

**ASSESSMENT OF THE RELATIONSHIP BETWEEN WORK MOTIVATION AND
TECHNICAL COMPETENCE OF NURSES WORKING IN THEATRE IN TWO
HEALTHCARE FACILITIES IN SOKOTO STATE**

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**A RESEARCH DISSERTATION SUBMITTED TO THE
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**DEPARTMENT OF NURSING SCIENCE
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DECLARATION

I declare that the work in this dissertation entitled; **ASSESSMENT OF THE RELATIONSHIP BETWEEN WORK MOTIVATION AND THE TECHNICAL COMPETENCE OF NURSES WORKING IN THEATRE IN TWO HEALTHCARE FACILITIES IN SOKOTO STATE** has been carried out by my humble self in the Department of Nursing Sciences. The information derived from the literature has been duly acknowledged in the text and a list of references provided. No part of this dissertation was previously presented for another degree or diploma at this or any other institution.

Saidu ABUBAKAR _____

Name of Student

Signature Date

APPROVAL PAGE

This Dissertation entitled **ASSESSMENT OF THE RELATIONSHIP BETWEEN WORK MOTIVATION AND THE TECHNICAL COMPETENCE OF NURSES WORKING IN THEATRE IN TWO HEALTHCARE FACILITIES IN SOKOTO STATE** by Saidu ABUBAKAR meet the regulations governing the award of Masters of Nursing Sciences of Ahmadu Bello University, and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

This dissertation is dedicated to my parents, family, friends and colleagues for their Support and encouragement.

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All praise is for Allah, we praise Him and seek for his help and forgiveness. We also seek refuge in Him from the evil of our own soul and from the wickedness of *our* own deeds.

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LIST OF ABBREVIATIONS

RN:	Registered Nurse
RPON:	Registered Perioperative Nurse
BNSC:	Bachelor of Nursing Science
MSc:	Master IN Sciences.
UDUTH:	Usmanu Danfodiyo University Teaching Hospital Sokoto
S HS:	Specialist Hospital Sokoto
WHO:	World Health Organisation
RNFA:	Registered Nurse First Assistant
PACU:	Post Anaesthetic Care Unit
AORN:	Association Of Registered Perioperative
OSCE:	Objective Structured Clinical Examination
ICN:	International Council for Nurses
N/PWR:	Need for Power
N/AF:	Need for Affiliation

ABSTRACT

Factors such as better training, meeting of higher needs, having some values as the organization experience etc. are said to impact motivation in an organization. In Hospital and other health institutions, motivation of nurses is key to their performance. A nurse does not only need to be committed to his/her duty but must also be competent enough to carry out the required tasks. In this study, an assessment of the relationship of work motivation on the technical competence of nurses working in the theatres of two institutions in Sokoto State was carried out. To achieve this areas considered were that of technical competence, remuneration, operational facilities training/development and supervision. A descriptive and correlational survey design was employed. Motivation factors questionnaire and structured observational tool were used to determine the relationship between work motivations on the technical competence of nurses working in theatre. The results shows that there was a no significant relationship between technical competence of theatre nurses, training and development opportunities ($r = -0.024$, $p = 0.875$). There was also no significant relationship between adequacy of work remuneration and technical competence of theatre nurses in Sokoto ($r = 0.276$, $P = 0.069$). Positive and no significant relationship existed between availability of operational facilities and the technical competence of theatre nurses in the study area ($r = 0.228$, $p = 0.123$). Finally, the study showed that there was no significant relationships between work supervision and technical competence of nurses working in theatres of the two assessed health facility in Sokoto State ($r = 0.016$, $p = 0.914$). The study therefore concluded that there is no significant relationship between work motivation and Technical Competence of nurses working in theatres of two tertiary health facilities in Sokoto State. Based on the findings of this study the researcher recommends the followings: That the training method or the mode of training should be reorganized or change to conform with the training objectives. That the Hospitals should acquire current facilities, equipment, materials and machines used in providing effective and qualitative perioperative services. The Management should introduce non-monetary packages in their work reward system to enhance the performance of perioperative Nurses. Management should evolve a more friendly means of supervising the Nurses not just through direct supervision, indirect supervision can solve this. Further research on the topic with broader scope on the study area is also recommended.

Key words: Work motivation, technical competence, training, remuneration, operational facility and supervision.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

In the health sector which is characterized much more as a "labor intensive" rather than "capital intensive", employees are the most important elements in improving efficiency, enhancing productivity and maximizing the quality of service (Bakola,Zyga, Panoutsopoulos and Alikari, 2015). They also highlighted that need for motivating nurses as performance of nursing staff depends on factors such as working environment conditions, financial rewards, job stress etc.

Human resource is a vital component for health organization in delivering health services (Africa Working Group, (2006). There are many factors that affect employee performance like: work conditions, employee and employer relationship, training opportunity, job security, and institution's overall policies and procedures for rewarding employees (Hafiza, 2011). Among those factors, which affect employees' performance, motivation that comes with rewards is of utmost importance (Hafiza,2011). Motivation is an accumulation of different process that influence and direct our behaviour to achieve some specific goal (Baron, 1983). Rewards can be extrinsic or intrinsic, extrinsic rewards are tangible rewards and these rewards are external to the job or task performed by employee while intrinsic rewards are intangible rewards or psychological rewards.

"Work motivation is a set of strong forces that originate both within as well as beyond an individual's make up, to initiate work-related behavior, and to determine its form, direction, intensity and duration (Khairunnisa and Nurfaezah,2012).They see it as the set of internal and external forces that initiate work-related behavior, and determine its form, direction, intensity, and duration. Work motivation is a middle-range concept that deals only with events and phenomena

related to people in a work context. It recognizes the influence of both environmental forces (e.g., organizational reward systems, the nature of the work being performed) and forces inherent in the person (e.g., individual needs and motives) on work-related behavior. An essential feature of this concept is that it views work motivation as an invisible, internal, hypothetical construct. District health managers in decentralized health systems usually have a broadened 'decision space' that enables them to positively influence health worker motivation and job satisfaction, which in turn impacts on retention and performance at district-level (Marc, Moses, Akweongo and Kaspar, 2014). Hospital nurses' work motivation is widely considered important for providing high-quality healthcare.

Nurses have a unique and increasingly important key role in the delivery of high quality health care services in both hospitals and community settings (World Health Organization, 2000). Nurses both in general and in hospitals were more than moderately motivated to work. Majority of hospital nurses had strong intrinsic work motivation, and/or a moderate identified regulation to work because they enjoyed the work and/or it was in accordance to their needs, values and goals. Personal factors such as being more trained, having strong higher order needs, sharing the same values as the organization and society, and recognizing better experiences and knowledge about their work increased their motivation (Toode, 2015). Improving the work motivation of the health workforce in rural and remote areas is of concern for all countries worldwide as this will improve retention of health workers, contribute to the provision of quality health care, build up competencies, optimize team relations, and strengthen the relationship of health workers with local communities. In contrast, poor retention or high staff turnover negatively affects health care by increasing workload, undermining team morale, creating disruptions and inefficiencies in work processes, and causing a loss of institutional knowledge.

Yet due to limited financial resources and inefficiencies in the existing organization of both health and work systems, in many countries, nursing faces series of problems (International Council of Nurses, 2010). Some of these problems include a shortage and overload of the nursing workforce, decreasing performance, nursing error, and downgrading of the nursing profession (European Federation of Nurses Association, 2012). These issues among others are also prevalent in health institutions across Nigeria and have resulted in nursing care that is neither safe or high quality nor patient centered (WHO, 2013). To redress the situation, health professionals have enumerated several measures for improving the nursing profession in general. This can be achieved by creating incentive to attract, retain, motivate and improve nursing performance. This equally suggests that the impact of working conditions and other work related factors on nurses performance and morale needs to be evaluated as it relates directly to the their productivity and to the quality of care provided. It is against this background this study seeks to examine the effect of motivation on technical competence of preoperative nurses in Sokoto state.

Theatre nursing presently known as preoperative nursing is one key area or specialty in nursing profession which deals with the provision of nursing care (pre, intra and post-surgical procedure). It deals with an operating theatre that is dynamic; high pressured and potentially vulnerable to multiple error (Gillespie, 2009). The operating theatre is a highly specialized, multidisciplinary work environment. Operating theatre teams consist of professionals from at least three different specialties, namely anesthetists, nurses and surgeons. Operating Room (OR), also known as operating room complex or surgical theatre, is a unit within a hospital which is designed and equipped to provide care to patients with range of conditions. It is a sterile environment where surgical procedure is carried out. The operating room is considered as one of the most complex department of the hospital, as it requires sensitive, intensive and critical inter-departmental

interaction. In view of these, Competence of the individual and of the surgical team as a whole greatly influence the outcome of the patient which is why working on the improvement of teamwork in the operating room is vital to help decrease adverse events as opined by Leach and Weaver (2013). The surgical team is composed mainly of the chief surgeon, the assistant surgeon, the support staff. The operating room works closely with Post-Anesthesia Care Unit (PACU) also known as Recovery Room (RR) unit and is typically located near or just within the OR. This serves as an interim station for patients (Abramovitch, Noa, Lior, Barthen and Schweiger, 2014). According to Aiza, Raquitico, and Clores (2017), Perioperative phases of surgical care process involve management of surgical patients preoperative (before), intraoperative (during) and postoperative (after) phases of surgery. Operating Room nurses (OR) are referred to as preoperative nurses to precisely reflect their Specific duties. They were also of the opinion that, the term 'preoperative' is a better label than 'operating room' because the term reflects all the aspects of the patient's surgical experience. The OR nurses renders sustained care during the preoperative phase guided by acceptable norms and practices with the goal of addressing the needs of the patient who undergoes surgical intervention. Preoperative nurses work to ensure that the highest standard of care is delivered to each individual throughout his or her surgical experience. Hence, a preoperative nurse that is not adequately motivated is not likely to function effectively.

1.2 Statement of the Research Problem.

In spite of the importance of nursing profession to the success to the health sector, it still faces a lot of challenges that tends to affect nurses performances. These challenges which include remuneration, compensation, proper workplace, staffing, motivation tend to affect their technical performances in work place (Aliyu, Adeleke, Omoniyi, Oluwafemi, Odofin and Ekaete, 2015). Work motivation, in particular, has a great impact on employees' performance (Aluko,

2009). Aluko, (2009)&Mordi et al, (2010) pointed out that, it is common knowledge that Nigerian patriarchal system is essentially one of the major reasons why employees are subjected to serious work stress as well as work-life imbalance that affects their motivation and commitment to work; the issue in the final analysis impinges on the productivity and performance of Nigerian organizations as a consequence.

The researcher observed that, in Sokoto state, preoperative nursing care services is faced with the challenges of poor training and development of perioperative personnel which can limit their service capacity and lead to work burn-out. Also, there is the problem of inadequate operational facilities in most operating theatres coupled with outdated equipment and machines which can limit the technical competence of perioperative personnel. The researcher also observed the poor and non-challant attitude of personnel to supervision and monitoring by managers of theatres and poor remuneration which leads to poor perioperative services and manpower turn-over respectively. All these problems as observed affect the technical competence of perioperative nursing personnel in the health institutions. Furthermore, lack of passion to do the job, as well as inadequate supervision has interacted to erode standard practice and tend to promote the cases of negligence among others.

The factors listed above leads to the erosion of confidence on the side of clients on capability of perioperative centers that provide the much needed quality service in the state. e. In this regard, the study assesses the relationship between work motivation and technical competences of nurses in theatres in two Usmanu Danfodio University Teaching Hospital and Sokoto State Specialist Hospitals in Sokoto State.

1.3 Objectives of the Study

The study achieved the following objectives;

- i. To assess the relationship between training for development opportunities and technical competence of nurses working in operating theatres in Sokoto State.
- ii. To assess the relationship between remuneration and technical competence of nurses working inoperating theatres in Sokoto state.
- iii. To assessthe relationship between adequacy of operational facilities and the technical competence of nurses working in operating theatres in Sokoto State.
- iv. To assess the influence of supervision on technical competence of nurses working in operating theatres in Sokoto state.

1.4 Research Questions:

- i. What is the relationship of training and development opportunities and technical competence of Nurses workin in operating theatres in Sokoto State?
- ii. What is the relationship between remuneration and technical competence of Nurses working in operating theatres in Sokoto State?
- iii. What is the relationship between Operational facilities and technical competence of Nurses working in operating theatres in Sokoto State?
- iv. What is the influences of Supervision on technical competence of Nurses working in operating theatres in Sokoto State?

1.5 Hypotheses of the Study

The study assumes that;

- i. **H₀₁**: There is no significant relationship between training for development and technical competence of nurses working in operating theatres in Sokoto State.
- ii. **H₀₂**: There is no significant relationship between operational facilities and technical competence of nurses working in operating theatres in Sokoto State.
- iii. **H₀₃**: There is no significant relationship between remuneration and technical competence of nurses working in operating theatres in Sokoto State.
- iv. **H₀₄**: There is no significant relationship between sufficiency of supervision and technical competence of nurses working operating theatres in Sokoto State.

1.6 Significance of the Study

The significance of this study lies in the fact that though many researches have been conducted on motivation and technical competence over the years, but little have been done on perioperative nursing particularly in Sokoto state. This is against the backdrop that the impact of working conditions and other related motivational factors on nurses as professionals need to be evaluated as it relates directly to their productivity and to the quality of care provided. In this part of the country; not much researches have been carried out in the area of nurses work motivation and technical competence in perioperative nursing. This study is therefore of importance as it seeks to provide information on how to address the issue of nurses performance by considering the availability of operational facilities in the hospitals. Three other

issues investigated are those of nurses' remuneration, effective supervision in the work place. The study provides important information which fills the research gap between administration issues and operations in perioperative nursing. Hence it would increase the volume of existing literature on motivation and workers' productivity. All these are expected to provide the authorities and management concerned with information during policy formulation and execution.

It would serve as a useful reference guide to students who wish to conduct their researches in the area.

1.7 Scope/Delimitations of the Study

The issues being researched on in this study is the assessment of the relationship between work motivation and technical competence of nurses working in theatre. The study examined the possible effect of the nurses' performance on operational facilities, remuneration, training/development opportunities and supervision. The study is delimited to nurses working in theatres of Usman Danfodio University Teaching Hospital Sokoto and Sokoto Specialist Hospital Sokoto in Sokoto State. The study covers the period as from 2013 to 2017.

1.7 Limitations of the Study

There are several limitations to the current study. The relatively small sample size and response rate of the study leads to caution in generalizing any conclusions to all nurses working in theatre before further research has been carried out. Another limitation to this study is participation rate of the respondents. Of the sixty three number of the study population, only forty seven (47)

participated voluntarily. Effort was made through series of consultations and explanation of the research significance and objectives the remaining thirty percent of the respondents who did participate to reconsider their stand and participate. In addition, the fact that participants knew they were being observed may have led them to behave in atypical ways. A third limitation is that observations, which were used to collect data, are focused on external behaviors.

1.8 Operational Definition of Terms

Assessment: This is the evaluation of the activities of nurses working in theatre before, during and after surgical procedure.

Competence: Ability of nurses working in theatre to apply or demonstrate professional knowledge, skills, attitude and behaviour in a given situation before during and after surgery.

Competency: An underlying characteristic, causally related to effective or superior performance in a job.

Perioperative Nurse: Is a trained theatre Nurse

Nurses Working in Theatre : These are registered nurses who works in the theatre whether trained or untrained theatre nurses.

A scrub nurse is a nurse working in theatre who works directly with the surgeon within the sterile field.

Motivation: Provision of incentives, training and conducive environment that enable theatre nurses to perform competently.

Technical skills: These refer to the skills involving cognitive and psychomotor activities displayed by a theatre nurse.

Remuneration: Payment for services rendered by theatre nurses as employees of the hospital

Supervision: is an intervention provided by a theatre manager to subordinates theatre nurses before during and after surgery.

Training: A process of imparting skill and knowledge of perioperative nursing to theatre nurses to extend and develop their capabilities for better job performance before during and after surgical procedure.

Operational facilities: This refers to all structures, machines, equipment and materials used in providing qualitative perioperative services in a healthcare setting.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter deals with the review of the related literature on Technical competence of nurses working in theatre, their opportunity for Training for development ,Remuneration of nurses working in theatre,Operational facilities in Operating theatre. And Supervision in Operating theatre, The study also review the Concept,Theories and models on motivation and Nurses motivation.Theoretical frame work using Abraham Need theory and Benner's Stages of clinical competence was also discussed in the research literature review.

2.2 Technical Competence of Nurses Working in Theatre

The ability of the nurses working in theatre to be able to professionally apply the skills, knowledge practical behaviors and attitudes in working life is what determined their technical competence. This can be discussed in the following subheadings:

2.2.1 Concept of Nursing

Nursing is defined by International Council of Nurses (ICN, 2002) as “Nursing encompasses autonomous and collaborative care of individuals of all ages, families, groups and communities, sick or well, and in all settings. Nursing includes the promotion of health, prevention of illness, and the care of ill, disabled and dying people. Advocacy, promotion of a safe environment, research, participation in shaping health policy and in patient and health systems management and education are also key nursing roles”. Six key purposes of nursing include; (1) To promote and maintain health. (2) To care for people when their health is compromised. (3) To assist

recovery.(4) To facilitate independence (5) To meet needs (6) To improve/maintain wellbeing/quality of life.

A scope of practice definition communicates to others the competencies and professional accountability of the nurse. Nursing is responsible for defining nurses' roles and scope of practice. However, while nurses, through professional, labour relations and regulatory bodies, bear primary responsibility for defining monitoring and periodically evaluating roles and scope of practice, views of others in society should be sought and considered in defining scope of practice. Nurses' spheres of responsibility include giving direct care, supervising others, leading, managing, teaching, undertaking research and developing health policy for health care systems (Royal College of Nursing, 2002).

2.2.2 Concept of Theatre or Perioperative Nursing

Perioperative nursing is [a nursing](#) specialty that works with patients who are having operative or other invasive procedures. Perioperative nurses work closely with [surgeons](#), [nurse anesthetists](#), [surgical technologists](#), and [nurse practitioners](#). They perform preoperative, intraoperative, and postoperative care primarily in [operating theatres](#), stress test evaluations, cardiac monitoring, vascular monitoring, and health assessments. Perioperative nurses typically have Basic Life Support and Advanced Cardiac Life Support certification (Association of Perioperative Nurses, 2012). Internationally, the qualifications and courses necessary before becoming a theatre nurse vary (Mitchell and Flin, 2008). In Sweden a Bachelor of Science in Nursing, 180 credit points, is required for Graduate Diploma in Specialist Nursing. Specialist nurse degree is achieved in Sweden when the student completes course requirements of 60 credit points. The student shall demonstrate knowledge and skills required to work independently as a specialist nurse.

Furthermore, the student shall demonstrate knowledge of the scientific ground of the specialist area. The student must have insight in the current research and development in the profession. The student must also have knowledge about the relationship between science and evidence based practice and understands the significance of the profession. The student shall have a deeper knowledge of planning, coordinating and leading the care and health management (Higher Education Ordinance, 2006). Minimum Requirements for Post Basic Perioperative Nursing. According to Nursing & Midwifery Council of Nigeria (2008), for an institution to be approved as a School for Post Basic Peri-operative Nursing, it must have the following: evidence of law or edict establishing the institution, at least a provisional approval by the nursing and midwifery council of Nigeria, adequate school records, functional school committees, a comprehensive school's curriculum derived from the nursing and midwifery council of Nigeria's curriculum for post-basic peri-operative nursing education and the programme is run for 12 calendar months (1 year). A potential candidate for the programme must possess a minimum of registered nurse certificate with minimum of three years working experience in the theatre

2.2.3 Perioperative nursing roles

Perioperative nurses may perform several roles, including circulator, scrub nurse, pre-op nurse, PACU nurse, OR Director, Registered Nurse First Assistant (RNFA), and Patient Educator (Association of Perioperative Nurses, 2012).

a. Circulating Role

A circulating nurse is a perioperative nurse that manages the nursing care of a patient during surgery. He or she observes for breaches in surgical asepsis and coordinating the needs of the surgical team. The circulator is not scrubbed in the case, but rather manages the care and environment during surgery. Scrubbing is a surgical hand washing procedure that is carried out before carrying out any surgical operation. The circulating nurse (also terms scout nurse, or circulator nurse are used) is responsible for managing the nursing care of the patient within the operating theatre and coordinating the needs of the surgical team with other care providers necessary for completion of surgery. The circulating nurse observes the surgery and the surgical team from a broad perspective and assists the team to create and maintain a safe and comfortable environment for the patient (Spry, 2009). In this study, we consider with the term theatre nurse, only the nurse who works in the role of scrub nurse (instrument nurse), in the operating theatre.

According to Roth (2007), scrubbing and circulating may become obsolete terms; they define only a part of theatre nurses' sphere of responsibility. The role of theatre nurse subsumes elements of the behaviors and technical practices that characterize professional nursing in general. Theatre nursing is a blend of the technical and behavioral; it is critical thinking, which requires knowledge, skills, and experience as well as doing and caring for patients. Perioperative nurse fulfills a critical function in surgical patient care: she coordinates interventions, ensures patient safety and comfort, prioritizes and plans care, and manages multiple aspects of the patient's and team's needs in each surgical intervention (Rothrock, 2007). Theatre nurses must work within narrow time constraints and must be able to combine the highly developed technical skills and extensive specialist knowledge with caring aspects of their role, give reassurance as well as obtain important clinical and psychosocial information of the patient (Bull and Fitzgerald, 2004; Gillespie, Chaboyer,

Wallis, Chang and Werder, 2009). The goal of theatre nursing is in broad terms to maintain an optimal level of wellness in response to the physiological, psychological and sociocultural needs of patients undergoing surgical procedures. The role of a theatre nurse has evolved from task-oriented specialist to a patient-centered professional (Gillette, 1996; Silén-Lipponen, Tossavainen, Turunen and Burdett, 2004).

b. Scrubbing Role

A scrub nurse is a perioperative nurse that works directly with the surgeon within the sterile field. The scrub nurse passes instruments, sponges, and other items needed during the procedure. The title comes from the requirement to scrub their hands and arms with special disinfecting solutions.

c. Registered Nurse First Assistant (RNFA) Role

An RNFA is the surgeon's assistant that provides aid in exposure (exposing the operating site), hemostatsare (stopping bleeding from blood vessels by clamping with a forceps), closure (stitching wound after the surgery) and other intraoperative technical functions that help the surgeon carry out a safe operation. The duties include a review of the patient's case, assist operating room staff (theatre nurse) in preparing for the operative procedure, assist with positioning the patient, preparing and draping (covering with sterile towels) of the patient, provide retraction, maintain hemostasis, performing knot tying (stitching), provide closure of tissue layers, help fixate implant devices, drill, cauterize (piercing through an intact tissue) and approximate tissues, and complete the surgical procedure by cleaning the surgical (sterile) wound and applying dressings, casts (Plaster of Paris), or splints. This role requires additional education and training above and beyond traditional education for becoming a Registered Nurse.

The nurse, working at the operating theatre can be called as theatre nurse, operating room nurse (Sevdalis et al., 2009) or - perioperative nurse (Fairchild, 1993). The term perioperative nurse was adopted by The Association of Operating Room Nurses (AORN 1982) in United States. "Perioperative" is a more descriptive and accurate term compared to "operating room" because the term focuses on all facets of the patient's surgical experience: the preoperative, intraoperative and postoperative phases of nursing care (Fairchild, 1993). The term perioperative nurse also includes the anesthetic nursing in United States, as it does in Sweden, where Lind wall and von Post (2008) have adopted the term in their framework for perioperative practice. In this study, the term theatre nurse is used in describing the nurse working in the operating theatre

2.2.4 Technical Skills of Theatre Nurses

The technical skills of theatre nurses are conceptualized as consisting of two components, one pertaining to knowledge (Core skills), and the other one pertaining to application (observable items). That is, for example, to have knowledge of why asepsis is important during the surgical procedure, and having that knowledge, to be able to maintain sterility using aseptic technique throughout the surgical procedure. The skills included are generic technical skills (core skills) of a theatre nurse, relevant to any surgical procedure, but not meant to be procedure-specific (Sevdalis, 2009). In nursing education, the acceptable competence of technical skills is a major focus of education (Emerson, 2007). Practical nursing skills ensure patients safe treatment (Bjork & Romy, 1999) and are a central part of a healthcare professional's role. The successful clinical outcome for patients often depends on the competent performance of a technical procedure (Alteren & Bjork, 2006). Knowing how to do a practical skill can be termed —know-how| type of knowledge, practical expertise and skill that is acquired through constant exposure (Baillie, 2001). To collect

information about technical skills, psychomotor skills can be used as a search term (Aggarwal, Moorthy, & Darzi, 2004).

Surgical processes are a complex function of a number of inter-related factors that include individual skills, team working and operating theatre environment. Individual skills can be divided to technical and non-technical skills. This distinction between technical and non-technical skills is rather recent in the healthcare literature (personal note, N. Sevdalis, 24th March 2010). Aseptic technique and instrument handover are examples of a scrub nurse's technical skills (Sevdalis et al., 2009).

2.2.5 Patient Safety

The operating theatre has been described as a dynamic, high-pressured and potentially high-risk environment that is vulnerable to multiple error (Bull and Fitzgerald, 2004; Gillespie, Chaboyer, Wallis, Chang and Werder, 2009; Silén-Lipponen, Tossavainen, Turunen and Smith, 2005; Undre, Koutantji, Sevdalis, Gautama, Selvapatt, Williams et al., 2007). Modern surgery requires a group of suitably skilled people to work together in a team. This team should be able to deal with the demands of their complex work environments and effectively deliver safe surgical patient care (Mitchell and Flin, 2008).

Safety is not a state to be achieved, but an emergent process within health care organizations and their subunits, e.g. operating theatres. The safety agenda is associated with awareness and anticipation of more or less latent flaws in the processes (Sheps, 2006). Securing patient safety can be described as the key element in theatre nursing (Alfred and Bjorn, 2007). Patient safety is established by creating a safety culture, standardizing equipment, simplifying processes, using checklists, improving incident and hazard reporting, handling information better at patient

discharge or transfer, improving team communications, actively managing provider fatigue and shifts and using surgical-site identification protocols (Warburton, 2009). Speed of work and imbalance in staffing are by theatre nurses identified as the main threats to patient safety (Alfredsdottir and Bjornsdottir, 2007).

2.2.6 Infection Prevention and Aseptic Technique

Patients undergoing surgery are particularly susceptible to infection; therefore, high standards of infection control must be implemented at all times to break the chain of infection (Barrow, 2009). To create a sterile area and maintenance of it during the operation is a theatre nursing expertise. One of the aims is to guarantee an area in which microorganisms should be as few as possible to prevent contamination of an open surgical wound and reduce post-operative wound infection risk (Nicolette, 2007).

Creating a sterile area begins when the theatre nurse does the surgical hand scrub and dresses up sterile gown and gloves, takes the sterile instruments and equipment in a sterile manner and organizes them on the table for the surgery. He/she will continue to create a sterile area bounded by the surgical site with sterile disposable draping after patient skin disinfection (Nicolette, 2007).

2.2.7 No Touch Technique

In order to prevent injuries to the patient and surgical team members, Association of Surgical Technologists have developed a standard of practice related to sharps safety and use of the neutral zone in the operating theatre. To prevent two individuals from simultaneously handling a contaminated sharp, scalpel blades, suture needles hypodermic needles, and sharp surgical instruments a neutral zone should be utilized during all surgical procedures. The sharps should be pointed away from the personnel in the work area Mayo stand or back table. To remove or attach blades, needles or other sharps use of mechanical safety devices requires. For all surgical

procedures a double gloving by all surgical sterile team members is recommended (Council on Surgical and Perioperative Safety, 2010).

2.2.8 Swab, Sharp and Instrument Counts

In order to increase patient safety practices in the perioperative setting it is recommended that sponge, needle and instrument counts should be performed on all procedures with the possibility that a foreign object could be retained. Incorrect count increases with risk factors such as emergency surgical procedures, unexpected change in the scope of the surgical procedure, procedures involving more than one surgical team, extended procedural length of time, unexpected transfusions, and morbidly obese patients. Sponge, sharp and instrument should be accounted for at the end of the surgical procedure and counts should be documented by the surgical team (Council on Surgical and Perioperative Safety, 2010).

2.2.9 Gown and Gloves

The migration of microbes from the skin and scrub attire of the sterile team member to the sterile field is prevented by using sterile gowns and gloves. Sterile gowns and gloves also prevent blood and body fluids from contaminating the team member. Gown and gloves choice should be selected according to the surgical procedure. Prior to entering the sterile field to aid in preventing surgical site infection all sterile surgical team members are required to don a sterile surgical gown and gloving. For all surgical procedures recommends double gloving of surgical members (Council on Surgical and Perioperative Safety, 2010).

2.2.10 Concept of Competence

Competence has become an important concept in human resource development and education during recent decades (Mulder, 2007). The concept of competence is defined and interpreted in multiple ways, both among different scientific fields and even within a single one and there is still a lack of a thorough conceptual framework including an operationalization (Esteves, 2009).

Bhatti and Cummings (2007) define competence as an ability to successfully apply professional knowledge, skills and attitudes to new situations as well as familiar ones. Eraut (2008) explains that competence usually refers to a person's underlying characteristics or overall capacity that is causally related to job performance. According to Taatila (2004) another related term that is close to the term competence is performance. Kak, Burkhalter & Cooper (2001) make a clear distinction between these two terms by explaining competence as someone's capacity to perform, and performance as the resulting behavior. Stobinski (2008) notes, that competence is one determinant of performance and that the relationship is not direct. Other factors—such as the work setting, time, and motivation—also have a major role in determining performance.

In health care education, the role of competence has grown dramatically as health care employers and educators have identified the gap between education and practice Scott T., (2008). The assessment of professional competence is essential, as employers, consumers, and other health care stakeholders have heightened expectations for nursing practice Stobinski, (2008). Stobinski also believed that, globalization, rapid technological development and increasing scientific innovations and demands of cost-effectiveness have created an interest of understanding competence and finding ways of measuring it from educational, individual and management point of view.

2.3.1 Competence in Surgical Nursing

Scott T, (2008); stressed out that in the context of surgical nursing, researchers have made efforts to clarify the concept since early eighties but still, there is a lack of what competence means in the context of clinical nursing practice. A lot of work is to be done to achieve a conceptual definition of nursing competence, and establish measurable operational definitions as opined by Rager(2009). Parsons and Capka (1997) define competence as a demonstrated ability of an individual to perform and identified cohort of skills in clinical practice. They point that competence is not a measure of individual's overall expertise. According to Parsons and Capka (1997), competence assessment models should limit their applications to the assessment of core skills and behaviors. Clinton, Murrells and Robinson (2005) claim that this reductionist and conservative approach – in which only work tasks and roles are considered – is consistently recommended to be avoided on nursing competence study in several reviews. Competence seen only as performing different tasks is considered to have a narrow applicability and use in practice, competence then envisioned as a product. Instead of this concept of competence equated with performance, a holistic conceptualization has been introduced in nursing research (Cowan, Norman &Cooperman, 2005). The focus is not on the performance but on the person who is performing, competence being associated as a quality or state of being of an individual (Locsin, 1998). Cowan, Norman and Coopamah (2005) state that a holistic definition of competence needs to be agreed upon and operationalized in nursing practice. According to them this would also underpin the development of competence standards and the tools required for the assessment.

In Ramritu and Barnard's (2001) study graduate nurses were asked to describe their understanding of competence. Competence was understood as an evolving process. Competences as performance, knowledge, clinical skills, safe and ethical practice, management of time and workload, utilization

of resources, as limited independence, were found as conceptions of competence of the graduate nurses. Lindberg (2006) presents in her study how intensive care staff understands the term competence. The staff described five different ways of understanding competence in intensive care: ability to cooperate, being able to perceive the situation correctly, being aware of abilities and limitations, being able to act, and being able to disregard the technology, when that is the most correct way of caring for a patient.

Competence is developed through pre-service education, in-service training, hands-on experience, and the assistance of mentors and preceptors (Kak, Burkhalter & Cooper, 2001). A presumption of competence is made with completion of a nursing education program followed by passage of the licensure examination; this presumption of nursing competence lasts throughout a career (Stobinski, 2008), and no mechanism exists for most health care facilities to ensure that practitioners remain up-to-date with current best practices (Scott Tilley, 2008).

2.3.2 Assessment of Competence in Surgical Nursing

Competence can be assessed using observation, written tests, computerized tests, simulations with anatomic models, job simulations, portfolios and self-assessment (Cowan, Norman & Coopamah, 2005). The dominant method to assess a health care professional's continued competence is traditional didactic continuing education (formal conferences, lectures, and dissemination of educational materials) (Scott Tilley, 2008). There is a lack of consensus regarding the most effective method to perform nursing competence assessment (Stobinski, 2008). Each approach has strengths and weaknesses, and the approach adopted to assess competence has implications upon how the outcomes of the assessments should be considered (Cowan, Norman & Coopamah, 2005). In the last 20 years, the objective structured clinical examination (OSCE) has emerged as a simulation method for assessing competence in nursing education, and nursing. It measures

clinical skills using a uniform, structured format of rotating stations simulating a clinical reality (Walsh, Hill, Bailey &Koren, 2009). According to Walsh, Hill, Bailey and Koren (2009) there is a concern of the traditional OSCE not reflecting to the nature of nursing practice. Adaptation of OSCE is said to be needed to reflect the holistic approach of clinical nursing, instead of having the perspective of task-oriented competence.

2.3.3 Theatre Nursing Competence

Internationally, theatre nurses can have two major roles, either a scrub nurse (also called instrument nurse) role or a circulating nurse role. The traditional responsibilities of a scrub nurse include performing surgical hand scrub and sterile gowning and gloving. A scrub nurse prepares the instruments, trolleys and sterile supplies needed for the surgery, maintains sterile environment, and provides skilled assistance to the surgeon during the operation (Mitchell and Flin, 2008; Spry, 2009). In Sweden, the theatre nurse almost always has the role of a scrub nurse, while the circulating role is mostly carried out by an assistant nurse. The responsibilities of scrub nurse in Sweden include also skin disinfection and draping of the patient's surgical area prior to the surgery (Public Employment Services, 2010).

Three themes were identified as being central in Gillespie, Chaboyer, Wallis, Chang&Werder (2009) study on operating theatre nurses' perceptions of competence. These three themes were knowledge (coalescence of theoretical, practical, situational and aesthetic knowledge), teamwork and communication (highly developed communication skills among teams of divergent personalities and situations), and the ability to coordinate and manage time schedule. Gillespie and Hamlin (2009) state that theatre nurse competence is an eclectic concept, difficult to define and even more difficult to measure and express, that theatre nursing competence needs to be more precisely articulated, because competence is necessary for safe surgical patient outcomes.

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The non-technical skills are defined as the critical cognitive and social skills that complement the technical skills to achieve safe and efficient practice in safety-critical occupations (Mitchell and Flin, 2008; Yule, et al., 2009). The non-technical skill is a new area of research for healthcare based on a well-developed approach from the world of aviation. These skills are sometimes referred to under the general heading of human factors, but more specifically, as they do not relate directly to clinical knowledge and technical skills, they can be described as non-technical skills. Non-technical skills can be divided into two subgroups: cognitive or mental skills (e.g. decision making, planning, situation awareness) and social or interpersonal skills (e.g. team-working,

communication, leadership). Both groups of skills are necessary for safe and effective performance in the operating theatre environment (Fletcher, McGeorge, Flin, Glavin and Maran 2002).

Mitchell and Flinn (2008) made a literature review on operating theatre nurse's non-technical skills. Non-technical skills as communication, teamwork and situation awareness were discussed in the papers, but no skills that could be classified as leadership or decision-making were found, although the authors indicate that these may be skills that theatre nurses also require.

Psychomotor skills are studied as special topics in the experimental psychology of learning and performance. Despite theoretical and empirical progress, much remains to be understood about the acquisition of psychomotor skills and their interrelationship with human-factor variables (Evans & Dirks, 2001). The learning, performance, or significance of nursing practical skills is seldom a theme in theoretical and philosophical debate or the topic of research within nursing. The long-standing behavioristic tradition in nursing could be reason: practical skills viewed in a simplistic way, only as correctly sequenced motor movement (Bjork & Romyn, 1999).

There are studies made about assessing non-technical skills performed in the operating theatre (Marriott, Purdie, Crossley & Beard, 2009; Undre, Sevdalis & Vincent, 2009), but studies made to assess theatre nurses' technical skills has been lacking until recently (Sevdalis et al., 2009)

2.3.4 Training for Development for Nurses Working in Theatre:

According to Tilley (2008); In the nursing profession, competency is described as the ability to successfully apply professional knowledge, skills and attitude to new situations as well as the unfamiliar ones. Competency detects the gap between knowledge and practice.

Accordingly, Benner's theory of clinical competence (1984), postulated that skilled nurses develop their skills and knowledge of patient care through a continuing and steady process. Theatre nurses going through the five stages of clinical competence from novice to expert helps them realize that

knowledge and skills in nursing field is a gradual and continuous process that is learned and acquired over time through the training programme.

According to the empirical evidences available; professional learning and training for development opportunities have increased nurses' work motivation and helped developed their competence thereby enabling them experience more individual achievements at work place. (Ayyash&Aljeesh, 2011; De Cooman et al., 2008; Hoonakker et al., 2013; Peters et al., 2010; Rydenfält et al., 2012).

In the same vein, findings from an empirical study conducted by ICN (2010) revealed that; improved learning and practice opportunities is considered as one of the three key reasons for nurses to migrate in search of a better working inducements or incentives.

Dielmanet'al (2003) in their work titled 'Identifying factors for job motivation of rural health workers in North Viet Nam identified appreciations by manager's and colleges, stable job and income and training as the major variables. The study failed to recognize operational facilities as important variable for job motivation

Peñasales, Raquitico and Clores (2017) in their study titled; Experiences of Operating Room Nurses in Promoting Quality Perioperative Patient Care, summarized the remark of one of the theatre Nurses during interview;

“Experiences gained from being OR nurses have great impact in our personal and professional growth. There is always the room for improvement, whether good or bad experiences. It drives us to become better and best. Reliable decision- making skills, conflict resolution and professionalism are of top- priority. continuously enhance our learning curve that helps in developing our knowledge, skills and attitude not only to be worthy of our licenses but also to be better individuals of this society.”

This response describes the theatre nurses' motivation to improve their nursing technical competence. It shows that there is no difficult part of being a theatre nurse if there is commitment to learn and develop.

In another dimension, Hans (2008) stressed the experience of frustration and burned out at work. The theatre nursing is one of the most challenging nursing jobs because of having to constantly experience complex surgical procedure that go on for many hours couple with inadequate number of staff in some cases and uncomplimentary remarks from superiors.

2.3.5 Remuneration of Nurses Working in Theatre:

The relationship between remuneration and technical competence was highlighted in an empirical study conducted by ICN (2010). The findings show that a better salary among other things have also been mentioned as the most common reasons for nurses' professional migration from rural areas to urban areas as well as from lower income countries to higher income countries (ICN, 2010). This can be explained by the submission of De Lucia et al (2009) when she posited that according to basic human need, the safety and well-being of one's own always comes first before being able to care adequately for others. Therefore, financial remuneration and job security (particularly in lower income countries) is seen as rather an important motivating factor for nurses working in theatres (Awosusi and Jegede, 2011; Ayyash and Aljeesh, 2011; Gaki et al., 2013; Hoonakker et al., 2013; Kamanzi and Nkosi, 2011; Lambrou et al., 2010; Negussie, 2012; Peters et al., 2010; Kantek et al., 2013).

Also, flexible work hours, sufficient resources, supportive structures, occupational health and safety, effective workload management, salary and allowances (uniform, call allowances) are considered to be the main motivating factors of working conditions in health organizations (Global Health Workforce Alliance, 2008).

Also, according to the findings of a study conducted by Ayyash and Aljeesh, (2011); Bonsdorff, (2011) and Gaki et al., (2013); senior and more specialized nurses working in theatre expect better benefits in return for their long duration of specialty service and hard-acquired achievements. From the above we can conclude that this benefit is more related to financial inducements.

Zahad M (2016) in the work titled 'Factors related to job satisfaction among nurses found out remuneration as the major extrinsic factor to nurses job satisfaction with career escalation as also the major intrinsic factor. The study left out other important variables like training adequate facilities and supervision as key to nurses work motivation.

2.3.6 Operational Facilities in Operating Theatre:

Even the best qualified and extremely intrinsically motivated theatre nurse may need supporting facilities (structures) which provide proper tools and essential equipments and machineries for maintaining their ability to carry out high-quality and safe nursing care (Awosusi and Jegede, 2011; DeLucia et al., 2009).

The above submission by De Lucia implies that operational facilities are as important as other intrinsic factors to theatre nurse motivation. Without the necessary operational facilities knowledge skills can't be translated into action.

Caroline (2014) in her work "Factors influencing employee motivation and its impact on employee performance: A case study of AMREF Africa in Kenya" noted that extrinsic factors affect the achievement aspect of employee motivation and the affiliation motivation as well as the competence motivation. Extrinsic factor according to the study include work condition, pay, fringe benefits and work environment among others and are major influencing variables of employee to strive at achieving the set goals of an organization.

2.3.7 Supervision in Operating Theatre:

According to Bond and Holland (1998), Clinical supervision can be defined as: “regular, protected time for facilitated, in-depth reflection of clinical practice. It aims to enable the supervisee to achieve, sustain, and creatively develop a high quality of practice through the means of focused support and development. The supervisee reflects on the part she plays as an individual in the complexities of the events and the quality of her practice. This reflection is facilitated by one or more experienced colleagues who have expertise in facilitation and frequent, ongoing sessions are led by the supervisee’s agenda. The process of clinical supervision should continue throughout the person’s career, whether they remain in clinical practice or move into management, research, or education”

According to Cleary and Freeman (2005), Educational support and superior supervision are major organizational supports to improve workers’ professional capacity. As supervision helps the subjects of supervision react to their needs, sufficient supervision should be provided so that nurses can optimize their professional abilities in hospitals. Supervision from theatre managers can improve the professional growth, work attitude, ethical sensitivity, and nursing capacity of theatre nurses.

The findings of the empirical studies conducted by Chun (2006) and Sarah (2004) revealed that; Supervision is not limited to techniques, but includes whole range of professional competence such as attitude, ethics, and values. Also, the empirical studies conducted by Berg and Handson (1994), shows that a group of nurses who received supervision have significantly low level of burnout.

This depicts the important roles that supervision plays in supporting nurses in the theatre to develop their clinical skills and professional practice in response to service user needs, values and enables the development of professional and practice knowledge to meet these demands, and provides relief from the emotional and personal stress involved in theatre nursing

In the same vein, Edwards, Bernard, Hamington, Cooper, Adams, Juggessur, Furthergil and Coyle (2006) concluded that supervision is an effective measure to reduce nurses' high stress and burnout. They also postulated that supervision affects such positive attitude of organizational members as organizational commitment, and is an important factor influencing empowerment.

Chun (2006) and Sarah (2004) noted that those who lack supervision tend to show more cynical and negative attitude and have higher level of burnout. This submission aptly underscores the importance of work supervision.

This is to say, work supervision can improve positive attitude of nurses working in theatre in terms of commitment, and can also reduce negative attitude in terms of work stress both physical and emotional as well. In a work titled ' Work motivating factors as identified by nurses in Children Hospital at Elmonira and specialized paediatrics Hospital Cairo' , Radwan and Abdoet'al (2013) noted that nurses perceived the social work environment, supervision and guidance as the highest motivating factors in Elmonira and specialized paediatrics Hospital Cairo.

It could be noted that like any other employee, social work environment, supervision and guidance are key motivating factors in getting the best performance of nurses in a work environment. But the study did not take care of other key variables such as training, remuneration and provision of working facilities. In another dimension, Albert (2009) in his work titled ' Motivation, Job satisfaction and Attitude of Nurses in the public Health Services of Botswana 'observed how nurses felt about a wide range of variables in their work environment and ultimately unravel what distils them into what they conceived as the main stay motivators, job satisfiers and positive

attitudes. Also, Abbas D. Et al (2014) in their work titled 'Factors affecting job motivation among health workers found out main motivating factors for health workers as good management, supervisors and managers support and good working relationship with colleagues. To them employee remuneration, training and adequate facilities were secondary in employee work motivation.

2.4 The Concept of Motivation

Motivation is theoretical construct used to explain behavior (Elliot, 2010). It gives reasons for people actions, desires and needs. Motivation can also be defined as one's direction to behavior, or what causes a person to want to repeat a behavior or vice versa. A motive is what prompts the person to act in a certain way, or at least develop an inclination for specific behavior. According to Mashrad Meyer (2014), Motivation is a word that is part of the popular culture as few other psychological concepts are.

2.4.1: Theories and Models of Motivation

As Pardee (2010) noted, motivation theories can be classified on a number of bases;

Natural versus Rational: Based on whether the underlying theory of human cognition is based on the natural forces (drives, needs, desires) or some kind of rationality (instrumentality, meaningfulness, and self-identity).

Context versus Process: based on whether the focus is on the context ("what") motivates versus process ("how") motivation takes place.

Motivation can be conceived of as a cycle in which thoughts influence behaviors, derive performance, performance affects thoughts and the cycle begins again (Maehr, 2012). Each stage of the cycle is composed of many dimensions that include attitudes, beliefs, intentions, effort, and withdrawal which can all affect the motivation that an individual experiences. Most psychological theories hold that, motivation exist purely within the individual, but socio-cultural theories express motivation as outcome of participation in actions and activities within the cultural context of social groups(Maehr,2012). The ideal that human beings are rational and human behavior is guided by reason is an old one.

However recent research (onstatistician for example) has significantly undermined of homo=economics or of perfect rationality. The field of behavioural economics particularly concerned with the limit of rationality in economic agents (Rueda, 2014). Motivation could also be seen as “incentive” and could be divided into intrinsic and extrinsic motivation.

Intrinsic (internal or inherent)Motivation: This form of motivation has been studied since the 1970s. Intrinsic motivation is the self-derived to seek out new things and new challenges, to analyses ones capacity, to observe and to gain knowledge. It is driven by an interest or enjoyment in the task itself, and existwithin the individual rather than relying on external pressures or a desire for consideration (Ryan, 2015). The phenomenon of intrinsic motivation was first acknowledged within experimental studies of animal behavior. In these studies, it was evident that the organizations would engage in playful and curiosity driven behavior in the absence of reward. Intrinsic motivation is natural motivation, tendency and is a critical element in cognitive, social and physicaldevelopment (Ryan, 2015).

Extrinsic Motivation: refers to the performance of an individual in order to attain a desired outcome and it is the opposite of intrinsic motivation (Wigfield, 2016). Extrinsic motivation comes from influences outside of the individual. In extrinsic motivation, the harder the question to answer is where do people get the motivation to carryout and continue to push with persistence. Usually, extrinsic motivation is used to attain outcome that a person wouldn't get for intrinsic motivation (Wigfield, 2015). Common extrinsic motivations are reward (for example money or grades) for showing the desired behavior, and the threat and punishment following misbehavior. Competition is an extrinsic motivation because it encourages performer to win and to beat others, not simply to enjoy the intrinsic rewards of the activity. A cheering crowd and the desire to win a trophy are also extrinsic incentives (George, 2014).

While many theories on motivation have a mentalist perspectives, behaviorists focus on observable behavior and theories founded on experimental evidence. In the view of behaviorism, motivation is understood as a question of what factors cause, prevent, or withhold various behaviours, while the question of , for instance, conscious, motives would be ignored. Where others would speculate about such things as values, driver, or needs that may not be observed directly, behaviorists are integrated in the observable behavior (Benjamin, 2013). Incentive theory is a specific theory of motivation derived partly from behaviorist principles of reinforcement, which concerns on incentive or motive to do something (Benjamin, 2013). The most common incentive would be a reward. Rewards can be tangible or intangible. At this juncture, it becomes necessary to examine several theories on motivation.

2.4.2 Maslow Hierarchy of Needs

It is worthwhile taking a closer look at theories and one approach. This is widely known by managers, is clearly set out by Abraham H. Maslow in his book *Motivation and personality* in (1954), he constructed a theory based on what they called his interpretations of the man's basic needs which is today known as the hierarchy of human needs, Maslow postulated the people are motivated by a hierarchy to satisfy a hierarchy of needs. His motivation framework stressed two basic premises.

“Man is a wanting animal whose needs depend on what he already has, only need not yet satisfied can influence his behavior thus a satisfied need is never a motivator”.

“Man's needs are arranged in a hierarchy of importance once one need is relatively satisfied another emerges and demand satisfaction”.

A. Hierarchy of Needs

A1. Physiological Needs

These are the most important basic needs of an individual for the sustaining of one's life and these include hunger, thirst, shelter, clothing and sexual satisfaction. Until these needs are satisfied other needs do not serve as motivation and it is fruitless to consider any other higher order. In relation to this study, a perioperative nurse who is on the level of physiological needs can only be motivated by adequate remuneration. This will help improve his/her technical competence.

A2. Security or Safety Needs

The second needs are the security needs against danger, safety and protection against aggression, threat and deprivation.

A3. Social Needs

These include the needs of feeling of belongings, associations and acceptance by others, giving and receiving friends and love.

A4. Esteem Needs

This is need for self-esteem independence, achievement, competence, knowledge and personal reputation needs (status recognition, respect and appreciation).

A5 Self Actualisation

This is the need for realizing one's own potential, continued self development, creativity. It is also the need for desire to become more of what one is to become "everything one is capable of becoming". The realization of one's ambition and capabilities.

A6 The Implication of Maslow Theory

The implication of this theory is the administrators wanting a desired performance from an employee must study the level of needs of the employee and endeavor to satisfy them. This means that perceptual administrators must take a situational or contingency approach to the implication of Maslow's theory. What needs they must appeal to will depend on the personality, wants and desire of individual. Maslow model is predicated upon the possibility of satisfying individual needs. However, it is now impossible that under some satisfaction, some needs could not be satisfied on the job. Under these conditions, the individual will experience prostration, which may affect productivity in the long run.

Researchers, have also found that needs do not follow a hierarchy especially after lower level needs are satisfied. Administrators should note that for some, individual needs spread over the entire spectrum of Maslow hierarchy(Sheidu:1973).

2.4.3 Herzberg Motivation – Hygiene Theory

He was very concern with those conditions (on the job), which relate to employee dissatisfaction or satisfaction on the job. He called the first of these job conditions, maintenance or hygiene factor.

The two-factor theory, devised in 1959 is perhaps the best known of many theories of motivation. From his research among American accountants and engineers, Herzberg concluded that there two sets of forces at work in the individual. One set he termed hygiene factor, the other motivators. The two major findings are:

Individual motivation (and satisfaction) at work is a function of the intrinsic characteristics of the job which include Achievement, recognition, work itself, responsibility, advancement and personal development.

Dissatisfaction (lack of motivation) at work is a function of a set of job condition, which is job context in nature and are referred to as hygiene factors when operating to a sufficient degree. These factors prevent dissatisfaction but they act as motivators (satisfiers). Such factors include:

Salary, job security, working condition, personal life, relationship with supervisor, human relationship, organizations' polices and Fringe Benefit.

2.4.4 Implication of Herzberg Theory of Motivation

Administrators applying Herzberg theory most therefore note that individual real motivation results from his/her personal accomplishment through the challenges of work itself and that work itself and not from the working condition in the environment. In any case hygiene factor must be adequately provided if the individual becomes concerned about these factors instead of striving for superior performance conversely. If there are no dissatisfaction in the work environment, he will be striving for performance, may also assess individual in their self-fulfilling achievement needs through vertical job enrichment which means increased in responsibility. Increase work autonomy permitting worker to do a complete task and providing feedback of an individual performance to him.

2.4.5 David McClelland (Achievement, Affiliation and Power Needs)

He studied some motives that are relevant to the operation of an organization. To him, the individual personality is composed of three motivating needs.

B1. Need of power (N/Pwr)

People with high need for power have great concern for exercising influence and control they generally seek position of leadership. They are forceful outspoken and demanding.

B2. Need for affiliation (N/Af)

People with high need for affiliation usually derive pleasure from being loved and tend the pains of being rejected by social group. They are likely to be concerned with maintaining pleasant relationship to console and help others in trouble. For example a perioperative personnel that received supportive supervision through unimpeded communication with his/her theatre manager/supervisor is likely to improve his or her technical competence.

B3. Need for Achievement (N/Ach)

People with high need for achievement have an intense desire for success and equally an intense fear for failure. They want challenges set moderately difficult but not impossible goal for them take a realistic to risk (i.e. analysis's and assess problems) and preferred to assume responsibility. All these drive-power, affiliation and achievement are of special relevance to administration since all must be recognized to make an organized enterprise because any organized enterprise and every department of it represent groups of individuals working together to achieve goals, each is of paramount importance.

Recent research on achievement motivation indicate that an individual is most likely to be motivated when he has an opportunity to perform moderately challenges which performance depends on an important skill and feedback is given regarding performance(Dash lass, 1986).

2.4.6 The Implication of this Theory

The administrator should deem it fit between personnel and the job that requires high social relationship and group cohesiveness which might be under a leader with high need for affiliation (N/AF).

As McClelland has interestingly found out that the need for achievements derived could be thought and people who are related higher in the need for achievement tends to advance better than those who do not (Sheidu,1993)

2.4.7 Theory X and Theory Y

Further development of this work has been completed by McGregor (Human side of enterprise, McGraw Hill, 1960). McGregor defined two opposing images of human nature which is designated theory X and theory Y.

The Main Assumption of theory X are:

1. Work is inherently distasteful to most people
2. People are not ambitious and prefer to be directed
3. People are uncreative, uninterested and can only be motivated by stick and carrot

Close control and frequent discipline is necessary to achieve organizational goals. Thus it can be seen that an administrator who operates on the basis of theory X will closely direct and control workers and stifle any creating or feedback from works.

The Main Assumptions of theory Y are:

1. Work is natural as play if the conditions are favorable.
2. People are basically keen to be creative at work and be self-directing in achieving targets.
3. Workers can be motivated at the level of social, ego and self-fulfillment needs as well as basic and security levels.

The capacity for solving problems is widely distributed throughout the total work force.

An employer who operates from the basis of belief in theory Y will develop his employer and encourage them to solve problems and take an increasing responsibility. It is significant to note that the theory Y, administrator accords closely to Linker's participate administrator and is shown

by the most effective administrator (ACCA study pack, level 2, paper25b, and pp49-50). The importance of this theory is that, the theory X gives rise to tough administrator with punishment and tight controls. Theory Y on the other hand is one in favor of a greater degree of workers participation of job enrichment and treating employees as responsible intelligent human beings.

As with Maslow theory, it is self-true because it depends in the individual concern for there are some who dislike responsibility and prefer to be controlled. While there are increasing number of responsible, intelligent workers who can contribute a great deal. General motors of America found that girls come within the theory X category and administrators should adopt the philosophy according to the staff employee (O&M and Management Service, 1978).

Administrators should attempt to measure the level of employees need for achievement and try to increase it where inadequacy is discovered. The needs achievement according to McClelland could be taught through programs that emphasize prestige. Teaching the language and thinking pattern of high need achievers, emotional support of class members (especially through sharing of experience) etc. Task given to those with requisite level of the need for achievement should not be extremely difficult and attempt should be made to communicate performance to them from time to time.

2.4.8. Victor Vroom Expectancy Theory of Motivation

The essential element of this theory is that the people will be motivated to do things to achieve some goals to the extent that they expect that actions on their part will help them to achieve the goal.

Vroom suggested that a person's motivation toward an action at any time would be determined by his or her anticipated values of outcomes (both negative and positive) of the action multiply by the

strength of that person's expectation that the outcome would yield desired goal. In Vroom's terms force-valence multiplied by expectancy; where force is the strength of the person motivation, valency is the strength of an individual performance for an outcome, outcome and expectancy is the probability that a particular action lead to a desired outcome. Thus a person will have no motivation to achieve a goal if either the valence of expectancy were zero or negative.

The human motivating function on the job is based on human need, individual can engage in goal directed behavior as a result of satisfying those needs, and naturally human needs always are dynamic rather than static. What may be the need of employee today in organization may not necessarily be the same tomorrow.

Several means have been tried to ensure the corporation of workers in improving and maintaining productivity in in other words, induce them to expand opinion effort. Modern social science research recognized that the worker has to identify with organization, that is, he must feel belong that he is part of things. One of the major difficulties in accomplishing this is that, traditional management has assumed that people on the work a day levels should be order takers with no part in the idea process, and that it was management exclusive responsibility to the thinking for the organization. Furthermore, lower supervisors have tended to reflect this view point by styling the ideas of subordinates who wants to improve production methods. They have failed to give credit because they feared that higher supervisors would censure them for not thinking of the improvements themselves.

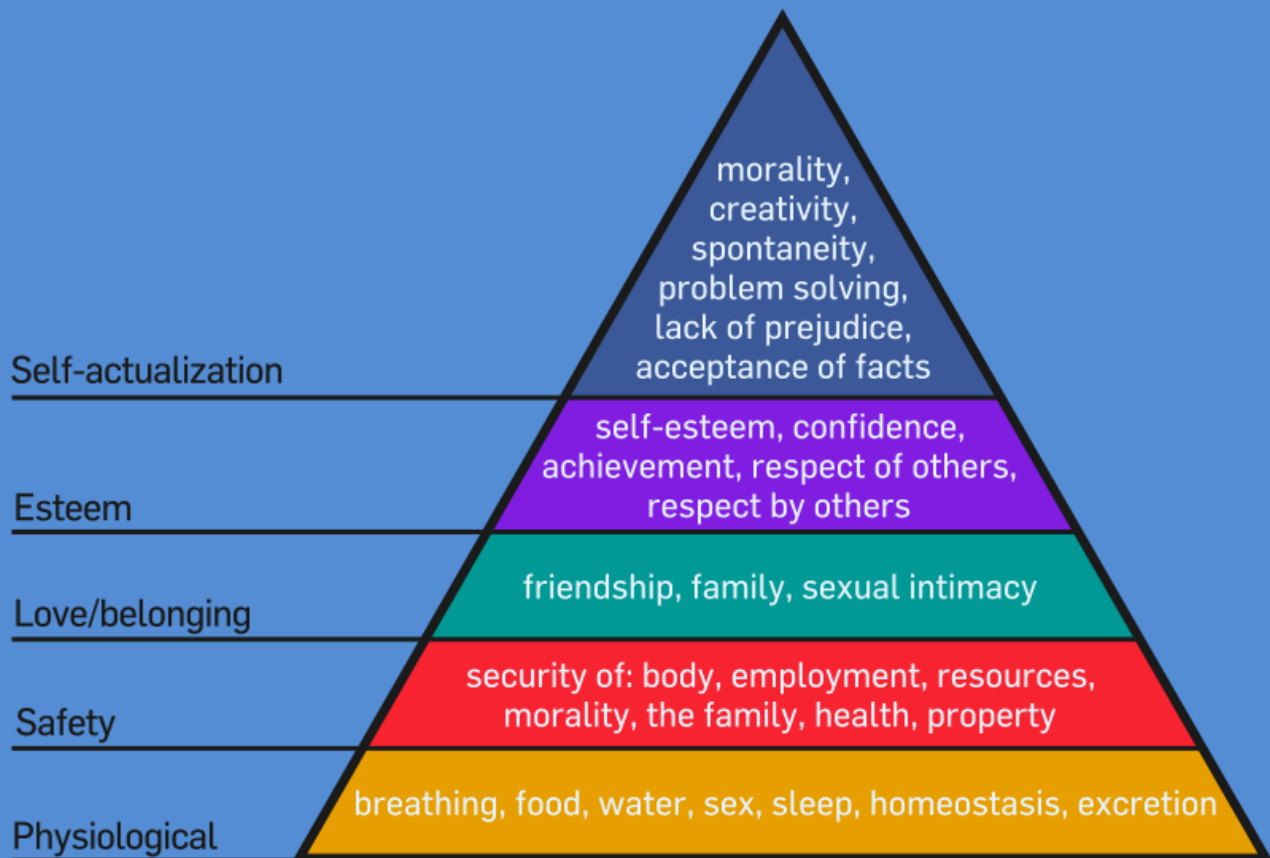
To cap it up, there is another view point which holds that a proper environment will encourage employees to offer their suggestions without the lure of financial reward. If employees are identified as members of the organization, they will participate voluntarily. As a matter of

fact, people like to contribute toward the improvement of method and procedure when they know that they can do so with unity.

2.6 Theoretical Framework

This study intends to use the Maslow's need theory and the Benner's stages of clinical competence as the study theoretical framework.

A. Maslow Needs Theory of Motivation



There are several theories of motivation that could have been used in the study Herzberg hygiene theory, David McClelland (achievement, affiliation or power needs) theory, Victor Vroom

expectancy theory, McGregor theory X and Y(Penny,1976) etc. But the study prefers the use of Abraham Maslow theory of Hierarchy of needs

In his book," Motivation and personality" (1954), Abraham Maslow constructed a theory based on what he called his interpretations of Mans basic needs which is today known as the" Hierarchy of human needs". According to Maslow (1954), people are motivated by a hierarchy to satisfy a hierarchy of needs. This motivation framework stressed two basic premises;

Man is an animal surrounded by wants, where needs depends on what he already has, but what he has not. Thus a satisfied need is never a motivator.

Man's needs are arranged in a hierarchy of importance, once one need is relatively satisfied; another emerges and demand satisfaction (Maslow, 1954:16). According to Maslow (1954: 22), man's hierarchy needs are

Physiological Needs: These are the most important basic needs of an individual which involves the sustaining of one's life and these include hunger, thirst, shelter, clothing and sexual satisfaction. Until these needs are satisfied, other needs do not serve as motivation. Physiological needs of every worker or employee is dependent on good remuneration to meet his basic needs of life as stated above.

Security or Safety Needs: The second needs are the security needs against danger, safety and protection against aggression, threat and deprivation.

Social Needs: These include the needs of the feeling of belonging association and acceptance by others giving and receiving friends and love. An employee of any organization can acquire this

need through effective leadership/supervision, interpersonal relationship and opportunity to relate and grow to lead too.

Esteem Needs: This is the need for self-esteem, independence, achievement, competence, knowledge and personal reputation needs (status recognition, respect and appreciation). These needs are best ensured in an organization where there is adequate operational tools/fertilities to work with. In theatres modern equipment, machines, structures and instruments enhance

Self-Actualization Needs: This is the need for realizing one's own potentials, continued self-development, creativity etc. This has to do with the realization of one's ambition and capabilities and can only be achieved adequate training of human resource in health care facilities theatre nurses inclusive.

The implication of Abraham Maslow's theory is that, administrators wanting a derived performance from an employee must study the level of needs of the employee they will also have to know the specific needs of the employee and endeavor to satisfy them. This means that perceptive administrators must take a situational or contingency approach to the implication of Maslow's theory. What needs they must appeal to will depend on the personal wants and desire of individual. Maslow model is predicated upon the possibility of satisfying individual's needs. Despite the relevancy of Maslow's theory of needs, researchers have subsequently found out that needs do not follow a hierarchy especially after lower needs are satisfied. Administrators should note that, some individuals' needs may spread under or above the entire spectrum of Maslow hierarchy of needs (Sheidu, 1993).

It could however be understood that Maslow's theory of motivation will be useful in examining motivation and technical competence of theatre nurses in Sokoto state. It will aid in understanding whether or not motivation affects the technical competence of theatre nurses in Sokoto state.

B. Benner's Stages of Clinical Competence

In the acquisition and development of a skill, a nurse passes through five levels of proficiency: novice, advanced beginner, competent, proficient, and expert.

Stage 1: Novice

The Novice or beginner has no experience in the situations in which they are expected to perform. The Novice lacks confidence to demonstrate safe practice and requires continual verbal and physical cues. Practice is within a prolonged time period and he/she is unable to use discretionary judgment.

Stage 2: Advanced Beginner

Advanced Beginners demonstrate marginally acceptable performance because the nurse has had prior experience in actual situations. He/she is efficient and skillful in parts of the practice area, requiring occasional supportive cues. May/may not be within a delayed time period. Knowledge is developing.

Stage 3: Competent

Competence is demonstrated by the nurse who has been on the job in the same or similar situations for two or three years. The nurse is able to demonstrate efficiency, is coordinated and has confidence in his/her actions. For the Competent nurse, a plan establishes a perspective, and the plan is based on considerable conscious, abstract, analytic contemplation of the problem. The

conscious, deliberate planning that is characteristic of this skill level helps achieve efficiency and organization. Care is completed within a suitable time frame without supporting cues.

Stage 4: Proficient

The Proficient nurse perceives situations as wholes rather than in terms of chopped up parts or aspects. Proficient nurses understand a situation as a whole because they perceive its meaning in terms of long-term goals. The Proficient nurse learns from experience what typical events to expect in a given situation and how plans need to be modified in response to these events. The Proficient nurse can now recognize when the expected normal picture does not materialise. This holistic understanding improves the Proficient nurse's decision making; it becomes less laboured because the nurse now has a perspective on which of the many existing attributes and aspects in the present situation are the important ones.

Stage 5: The Expert

The Expert nurse has an intuitive grasp of each situation and zeroes in on the accurate region of the problem without wasteful consideration of a large range of unfruitful, alternative diagnoses and solutions. The Expert operates from a deep understanding of the total situation. His/her performance becomes fluid and flexible and highly proficient. Highly skilled analytic ability is necessary for those situations with which the nurse has had no previous experience. (Benner, 1984).

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter presents the research methodology used in this study. The chapter describes the research design, area of the study, population of the study, inclusion and exclusion criteria, sample size, sampling technique, instrument for data collection, procedure for data collection, method of data analysis, ethical consideration and validity and reliability of the instrument.

3.2 Research Design

The investigator utilized the descriptive and correlational method of research designs. Descriptive design because this investigation described the relationship of work motivation and technical competence of nurses working in operating theatres in two health facilities in Sokoto State..Furthermore, correlational analysis was employed to determine relationship between and among selected variables.

A participatory structured observational tool was used for the study where the researcher assumed the role of a complete observer and endeavours no influence on the phenomenon under observation as suggested by Pollitt& Beck, 2004. The present study was structured with an observational tool developed to assess the technical skills of theatre nurses. In addition, a motivation predictive variables questionnaire was designed and administered to assess their work motivation.

3.2 Area of the Study

Sokoto state is one of the thirty six (36) states of the Federal Republic of Nigeria. The state has a land mass of about 32,000 km² with a population of 5,352,607 according to 2016 projected Census. The State is located at the extreme North-Western part of Nigeria between longitudes 4.8⁰E and 6.54⁰ E and latitudes 12⁰ N and 13.58⁰N. The state shares border with Niger Republic to the North, Kebbi state to the southwest and Zamfarastate to the East. Sokoto state like every other state in the Nigerian federation has three senatorial districts namely, Sokoto East, Sokoto North and Sokoto South. The Sokoto East senatorial district is composed of Isa, Sabon-Birni, Wurno, Goronyo, Gwadabawa, Illela, Gada and Rabah local government areas. The Local government areas under Sokoto North senatorial district are Tangaza, Binji, Silame, Gudu, Kware, Wamakko, Sokoto north and Sokoto South. Dange-Shuni, Bodinga, Yabo, Tureta, Tambuwal, Kebbe and Shagari local government areas formed the Sokoto South senatorial district. Sokoto state is also divided into eleven federal thirty state constituencies.

3.3 Study Setting

The study was carried out in two tertiary healthcare facilities of Sokoto State in Nigeria. The facilities comprise of Specialist Hospital Sokoto and Usmanu Danfodio University Teaching Hospital both in the metropolitans city of Sokoto. Usmanu Danfodiyo University Teaching Hospital, Sokoto which is one of the modern tertiary health institutions in Nigeria is located in Gawon Namaarea Hospital road Sokoto. The institution being a teaching hospital offers different medical courses such as Basic Nursing Program, Post Basic Midwifery Programme, Health Information Management, Community Health officers Training Programme (CHOP) and Masters in Public Health. The hospital has 2 centers: Regional Centre for Neurosurgery and Institute of

Child Health. The hospital has about 40 wards and units and has the capacity of about 1500 bed spaces and average of 300 - 400 patients are on admission every day(personnel and planning department 2017)

Specialist Hospital is the oldest tertiary health facility situated along Sultan Abubakar road of Sokoto South local government area. It has bed space capacity of 500 with total staff strength of... With nurses constituting a larger number of 480 (Human resource department 2017)

3.4 Population of the Study

The population of the study is the total group of subjects the researcher is interested in and to whom the results could reasonably be generalized (Leedey &Ormod, 2005).The population of this study are all nurses working in theatre.

The target population of the study comprises of all theatre nurses working in the two tertiary healthcare facilities in Sokoto State operating theatres which according to statistics were sixty three (63) in number.

Table 3.1 The Statistics of the twotertiary Healthcare Facilities

Serial number	TERTIARY HEALTHCARE FACILITIES	NUMBEROF NURSES	NUMBER OF NURSES WORKING IN THEATRE
1	U D U T H SOKOTO	636	43
2	SPECIALIST HOSPITAL SOKOTO	280	20
TOTALS		916	63

3.5 Sample and Sample Size

A sample is the representative sub-group of the population that meets researcher's criteria (Leedey & Ormrod, 2005), while, sampling is the investigation of a part of the whole population to draw conclusion that may be generalized to the whole population in which the sample was drawn. In this study the whole target population will be used for the research because the total population size is not large enough to warrant sampling. Therefore census type of sampling was used. The total number of theatre nurses in both tertiary hospitals is 63.

3.6 Instruments for Data Collection

Two tools were used as instruments for data collection in the assessment of effect of work motivation on the technical competence of nurses working in theatres of two healthcare facilities in Sokoto state. In the questionnaire, information concerning participants' age, sex, qualifications, clinical exposure, type of surgery, and location of the participants and their years of experience in theatre were obtained. This tool was administered after observation of participants post operatively.

The first tool used in this research is motivational tool adopted from Mahya and Jaim (2012) and modified to suits theatre nurses. The tool comprises of two sections A and B. Section A of this instrument contained information concerning participants' age, sex, qualifications, clinical exposure, and location of the participants were obtained. Section B of the instrument consist of twenty four statements and each statement has a maximum of five marks making a total of hundred and twenty (120) marks and a rating scale of 1- 5. Questionnaire was 110% scored, 1 stand for fully disagree, 2 partially disagree, 3 not sure, 4 partially agree, while 5 is fully agree having 5 points. The score of 0-29 indicates lack of motivation and the facility has poor structure

for theatre nurse motivation, 30-49 means theatre nurse lacks some motivation, but have sufficient to continue working in the facility. Between 50-120 means the participant is highly motivated and work in organization that values his contribution.

The second tool in this study is an observational tool. It is developed to assess theatre nurses. It was constructed and developed by Sevdalis in 2009, modified by Kylmänen (2010) and also modified. The tool was also tested in the context of surgical crisis simulations and defined by the constructor as reliable and valid, and feasible to use (Sevdalis et al., 2009). The tool has three aspects, one pertaining to competencies (core skills), second pertaining to observable items and the third aspect which is the rating scale. It comprises of seven (7) core skills with thirty three (33) observable items. The skills included are generic technical skills (core skills) of a theatre nurse, and relevant to any surgical procedure, and are not meant to be procedure-specific. The first core skill is the Preparation of theatre consisting of four observable items and a total score of twenty four (24) points. Scrubbing being the second core skill has total points of sixty (60) and ten (10) observable items, followed by three observable items of the third skill which is Gowning and Gloving with the total score of eighteen points. The fourth core skill Setting of instruments contain five observable items with thirty (30) points. Drapping skill which is the fifth has a total score of eighteen points with three observable items. The fifth and sixth core skills include Maintaining sterile field and Infection control having four observable items each with a total scores of eighteen(18) respectively. The grand total of all the seven core skills scores is one hundred and ninety-eight points which is the highest point competence. The third part is the rating scale of one through six (1-6) each representing a measure. The highest point (6) would be regarded as a standard performance and setting the points 2-5 would be compared to this standard.

3.7 Validity of the Instruments

The supervisors went through the tool for assertion. Questionnaire and the observation tool used in study were vetted by the Juries of five in the department of Nursing Science and Department of Community Medicine of the Ahmadu Bello University Zaria and corrections made were also affected.

3.9 Procedure for Data Collection

An introductory letter was obtained from Department of Nursing, Ahmadu Bello University, Zaria to the office of the honorable commissioner of health Sokoto together with a copy my corrected proposal work and ethical clearance was given after due processes. Study participants were also purposefully and conveniently selected. Four trained theatre nurse managers were recruited as research assistants: Three from Usmanu Danfodiyo University Teaching Hospital and one from Specialist Hospital Sokoto. The selection criterion was the attainment of registered nurse and registered perioperative nursing certificates with current license of practice. Lectures discussion and practical demonstration of the expected skills regarding standard practice of surgical procedures were ensured. Pre-testing of observation tool was done, scoring of the assistants were also compared to that of researcher's scoring and appropriate observation and corrections were made on areas to improve. Assistants were also made acquainted with objectives and methodology of the study. The research purpose was briefly explained to the participants and those who agreed to participate were used for the study. They were met in their various health facilities and evaluated through observation at their operating theatres before, during and after surgical procedures using the structured observational tool. Questionnaires were administered to the participants after each observation.

3.9 Method of Data Analysis

The collected data was analyzed using Statistical package for Social Sciences (SPSS version 20.0). The software (SPSS) is a powerful statistical package which can run all the traditional statistical technique such as descriptive and inferential statistics (Polar Engineering Consulting Limited, 2007). Data cleaning was also performed and the missing value assessed and corrected. Data collected was also analyzed using SPSS software, descriptive and inferential statistics were also employed in assessing the effect of work motivation on the technical competence of nurses working in theatres of two tertiary institutions in Sokoto State.

The level of significance to be used for this research is 0.05 of the test result,. The level of significance measures the degrees of risk that will be assigned to committing error. Thus where 0.05 (5%) level of significance is used as in this study, it means there is 95% assurance of not committing error.

3.10 Ethical Consideration

The participants were fully informed that participation is voluntary and that they can withdraw from the study at any time they feel like. Also no risk will be involved in completing the assessment tool and that no cost will be incurred by participation in the study. A potential benefit of participation is that, participants were able to demonstrate their expertise in theatre nursing skills competence. Informed consent was also obtained from the participants after providing the participants with information about the purpose of the study, risk and benefit. The participants were also assured that there will be no harm and all information collected will be treated confidentially. Anonymity of participants was also ensured by assigning codes. Names and personal descriptive data of the participants were omitted to ensure privacy.

CHAPTER FOUR

RESULTS

4.1 Introduction

The chapter discusses the results findings of the data analysed from both the observation tool and the questionnaires. The data was analysed based on the research objectives of the research and observation tool using both descriptive and inferential statistics as mentioned already in the methodology. A total number of sixty three (63) respondents were targeted for the study but only Forty Seven participated the remaining sixteen (16) declined.

4.2 Result of the Demographic Characteristics

KEY:

RN: Registered Nurse

RPON: Registered Perioperative Nurse

BNSC: Bachelor of Nursing Science

MSc: Master IN Sciences.

UDUTH: Usmanu Danfodiyo University Teaching Hospital Sokoto

S H S.: Specialist Hospital Sokoto

Table 4.1 Demographic Characteristics

(N=47)

Demographic characteristics	Frequency	Percentage
Sex		
Male	27	57.4
Female	20	42.6
Qualification		
RN	19	40.4
RPON	18	38.3
BNSC	10	21.3
2 and 3	28	59.6
Clinical Exposure		
Local	27	57.4
International	1	2.1
Local and international	19	40.4
Place of work		
UDUTH	41	87.2
SHS	6	12.8

Table 4.1 above shows the demographic characteristics of the respondents. Variables analyzed were; sex, qualification, clinical exposure, and place of work.

The result shows that 27 out of the 47 respondents that participated in this study are males and formed the majority with (57.4%) and females account for the remaining 20 with 42.6%. More than 40% of the respondents have RN certificate while 38.3% and 21.3% have RPON and BNSc respectively. More than half of the respondents (57.4%) were trained locally in Nigerian institutions while 40.4% have both local and international exposure. On the type of operation,

majority (70.2%) were major operations while, 6.4% were minor operations. Eighty seven percent of the respondents were working in Usmanu Danfodio University Teaching Hospital Sokoto, only thirteen percent work with Specialist hospital

4.3 Items Analysis on the Four Motivation Factors Questionnaire.

Table 4.2 Results Questionnaire Items

(N=47)

Items	Average Mean (X)	Standard Deviation(SD)
1.TRAINING/DEVELOPMENT		
Training opportunity	4.00	1.01
Workshop attendance	3.94	0.94
Clinical presentations	4.3	1.05
Post basic training	4.5	1.40
Training matches abilities	4.01	1.11
Improve abilities	4.0	1.01
Self confidence	4.30	1.2
Total	<u>29.04</u>	<u>7.72</u>
2.REMUNERATION		
Adequate Remuneration	3.35	1.292
Uniform allowance	3.34	1.389
Call allowances	3.40	1.580
Rural posting Allowance	3.30	1.407
Annual leave Allowance	3.43	1.23
Rent allowance	3.34	1.23
Total	<u>20.16</u>	<u>8.292</u>
OPERATIONAL FACILITIES		
Availability of sterilizers	3.32	1.340
Soiled Utility Room	3.25	1.320
Storage room	4.0	1.400
Operation tables	3.40	1.300
Suction Machine	3.30	1.250
Diathermy Machines	3.43	1.333
Total	<u>20.70</u>	<u>7.943</u>
SUPERVISION		
Sufficient Supervision	3.57	1.160
Supportive supervision	3.79	1.150
Communication	2.99	1.168
Improve technicalities	3.60	1.166
Knowledge of supervisors	2.85	1.09
Total	<u>16.8</u>	<u>5.734</u>
AGGREGATE TOTALS	86.729.689	

Table 4.2 above shows the results of the items of four work motivation factors used in the questionnaire and were analyzed thus:

On training for development factor of motivation, the first item which is opportunity for training has an average mean score of (4.00) and a standard deviation of 1.01 while opportunity for workshop attendance the second item scored 3.94 with a standard deviation of 0.94 but opportunity of the participants to attend weekly scored an average mean of 4.30 and a corresponding standard deviation of 1.05. Item concerning opportunity for post basic training sponsorship has a mean value of 4.5 and a standard deviation of 1.4. Also, on the item training matches participants abilities a mean score and standard deviation of 4.01 and 1.11 were obtained. The item training improve participants ability has a mean score of 4.00 and standard deviation 1.01 . Last item under this motivation factor training for development opportunities that is concerned with participants self confidence in the conduct of their work scored 4.30 a corresponding standard deviation score of 1.20. The aggregate mean and Standard deviation of this work motivation factor stands as 29.04 and 7.72 respectively.

Results of items under Adequacy of Remuneration shows that item one which is adequate remuneration scored an average mean of 3.35 with standard deviation 1.292, uniform allowance had 3.34 and 1.389 mean and standard deviation respectively. Third item under this work motivation factor tagged call duty allowance obtained a mean score of 3.40 and a standard deviation of 1.580. Rural posting allowance score depicts 3.30 with a standard deviation 1.407. Annual leave allowance item showed an average mean of 3.34 and 1.394 as standard deviation score. The sixth and last item (Rent allowance) of this motivation factor obtained results 3.34 and 1.23 as mean score and standard deviation respectively.

On availability of operational facilities, item concerning availability of sterilizing facilities (sterilizers) in the theatre scored a mean and standard deviation of (3.32 and 1.340) respectively while soiled utility room item obtained a mean score of 3.25 and standard deviation 1.320. The results also show a mean value of 4.0 and standard deviation 1.40 for third item which is equipment storage room. This mean value is greater than that of soiled utility room item. The fourth under this objective which availability of standard operating tables in the facilities assessed, a mean value of 3.40 and a standard deviation 1.30 were obtained. Suction machines item scored average mean of 3.30 and standard deviation 1.25 which is a bit lower than that of the standard operation tables item. Availability of diathermy machines in the participants operating theatres scored 3.43 and 1.333 mean and standard deviation respectively. This shows from the results that item regarding provision of an accessible soiled utility room had the greatest mean value which is 4.0. The aggregate mean and aggregate standard deviation of this motivation factor Availability of Operational facilities stands at 20.7 and 7.943 respectively.

The fourth motivation factor in the study is concerned with participants supervision has five items and their results thus; The first item which is sufficient supervision of participants obtained a mean value of 3.57 and a standard deviation 1.160, then supportive supervision item scored average mean 3.79 standard deviation 1.150. The third item concerning free flow of communication between participants and their supervisors scored a mean value and standard deviation of 2.99 and 1.168 respectively while Item four under this work motivation factor that whether work supervision improve their technical abilities, average mean score of 3.60 was obtained and also showed a standard deviation of 1.166. the last item which is on the knowledge and skills of their supervisors, the participants scored a mean and standard deviation of 2.85 and 1.09 accordingly. Aggregate mean and standard deviation are 16.8 and 5.734.

From the item analysis above one can see that the first motivation factor presents the highest aggregate mean and standard deviation scores (29.04 and 7.72)respectively. The least mean and standard deviation score from the items analysis goes to the fourth and last motivation factor that is Supervision(16.8 and 5.734).

4.4 Relationships Between Work Motivation and Technical Competence

Table 4.3: Descriptive Statistics for Training/Development Opportunities.

Mean	Std. Deviation	N
Training for Development Opportunities: 29.04 7.72 47		
Total Technical Competence Score	177.72	15.827
		47

Training for Development Opportunity and Technical Competency has a higher Mean score of 29.04, this shows that the result performance on the average is better than the others, which means there is consistency in their response when it comes to Training and Development Opportunity.

The Standard Deviation data of 7.72 for the relationship between the independent variable and the dependent variables is more spread out from the Mean. This shows that there is less deviation in the result from the responses.

Table 4.4: Correlations Result of Training for Development Opportunities and Technical Competence Using Pearson Correlation Sig. (2-tailed)

Training for Development Opportunities	Total Technical Competence Score	
Training and development opportunities		1-.024
Total technical competence score		.8751
Number of Respondents		47

The Table above shows the Correlation or association between training and development opportunities and technical competence.

The r-value is -0.024 which depicts a very weak inverse relationship. This means that Technical competence tends to decrease marginally as training and development opportunities improves. This may seem abnormal, but it can be explained by the fact that individuals differ in their perception and attitudes towards work.

Table 4.5: Descriptive Statistics for Adequacy of work Remuneration

Mean	std. Deviation	N
Adequacy of work remuneration	20.168	29247
Total technical competence score	177.72	15.827 47

Adequacy of Work Remuneration and Technical Competency has a higher Mean score 20.16, this shows that the result performance on the average is less than responses from Training and Development Opportunity. This means that the consistency level in their responses is less compared to Training and Development Opportunity.

The Standard Deviation data of 1.382 for the relationship between the independent variable and the dependent variables above is less spread out from the Mean. This shows that there is more deviation in the result from the responses.

Table 4.6: Correlations Result of Adequacy of work Remuneration and Technical competence using Pearson Correlation Sig. (2-tailed)

Adequacy of work Remuneration		Total technical competence Score
Adequacy of remuneration	1.276	
Total technical competence score		.0691
Number of Respondents 4747		

The above table shows that there is a weak associational relationship between the independent variable (adequacy Remuneration) and the dependent variable (Technical Competence). The level of the relationship is moderate as reflected by the r-value of 0.276. The relationship is positive i.e. the Adequacy of Remuneration and Technical Competence go in the same direction unlike the training and development opportunities and technical competence which have negative relationship. This means that as Remuneration of Perioperative Nurses increases, their Technical Competence increases along with it. The level of the Technical competence is moderate, which shows that not all the Perioperative Nurses are motivated by Money or material concern. The result is in line with Abraham Maslow's hierarchy of Needs Theory adopted as the theoretical framework of this Study. The p-value which is 0.069 indicates the strong level of the statistical significance of the test result. The test result is statistically significant and was not arrived at by chance.

Table 4.7 Descriptive Statistics on Availability of operational facilities

Availability of operational facility	
Mean	20.7
Std. Deviation	7.943
N	47
Total technical competence score	
Mean	177.72
Std. Deviation	15.827
N	47

Availability of Operational facility and Technical Competency

Table 4.8 Correlations Result between Availability of Operational Facilities and Technical competence using Pearson Correlation Sig. (2-tailed)

Availability of Operational facilities Score	Total technical competence
Availability of Operational facilities	1
Total technical competence score	.228
Number of Respondents	4747

The result of the Correlation analysis in the above table shows that there exists a fairly weak relationship between Technical Competence (Dependent variable) and availability of operational facilities (independent variable). This is because the r-value is 0.228 (weak correlation). The result means that an increment in the availability of operational facilities tends to increase the Technical Competence of perioperative Nurses. This result has been confirmed to be statistically significant by the p-value of 0.123 as reflected in the table above. It also means that result did not come about by chance.

Table 4.9: Descriptive Statistics on sufficiency of work supervision

Sufficiency of work supervision
Mean16.8
Std. Deviation5.734
N47
Total Technical Competence Score
Mean177.72
Std. Deviation15.827
N47

Sufficiency of work supervision and Technical Competency has a higher Mean score of (16.8), this shows that the result performance on the average is better than the one of Adequacy of Remuneration (20.1) than that of Operational facility (20.7) responses.

The Standard Deviation result which is 5.734 shows the level of spread from the Mean. This shows that there is more deviation in the result from the responses than responses for Remuneration.

Table 4.9: Correlations Result of Sufficiency of Work Supervision and Technical competence using Pearson Correlation Sig. (2-tailed)

Sufficiency of Work Supervision	Total technical competence Score	
Sufficiency of Work Supervision	1	.016
Total technical competence score	.9141	
Number of participants	47	47

Table 4.9 indicates that sufficiency of work supervision is the most significant when compared to the other variables, this is followed by operational facility and training and development with significant values of 0.498 and 0.48 respectively.

There is a weak relationship between Technical Competence and Sufficiency of Work Supervision. The R-value is 0.016 (which indicate a weak relationship), and the p-value is 0.914 indicating that the relationship is insignificant. This can be interpreted thus: as work supervision sufficiently increase, technical competence of the nurses working in the theatre will also improve. This relationship is linear.

Table 4.1.0 Showing Relationship between work motivation and technical competence.

Variable	Training for dev. Opportunities	Sufficiency of work supervision	Availability of operational facilities	Adequacy of work remuneration
Technical Competence	-0.024	0.016	0.228	0.276
P-Value	0.875	0.914	0.123	0.069

The table above i.e. table 4.1.0 shows the correlations between the independent variable on one hand and the dependent variables on the other hand.

The relationship between technical competence training and development opportunities is inverse i.e. negative as depicted in the table above. This shows that the two variables move in opposite direction. This means that Nurses who benefitted from training and development opportunities do not necessarily possess higher technical competence than others. This is depicted the r- value of -0.024 which in itself is weak. Also the p-value of 0.875 shows that the relationship is statistically insignificant.

In another vein, the table shows a moderate correlation between work remuneration and technical competence of nurses working in theatres of two tertiary health facilities in Sokoto State. The value result of 0.376 shows a moderately fair relationship between the two variables. It also means that technical competence of nurses in the theatre tends to increase moderately when the work remuneration is adequate. The p value score of 0.067 shows that the relationship is significant statistically.

Also the relationship between availability of operational facilities and technical competence is weak as represented by r-value of 0.228. This means that the nurses response of technical competence to adequate availability of operational facilities is very weak. This result is highly significant statistically as indicated by p-value result of 0.123.

Lastly, the result on the table above shows that relationship exist between sufficiency of work supervision and technical competence. The r- value(0.016) indicates weak correlation which can be interpreted to mean that, with sufficient supervision there is a marginal improvement in technical competence of nurses working in theatres in Sokoto state. The P- value of 0.914 shows that the result is insignificant.

Table 4.1.1 Showing the Model Summary of correlation coefficient

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics R Square Change	F Change	df1
1	.333 ^a	.111	.018	16.237	.111	1.188	4

However, the model summary in table 4.1.1 shows the contribution of the different variables to the technical competence of the nurses working in theatres of two tertiary health facilities in Sokoto State. It is seen that work motivation contributed only 11% in the determinance of technical competence as indicated in table 4.1.1

Table 4.1.2 ANOVA results

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1252.335	4	313.084	1.188	.332 ^b
	Residual	10018.084	38	263.634		
	Total	11270.419	42			

The ANOVA result presented in *Table 4.1.2* above, is a statistical representation of the coefficients and the different variables: It shows that there is no statistically significant difference between Technical Competence of Nurses working in Theatre and Work Motivation of nurses working in theatres of two tertiary health institutions ($f=1.188$, $p=0.332$) as indicated. The F value:1.188 and a p-value: 0.332 shows that there was a high probability that the results of the analysis couldn't have happen by chance, what this tells us is that even if the whole process is repeated, it will majorly give the same result. This means that the relationship between the dependent variable; Technical competence on one hand and the independent variable; Work Motivation on the other hand is not statistically significant.

CHAPTER FIVE

DISCUSSION

5.1 Introduction.

The chapter discusses the results of findings of the effect of work motivation on the technical competence of theatre nurses in Sokoto state. Findings in this research is based on the responses from the predictive variable questionnaire and observations of the theatre nurses before, during and after a surgical procedure(operation).discussion of findings is also in comparison to those explanations in literature review as they affect the study objectives.

5.2 Discussion

From the result of the Socio-demographic characteristics presented in table 4.1 one can conclude that there were more male theatre nurses than females. Out of the total population of 47 , 27(57.4%) against 20(42.6%).The gap between male and female nurses working in these institutions is negligible considering the educational background of the region. 28(59.6%) of the respondents were both registered nurses (RN) and registered perioperative nurses. Only 19(40.4%) of the nurses have single qualification with registered nurse certificate. On the highest qualification obtained, respondents with registered nursing qualification constituted 19 (40.) followed by 18 (38.3%) with double qualifications i.e. RN and RPON Certificates. Only 10 (21.3%) of them have degree in Nursing certificate. The result also showed that, 19(40.4%) have both local and international exposure of working in theatre.Apart from the training they acquired in Nigeria, they also travel to other countries like India and Germany officially for update. Majority of them practice locally 41(87%) out of the total number of respondents recruited in the study work inUsmanu DanfodiyoUniversity Teaching Hospital Sokoto. Only six(12.8%) work in Specialist Hospital Sokoto.

5.3 Training for Development Opportunity

Table 4.4 On relationship between technical competence with training/development opportunities: when subjected to Pearson correlation analysis (two tailed), it revealed as in *table 4.1.1* that weak and negative relationship exist between them. This is indicated by the values $r = -0.024$ and p value $= 0.875$. Radwan et al (2013) in their study conducted in Children at Elmania and Specialized Paediatrics Hospital Cairo on Work motivating factors for nurses does not opined training/development as one of their major findings but rather noted social work environment, supervision and guidance as the highest motivating factors of nurses. To them, nurses are motivated by high level of inter personal relationship between the workers themselves and also shows a non-significant weak negative relationship between technical competence of theatre nurses and training and development opportunities as indicated by the values of $r = -0.024$ and $P = 0.875$. This result addresses the first research question which is on the effect of training on the technical competence among perioperative nurses in Sokoto State. This is in line with the findings of Radwan et al, (2013). They did not see training as a major factor that effect nurses work and motivation. Job satisfiers and positive attitudes according to Albert (2009) form the bases for work motivating variable. Dielman et. al (2003) contrarily saw training as the main factor variable in theatre nurses work motivation.

In UDUTH Sokoto and Specialist Hospital, the result obtained indicates that there is a weak relationship between training for development opportunities and technical competence among theatre nurses of their institutions. This is against the backdrop of other empirical findings that indicates that the more training of an employee the higher the input of that employee in an organization. In this direction, Dielman et al (2003) in their study titled “Identifying factors for job motivation of rural health workers in North Vietnam” found out that appreciations by managers

and colleagues, stable income and training are variables that determine not only the performances of rural health workers, but their technical competences or expertise as well. Buttressing the above, Usmanu (2014) in his study titled "Assessment of training and development and its effect on employee job performance in Yaba college of technology" observed that employees in the college were actually underutilized due to lack of training before 2010. But following a massive training scheme carried by the college authority in 2011, the study found out that training and development programs are tools for employee job performance in Yaba colleges of technology.

While there is an empirical link between training and technical competence in U DUTH Sokoto and Specialist Hospital, the linkage has been observed to be weak and or non-significant despite the existence of training and development programmes in these hospitals. These programmes are manifest in weekly clinical presentations, Workshop attending and post basic training opportunity. It is pertinent to note that all failed in providing a strong technical competence due to the fact they are not attached with monetary incentives. For training to have a motivational effect on technical competence, management of these Hospitals have to sponsor their training financially. It's for this reason that while theatre nurses are being trained, their technical competences are yet to significantly improve.

5.4 Work Remuneration

On the Influence of Remuneration on Technical Competence of Perioperative Nurses in Sokoto State, *Table 4.5* shows that there is no statistically significant relationship between Adequacy of Work Remuneration and Technical Competence of theatre Nurses in Sokoto with r -value of 0.276 and P -value = 0.069 respectively. This agrees with the findings of Abbas et al (2014) and Bjorn (2016) but, in total disagreement with the findings of Majlinda et al (2016).

The result of the study indicates that there is no significant relationship between adequate remuneration and technical competence in both UDUTH Sokoto and Specialist Hospital like any public organization in Nigeria. The issue of remuneration has not been adequately taken in to consideration by the management of these health institutions. It's for this same reasons that despites the training and retraining of theatre nurses , their technical competences have not significantly improved, This is a cause for concern giving the critical roles these categories of nurses were playing in surgical operations. Adequate remuneration of an employee is critical for a sustainable and increase output in an organization. To this end , Agba etal (2013) in their study titled “wages and other conditions: a critical Assessment of factors in workers performance in Nigeria found out that among other things monetary like non-monetary incentives are major motivating factors found in four Organisations in three geopolitical zones of Nigeria. This includes good wages and payment of allowances regularly. In the study area, It has been observed that the remuneration of theatre nurses in UDUTH Sokoto and Specialist Hospital has not been taken in to serious considerations. Theatre nurses like other categories of nurses in these Hospitals has continued to be under remunerated. In some cases, , rent, annual leave allowances etc. have been non-existent. Allowances like uniform, call duty and rural posting allowances are not adequate. This is in contrast with other occupational groups like doctors while continued to receive relatively better allowances in these Hospitals. It has been observed that this divide in remuneration has significantly affected the performances of theatre nurses hence their technical competences.

5.5Operational Facilities

On the relationship between operational facilities and technical competence of nurses working in theatres in Sokoto, the result in table 4.6 shows a weak non-significant but positive relationship

between availability of operational facilities and the technical competence of theatre nurses in Sokoto ($r=0.228$, $P= 0.123$). This reveals that there is a weak relationship between Technical Competence and availability of operational facilities which means that an improvement in the availability of operational facilities will expectedly result in a marginal increase in the Technical Competence of perioperative Nurses. This result has been confirmed to be statistically significant by the p-value of 0.123 as reflected in the table above. It also means that the result did not come about by chance. This is in congruence with Comber and Barriball (2005) and Caroline (2014).

While training development opportunities and adequate remuneration are key motivating factors of employees in Organisations, they are not the only factors. The sufficiency of operational facilities is one of their key motivating factors.

In UDUTH Sokoto and Specialist Hospital the result shows non-significant relationship between sufficiency of Operational facilities and Technical Competence in these Hospitals. It has been observed that these Hospitals lack adequate operational machineries such as operation tables, soiled utility room, storage rooms for equipment and standard operating beds among other things in a Hospital situations where theatre nurses are not adequately trained and remunerated, the insufficiency of operational facilities only makes matters worse by creating further justifications to evade technical competencies among their nurses. The provision of adequate operational facilities is seen as a sine-qua-non for a conducive work environment to exist. In this direction, Bjorn (2016) in her study titled “Attractive work among nurses working in operating Departments noted that while relationship, leadership status form the primary variables to attractive work, secondary variables includes a good salary package and conducive working environment.

In UDUTH Sokoto and Specialist Hospital the Operational facilities available are from being sufficient. Despite series of appeals to management of these hospitals, things are yet to improve. On their parts the management of the Hospitals keep complaining of inadequate funding from the government as well as drop in the volume of internally generated revenues. Nevertheless, the significant attention paid to the upgrade of operational facilities in UDUTH Sokoto and Specialist Hospital has tend to motivates theatre nurses in these hospital, some of which have experience of operating theatre in developed climes.

5.6 Work Supervision

Table 4.2 also addresses whether or not supervision enhances the technical competence of perioperative nurses in Sokoto state. The result shows that a relationship exist between sufficiency of work supervision and technical competence as demonstrated by the r- value (0.016) which reveal that the correlationis weak, this shows that with sufficient supervision, expectedly there will be a marginal improvement in technical competence of nurses working in theatres in Sokoto state. This is incongruence with Abbas et al (2014) and in line with Radwan Eet'al (2013).

In the study area, result indicates that the relationship between adequate supervision and technical competence is weak like the proceeding motivational factors. In UDUTH Sokoto and specialist Hospital, this is not surprising giving the fact that other key motivational factors are absent such as remuneration and sufficient operational facilities. It was therein observed that, theatre nurses at both the lower and middle levels are in direct need of supportive supervision as a consequence of proper communication, improved technical abilities and knowledge of the supervisors. Other issues that related to the lack of adequate supervisions includes improper mentorship, improper scheduling of tasks as well as improper placement of supervisors. Because more senior colleagues

are not adequately motivated in terms of remuneration and promotions e.t.c. It seems proper monitoring of junior theatre nurses is currently suffering as the result obtained in the field indicates. Hence, what further obtains among theatre nurses is improper scheduling of tasks which affects their technical competencies. In a clinical set up like operating theatres, nurses need to be adequately and constantly supervised in order to not only increase their technical competences, but to ensure that surgical patient receives the best of services required. This view is supported by Shannon and Cusack (2015) who in their study titled “ Clinical supervision framework for nurses working in Mental Health services” posited that, the effectiveness of clinical supervision is crucial in promoting values such as non-judgmental approach, trust dignity and respect between supervisors and the ones supervised.

Shannon and Cusack (2015) further noted that monetary and non- monetary incentives stand the chance of improving the supervisors’ clinical job which requires the coaching, modeling, teaching, observing and documentation of care competencies of subordinates. Without adequate supervision of theatre nurses, clinical errors and negligence are bound to take place. Management of both UDUTH Sokoto and Specialist hospitals need to ensure that pre-requisites are put in place. These includes among other things training and retraining of supervisors, adequate remuneration and provision of sufficient Operational facilities among other things.

Summarily put, the ANOVA result shows that there is no statistical significant difference between technical competence of theatre nurses and work motivation ($F_{(4,38)}=1.188, P=0.332$).

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1 Summary

This dissertation assessed the effect of work motivation on the technical competence of nurses working in theatre of two tertiary health facilities in Sokoto state. All four objectives and hypothesis were tested. A structured observation tool and questionnaire were used in collecting data for this study. Abraham Maslow theory of needs was used as a framework for the research..To achieve this, the areas considered were that of technical competence, remuneration, operational facilities training/development and supervision. A descriptive and correlational survey design was employed. Structured observational tool and motivation predictive variables questionnaire were used to determine the effect of work motivations on the technical competence of nurses working in theatre.Observation tool was used to observe participants technical competence from their activities before during and after surgical procedures and score their activities accordingly. Motivation predictive variables questionnaire was administered to assess the respondents work motivation nusing training, remuneration, operational facilities and supervision as predictive variables. Questionnaires were also administered after each observation. Data obtained was analyzed using descriptive and inferential statistics. All the objective variables are correlationally insignificant but were also related positively except for training and development opportunity which has negative relation with the theatre nurses technical competence.

6.2 Conclusions

Among other findings, the study revealed that there is an inverse relationship between technical competence of nurses working in the theatre and training and development opportunities. The more they receive training the less likely their competence will improve which means that training

will not improve their competence as indicated by score of r -value = -0.024 and p -value 0.875. There was also a weak and equally non-significant relationship between work supervision and technical competence of Nurses working in theatres of the study settings as pointed out by r -value of 0.016 and p -value of 0.914. A weak and non-significant but positive relationship exists between Operational Facilities and the Technical Competence of theatre Nurses in the study area (r -value=0.228, p -value=0.123). The findings showed that there was no statistically significant relationships work remuneration and technical competence of theatre nurses in Sokoto (r = 0.276, P = 0.069). From these results we can conclude that the hypothesis number one (H_{o1}) in this work is valid as it states that; there is no significant relationship between training and technical competence of nurses working in theatre in Sokoto State. As for operational facilities, remuneration and work supervision, they are positively related to technical competence of nurses working in theatres of two tertiary health institutions in Sokoto state which is congruence with the second, third and fourth hypotheses respectively.

6.3 Recommendations

Based on the findings in this Study, the researcher recommends the following:

1. That the training method or the mode of training should be reorganized or change to conform with the training objectives; This can be done through ensuring that the trainees receive training base on the training needs of the Hospital, for instance, the potential trainees in Theatre Nursing should be exposed to its day-to-day routine/task prior to the extra training as this can expose them to the basics of the specialty. When this is done, the trainee will readily fit in after the training exercise. Also it will afford the Hospital the opportunity to identify the Nurses with higher learning ability and the motivation to learn. Such Nurses should be selected for the training that suits their choice. For example the Researcher observed through participatory

observation that some of the Perioperative Nurses who received extra training abroad dismiss some steps in basic procedure of scrubbing which include theatre nurse regulating the flow and temperature of the water, gowning and gloving, Draping, maintaining sterile field and infection control etc. This is because though they have the theoretical knowledge but they have not been putting the knowledge to practice.

2. That the Hospitals should acquire current facilities, equipment, materials and machines used in providing effective and qualitative perioperative services; this is because the mere availability of the facilities will be ineffective if it is obsolete. The Researcher observed that when Nurses returned from training they usually don't add appreciable value to the Hospitals because the available facilities on ground are not as effective as the ones they were trained with, also the equipment depreciates with time as such reduces their effectiveness. For instance; most of the Suction Machines available are low pressured because of over-usage and poor maintenance. This underscores the importance of acquiring current facilities so as to facilitate on-the-job training of both the trained and potential trainee-perioperative Nurses. Management should strictly adhere to the procurement Act in procuring machines and equipment.

3. The Management should introduce non-monetary packages in their work reward system to enhance the performance of perioperative Nurses. This can be done through rewarding performance of perioperative Nurses with symbolic gifts or gestures. For instance Management should reward best performance with such non-monetary packages such as vacation, gifts, trophy etc to show appreciation to job well-done. Furthermore, inter-personal and inter-professional relationship should be improved in the Theatres as the success or failure of any organization depends on Team-Work. This will improve staff motivation through improving their input which results in efficient and effective services.

4. Since the supervision in the Study does not bring out competence from the Nurses as findings revealed, Management should evolve a more friendly means of supervising the Nurses not just through direct supervision, indirect supervision can solve this. The Management should introduce the use of Close-Circuit Cameras (CCTv) in the Theatres so as monitor and control work flow. This indirect method can enable Theatre managers to assess and identify the potentials, weaknesses and strength of the respective perioperative Nurses.

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APPENDIX A

QUESTIONNAIRE ON MOTIVATION OF THEATRE NURSE

DEPARTMENT OF NURSING SCIENCES

FACULTY OF MEDICINE

AHMADU BELLO UNIVERSITY, ZARIA

TOPIC: ASSESSMENT OF THE RELATIONSHIP BETWEEN WORK MOTIVATION AND THE TECHNICAL COMPETENCE OF NURSES WORKING IN THEATRE IN TWO TERTIARY HEALTH FACILITIES IN SOKOTO STATE

Dear Respondents,

I am a postgraduate student of the above mentioned institution, writing a dissertation on the topic mentioned above. All information provided will be treated confidentially, it is hoped that you consent by answering the questions completely and correctly. Thank you for your time and cooperation.

INSTRUCTIONS: Please tick (✓) in the box as appropriate in the section 'A' and follow the key given and tick(✓) the number corresponding to the theatre nurse's performance in section 'B'.

Signed:

SAIDUABUBAKAR

SECTION A:

DEMOGRAPHIC DATA OF THE PARTICIPANTS.

Age:

Sex: Male Female

Qualification(s) RN RPON BNSC MSc

Clinical Exposure: Local International Both

Place of Work: UDUTH SPECIALIST HOSP.

KEY:

RN: Registered Nurse

RPON: Registered Perioperative Nurse

BNSC: Bachelor of Nursing Science

MSc: Master in Sciences.

UDUTH: Usmanu Danfodiyo University Teaching Hospital Sokoto

S.H.S.: Specialist Hospital Sokoto

SECTION B: Questionnaire on Work Motivation factors for Technical Competence of Nurses working in Theater.

The followings will allow you to determine how motivated you feel in your current role as theater nurse. Please tick (✓) against each of the twenty four(24) statements below using the following scale:

5 = I fully agree, 4 = Partially agree, 3 = I'm not sure, 2 = Partially disagree and 1 = I fully disagree.

S/N	MOTIVATION VARIABLES	1	2	3	4	5
1.	<i>Question Relating to Training for Development</i>					
	I have had opportunities to learn and develop					
	I have opportunity of attending weekly clinical presentations in the Theatre					
	I am being sponsored to attend workshops on theatre nursing					
	There is always opportunity for post basic training programme in my Hospital					
	The training I received matched my abilities with the job requirement					

	The training I received has helped improved my abilities to handle high-tech equipment/machine					
	The training I received has helped improved my self-confidence in the theatre					
2.	<i>Question Relating to Remuneration</i>					
	I am adequately remunerated for what I do					
	I am paid uniform allowance					
	I am paid Rent/accommodation allowance					
	I am paid call duty allowance					
	I am paid rural posting allowance					
	I am paid annual leave allowance					
3.	<i>Question Relating to Operational Facilities</i>					
	My Hospital has provided Standard Sterilizing facilities					
	My Hospital has provided an accessible Soiled utility room					
	My Hospital has provided equipment storage rooms					
	My Hospital has standard operation beds					
	My Hospital has adequate suction machines					

	My Theatre has adequate diathermy machines					
4.	<i>Question Relating to Supervision</i>					
	I have sufficient supervision from my superior					
	I received supportive supervision from my supervisor					
	There is no communication difficulties with my supervisor					
	Supervision improves my technical abilities					
	The knowledge and skills of my supervisor are outdated.					

APPENDIX B

AN OBSERVATION TOOL FOR ASSESSMENT OF TECHNICAL COMPETENCE OF THEATRE NURSES

INSRCTIONS: Please follow the key given and circle the number corresponding to the theatre nurse's performance in section

1	2	3	4	5	6
Not done at all	Several major mistakes	Major mistakes	Moderate mistakes	Minor mistakes	Done very well

Type of procedure: Major [] Intermediate [] Minor []

S/ N	CORE SKILLS	OBSERVABLE ITEMS	RATING SCALE						OBTAINABLE SCORES	SCORES OBTAINED
			1	2	3	4	5	6		
1	PREPARATION OF THEATRE	A1 Theatre nurse provide safe environment for the surgery A2 Theatre nurse ensure adequate sterilization of the instruments required for surgery. A3 Theatre nurse provide adequate materials for the surgical procedure. A4 Theatre nurse ensure proper use of theatre attire by the surgical team.							24	
2	SCRUBBING	BI. Theatre nurse regulate the flow and temperature of the water . Open package containing nailbrush or soap.								

		<p>B2. Theatre nurse wet hands and arms for an initial prescrubwash, Use several drops of scrub solution, work up a heavy lather, then wash the hands and arms to the elbows</p> <p>B3. Theatre nurse rinses hands and arms thoroughly, allowing the water to run from the hands to the elbows without retracing or shaking the hands and arms; let the water drip from the elbow</p> <p>B4. Theatre nurse remove the sterile brush and pick from opened package. Clean under nails with pick and discard.</p> <p>B5. Theatre nurse moisten brush and work up a lather. Lather fingertips with sponge-side of brush; then, using bristle side of brush, scrub the spaces under the fingernails of both right and left hand respectively.</p> <p>B6. Theatre nurse wash on all four sides of the fingers using the sponge side only when scrubbing the hands must remain above the level of the elbows and away from theatre attire</p> <p>B7. Theatre nurse ensures scrub procedure must follow the Trust policy for hand decontamination.</p> <p>B8. Theatre nurse continue to wash the arms but encompassing only two thirds of the forearms to avoid compromising the cleanliness of the hands.</p> <p>B9. Theatre nurse rinsed hands and arms thoroughly from fingertip to elbow without retracing, allowing the water to drip from the elbow before approaching the gown pack.</p>							60	
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		B10. Theatre nurse pick up one hand towel from the top of the gown pack and step back from the table opening it fully in sterile manner holding his hands and arms above the elbow, and arms away from his body.								
3	Gowning and gloving	C1. Gowning and gloving using either method. C2. Placement of gloved hand: clasped mid-chest. C3. Back of gown closed using tag							18	
4	Setting of instrumentation	D1.Established working area D2. Individually count and name Instrument with the circulating nurse D3. Count swabs in 5s, showing retex and tie D4. Placement of sharps in kidney dish D5. Prepare swab for cleaning.							30	
5	Draping	E1. Ensure 2 team-members drape together E2. Hand drape over right-side up and without dragging (supporting drape), open tray drape in sterile manner. E3. First bottom, followed by top, followed by two sides followed.							18	
6	Maintaining sterile field	F1. Hand instruments to the surgeon in a sterile manner using non-touch technique. F2. Anticipate surgeon's needs(clip, forceps, scissors, suture, swabs etc). F3. Have control of instruments and soiled swabs i.e. no instrument lying on patient. F4. Posture and movement: when facing trolley keep eye contact							24	

		onprocedure.									
7	Infection control	G1. Ensure adequate cleaning of theatre. G2. Decontaminate, wash and sterilize instruments pre and post operatively. G3. Control of traffic during surgery. G4. Maintain aseptic technique pre, intra and post operatively.								24	
			GRAND TOTAL						198		