Nurses Motivation and Patients Outcomes

The results indicated that nurses were motivated by recognition, achievement and autonomy. However they were less motivated by their remuneration. They were able to provide quality nursing care to their patients and achieve patients satisfaction through their good listening skills, ability to treat patients as individuals, demonstration of positive attitude and responsiveness. Patient outcome was also good as demonstrated by reduced mortality amongst the patients undergoing dialysis.

Kenyatta renal unit had a list of motivation factors as mentioned above with patients' outcomes in terms of patients' satisfaction and stress post dialysis.

## 5.4. Conclusion

The study which was conducted at the renal unit of KNH found out that nurses were motivated by recognition, achievement, autonomy and remuneration. The patients' outcomes included

patients' satisfaction and other patients' outcomes which included the activities of living. The respondents (patients) were satisfied with nurses who had good listening skills, treated as individual, positive attitudes, responsiveness and provision of information.

The findings also concluded that there is a relationship between the nurses' motivation factors and the patients' outcomes, hence rejecting the null hypothesis.

## 5.5. Recommendations

- The hospital should establish multidisciplinary motivation teams which will be responsible for care of the careers. The team would also be responsible in conducting meetings and facilitate in exploring other means of motivating the nurses.

- The nursing care should continually involve the patients in their care in order to individualize the care.

- Nurses should continually provide information to their clients / patients because this helps the patients in making an informed decision pertaining to the management of their chronic illness.

- It is highly recommended that the study should be carried out to find out patients' contributions towards nurses motivation.

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## Appendices

**Appendix I:  Informed Consent Form**

School of Nursing Sciences

UNIVERSITY OF NAIROBI

**Title**: THE IMPACT OF NURSES' MOTIVATION ON THE PATIENT OUTCOMES; A CASE STUDY OF RENAL UNIT AT KENYATTA NATIONAL HOSPITAL.

**Researcher:   Daisy Mulera Simeza**

PURPOSE

You are cordially invited to participate in this research which will be carried out at renal unit of Kenyatta National Hospital. The purpose of this study is to explore the impact of nurses' motivation on the patient outcomes.

You have been invited because you qualify to be recruited in this study as it targets nurses and clients / patients at the renal unit of KNH. Approximately 150 clients and 45 nurses will be recruited to participate in the study.

Should you decide to participate, there are no financial benefits or compensation regarding this study.

PROCEDURE

You will be given a semi-structured questionnaire and a checklist for you to answer questions concerning the care and the motivational patterns in the renal unit of KNH.

RISKS

There are no risks involved in the study and it will not involve any invasive procedures. Your time being spent on responding to the questionnaire will be very much appreciated.

BENEFITS

Regarding benefits, there may not be any direct benefits for you as an individual participant, but the information collected will help us to better understand issues surrounding motivation and patient outcomes in the renal unit.

VOLUNTARY PARTICIPATION AND WITHDRAWAL

Your participation is entirely voluntary and you have the right to withdraw from participating in the study at any time without penalty.

CONFIDENTIALITY

The serial numbers will be used instead of participants' names on the questionnaires. The questionnaires will be kept in the supervisor's locked cabinet whereby the researcher and the supervisor shall be the only people to access.

CONTACT PERSONS

Please contact the following people when you have questions or concerns about the content of this study or your rights as a participant; Daisy Simeza of The University of Nairobi – 0733289033 or Email at daisysimeza@gmail.com; as well as The Chairperson, KNH/UoN-ERC, Professor A.N. Guantai; Tel: 726300-9; Fax: 725272; Email: uonknh_erc@uonbi.ac.ke.

CONFIRMATION OF CONSENT

Are you willing to participate in this study?

Yes_____ No_____

If yes, please sign

Name: _____Sign:_____Time_____Date_____

Witness: _____ Sign _____Time_____Date _____

**Appendix II: Research Questionnaire for Nurses**

The questionnaire focuses on the impact of nurses' motivation on the patients' outcome. A case study of renal unit at Kenyatta National Hospital.

Questionnaire number_____Participant's Serial No._____Unit/Ward_____

**Instructions**
Please answer the following questions in the space provided or circle the appropriate option.
**Section A. Demographic Data**

1) What is your age in completed years?

    _____ years.

2) Sex

    a) Male

    b) Female

3) Marital status

    a) Single

    b) Married

    c) Divorced

    d) Others (please specify) _____

4) Highest qualification

    a) Primary

    b) Secondary

    c) Tertiary

    d) Others (please specify) _____

5) For how long have you been working in the renal unit in completed years?

    _____.

6) Working Schedule

    a) Full time

    b) Part time

7) Nationality

    a) Kenyan

    b) Others (please specify) _____

8) How many patients died soon after you commenced the dialysis for the last three months?

   a) None

   b) 1 - 2

   c) 3 - 4

   d) More than 5

## Section B: Motivation Factors

**A Check list on Nurses Working in Renal Unit K.N.H.**
**Instructions:** Please tick in one box that applies. The meanings of the numbers are as follows:
**1 = Strongly Disagree; 2 = Disagree; 3 = Neither Agree or Disagree; 4 = Agree; 5 = Strongly Agree**

| Element | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| I understand what is required of me in this department | | | | | |
| I am interested working in the unit to perform my duties well. | | | | | |
| The certificate to be a nurse specialist is attractive for working as a nurse | | | | | |
| The shifts of work affect my mood | | | | | |
| My supervisor show recognition for a job well done | | | | | |
| I participate in the supervisory decisions that affect your job | | | | | |
| I am very satisfied with the department as it now stands | | | | | |
| I work under pressure in meeting the work demands of my job | | | | | |
| My qualifications are adequate for me to stand a chance of being promoted to a better position | | | | | |
| I can advise my friend to join this department | | | | | |
| I am very productive in my work. | | | | | |
| My supervisor closely observes my interaction with my patients / colleagues | | | | | |
| I receive a feeling of accomplishment from the work I am doing | | | | | |
| My supervisor recognizes my efforts | | | | | |
| The job security is high in this unit. | | | | | |
| I am free to make decisions to my daily work and to act on them | | | | | |
| I am satisfied with my present salary | | | | | |
| My relationship with my fellow colleagues is very good | | | | | |
| Patient satisfaction motivates me  more | | | | | |

Any other (please specify)

_____
_____
_____
_____

**(Modified from Whitaker M.K. 2011 Motivation Checklist)**

**Section C: Recommendation**

What are your recommendations on the overall motivation levels that are available in your department?

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

**Appendix III:  Research Questionnaire for Patients**

The questionnaire focuses on the impact of nurses' motivation on the patients' outcome. A case study at renal unit of Kenyatta National Hospital.

Questionnaire number: _____Participant's Serial No.: _____Unit / Ward: _____

Indicate below the time, the participant spent in the unit:

Time in: _____ Time on the procedure: _____Time out: _____Total time: _____

**Instructions**
Please answer the following questions in the space provided or circle the appropriate option.
**Section A. Demographic Data**

1.  What is your age in completed years?

    _____ years.

2.  Sex

    a) Male

    b) Female

3.  Marital status

    a) Single

    b) Married

    c) Divorced

    d) Others (please specify): _____

4.  Religion

    a) Christian

    b) Islam

    c) Others Specify: _____

5.  Highest qualification

    a) Primary

    b) Secondary

    c) Tertiary

    d) Others (specify): _____

6.  For how long have you been on hemodialysis in this renal unit?

    :_____

**Section B: Patients' Satisfaction**

**Instructions:** Please tick in one box that applies. The meanings of the numbers are as follows:

**0 = Poor to Fair; 1 = Fair; 2 = Fair to Good; 3 = Good; 4 = Very Good; 5 = Excellent / Outstanding**

**Please rate the nurse :**

| Items | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| The nurse treated me with respect. | | | | | | |
| The nurse was friendly and warm towards me. | | | | | | |
| The nurse was not cold or abrupt towards me. | | | | | | |
| The nurse gave me time to fully describe my illness in my own words. | | | | | | |
| The nurse was not interrupting or diverting me when I was talking to him / her | | | | | | |
| The nurse listened attentively to what I was saying, she was not looking at the notes or computer or anything around herself | | | | | | |
| The nurse addressed me with my name not just as "just a number" | | | | | | |
| The nurse asked me the relevant details about my situation / life. | | | | | | |
| The nurse communicated that he/she had accurately understood my concerns. | | | | | | |
| The nurse was genuinely concerned with my situation. | | | | | | |
| The nurse was able to connect with me on a human level, not being indifferent or detached. | | | | | | |
| The nurse was positively approaching me with positive attitudes. | | | | | | |
| The nurse was honest about my condition. | | | | | | |
| The nurse was fully answering my questions. | | | | | | |
| The nurse was explaining clearly what I was supposed to do. | | | | | | |
| The nurse was giving me true and adequate information. | | | | | | |
| The nurse explored with me what I could do to improve my health. | | | | | | |
| The nurse was encouraging not lecturing on me. | | | | | | |
| The nurse discussed the options and involved me in decision making. | | | | | | |
| How would you rate your interaction with your nurse today? | | | | | | |

Any other (please specify) _____

**Section C: Clinical Patients' Outcome Checklist**

**Instructions: Please tick in the box that is applicable and comments when necessary**

| Clinical patient outcomes | Yes | No | Observed | Comments |
|---|---|---|---|---|
| I am walking comfortably after this dialysis | | | | |
| I felt pain soon after the dialysis | | | | |
| I felt dizzy soon after the dialysis | | | | |
| I am breathing with difficulties soon after this dialysis | | | | |
| I am talking effectively soon after the dialysis | | | | |
| I am able to clean and dress myself after the procedure | | | | |
| I am able to eat and drink independently after this procedure | | | | |
| I am able to work and play after this procedure | | | | |
| I slept and felt rested after this procedure | | | | |
| I felt very hot after this procedure | | | | |
| I am able to pass urine / stool after the procedure | | | | |
| I am admitted after the dialysis procedure | | | | |
| I felt so stressed after the procedure | | | | |

Any other (please specify):

_____

**Section D: Recommendations**

Following your interaction with your nurse what is your recommendations of the care you have received today: _____

_____

What do you suggest can be done to the nurses working in this unit?

_____

_____

**Many thanks for your assistance.**

**Appendix IV:  Approved Documents**

**UNIVERSITY OF NAIROBI**
COLLEGE OF HEALTH SCIENCES
P O BOX 19676 Code 00202
Telegrams: varsity
(254-020) 2726300 Ext 44355

**KNH/UON-ERC**
Email: uonknh_erc@uonbi.ac.ke
Website: www.uonbi.ac.ke

**KENYATTA NATIONAL HOSPITAL**
P O BOX 20723 Code 00202
Tel: 726300-9
Fax: 725272
Telegrams: MEDSUP, Nairobi

Ref: KNH-ERC/A/187

Link:www.uonbi.ac.ke/activities/KNHUoN

1st July, 2013

Daisy Mulera Simeza
School of Nursing Sciences
College of Health Sciences
University of Nairobi.

Dear Daisy

**RESEARCH PROPOSAL: THE IMPACT OF NURSES' MOTIVATION ON THE PATIENT OUTCOMES. a CASE STUDY OF RENAL UNIT AT KENYATTA NATIONAL HOSPITAL (P88/3/2013)**

This is to inform you that the KNH/UoN-Ethics & Research Committee (KNH/UoN-ERC) has reviewed and **approved** your above proposal. The approval periods are 1st July, 2013 to 30th June, 2014.

This approval is subject to compliance with the following requirements:

a) Only approved documents (informed consents, study instruments, advertising materials etc) will be used.
b) All changes (amendments, deviations, violations etc) are submitted for review and approval by KNH/UoN ERC before implementation.
c) Death and life threatening problems and severe adverse events (SAEs) or unexpected adverse events whether related or unrelated to the study must be reported to the KNH/UoN ERC within 72 hours of notification.
d) Any changes, anticipated or otherwise that may increase the risks or affect safety or welfare of study participants and others or affect the integrity of the research must be reported to KNH/UoN ERC within 72 hours.
e) Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. (*Attach a comprehensive progress report to support the renewal*).
f) Clearance for export of biological specimens must be obtained from KNH/UoN-Ethics & Research Committee for each batch of shipment.
g) Submission of an *executive summary* report within 90 days upon completion of the study
This information will form part of the data base that will be consulted in future when processing related research studies so as to minimize chances of study duplication and/or plagiarism.

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For more details consult the KNH/UoN ERC website **www.uonbi.ac.ke/activities/KNHUoN.**

Yours sincerely

PROF. M. L. CHINDIA
SECRETARY, KNH/UON-ERC

c.c.    Prof. A.N. Guantai, Chairperson, KNH/UoN-ERC
Deputy Director CS, KNH
AD, Health Information, KNH
Principal, College of Health Sciences, UoN
Dean, School of Medicine, UoN
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## Study Registration Certificate

1. Name of the PI ...... DAISY   MULERA   SIMEZA

2. Email address: ...... daisysimeza@gmail.com      Tel No. ...... 0788504172

3. Contact person (if different from PI) ...... N/A

4. Email address: ...... N/A      Tel No. ...... N/A

5. Study Title

   THE   IMPACT   OF   NURSE'S   MOTIVATION   ON
   PATIENT'S   OUTCOME:   A   CASE   STUDY   OF   RENAL
   UNIT   AT   KENYATTA   NATIONAL   HOSPITAL.

6. Department where the study will be conducted ...... RENAL   UNIT

7. Endorsed by Head of Department where study conducted
   Name: ...... DR. A.J.O. WORO ...... Signature ...... Date ...... 6/7/13

8. KNH UoN Ethics Research Committee approval number _____ P88/3/2013
   *(Please attach copy of ERC approval)*

9. I _____ DAISY MULERA SIMEZA _____ commit to submit a report of my study
   findings to the Department where the study will be conducted and to the Department of Research
   and Programs.

   Signature ...... Date ...... 04/07/2013

   Endorsed by Chair Department (only for students) of ...... School of N......

   Signature ...... Ra3a (As Director) ...... Date ...... 16/7/2013

10. Study Registration number (Dept/Number/Year) RENAL / 002 / 2013
    (To be completed by Research and Programs Department)

11. Research and Program Stamp _____

*All studies conducted at Kenyatta National Hospital **must** be registered with the Department of
Research and Programs and investigators **must commit** to share results with the hospital.*

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