

**AN APPRAISAL OF CONTINUOUS QUALITY IMPROVEMENT (CQI) MECHANISMS
AND DEVELOPMENT OF QUALITY CARE INDICATORS AMONGST CLINICAL
NURSES IN SELECTED TEACHING HOSPITALS IN SOUTH-WEST (SW) NIGERIA.**

ONIANWA, PATRICIA.OBIAJULU (MRS)

**SUBMITTED IN FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF THE
DEGREE OF DOCTOR OF PHILOSOPHY IN NURSING,
FACULTY OF HEALTH SCIENCES,
SCHOOL OF NURSING,
UNIVERSITY OF KWAZULU-NATAL,
DURBAN, SOUTH-AFRICA**

SUPERVISOR: PROFESSOR BHENGU, BUSI. ROSEMARY

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BY

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MAY 2010.

DEDICATION

“A great deal of effort and time was spent in putting this work together. In remembrance of those special moments when thoughts of loved ones kept me pressing on, hopeful and determined to succeed, I hereby dedicate this work to my loved ones who hold a special place in my heart”

“To my late dad, Lawrence Okoji Umunna (JP) for instilling in me values, that have remained with me all my life. Daddy, I know you are in God’s bosom, smiling from afar at my achievement; as this was your cherished wish for any of your children. As Percy, my husband commented, “I wish your Dad was alive to see how you have progressed academically”. Though a vacuum was created by your absence, it is nevertheless, filled with sweet and fond memories of you” RIP Dad.

DECLARATION

I hereby declare sole ownership of this dissertation “**An Appraisal of Continuous Quality Improvement (CQI) and Development of Quality Care Indicators amongst Clinical Nurses in Selected Teaching Hospitals in South-west Nigeria**”.

The research thesis has been submitted for the PhD in Nursing (Management) at the University of KwaZulu-Natal, Durban, South Africa on the merits of its originality, through observation of the scientific process, academic writings, tremendous and valuable inputs from my supervisor. *It has never been submitted for any degree or examination in any institution.

*Work used or cited in this dissertation has been appropriately acknowledged both within the text and in the reference list.

SIGNATURE..... DATE.....

PATRICIA.O ONIANWA. Student Number: 207513067

The study has been approved for submission by the supervisor, Professor Busi.R Bhengu.

SIGNATURE..... DATE.....

B.R BHENGU

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ABSTRACT

Title: An Appraisal of Continuous Quality Improvement (CQI) Mechanisms and Development of Quality Care Indicators amongst Clinical Nurses in Selected Teaching Hospitals, South-West Nigeria.

Aim: This study appraised the CQI mechanisms and processes in the clinical nursing divisions of five selected teaching hospitals located in South-West Nigeria and developed quality care indicators to measure and monitor quality of care amongst clinical based nurses in these teaching hospitals.

Background: Studies have been done on evaluation of quality care to determine what good care is; whether the care nurses give is proper and effective, and whether the care provided is good quality. Several authors have asserted that evaluating the quality of nursing care is an essential part of professional accountability. Literature also suggests that in providing high quality care, it is important that nurses develop appropriate evaluative measurement tools to ensure professional aspect of nursing.

Conversely, it is a concern that in the clinical nursing division of some teaching hospitals in SW Nigeria, CQI mechanisms/processes (such as a structured auditing, monitoring and measuring quality of nursing care, established systems of continuing professional learning/ In-service Education Unit) were not more evident, particularly when these teaching hospitals were supposed to be seen as models for providing quality care services. It was not certain what CQI activities were present in similar hospitals, and if such activities were present, there was uncertainty as to how these activities were performed. In addition, the type of instrument/tools available for nursing care measurement was uncertain. There is a paucity of published evidence relating to the quality of

nursing care measurement in the teaching hospitals in SW Nigeria.

Gaps identified in the study would form the basis for future training and education of nurses involved in care-giving to promote quality care. Findings from the study provided evidenced-based scientific rationale for practice in relation to quality nursing care measurement in the health care institutions, thus adding to the body of knowledge of quality improvement.

The **methodology** employed in the study is an *action research*; with a *mixed method-Sequential explanatory* incorporated. Quantitative data was collected and analysed, followed by the collection and analyses of qualitative data. The study was done in five cycles which included a survey that elicited responses from the participants on general knowledge and perceptions about CQI. Cycle two included generating promising solutions and an action plan. In cycle three, established quality-care indicators were analysed, developed and thereafter, the newly adapted instrument for nursing care measurement was tested for applicability to settings. Participants reflected on the testing of the new tool in the fourth cycle and lastly, implementation/testing outcomes were evaluated in the fifth cycle.

Conclusion: Established quality-care indicators were adapted in each of the five hospital settings for quality nursing care measurement. The newly adapted quality care indicators were tested for applicability on two acute-care wards in three of the five participating hospitals. The results of the study could be used in Nigeria and elsewhere as a means to protect the rights of the patient; by measuring and monitoring the quality of nursing care.

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LIST OF ACRONYMS

ACNO---Assistant Chief Nursing officer

ADL—Activities of Daily Living

ADN---Assistant Director of Nursing

ANA---- American Nurses Association

B.NSc---Bachelor of Nursing Science

B.Sc---- Bachelor of Science

CE-----Continuing Education

CNO---Chief Nursing Officer

CQI---Continuous Quality Improvement

EBP-----Evidenced Based Practice

ENT--- Ear, Nose and Throat

FADE---Focus, Analyze, Develop, Execute

FGD---Focus Group Discussion

HAIs-----Hospital Acquired Infections

ICN-----International Council for Nurses

JCAHO-Joint Consultative Accreditation Hospitals

NANDA-- North American Nursing Diagnoses Association

NIC-- Nursing Intervention Classification

N&MCN---Nursing and Midwifery Council of Nigeria

NMPM-----Nurse Midwife Primary Nursing

NO ----Nursing Officer

NOC—Nursing Outcomes Classification

LIST OF ACRONYMS CONTINUES

NR-----No Response

NRN----National Registered Nurse

NRM----National Registered Midwife

DUTHC---Diamond University Teaching Hospital Complex

GUTH—Gold University Teaching Hospital

OPPQNCS---Oncology patient's perception of quality of nursing care scale

PCA--- Principal Component Analysis

PDSA---Plan, Do, Study, Act

PMC, ASB---Platinum Medical Centre, Asaba

PNO---Principal Nursing Officer

QA—Quality Assurance

QI-----Quality Improvement

QUALPAC----Quality Patient Care Scale

RN----- Registered Nurse

SNO-----Senior Nursing Officer

SPSS---Statistical Package for Social Sciences

SW---- South West

TNF---Therapeutic Nursing Function

TPR---Temperature, Pulse, Respiration

TQM---Total Quality Management

RUTH---Ruby University Teaching Hospital

PUTH—Pearl University Teaching Hospital

EUCH----Emerald University College Hospital

WHO---World Health Organisation

CHAPTER ONE

1.1. BACKGROUND TO STUDY

Introduction

Within the realm of nursing, history of quality improvement can be traced as far back as the time of Florence Nightingale (1820-1910) when she was remembered as a pioneer of nursing and reformer of hospitals (Ulrich, 1992). When Nightingale started her nursing work, nurses were thought to be lacking in training. They were usually coarse and ignorant women, however, by the end of her career, nursing was grounded in science and nurses were expected to serve in a devoted manner centred on service to God, through service to Mankind. Florence Nightingale redirected her work focusing on the British Military healthcare system during the Crimean war of 1854 and saved lives of thousands. She was able to present her observations of death statistics to others by documenting data on “polar-area diagrams”. Casualty losses were presented by means of graphs, “line diagrams” and she presented data that compared mortality causes in military and civilian circumstances. Innovations in this arena led to dramatic changes in nursing care and hospital administration. Florence’s leadership had a profound impact on changing the social expectations and outcomes of nursing care in Britain. Nurses played a central role in improving care and improving care processes.

Background

According to Campbell, Braspenning, Hutchinson and Marshall (2003), Continuous quality improvement (CQI) has become a central tenet of healthcare. It is no longer the preserve of fervent volunteers but is part of everyday routine of all those involved in healthcare delivery. CQI has become a legislative obligation in many countries. The aforementioned authors maintain that it is important to improve the quality of healthcare so as to enhance the accountability of health care professionals, resource efficiency, identify and minimise medical errors, while maximising the use

of effective care, improving outcomes and aligning care to what patients want, in addition to what patients need. Furthermore, McLaughlin and Kaluzny (1999) and Shortell, Bennette and Byck (1998) describe CQI as a management philosophy of continual improvement of the processes associated with providing a good service, or service that meets or exceeds customers' expectations. The above-mentioned authors assert that CQI differs from the traditional quality assurance methods primarily in its emphasis on understanding work processes and systems in order to add value, rather than to correct individuals' mistakes after the fact.

Baker (2006) maintains that the goals of CQI practice are to enhance performance by setting aims, examining processes of care, testing changes in the processes, and implementing those changes that improve results. Baker (2006) further characterizes CQI as "pragmatic science" referring to its emphasis on using facts about how care is delivered to identify improvements and to build better systems through amassing of small changes. However, this author maintains that a key premise in improvement is that changes need to be modified to fit local contexts. French (1999) posits that the concept of evidenced-based practice (EBP) has great potential for enhancing the reputation of CQI because it is possible to demonstrate the part which evidence plays in the nurse practitioner's daily work in the promotion of CQI.

While the Joint Commission on Accreditation of Healthcare Organization (JCAHO, 1991) itemises four basic concepts of quality of which continual improvement in quality of care is said to be an appropriate goal, Idvall, Rooke, and Hamrin (1997) defines monitoring and evaluation of quality of care as one means of promoting CQI. These authors maintain that monitoring and evaluation have been more in focus or in use all over the world for two decades. These writers also state that if healthcare systems are to be in a position to ensure a high quality of care, an effort must be made to evaluate, or at least to assess its quality in some way however crude the endeavour may be.

Given that the issue of appropriately defining, measuring and monitoring quality of healthcare is essential to improving clinical practice as asserted by Henshaw, Harker, Cheater, Baker, and Grimshaw (2003), Idvall, Hamrin, Sjostrom and Unosson (2002) provide reasons for measuring quality of care which include:

- ❖ Obtaining more detailed information about patient
- ❖ Determining whether standards are being achieved
- ❖ Identifying potential areas for improvement and informing purchasers
- ❖ Securing resources for future services.

In addition, Clark and Rao (2004) remark that since healthcare services are in the era of assessment and accountability, it is important to assess and measure quality using valuable and well known frameworks which the authors believe are available for measurement. One such framework is the logic model framework of Donabedian (1966/ 2005) which will be discussed in the following chapter. Donabedian (1966) the ‘father of quality measurement’, established a framework for measuring quality in three domains. This author assessed and/or evaluated medical care using the logic model framework of structure, process and outcome. Conversely, French (1999) enumerated ten steps for a monitoring and evaluating process based on the Lang model which includes:

- ❖ Assigning responsibility
- ❖ Delineating of Practice
- ❖ Identifying important aspects of care
- ❖ Identifying indicators
- ❖ Establishing a threshold
- ❖ Collecting data
- ❖ Evaluating care when indicated by threshold
- ❖ Taking action

- ❖ Assessing the outcome of action and
- ❖ Communicating findings to stakeholders responsible for quality improvement programs.

According to Bloch (1995), the subject of evaluation of nursing care is currently highly popular and attempts to evaluate nursing care are not new. This author maintains that evaluation of nursing practice is of the utmost importance because it is the practitioner's way of ascertaining whether or not her/his work is simply 'good'. The person who receives the practitioner's care deserves careful evaluation of that care; in fact, he/she should demand it. Besides, nursing has been on the road or pathway to self-evaluation and this eagerness within the nursing profession to evaluate itself and its services is progressive.

In nursing practice, evaluation is an important process to measure outcomes, judge performance and determine competence to practice as well as to arrive at decisions about nurses. Harkreader (2000) defines evaluation as a systematic and ongoing process of examining whether expected outcomes have been achieved: and whether nursing care has been effective. This author asserts that evaluation should examine the quality of nursing care delivery and positive client/patient outcomes linked to quality care. Several efforts to describe and classify nursing-sensitive outcomes are now underway (Oermann & Huber 1999). These efforts are brought about by international quality initiatives such as those of Nursing Outcomes Classification (NOC), Nursing Intervention Classification (NIC), North American Nursing Diagnosis Association (NANDA), American Nurses Association (ANA) and JCAHO. Oermann & Huber (1999) inform that the NOC system permits nurses to measure and quantify patient status over time. By measuring pertinent indicators, nurses can continually monitor patient status.

Craven and Hirnle (2003) in support of the views of Harkreader, state precisely that evaluation is a judgement of the effectiveness of nursing care to meet clients'/patients' goals based on the clients' behavioural responses and that nurses employ a variety of skills such as the ability to monitor the effectiveness of nursing interventions, amongst others, in judging the effectiveness of nursing care.

Craven and Hirnle (2003) purport that evaluation of care is integral to the monitoring of quality of care activities. These authors maintain that evaluation of nursing care provides a means of ensuring accountability for quality of services provided. Nurse practitioners similar to other healthcare professionals are accountable to their patients/clients and to society at large for meeting their health needs.

Esterhuizen (2006) adds that accountability is personal responsibility, authority and reporting. This author states that accountability for standard of practice is judged by fellow professionals, and that only they are able to make decisions as to whether the quality of nursing care and/or services is appropriate. Ritter-Teitel (2002) substantiates this in a survey carried out in New-Brunswick to determine the impact of restructuring on professional nursing practice and the perceptions of declining professional practice. This author explains that sixty percent (60%) of the nurses perceived that the quality of care they were providing did not meet their professional standards. This aforementioned author therefore surmises that accountability is the acceptance of responsibility for the outcomes of care and concluded that, in the professional practice model, each nurse practitioner is answerable for the consequences of his/her actions and accountability is the flipside of the responsibility coin.

However, in-view of the aforementioned literature, it is evident that diverse studies have been done on evaluation of quality of nursing care, to determine what good care is; whether the care nurses give is appropriate and effective; and whether the quality of care provided is good (Kozier, Erb,

Blais & Wilkinson, 1995 and Archibong, 1999). The aforementioned authors assert that evaluating the quality of nursing care is an essential part of professional accountability as previously emphasized by Ritter-Teitel (2002). Conversely, nurses as health care professionals must be accountable for the quality of their practice.

Although it may have been novel in the times of Florence Nightingale, collecting data, evaluating and improving the quality of care is not a new phenomenon. Several nursing authors have viewed and defined evaluation from different perspectives. Taylor, Lillis and LeMone (1989) purport that the purpose of evaluation is to allow the patient's achievement of expected outcomes to direct future nurse-patient interactions and that a successful evaluation enhances the public image of nursing and help ensure nursing survival. Sale (1990) claims that more than ever before, nurses are being asked to look essentially at what they do, how they do it and what effect it has on those they serve. Stone, Berger, Elhart, Firsch and Shelly (1996) suggest that in providing high quality care, it is important that nurses develop appropriate evaluative tools, so that professional aspects of nursing are ensured; whilst attention is given to individual needs and responses of patients.

According to Campbell et al. (2003), evaluative tools such as quality indicators are explicitly designed and measurable items which act as building blocks in the assessment of care. These indicators are statements about the structure, process or outcomes of care and are used to generate subsequent review criteria and standards which help to operationalise quality indicators. Use of quality-care indicators helps focus attention on the safety and quality of patient care and the measurement of care outcomes. Quality indicators are also increasingly used to facilitate regulation, ensure accountability and improve quality (Marshall, Shekelle, McGlynn, Campbell, Brooke, and Rolland, 2003). Nurses and health care facilities should collect data to monitor the ongoing quality of patient care. Using quality indicators is crucial to effectively demonstrate that nurses make a

crucial, cost-effective difference in providing safe, high-quality patient care. However, Kozier and Erb (1987) are of the opinion that developing an effective quality care tool is a challenge for the nursing profession and reveals that much work is continuing, even on established tools. It is also argued that all measures should be tested for acceptability, feasibility, reliability, validity and sensitivity to change (Campbell et al. 2003).

However, Meehan, Van Hoof, Giannotti, Tate, Elwell, Curry and Petrillo (2009) identify barriers to the adoption of QI tools and practice. Some of the barriers identified by these authors are financial constraints, legal concerns, inadequate office systems, payer issues, uncertain data quality, patient factors, conflicting practice guidelines, staff issues, limited quality improvement knowledge, experience and insufficient time. Of importance to this study are barriers such as patient factor as a deterrent to establishing patient satisfaction, staff issues such knowledge, perception and experience of nurses of quality improvement.

Equally, Campbell et al. (2003) identifies three preliminary issues to consider when developing quality indicators. These issues are:

- ❖ Aspects of care should assess structures such as staff, equipment, appointment systems; processes such as prescribing investigations, interactions between professionals and patients; or outcomes such as morbidity, mortality or patient satisfaction. However, these authors argue that process indicators are the primary entity of quality assessment and improvement.
- ❖ One needs to be aware of differing perceptions about the quality of care amongst stakeholders, for example, patients will focus on good communication, while managers may emphasise efficiency. Hence the importance of considering the stakeholders' views and/or perspectives in developing quality indicators is essential.
- ❖ Development of quality indicators requires supporting information or evidence which can be

acquired systematically or non-systematically though the latter is less credible.

Systematic evidence is obtained by rigorous empirical studies and expert opinion which this project is attempting to address. However, Campbell et al. (2003) assert that a minimum requirement for any quality measure is that measures developed by consensus techniques should have face validity, while those based on rigorous evidence should possess content validity.

Having reviewed articles that defined and explained the concepts of CQI, quality of care, monitoring and evaluation, the need for professional accountability; as well as articles that emphasise the importance of quality care tools for the successful evaluation of nursing care, it would be expected that the quality improvement processes would be evident, or could be seen as an everyday occurrence in teaching hospital settings in SW Nigeria, since they are viewed as centres of excellence.

However, this did not appear so to the researcher, who, during an informal visit to the nursing division of some teaching hospitals in Nigeria, was startled to find no obvious evidences of continuous improvement processes. This was a surprise to one who had come from a background (i.e. hospital) with CQI mechanisms/processes such as established, structured and autonomous In-service education and/or continuing education, nursing audit units and even an 'in-house' instrument developed for measuring the quality of nursing care.

It was surprising to find that CQI activities/programs were generally not done on a routine basis in some of these teaching hospitals. A structured and/or well-planned nursing audit and in-service education units and/or continuing education which are mechanisms to promote CQI in the work place seemed not to be obvious or apparent. The means by which the nurse practitioners in these teaching hospitals updated their knowledge and skills for their jobs on a regular basis (not just once

in a long while) was quite uncertain. The practitioners seemed unfamiliar with the monitoring and measuring of the quality of nursing care provided to the patients in these teaching hospitals, using some form of quality indicators no matter how crude or rudimentary. They seemed equally unfamiliar with improvement programs which should be carried out on a continuous basis to meet or exceed patients' expectations as suggested by literature.

When CQI and evaluative mechanism/processes are in place, these should promote the monitoring of nursing care activities and the identification of specific areas that need change. Monitoring the activities of clinical nurses in the teaching hospitals in SW Nigeria in a structured manner, using established, well-planned or well thought-out quality improvement mechanisms like the nursing audit and in-service education units, could make the nurses more responsive to the expectations of the patients/clients regarding the care they give. Monitoring and evaluation of nursing care should be a continuous and/or an ongoing affair and it should be comprehensive to promote quality care.

Although some of the senior nursing personnel in some of the hospitals acknowledged that they had no well thought-out, established nursing audit and/or in-service education units in place, to see to quality improvement, they expressed interest in putting in place a structured, Quality Improvement (QI) mechanism such as established nursing audit and in-service education units in their various hospitals, but had been unable to do so due to many management factors. It was this experience that further stimulated the researcher's interest to scientifically investigate the quality improvement mechanisms in some of the existing hospitals in the South Western (SW) part of Nigeria. The researcher felt a need to ascertain what CQI mechanisms, especially nursing audit and/or in-service education systems were in place to evaluate the activities of the nurses in relation to patient care, to appraise the effectiveness of the existing CQI where available, and where these were not available, to institute a collaborative action process to develop tools for measuring and monitoring quality of

nursing care in the wards/units of these hospitals.

1.2. STATEMENT OF PROBLEM

Although several studies have highlighted the importance of CQI programs in organizations, (Baker 2006; Campbell et al 2003; McLaughlin and Kaluzny, 1999) as well as evaluated nursing practices by examining what nurses do, how they do it and the effect it has on the patients (Clark and Rao, 2004; Archibong, 1999; Idvall, Rooke, and Hamrin, 1997 & Sale, 1996). It remains a concern, however, that there are still barriers as identified by Meehan et al. (2009) such as patient factors, practice guidelines, staff issues, limited quality improvement knowledge and experience and insufficient time. It is argued that quality of care could be as important as physician's care in preventing unnecessary mortality (Chang, Lee, Pearson, Kahn, & Rubenstein 2002).

It is a concern that in the clinical nursing division of some informally visited teaching hospitals in SW Nigeria, CQI mechanisms/processes/mechanisms such as nursing auditing, structured in-service/continuing education systems, measuring and monitoring quality of nursing care in a structured manner were not evident, particularly when these teaching hospitals were supposed to be seen as models for providing quality care services. It was not certain what CQI activities were present in similar hospitals and if these were present, one was not certain how these activities were performed. In addition, the type of instruments/tools available for measuring quality of nursing care; as well as when they were used and who used them was not certain. What was done with the outcome of evaluation of nursing care if it was ever carried out was also not certain, as there was no immediate evidence or documentation of the outcomes.

A study, although not of this nature, had only been carried out in the Eastern part of Nigeria where one of the established measurement tools called Quality Patient Care Scale (QUALPAC) was used

for a study which evaluated the impact of primary nursing practice in one of the specialist hospitals (Archibong, 1999). However, there was no record of any other study carried out in any of the other teaching hospitals in Southwest Nigeria which appraised the QI mechanisms in place, nor which has developed or tested quality-care indicators for measuring the quality of nursing care. Generally, there was a paucity of literature on quality improvement mechanisms and/or nursing care measurements in Nigeria.

The possible absence of structured or well-planned CQI mechanisms like the nursing audit and/or in-service education and continuing education units and a lack of awareness of established tools for measuring quality of nursing care such as those developed internationally by the American Nursing Association (ANA, 2000; Goldstone, 1993 & 1983; Wandelt & Ager, 1974; Jelinek et al. 1974; Phaneuf, 1972) was a cause of concern. It was therefore the intention of this study to appraise the CQI activities as well as the measurement tools in some selected teaching hospitals in Nigeria, in order to provide a systematic process for measuring the quality of care given by the clinical nurses to the patients in these settings.

The researcher therefore posed the following **hypothetical question** as a point of departure for the purpose of this study. Are there established quality-care measurement indicators for measuring quality of nursing care in the five selected teaching hospitals in SW Nigeria?

1.3. PURPOSE OF STUDY

To appraise the continuous quality improvement (CQI) activities and develop quality care indicators that can be used to monitor the quality of care amongst clinical based nurses in the selected teaching hospitals in SW part of Nigeria.

1.4. OBJECTIVES OF THE STUDY AND RESEARCH QUESTIONS

The Objectives of the study were to:

Cycle One:

1). *Determine* the knowledge and perceptions of nurses about CQI in terms of structure, process and outcomes. The questions below served to focus this objective.

- ❖ What were the perceptions of nurses about CQI?

2). *Establish* whether existing CQI processes/mechanisms such as structured Nursing Audit Unit, In-Service Education Unit/continuing education, and nursing measures or instruments for quality care measurement were in place. The questions below served to focus this objective:

- ❖ What QI processes and/or mechanisms were in place in the nursing divisions of these teaching hospitals in SW Nigeria to promote CQI efforts?
- ❖ Were nursing audit units and in-service education/systems of continued professional learning established in these hospitals? If not, what mechanism monitored and measured the quality of nursing care given to the patients and how did the nurses update their knowledge and skills on the job?
- ❖ What resources in terms of human and material resources were in place in these hospitals to promote CQI and how adequate were these resources to promote CQI efforts in the participating hospitals?
- ❖ What nursing care measures/ instruments were available for use in these hospitals?
- ❖ Did nurses in the selected teaching hospitals possess basic nursing qualifications?

3). *Assess* the appropriateness of the content of any existing quality-care measurement instrument/tools, if available, in terms of **structure** (e.g. human, material and operational resources such as protocols, procedure manuals standards of practice), **process** (e.g. nursing assessment of patients, nursing documentation, monitoring of care given, and intervention), and **outcomes** (to include patient morbidity and mortality, incidences of falls and decubitus, pressure ulcers,

infections, as well as patient satisfaction).

- ❖ What aspects of nursing care quality did the instrument if available, measure in terms of structure, process and outcomes?

4. **Establish** whether utilisation of a quality–care measurement instrument if any, was available to inform practices.

- ❖ What factors affected the use of the instrument if available?
- ❖ Did the exercise of measuring quality of nursing care, if carried out, bring about changes in nursing practice?
- ❖ How were the findings from evaluation of quality care, if carried out, communicated to inform practice?

5). **Identify** gaps from the data with regards to existing CQI mechanisms/processes.

- ❖ Were operational resources such as standards of practice, protocols, procedure manuals, against which nursing practices were judged, available for use in these hospitals?
- ❖ Was an observational checklist for observing nursing care activities as they were being carried out available?
- ❖ What type of nursing audit/review was carried out in these hospitals in terms of concurrent and retrospective review of care?

Cycle Two:

6). **Propose** among others, one *appropriate* and/or feasible CQI mechanism based on data and literature in key areas to inform CQI according to guidelines in suggested literature.

- ❖ What action plan could be in place to promote CQI efforts, programs, and policies with the aim of improving the quality of care given?

Cycle Three:

7). **Collaboratively develop** an appropriate instrument, *or adapt* an established, acceptable, standardised off-the-shelf instrument for measuring the quality of nursing care in the five hospital

settings.

- ❖ Were the quality-of-care indicators made available for nursing care measurement to suit the individual hospital settings? How was this achieved?

8). **Determine** the *applicability* of the newly developed instrument in three of the five hospital settings; by testing the instrument in two acute care wards in each of these hospitals in SW Nigeria.

- ❖ Were the newly developed nursing care measure/quality-care indicators applicable and/or suitable for the settings in which they were used?

Cycle Four:

9). **Reflect by reasoning** on the applicability of the newly developed quality-care indicators

- ❖ What were the perceptions of the participants about the newly developed /adapted nursing care measure?
- ❖ Did the suitability of the newly developed measurement tool address baseline issues?

Cycle Five:

10). **Evaluate** the efficacy and relevance of the newly developed/ adapted instrument or tool in promoting quality nursing care measurement in the participating hospitals.

- ❖ Were the newly adapted quality-care indicators applicable to hospital settings?
- ❖ Were there difficulties encountered during the testing of the newly developed/adapted instrument?
- ❖ What were the strengths in utilizing the new quality-care indicators?

1.5. SIGNIFICANCE OF STUDY

It is hoped that gaps identified in the study will form the basis for future training and education of nurses involved in care-giving to promote quality care.

Findings from the study will provide evidence-based scientific rationale for practice in relation to

quality nursing care in the health care institutions, thus adding to the body of knowledge of quality improvement and nursing care.

Where teaching hospitals in SW Nigeria do not have structured or established CQI mechanisms like nursing audit, in-service education units and tools for measuring quality of nursing care, a study such as this may promote sensitisation of the leadership to the importance of promoting and putting in place a planned or structured CQI mechanisms/systems like nursing audit units which can help to monitor the activities of the nurses as they provide care; ensuring that the quality of care given is measured and that deficiencies are identified.

Formal standardised monitoring processes in the clinical nursing division of the teaching hospitals may promote and maintain standards of care. The processes involved in the study could help the nurse managers in these selected teaching hospitals to become more competent in planning evaluative and monitoring activities in their institutions. The outcome of the study may result in an increase in a number of clients/patients seeking quality care services in these hospitals, as quality nursing care services may be evident in the way the nurses are providing care.

It is envisaged that part of the study may involve, if necessary, the development of tools for measuring the quality of nursing care. In the process of doing this, the participants in the selected teaching hospitals in SW Nigeria can be empowered to work together to effect changes to improve their systems, with an intention to improve patient outcomes. This may affirm Cholewka (2000) statement which stated that CQI processes serve as a development tool that empowers the healthcare provider as a change agent.

In addition, the study could promote modifications being made to the existing standardised

measurement instruments/tools to suit cultural settings as advised by Archibong (1999) in her study. This author carried out a study which tested one of the standardised instruments called QUALPAC, which was not adapted, in a specialist hospital in the Eastern part of Nigeria.

The study could contribute to the current body of knowledge in the area of clinical practice. In the realm of human resource management and due to the concern to provide quality services to the patients/clients (WHO, 2000) the findings from the study can be used to refine policies and procedures intended to reinforce safe high quality care. The study may benefit nursing management, as the issue of quality care is a major consideration in this aspect of nursing (i.e. Nursing Management). The study could also inform the nursing curriculum and teaching content on the context-driven quality measurement.

The study could stimulate additional work on the existing tools for measuring quality of care and ideas. Concepts from the study may provide a foundation for generating future research problems associated with CQI and evaluating and/or measurement processes.

1.6. CONCEPTUAL AND OPERATIONAL DEFINITION OF TERMS

These definitions were adapted from the relevant literature and applied within the context of the study in which they have been explained.

Appraisal: According to Collins English Dictionary, the term ‘appraisal’ refers to estimating the value or quality of a phenomenon. On the other hand, in the context of this study, appraisal involves judging the value and/or quality of processes put in place to improve or result in better nursing care activities that are carried out in a professional manner.

Continuous Quality improvement:

Ellis and Hartley (2000) define continuous quality improvement as a process in which ongoing analysis and improvement lay a foundation for change. However, within the context of this study, CQI is a structured organisational process, which involves putting nursing personnel in place to plan, improve or make better, nursing care activities that are carried out in a professional manner to the satisfaction of the patients. These processes are carried out one at a time (in sequence) and this flow of improvement is continuous in order to meet or exceed patients' expectations. The processes include: problem identification, collecting data using statistical measurements, making judgements or interpretations based on criteria and using those judgments to generate alternatives to strengthen deficiencies identified.

Quality of Nursing Care:

According to Kunaviktikul (2005), quality nursing care is nursing's response to the physical, psychological, emotional, social and spiritual needs of patients provided in a caring manner, so that the patients are cured, healthy, live normal lives; and both patients and nurses are satisfied.

According to Williams (1998), the quality of nursing care relates to the degree to which patients' physical, psychosocial and extra care needs are met. Conversely, in this study, quality of nursing care describes those concerned activities such as physical, psycho-social, spiritual, cultural, developmental and environmental health needs provided by the clinical nurses on the wards in a professional manner to foster patient and nurse satisfaction. It describes the highest standards of nursing care provided to patients.

Standards: The Department of Health, Republic of South Africa (2007) defined standards as "qualities which serve as a basis to which others conform or by which the quality of others is judged; the degree of excellence required for a particular purpose". International Council of Nurses

(ICN) (2005) refers to standards as the desirable level of performance against which actual practice is compared. Stone, Berger, Elhart, Dorothy, Firsich, and Jordan (1996) also defined 'standard' as a model or an example established by authority, custom or general consent such as a criterion and a level or degree of quality considered proper and adequate for a specific purpose. Operationally, within the context of this study, standards are a measure or specification to which clinical nurses should conform; or against which they are judged.

Quality-Care Indicators:

Ellis and Hartley (2000) define quality indicators as those data which indicate that high standards of care are being maintained. In this study therefore, quality indicators refer to measures of numeric value of important aspects of nursing care, which indicate whether nursing care provided meets set standards. Examples of quality indicators include American Nurses Association Nursing Sensitive Quality of Care Indicators for Acute Care Settings 1996; 2005; Oncology Patient's Perception of Quality of Nursing Care Scale (OPPQNCS) 2003; Monitor 2000 1994; MONITOR 1993; Therapeutic Nursing Function (TNF) 1986; Quality Patient Care Scale (QUALPACS) 1974; Rush Medicus Index 1976 and. Nursing Audit 1972).

Clinical Nurse(s):

Nursing and Midwifery Council of Nigeria (N&MCN) (1979) refers to a clinical nurse as a registered nurse, who is an independent practitioner authorized to practice and capable of practising nursing in his/her own right, by virtue of registration. However, within the context of this study, clinical based nurses are registered nurses who have completed a minimum of a three year course at a registered nursing school, and are currently practicing bedside nursing in selected hospitals. Clinical based nurses provide care to patients in a structured environment. They establish nursing intervention utilising current clinical knowledge. They are actively involved in determining nursing

needs of patients and family.

Nurse Manager:

According to the ICN (2005), a nurse manager is the backbone of the organization whose key role includes quality of patient care, staff recruitment and retention, budget challenging, handling labour issues and shortages, balancing pressure faced daily and determining the success or failure of nursing leadership. The nurse manager participates in orientation, in-service education, staff development and clinical training. Nonetheless, **in the context of this study**, a nurse manager includes a registered professional nurse in the management and/or supervisory position of principal nursing officer, assistant chief or chief nursing officer, in charge of a ward/unit. The nurse manager is involved in supervising and implementing nursing care on the wards.

Instrument/Tool:

The Collins dictionary (2007) defines an instrument as something written for a particular purpose. The Oxford Advanced Learner's English dictionary (2006) defined it as a tool or device used for a particular task, especially for delicate or scientific work. Operationally, an instrument or tool is a pen and paper device which describes the criterion for measuring quality of care provided by the clinical nurse. It specifies the duties/responsibilities of the clinical nurse indicating standards. The terms 'tools' and 'nursing measures' are used interchangeably with the term 'instruments' in the study.

Evaluation of Nursing Care:

According to the ICN (2005), evaluation of nursing care is a planned systematic process of collecting information and comparison of this information with specific standards. In operational terms, evaluation of nursing care is concerned with judging nursing care activities to meet patient

goals. Evaluation of nursing care is achieved using measurement tools so as to provide data for decision-making and promoting feedback in order to increase the potential for change.

Teaching Hospital:

According to Mulligan, Fox-Rusby, Adams, Johns, and Mills (2003) teaching, academic or university hospitals are tertiary-level hospitals with highly specialised staff and technical equipment such as cardiology, intensive care unit and specialized imaging units. They also have clinical services highly differentiated by functions, teaching activities and their size ranges from 300-1500 beds. Operationally defined, a teaching hospital is a health care facility that provides the highest quality of patient care by means of expert physicians, nurses, and other health care professionals.

A teaching hospital is involved in the treatment of the sick as well as the training, guidance, and instruction of students within various disciplines such as Medicine, Family Health, Surgery, Nursing, Intensive/Critical Care services, Psychiatry, Ophthalmology, Anaesthesia, Oncology, Paediatrics, Obstetrics and Gynecology, Oto-rhino-laryngology (ENT), Dental and Maxillo-facial services, Physiotherapy, Hematology, Laboratory services. A teaching hospital is generally affiliated to a school of medicine. It is often, but not always associated with a university, and also serves as a referral centre. A teaching hospital has a commitment to research and serves as a centre for experimental, innovative, technology and technically sophisticated services.

Nursing Audit Unit:

Ellis and Hartley (2000) refer to a nursing audit unit as a 'quality circle' comprising a team of workers (not management personnel) who meet regularly with a purpose to identify ways of improving quality within their own work setting. Bernhard and Walsh (1995) define a nursing audit as a reflection of the performance of a group of practitioners rather than a single person, for the purpose of examining nursing care that has been given to patients/clients, and to verify that

acceptable standards are being met. However, **within the context of this study**, a nursing audit unit refers to a structured unit responsible for obtaining, appraising, and reporting information about facets of nursing care and maintaining standards of practice within a hospital setting. The unit comprises a group of five to ten senior nurse practitioners also responsible for evaluating nursing care by monitoring and measuring quality of care within an institution, and judging whether the care given meets established standards.

In-Service Education/Continuing Education Unit: According to the International Council of Nurses (ICN) (2005), an in-service education unit is defined as a unit responsible for staff development, and for maintaining and increasing staff competence in nursing practice. It involves a whole range of learning experiences from the time of initial qualification until retirement which are designed to enrich the nurse's contribution to quality health care and her/his pursuit of professional career goals. In **operational terms**, within the context of this study, an in-service education unit is an ordered and well-controlled unit responsible for training and updating the knowledge of the nurses currently practising bedside nursing. The unit organises monthly class sessions all round the year for all levels of nurses to promote continued professional learning; as well as quarterly scientific sessions, and a yearly clinical workshop for the nurses. The nurses are also afforded the opportunity of pursuing further post-graduate nursing studies in recognised institutions outside their work setting such as a diploma in nursing administration, paediatric, critical care, ophthalmology and mental health, orthopedic and perioperative nursing.

CHAPTER 2

2.1. OVERVIEW OF LITERATURE

Introduction to Chapter

The literature review in this study addresses the general perspective of quality, quality of healthcare and quality improvement systems, existing standardised evaluative instruments for measuring quality of nursing care and how they relate to quality of care provided by the nurses as well as conceptual frameworks.

2.2. QUALITY AND QUALITY OF HEALTH CARE DEFINED.

Most literature, extracts and case studies on quality of healthcare and quality improvement in various aspects of care abound as evidence of the proliferation of studies conducted concerning this phenomenon in recent years and these include Meehan, Van Hoof, Giannotti, Tate, Elwell, Curry, and Petrillo (2009); Krumholz and Lee (2009); Buerhause (2009); Hasnain-Wynia and Jean-Jacques (2009); Changwa and Pather, (2008); Hjort (2008); Rothberg (2008); Armstrong (2008); Althabe, Bergel, Cafferata, Gibbons, Giaponi, Aleman et al (2008). Furthermore, J de Jager and Plooy (2007); Glickman, Baggett, Krubert, Peterson, and Schulman (2007); Semple and Mckune (2007); Grove, Cleverland, and Shroyer (2002); Ferlie and Shortell (2001); and Hearnshaw, Harker, Cheater, Baker and Grimshaw (2001) were also relevant authorities in quality of health care and quality improvement.

Several authors define quality and quality of health care in various contexts of health care delivery, (Krumholz and Lee 2008; Varkey, Reller, and Resar 2007; Booyens 2005; Uys & Naidoo 2004; Kunaviktikul, Anders, Chontawan, Nuntasupawat, Hanuchareonkul, Srisuphan, Pumaporn, & Hirunnuj 2001; Brook, McGlynn, & Shekelle 2000; JCAHO 1991 and Donabedian 1980). These authors all agree that quality refers to the characteristics or features associated with excellence.

These characteristics form the criteria for evaluating the quality of specific services and can be viewed comprehensively from several perspectives including the patient's and from those of practitioners like nurses (JCAHO 1991). Donabedian (1980) proposes a concise and readily understood introduction to the ways quality in health care is defined, measured and improved, although the concept this author introduces focuses on medical care, it has been widely adapted by researchers and healthcare providers.

The key to Donabedian's work can be found in the concepts of "quality assessment" (measurement of quality care) and "quality assurance" (improving the quality of care). This author suggests three approaches to assessing the quality of care, namely structure, process and outcome which will be discussed in detail under the sub-topic **Evaluative Instruments** later in this chapter. Donabedian (1980) emphasises that there is no separation of the three because structure influences process and process influences outcomes.

Krumholz and Lee (2008) re-defined quality and its implications due to recent clinical trials. These authors indicate that simple approaches to patient care are better. A recent study carried out led to the re-examination of the paradigm where efforts to prevent vascular disease is the focus. Brook et al. (2000) view the concept of quality as providing care of a high quality to patients in a human and culturally appropriate manner, with the patient's full participation in decisions regarding his/her treatment. JCAHO (1991) acknowledges that quality is promoted by using updated professional knowledge to care for patients, improves the expected caring effectiveness, and reduces the unexpected consequences. Oermann and Templin (2000) in agreement with Booyens (2005) advise that the patients also have their own perspective of what quality means to them. These authors explain that patients defined good quality of care as being when nurses delivered updated medical information to them and when nurses were willing to communicate with them to help them deal

with their health problems and needs. Varkey, Reller, and Resar (2007) define quality health care as doing the right thing, at the right time, in the right way, for the right person and having the best possible results; whilst Uys and Naidoo (2004) in the same vein, define quality of care as a dynamic quality indicating that the right things are done right; thereby improving the outcomes of the patients, families and their communities. This statement is evident in their study conducted in (2002) which described and compared the quality of nursing service and care in three health districts in KwaZulu-Natal Province. Six hospitals and six clinics were used in these districts and five aspects of care were evaluated including hand-over from one nursing shift to the other, implementation of universal precautions, nursing records, management of chronic illnesses and patient satisfaction. Findings revealed high scores for the management of chronic illnesses (73%). Patient satisfaction averaged 72% across the three districts, and average scores for nursing records (11%) but specific problems were evident as revealed in the low scores in the use of protective gear (43%), 23% of blood pressures were within target range and only 38% of patients had their blood sugar controlled. Conclusively, the quality of care measurements identifies specific training needs. Uys and Naidoo (2004) were of the opinion that quality is one of the most important goals of health service that should be regularly evaluated. Quality of care is perceived to relate to the degree to which patients' physical, psychosocial and extra care needs are met (Williams, 1998). Williams expands by saying that high quality nursing care infers meeting all the needs of the patient/client being cared for; and low quality nursing care is related to the omission of nursing care required to meet patients' needs.

Likewise, Kunaviktikul et al. (2001) indicate that the quality of nursing care is nursing's response to the physical, psychological, emotional, social and spiritual needs of patients involved in a caring manner, so that the patients are cured, healthy, live normal lives, and both patients and nurses are satisfied.

Brook, McGlynn, Shekelle, (2000) and Donabedian (1982) affirm that quality can be measured; and that both patients and nurses can be satisfied. Cavendish Lunney, Luise and Richardson 2001 posit that quality of health care cannot be adequately assessed without assessing the quality of nursing care. Nursing quality specifically can be evaluated in terms of structure, process and outcomes. In support, Potter and Perry (2001), Craven (2000); Brook et al. (2000); Sale (1996); and Ziegler, Vaughan-Wrobel, & Erlen, (1988) explain that structure evaluation focuses on attributes of the settings and surroundings where healthcare is provided, such as systems for care delivery e.g. availability of equipment, nurse-patient ratios, physical facilities etc; while process evaluation emphasises nurses' performance i.e. whether nursing care provided is appropriate and competent. This includes the assessment of techniques and procedures, methods of delivery e.g. primary care nursing and method of intervention. The writers add that outcome evaluation focuses on the patient/client function as it describes the effect of care in terms of behaviours, responses, level of knowledge and health status of the patients. Shiou-Hua Wu, and Jwo-Leun Lee (2006); Gunther and Alligood (2002), express that nursing quality measures should be connected with nurses' knowledge (i.e. integrated into nurses' knowledge bases) and that these should be evaluated by services delivered and their behaviour.

2.3. CONTINUOUS QUALITY IMPROVEMENT (CQI) EXPLAINED

According to Hyrkas & Lethi (2003), CQI has been defined as one of the World Health Organisation's (WHO) target areas and as a structured organizational process for involving personnel in planning and executing a continuous flow of improvement to provide quality health care that meets or exceeds expectations (McLaughlin & Kaluzny, 1999; and Shortell, Bennette and Byck 1998). Continuous quality improvement (CQI), Quality improvement (QI) and total quality management (TQM) are one and the same management concept. CQI refers to clinical settings while TQM refers to an industry-based program.

Campbell, Braspenning, Hutchinson, and Marshall (2003) maintain that CQI is part of a daily routine for the healthcare professional, not a reserve for volunteers. It is a statutory obligation for many countries. These authors maintain that it is important to improve quality of care so as to enhance the accountability of health practitioners and managers; resource efficiency, identifying and minimizing medical errors while maximizing the use of effective outcomes and aligning care to what patients want, in addition to what they need.

In addition, Varkey, Reller and Resar (2007) posit that CQI subscribes to the principle that opportunity for improvement exists in every process on every occasion. Frattali (1991) argues that quality management has moved from implicit review (i.e. subjective judgments of quality) to patient care audit (i.e. retrospective and record review); to quality assurance (associated with identifying problems that focus on practitioner's performance); to continuous quality improvement (which is continuous improvement that focus on work processes). Frattali (1991) surmises that CQI reflects the belief that improving quality depends on understanding and revising work processes. The focus therefore, is on constant team efforts to reduce waste of resources, repeating work and complicating issues.

According to Kaprelian (2003), CQI involves both a prospective and retrospective review. It is aimed at improvement i.e. measuring where you are and creating systems to make things better; unlike Quality Assurance (QA) which is an older term, is retrospective and implies policing and is punitive in many ways. This author comments that CQI gives one the opportunity to look at things differently and come up with new options and solutions. Again, CQI can be very helpful in improving how things work; trying to find out where the 'defect' in the system is and figuring out new ways to do things; even though that could be very challenging.

Ross-Kerr and Woods (2002) define CQI as an approach to the continuous study and improvement of the processes and sequence of providing health care services to meet the needs of clients and others. Shortell, Bennette and Byck (1998) operationally define CQI as a philosophy of continual improvement of the processes associated with providing a good service, or a service that meets or exceeds clients'/patients' expectations. However, Shortell et al. (1998) remark that though CQI is mainly used in hospital settings, it has been adopted in ambulatory care clinics. CQI is simultaneously two things: management philosophy and management method (McLaughlin & Kaluzny, 1999). It is **distinguished** from other philosophies and methods by the recognition that clients'/patients' requirements are the key to client/patient quality and that ultimately clients'/patients' requirement would change over time. Such changes require continuous improvements in the nursing care methods that affect the quality of patient care.

McLaughlin and Kaluzny (1999) maintain that CQI is distinguished by its emphasis on avoiding personal blame but focusing on how to approach a given problem. CQI is participative in that it encourages the involvement of all personnel associated with a particular work process to provide relevant information and become part of the solution. Booyens (2005) maintains that for nursing measures to be carried out there should be a formal continuous quality improvement system/program in place to monitor, measure and evaluate the quality of services delivered. Kozier et al. (2004) and Harkreader (2000) explain that putting CQI in place in health care organizations should improve quality from both a professional and clients' perspective. These authors add that CQI follows client/patient care rather than an organisational structure and also focuses on a process with the intention of improving the quality of care; as well as on identifying and correcting a system's problems such as improving services provided to patients/clients.

Literature repeatedly refers to the nurses' role as 'integral', 'central', 'critical' and 'pivotal' to the CQI process (Price, Fitzgerald, & Kinsman, 2007; Ashley, 2000 & Packer, 1998). These authors believe that nurses play a vital role, and have more influence on CQI than any other health professionals due to their level of direct contact with the public. Nurses are in an excellent position to identify the need for change, to assess and continuously improve services. Literature on CQI suggests that quality activities should be incorporated into the daily lives of health professionals in supportive environments, and that participation in CQI processes is increased when people are involved in decision making and the implementation process (Price et al. 2007; Koch & Fairly, 1993; and Mainz, Hammershoy, Worning, & Juul (1992).

Booyens (2005) maintains that there are reasons or motives **why quality and quality improvement** are assuming increasing **importance**. Some of these are listed below.

- ❖ *Professional accountability* which relates to a characteristic of professionalism in the pursuit of excellence and the desire to regulate one's own performance. The professional health practitioner is personally, professionally-ethically accountable for her/his practice and so is eager to become formally involved in quality improvement.
- ❖ *Quest for Excellence* resulting in the healthcare professionals realising that they need to define and show that they are providing quality services for professional-ethical reasons. Quality improvement activities stimulate resourcefulness.
- ❖ *Financial considerations*, whereby purchasers and consumers of health care services are beginning to state explicitly the kind and quality of care delivery they expect from healthcare professionals. This has far-reaching effects on financial implications and funders of healthcare want proof of quality of care delivered.
- ❖ *Marketing healthcare services* and evidence of quality healthcare delivery could

serve as a market principle.

Consequently, Varkey, Reller and Resar (2007) identify three common *methodologies/approaches to CQI* which include: Plan-Do-Study-Act (PDSA); Six-Sigma and the Lean Method. These authors assert that the **PDSA** is the most commonly used approach for rapid cycle improvement in healthcare. It is a trial and learning approach consisting of a logical sequence of four repetitive steps. In the *plan phase*, ideas for improvement are detailed, tasks assigned and expectations are confirmed with testing. In the *Do phase*, the plan is implemented and any deviation from the plan is documented. Defects are analysed in the *study phase* and lessons learned from the study phase are incorporated into the test of change in the *Act phase*.

Furthermore, the **Six-Sigma** approach developed by Motorola Inc in the mid-1980s is a rigorous statistical measurement methodology designed to reduce cost, decrease process variation and eliminate defect. Six-Sigma methodology is achieved through a series of steps namely *define measure, analyse, improve and control*. The **Lean methodology** is driven by the identified needs of the customer, and aims to improve processes by removing non-value-added activities, also referred to as waste. This 'waste' includes overproduction, under-production, waste inventory, rework or rejects (i.e. mistakes), waste associated with waiting (i.e. patient waiting to be seen for appointments) and waste associated with processing such as outdated policies and procedures. Varkey et al. (2007) explain further that with the Lean plan or methodology, patients were checked in using a concept of continuous flow. Appointments were scheduled at ten minutes intervals with the appointment for the nurse, doctor or diagnostic services scheduled in sequence.

Table 2.1: DISTINCTION BETWEEN QUALITY ASSURANCE (QA) AND CONTINUOUS QUALITY IMPROVEMENT (CQI) as identified by Frattali, (1991)

QA	CQI
❖ Focuses on problem solving	❖ Focuses on continuous improvement
❖ Focuses on clinical care	❖ Focuses on all activities of an organisation
❖ Externally driven	❖ Internally driven
❖ Follows organisational structure	❖ Follows client/patient care
❖ Delegated to a few	❖ Embraced by all
❖ Focuses on individuals	❖ Focuses on work processes
❖ Actions decided by committee	❖ Actions decided by team
❖ Creates defensiveness	❖ Promotes team spirit
❖ Works towards end points	❖ Has no end points
❖ Divided analysis of effectiveness and efficiency.	❖ Integrated analysis of effectiveness and efficiency.

2.4. COMPONENTS OF CQI

Sidika (2000) itemises four key components of CQI as:

- ❖ Identifying opportunities
- ❖ Intervening to improve performance
- ❖ Measuring quality
- ❖ Repeating the cycle for continuous improvement.

The aforementioned author also emphasises **quality improvement activities** which include:

- ❖ Establishing quality improvement divisions to make policies and determine standards related to quality in the hospital.

- ❖ Instituting an in-service training program to introduce quality management for improvement of the quality of services and to improve communication and care in nursing.

Whilst Kaprelian (2003) identifies informed commitment by **stakeholders of CQI** (to include *the providers of care, payers of care, employers, and patients*), Booyens (2005) listed the following as prerequisites for CQI

- ❖ Capacity building/empowerment of the individual, groups and the community is necessary; not only in terms of the knowledge and skills required for quality improvement, but also in terms of instilling a positive attitude.
- ❖ Support by management is crucial, not only in terms of financial, technological and manpower support, but because the process also needs to be driven by a committed and motivated management team. In addition to management commitment, Fox (1995) identified teamwork and tools bound together by a quality system as prerequisites for CQI.
- ❖ Quality improvement culture, is not labelled as a bureaucratic system and practice; but requires the development of positive attitudes towards quality improvement activities

Booyens (2005) also summarises the **principles of CQI** as:

- ❖ Adopting a new philosophy by doing things right the first time.
- ❖ Breaking down **barriers to CQI** such as those identified by Meehan et al. (2009) including financial constraints, uncertain data quality, legal concerns, payers' issues, patient factors, conflicting practice guidelines, staff issues, limited QI knowledge and experience and insufficient time.
- ❖ Training and personnel development.

- ❖ Eliminating the fear associated with a traditional hierarchical structure
- ❖ Eliminating slogans, warnings and targets for personnel
- ❖ Confronting poor quality of care when you observe it.

2.5. THEORY OF QUALITY IMPROVEMENT

Two popular theories of quality improvement are those of the Shewhart cycle (1925) and Juran (1988). These theorists explain that quality improvement is based on the science of improvement that pursues knowledge of general truths or the operation of general laws, especially those obtained and tested through scientific methods.

To create improvement, one needs knowledge relevant to the particular phenomenon at hand. The science of improvement is concerned with how knowledge of a specific subject matter is applied in diverse situations. Improvement comes from action; the development, testing and implementation of change. Change can be developed by examining the current system using various means such as pictures, flow diagrams or data, and is based on learning a common understanding. Berwick (1989) explains that the theory of CQI reflects the belief that improving quality depends on understanding and revising work processes; and that the focus is on a constant team effort to reduce waste, rework and complication.

The **Shewhart cycle** (1925) in Neuhauser (2006) is a wheel divided into four quadrants of **Plan, Do, Study, Act** (PDSA) and in its fundamental nature, a never-ending process, it is very reflective of the “continuous journey” character of continuous quality improvement (www.omnilingua.com assessed 10/24/2008). It is a framework for an efficient trial and error methodology. As the word implies, the cycle begins with a plan and ends with an action based on the learning gained from the PDSA phases of the cycle. Improvement comes simply from the way some activities are currently

carried out. Generally, the more complete the appropriate knowledge of doing the activity, the better the improvements are when the knowledge is applied to making changes. Any approach to improvement must therefore be based on building and applying knowledge. This view leads to a set of fundamental questions, the answers to which form the basis for improvement. These questions are:

- ❖ What are we trying to accomplish?
- ❖ How will we know that a change is an improvement?
- ❖ What changes can we make that can result in improvement?

These questions provide the framework for the trial-and-learning approach. The word 'trial' suggests that a change is going to be tested. The term "learning" implies that criteria have been identified that will be used to study and learn from the trial. Focusing on the questions accelerate the building of knowledge by emphasising a framework for learning, the use of data, and the design of effective tests or trials. This approach stresses learning by testing changes on a small scale rather than by studying the problems before any changes are attempted.

In the context of this study, it is hoped that an instrument/tool for nursing care measurement may be developed or adapted and tested for suitability in these participating hospitals in SW Nigeria. This is something new to these hospital settings, as no literature has suggested that a study of this nature has ever been carried out. CQI is not seen to be a daily routine exercise in these hospitals and, as such, introducing ideas and processes relating to CQI can be challenging to the nurse managers who may, or may not embrace the change. As this is new, the outcome cannot be predicted. It therefore becomes a 'trial and error' experiment while the intention of both the researcher and participants is to learn from the outcome.

Juran theory (1988) incorporates the human aspect of quality management, embraced in TQM. Juran developed project-by-project, problem-solving team methods of quality improvement in which all levels of management are involved. Juran postulates that quality does not happen by accident; it must be planned. This author's key points involve:

- ❖ Implementing organisational goals by planning, identifying customers and their needs
- ❖ Establishing quality goals
- ❖ Creating measurements for quality
- ❖ Planning processes capable of meeting those goals under working or operating conditions
- ❖ Producing continuing results in improved market shares, reduction of error rates.

2.6. MEASUREMENT AND EVALUATION OF CARE

According to Taylor, Lillis, & LeMone, (2001), nursing actions are resources which are far too valuable and costly to be haphazardly implemented. Evaluation that is carefully planned and executed can direct and redirect these actions to maximise the patient's benefit. This is the goal and challenge of nursing evaluation. Evaluation requires monitoring and measurement, and measurement requires instruments, with a monitoring system to support and quantify the degree to which health services meet standards (Booyens, 2005). Evaluation of quality of care can be done at various levels such as at the national level, purchaser level and provider level (Sale, 1996) as illustrated in figure 2.1 below.

At the *national level*, standards are set by professional bodies, and organisations are evaluated against preset standards or criteria by another team outside the organisation. Evaluation at the *purchaser's level* focuses on the patient charter or areas identified by the patients or health council. Sale (1996) however identifies the clinical areas, wards, clinics, and units as the most important areas for evaluating quality of care at the *provider level*. For the purpose of the study, the

investigator concentrates on this level of evaluating quality of care (i.e. provider level) to explore ways of monitoring and measuring quality of nursing care in the wards.

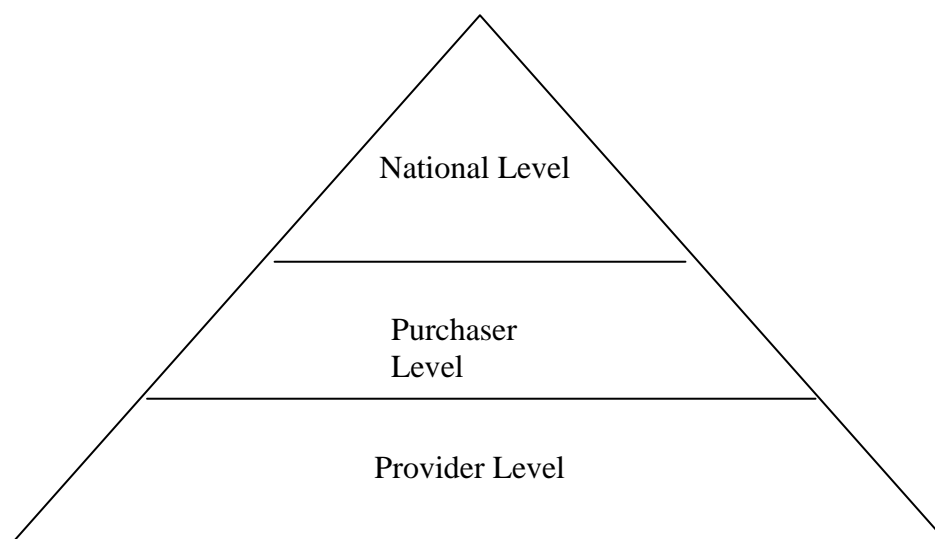


Figure 2.1: Levels of Evaluation of Quality of Care (Sale, 1996; page 19) .

Measurement of quality is one way in which nurses can promote their contributions to healthcare (Toms, 1992); but Evans (2002) explains that measuring and monitoring need not be perceived as some form of sinister bureaucratic demon, but as a method and approach that can make important contributions in furthering the education and professional development of every member of the practice team; and it can also make fundamental contributions to improving the quality of care.

Several measurement studies have been carried out in nursing homes, and specialist hospitals (with little recorded within teaching hospital settings) especially in developed countries such as the USA and the UK to evaluate practices such as the feeding assistance care in nursing homes (Simmons, 2007); management of falls in nursing homes (Taylor, Parmelee, Brown, Strother, Capezuti, & Ouslander, 2007); embedding quality improvement into all aspects of nursing practice (Long, 2003), just to mention a few. All of these studies were done to evaluate the effectiveness of

facilities in these homes and/or patient satisfaction with care provided.

In South Africa (SA) in a survey of the quality of nursing care in several health districts in SA, Uys and Naidoo (2004) found it useful to measure the quality of care given by nurses using newly developed instruments, though opposed to the suggestions of Archibong (1999) and Kozier & Erb (1987) who advise/suggest modifications or doing more work on existing established tools.

Mciza (1989) in a study conducted in Transkei (part of present day Eastern Cape) General Hospitals in South Africa, primarily intended to test reliability, validity and cost effectiveness of the instrument – MONITOR in evaluating the quality of care in medical and surgical units of the General Hospitals in the Transkei part of the Eastern Cape. In the study objectives, this author established inter-rater reliability, the face, content, criterion and construct validity of the MONITOR instrument, as well as the cost of applying the instrument in her study. This author observed a high correlation of 95% of the items; as well as for criterion-related validity; however, construct validity was not proven. Mciza (1989) suggests that MONITOR is more economical than other instruments such as PHANEUF and QUALPAC and therefore recommends that the cost of applying the instrument in the general hospitals should be included in the budget. In addition, Mciza (1989) recommends that since MONITOR seems to be reliable, valid and economical, it can be used more widely in quality improvement programs in South-Africa. However, in Nigeria, Archibong (1999) evaluated the impact of primary nursing practice (using one of the established, off-the-shelf instruments) on the quality of care received by patients in a 37-bed acute medical-surgical, mixed-sex ward in a specialist hospital in the eastern part of Nigeria. The outcome of this study is described under the subheading of **Evaluation and Measurements Instruments**, a section to follow in this chapter.

Several studies have been done on outcome evaluation as mentioned above, and many tools have been developed to evaluate quality care outcomes and/or patient satisfaction than there are for process/evaluation and measurement, which this study seeks to evaluate. Radwin, Alster, and Rubin (2003) developed and tested an outcome tool instrument on Oncology Patients' Perceptions of the Quality of Nursing Care Scale (OPPQNCS) that measures the perceptions of patients with cancer on the quality of nursing care. Their sample consisted of 436 patients in active treatment for cancer; two-thirds were female and the mean average age was 54 years. The methodology included eight subscales and 112 initial items were developed from concepts and data from a grounded theory study of patients' perspectives of the quality of their cancer nursing care. Fifty-nine items resulted from an expert panel's review for content validity. Principal components analyses (PCA) with promax (oblique) rotation were conducted. Findings yielded four factors that explained 81% of variance. Conclusively, psychometric properties indicated that both forms of OPPQNCS adequately measured cancer nursing care quality from the patient's perspective. The study's implications for nursing were that OPPQNCS held promise for nurses who wished to monitor and improve the quality of patient-centred cancer nursing and those who wished to investigate relations among care quality and healthcare system characteristics, patient characteristics, and nurse-sensitive patient outcomes.

However, the American's Nurses Association (ANA, 1996) developed a process-outcome tool called the nursing-sensitive quality indicators which captured care or the outcomes that are most affected by nursing care. The ANA nursing sensitive quality indicators measured quality of care in acute and community-based care settings. The ANA (2005, 2000) using the Donabedian framework of quality incorporated the structure, process and outcome components of the model to guide the development of indicators that measured the quality of nursing care.

The *structure of care* indicators focused on the measurement of staffing patterns that were expected to affect the quality and quantity of care provided by the nurses. Measurement included the availability of nursing staff, such as the ratio of Registered Nurses (RNs) to the patients, the qualifications of nursing staff, such as educational attainment, the total number of nursing care hours provided, and other ancillary staff-to-patient ratios.

The ANA *process-of-care* indicators include two types of measures related to how care was delivered. The first focuses on how nurses perceive their roles (e.g. nurse satisfaction), and the second type focuses on the amount and quality of care that nurses in acute-care settings provided to patients. The second category includes eight measures: nurse satisfaction, assessment and implementation of patient care requirements, pain management, maintenance of skin integrity, patient education, discharge planning, assurance of patient safety and responsiveness to unplanned patient care needs.

The *outcome-of-care* indicators focus on how patients and their conditions are affected by their interaction with nursing staff. Examples include mortality rate, length of stay, adverse incidents, complications, patients and family satisfaction with nursing care, patient adherence to discharge plans. The indicators developed by the ANA are used in a number of acute-care facilities in the United States of America.

Nevertheless, Armstrong (2001) maintains that indicators are the tools for measuring whether the standards are being reached or not. This author emphasises that indicators have reference points against which value judgments can be made and that they do not give a direct measurement of quality, but are signals or guides with regard to the quality performance. Armstrong (2001) notes that if one indicator demonstrates a deficiency, it does not mean that the standard is not being met

but if the whole range or clusters of indicators for the standard are not met, it can then be assumed that the standard is not being met.

In addition, Kunaviktikul et al. (2005) conducted a study in Thailand where they refined nursing indicators of quality by developing operational definitions, validating them and then determining their applicability in a variety of clinical settings. The process included three phases. The first phase used focus groups to identify and define indicators of quality nursing care and the second phase tested these indicators in four settings to determine if data could be collected. Manuals were developed that defined the quality indicators and a scoring system was used in the assessment. In the third phase, the findings were presented to a group of experts and minor changes were made to the indicators. The indicators were then categorised into three groups: structure, process and outcome. The validated outcomes and manuals for their assessment and monitoring were sent to all hospitals in Thailand. Supporting outcome evaluation, Idavall et al. (1997) in their study reviewed the quality indicators in clinical settings and emphasized the need to assess the patients' viewpoint regarding nursing care as is evident in some of the studies mentioned above.

Marek et al. (1989) in support of the opinions of Idavall et al. (1997) maintain that because clients/patients are the focus, measurement should describe client's condition, responses or behaviour and not nursing activities. However, Donabedian (n.d. /2008) argues that an outcome is dependent on antecedent care - that is to say, the care given that is responsible for the outcome observed. Mant (1989) in support of Donabedian's view about outcome evaluations pointed out that an intrinsic advantage of process measurement or evaluation is that they are more sensitive than outcome measures to differences in the quality of care and that they are easy to interpret. If nursing activities are not taken into consideration during measurement as suggested by Idavall et al. (1997) & Mant (1989), this can affect the quality of care provided and consequently, positive clients'

outcomes such as clients' conditions, responses or behaviours can be affected.

Brook et al. (2000) advise that most of the quality indicators that can be used should be process-based as they infer that process assessments produce the harshest judgments of the quality of care and should, in general be used to assess quality. However, a consensus was reached when the authors agreed to the fact that process measures are only as good as the evidence that associates them with improved outcomes (Kunaviktikul et al. 2005; Uys & Naidoo, 2004 and Brook et al. 2000).

2.7. EVALUATIVE INSTRUMENTS/TOOLS: PROCESS AND OUTCOME TOOLS

Redfern (1993) proposes that if health care systems and nursing care are to be in a position to ensure a high quality of care, an attempt must be made to evaluate, or at least to assess its quality in some way, however crude the efforts may be.

Kunaviktikul et al. (2005), and Kozier and Erb (1987) reiterate that there are several established tools available for measuring the quality of care such as *structure tools, process tools, outcome tools and process-outcome tools*. **Structure tools** are quantitative measures that reflect the availability of resources such as physical, organisational, and other characteristics of the system (e.g. staff, education level, operational tools such as protocols, and the equipment of the department.) **Process tools** are tools which assess activities that constitute care, service and management. These determine to what extent the professional nurse has performed according to acceptable standards (i.e. what has been done in caring for the patients). Process tools assess nursing techniques and procedures, methods of delivery of care, methods of intervention, methods of patient/client/relative or carer education, methods of giving information, methods of documenting, how resources are used, and evaluation of the competence of nurses carrying out the

care. Process tools evaluate care from a nursing perspective. **Outcome tools** assess the patient's viewpoint regarding nursing care. They assess the effect of the care, (changes in the patient's condition following treatment) which are the results expected in order to achieve the standard in terms of behaviours, responses, level of knowledge and health status. These expected and desirable outcomes must be described in a specific and measurable form. The process-outcome tool is a combination of both the process and outcome tools.

It is pertinent to mention that within the international context, the NANDA, NIC, NOC and ANA are relevant organisations or systems intended for use by nurses in all settings to effectively measure continuity of care across settings (Cavendish, Lunney, Liuse & Richardson 2001). These organisations have put in place initiatives that emphasize nursing outcomes and performance measures. By measuring patient outcomes, nurses can ask two vital questions: Do our patients benefit from our care and if so, how? A focus on patient outcomes may help nurses survive an unstable job market, maintain and improve the quality of the care they provide. NOC uses a standard language and lets nurses compare outcomes across areas of practice; whilst JCAHO integrates use of outcomes and performance measures into accreditation process. It also provides information about reporting a complaint about a healthcare organisation, making healthcare choices and performance measurement. NANDA and NIC are efficient for describing nursing care process, as well as providing uniform nursing languages, standardized nursing organisation structures and process data, data repositories that can be used for nursing effectiveness and quality studies (Maas & Delaney 2004).

Kozier and Erb (1987) however inform that the methods for using process tool vary to such a degree that some evaluate by retrospective audit of nursing records such as the nursing audit instrument by Phaneuf, (1974) and others by direct observations of the nurse or nurses providing

the care by peers or educated observers (concurrent audit). Examples are the **QUALPAC** instrument developed by Wandelt and Ager (1974) and the **MONITOR** by Goldstone Ball and Collier (1983) all of which are process tools. Some of these process tools investigate the quality of nursing care using entries in nursing records as the data source. Examples of these are the Rush Medicus Nursing Process Methodology, District Nursing Monitor (136) and the Senior Monitor Instrument (21) which are adapted versions of the **MONITOR** (Voutilainen, Isola and Muurinen 2004). Other tools are rather developed in-house according to local values, beliefs and needs to evaluate quality of care (Harvey, 1992).

Sale (1990) critically appraised some of these established process tools reported to be in use and highlighted their advantages and disadvantages over each other in relation to their components, ease of use, reliability, validity and scoring systems. This author explains that the Phaneuf nursing audit tool, a 50-item instrument divided into 7 categorical functions, promotes a retrospective appraisal of the nursing process as reflected in the nursing records, and can be used in all areas of nursing. The seven functions are easily understood and the scoring system is fairly simple, however, the tool appraises the outcomes of the nursing process, and as such cannot be so useful in areas where the nursing process has not been fully implemented. Sale also added that the tool is time-consuming with many of its components overlapping thereby making analysis difficult.

Hegyvary and Haussman (1976) argue that the tool evaluates record-keeping and so serves to improve documentation and not nursing care; while Jelinek (1976) infers that nurses soon learnt how to document in a way that favourably influences the audit results, without necessarily changing the delivery of nursing. Although Sparrow and Robinson (1992) in their article “The use and limitations of the Phaneuf nursing audit tool” agree that it is easy to use and score, but they criticise the tool for its disease orientation rather than nursing/patient problem orientation. They argue

further that even though the scoring system is easy to follow and requires no complicated calculations, it appears not to have been developed in a logical manner. Sparrow and Robinson suggest that a 'does not apply' section be included for all of the items and that decisions of applicability be left to the judgment of the auditing nurse. Although no mention of tests of reliability and validity are made by Phaneuf (1976), other nurses addressed the issue (Ventura, 1980 and Wandelt, 1976).

In her critical appraisal of the common measurement tools, Sale (1990) advised that the Quality patient Care Scale (QUALPACS) with 68 items divided into 6 categories/functions uses a method of concurrent review that is designed to evaluate the process of care at the time it is being provided. It includes a review of the records, patient interview, and staff observation related to pre-determined criteria. Major advantages are its subjectivity to rigorous testing by researchers and the documented evidence of its reliability and discriminatory ability; as well as the provision of nurses with an evaluation of their own performance which can lead to a greater awareness and change in practice, and so improve patient care. Above all, the use of direct observations provides data that cannot be collected by other means.

However, QUALPACS is not without its weaknesses. Sale (1990) argues that the content represents American values, and that it requires highly skilled and trained observers to use. It is also time-consuming and its scoring system has been criticised again as time-consuming with quite complicated calculations (Sparrow and Robinson, 1992 and Sale 1990). Archibong (1999) evaluated the impact of primary nursing practice (NMPN) on the quality of nursing care using the QUALPACS instrument for measuring quality of nursing care for the first time in Nigeria. In her study she presented a comparative evaluation of the impact of primary nursing on the quality of care received by patients in a 37-bed acute medical surgical, mixed-sex ward in a specialist hospital

in the Eastern part of Nigeria. A total of 44 nurses' interactions with 10 patients in the pre-NMPN period and 58 nurses' interactions with 8 patients in the post-NMPN period were assessed using the Quality Patient Care Scale (QUALPACS). The results showed a significant improvement in the quality of nursing care with primary nursing practice.

The greatest improvements in quality appeared to be in the elements that addressed the individual needs of the patients while the smallest improvements were in the area of physical care - elements of routine technical nursing care. Archibong (1999) expressed as a concern and a limitation the fact that the use of QUALPACS tool in a setting different from that where it was originally designed, could have affected the results. She questioned the use and credibility of the scale to evaluate quality of nursing care in Nigeria without a revision of the items therein. This supported the observation of Sale (1996) who identifies as a disadvantage the contents of the scale as being a representation of American Values which could pose some difficulties if used in other settings. In concluding her study, Archibong (1999) advised that further studies be encouraged to develop new nursing quality assessment tools or to modify already existing tools to suit other cultural settings like Nigeria. There is no record of QUALPAC having been translated into practice in any part of the country at present.

Shiou-Hua Wu et al. (2006), Toms (1992), Harvey (1991) and Mciza (1989) reported the MONITOR and its various adapted versions to be the most widely used evaluation tool for nursing care quality. The MONITOR is an anglicised version adapted from the Rush Medicus Methodology. The Rush Medicus tool, as it is sometimes referred to, (Pullan & Chittock, 1986) objectively assesses various aspects of patient care by asking patients questions, asking nurses questions about their patients; examining nursing records to determine whether patient care has been recorded as given, (like QUALPACS) and investigating the facilities and management

patterns in the wards. MONITOR is based on a master list of 455 questions about patient care, with only 80-150 items directed at the care of any one patient, grouped into 4 categories or functions. Sale (1990) reveals that using the tool involves the systematic collection of information related to the clinical area including documenting systems, management systems, the environment, delivery of care and outcomes. The tool also gives an indication of patient satisfaction and measures the effectiveness of the nursing process.

Like the QUALPACS instrument, MONITOR requires a team of trained observers to apply the monitor instrument on the wards, and this has resource and cost implications for service; but Hunt (1987) and Mciza (1989) advise that the training for the use of the MONITOR has to be adapted to suit the setting. Other disadvantages of the MONITOR are that it requires the purchase of several copies of the document to be able to use it; and wards that have not implemented the nursing process and are more task-oriented, will probably obtain low scores, although the author disagrees with that. However, having identified various evaluative measures and highlighting their strengths and weaknesses as revealed by various studies, Harvey (1991) avers that the process of implementing a quality improvement tool is more important than the tool itself. The writer argues that the aforementioned process tools namely NURSING AUDIT, QUALPACS, RUSH-MEDICUS INDEX, and MONITOR, are traditional methods which broadly evaluate quality, and have assessments often conducted by external assessors. This made the practitioners' role reactive instead of proactive, because the implementation approach was that of 'top-bottom' (i.e. the system was controlled by managers) instead of 'bottom-up' where the standards and criteria were generated by the practitioners. Findings from her study suggest that the 'bottom-up' approach which is dynamic, and is characterised by the close involvement and participation of practitioners in a quality improvement cycle of describing, monitoring and evaluating nursing care is a key factor influencing the outcomes of the CQI programs. Harvey (1991) stresses that the 'bottom-up'

approach devolves ownership and control to practitioners, and is seen to result in the most positive outcomes for nursing staff.

In a way, Kitson (1986) suggests that quality of care is not seen merely as the carrying out of a set of pre-planned activities, it is viewed rather as a way of perceiving or thinking about the services rendered to another person, the emphasis being on the nurse's awareness of his/her therapeutic contribution in each interaction. While implementing Kitson's newly developed instrument called the THERAPEUTIC NURSING FUNCTION (TNF) matrix to measure the quality of care patients were receiving in the geriatric wards, Kitson's (1986) study demonstrated that, whilst ward improvements were greatly welcomed, they did not automatically ensure better nursing care.

Kitson (1986) revealed that nurses who had little understanding of their therapeutic function performed tasks as poorly in well equipped wards as non-therapeutic staff in poor facility wards. This author therefore infers that ensuring quality cannot be imposed from without; and concludes that a perception of quality of care has to be nurtured and developed during the course of the nurse's professional education, where she (the nurse) is made aware of the therapeutic or positive contributions she can make to patient care.

2.8. CONCEPTUAL FRAMEWORK

There are a variety of conceptual models of quality improvement that have been published and can be applied to this study such as the Shewhart PDSA Model of Quality Improvement (1925) in Neuhauser (2006); the FADE Model of Quality Improvement (2005) by the Department of Community and Family Medicine, Duke University Medical Centre; the CQI/TQM model of quality (Fox, 1995); the Sale (1996) model of quality assurance; Norma Lang's model adapted by

the American Nurses Association and modified by Vail in 1986 with eight steps; and the Donabedian Tripartite Model of Quality. Although a quality assurance model by Sale (1996) for use by the ward sister or the charge nurse or professional nurses in their clinical areas may have suited the study, it was however not adopted, because it covers all aspects of evaluation, while the current study focuses on process evaluation. The FADE model of quality improvement (2005), on the other hand, is a more recent process model and has been applied or put to use in a university hospital setting (Duke Medical Centre) and the content therein best suits this study.

The FADE model of quality improvement is a never-ending process, very reflective of the ‘continuous journey’ characteristics of CQI (Kapurlian, 2005). For this reason, the FADE (2005) quality improvement model in figure 2.2 below formed the foundation on which this study based itself. This framework was used to serve as a protocol to ensure that relevant concepts were addressed, thus contributing to the reliability of the study. Using this framework helped to minimise errors and biases that were likely to occur in the study, and to serve as a spring-board for generating research questions (Polit & Beck 2006).

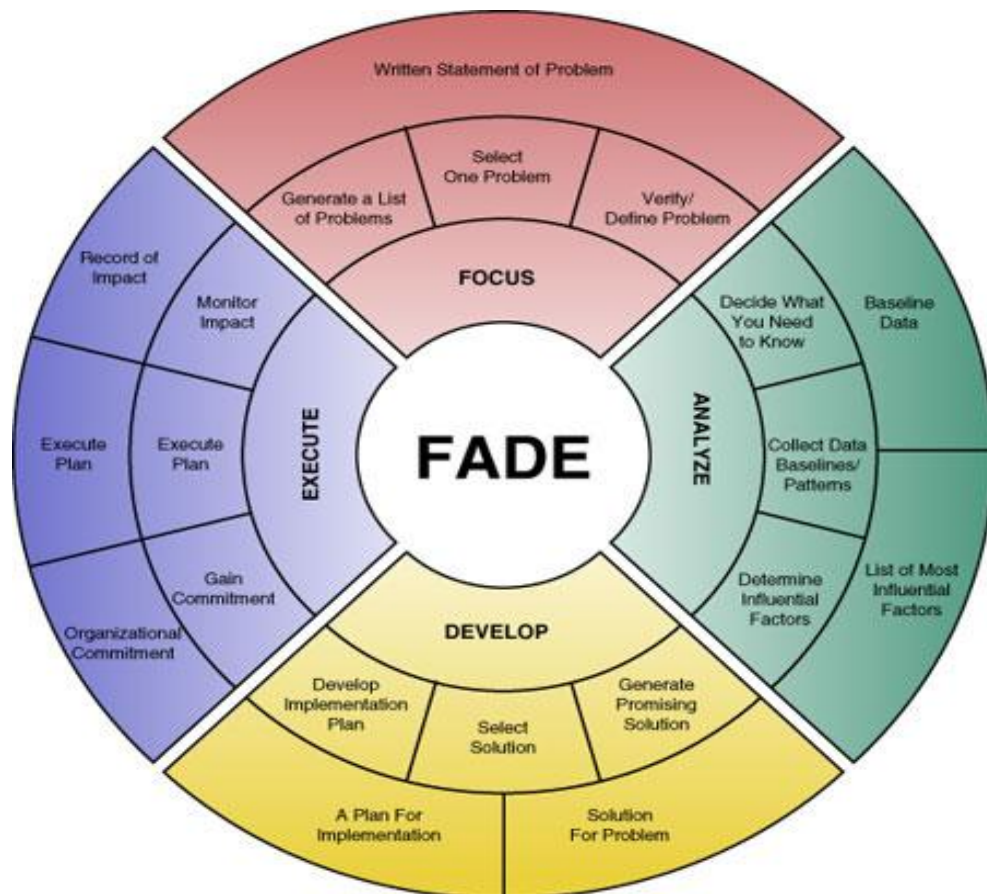


Figure 2.2: FADE Quality Improvement Model (2005).

Figure 2.2 retrieved from:

http://patientsafetyed.duhs.duke.edu/module_a/introduction/introduction.html

This is a quality improvement model used in a hospital setting. There are four broad steps to the FADE quality improvement model developed by the Department of Community and Family Medicine, Duke University Medical Centre. These steps include the following:

Step One: **Focus:** This involves defining and verifying the process to be improved, or selecting one problem or generating a list of problems.

Step two: **Analyse:** In this step, data is collected and analysed to establish a baseline, identify the root causes of the problem, and point toward possible solutions. Verification of results obtained and further investigation is a key element of this step.

Step Three: **Develop:** This step involves addressing the problem and developing a new system. Based on the data, *action plans* are developed for improvement, including implementation, communication, measuring and monitoring. Implementation plans are developed, or promising solutions are generated.

Step Four: **Execute:** Involves implementing or executing the newly developed system. Actions are implemented on a pilot basis as indicated and subsequently, **Evaluate** an ongoing measuring/monitoring (process control) system is installed to ensure success.

In the context of this study, the researcher used the first two circles from the centre outwards to describe the course of the study. During the first step which is the **focus stage**, the researcher aroused or rather **raised the consciences** of the participants and *generated a list of problems* or assumptions as identified in the background to study and from relevant literature. These problems included:

1. CQI was not seen to be a part of everyday routine as maintained by Campbell et al. (2003).
2. Evaluation of nursing care processes which should be systematic and ongoing was not obvious. Evaluation of nursing care is a pragmatic way of ascertaining whether or not the nurse practitioner's work is good (Bloch, 1995).
3. Accountability on the part of the professional nurse to judge whether the quality of care and/or services is appropriate as argued by Esterhuizen (2006) was also not visible.
4. In addition, problems of staff issues and practice guidelines such as operational tools were visible, and these could serve as barriers to CQI activities as maintained by Meehan et al. (2009).
5. There was also no evidence of availability of quality care indicators to ensure accountability and improve quality of nursing care, despite suggested literature (Campbell et al. 2003).
6. A structured, well-planned, established nursing audit and in-service education/continuing

education units to promote CQI were also not apparent in spite of suggested literature (Ellis and Hartley 2000).

However, having generated this list of problems, the researcher *gained the commitment of the management* of the individual hospitals from the outset as also supported by Fox (1995) to allow the study to be carried out in their health facilities. Whilst this aspect of the FADE model of quality improvement (i.e. gain commitment) was expected to be done under the execute stage, the researcher is of the view that as part of the prerequisite for CQI as identified by Fox (1995), obtaining permission and commitment from the appropriate quarters at the outset was correct. The researcher *collected baseline data on structure, process and outcomes standards* from the participants, as well as ascertained the actual situation existing in these hospitals in terms of CQI mechanisms.

In the **analyse stage** of the FADE model (2005), the participants and the researcher decided *on what they needed to know (Gap analysis)* consequent to identifying gaps from the baseline data such as those itemised above under the list of generated problems. Having decided on what they (the team) needed to know, the researcher, in collaboration with the participants *prioritised* the list of problems and *selected one of the problems*. The team chose to analyse various established, acceptable, off-the-shelf, and standardised tools for nursing care measurement, and subsequently adapted one of these instruments. However, the researcher and the participants were not ignorant of *influential factors* that could positively or negatively affect the decision to develop the quality care indicators for nursing care measurement such as resources, resistance to change, and the use and/or involvement of nurse managers who devolve ownership and control and become proactive when a 'bottom-up' approach is used as suggested by Harvey (1991).

In the **develop stage** of the FADE model, the researcher and participants *generated a promising solution* by agreeing to adapt, rather than to develop a new evaluative measurement tool identified in the list of generated problems (Campbell et al. 2003; Archibong, 1999; Kozier and Erb, 1987). The team *selected as a solution*, the analysis and adaptation of the MONITOR instrument which is an anglicised, established, acceptable and standardised process tool or instrument. The choice to develop process tools and not structure and/or outcome tools was because the team (the participants and researcher) claimed to have more control over the process criteria as far as nursing care was concerned in their respective hospitals than over any of the other problems listed.

As part of *developing an implementation plan* which is in the third step of the FADE model for quality improvement, the participants and researcher had an in-depth review of the MONITOR in relation to their practices. The aspects of nursing care contained in the MONITOR that are similar to this process in their own respective settings were accepted, and those nursing care activities that were not aligned with their own kind of practice were rejected. In addition, those nursing activities that were listed in the MONITOR and are standard practice; but were not carried out by the nurses were noted, and the participants accepted responsibility for such negligence and promised to work on such deficiencies to promote quality care. Consequently, the MONITOR was finally adapted.

The last stage of the FADE model of quality improvement (2005) is the **execute/evaluate stage**. The participants and researcher, having obtained permission and gained the commitment of their respective management at the outset, *executed the plan* by testing the applicability/suitability of the newly developed nursing care measurement instrument. The new instrument was tested for applicability in two acute-care wards in three of the five participating hospitals in SW Nigeria.

Conclusively, the last step within the **execute** stage was to *monitor impact* of implementation, but this was not carried out within the context of this study because of time constraints. However, the outcomes were monitored by *evaluating* the newly adapted instrument for its measurability, feasibility, achievability, time-frame and relevance to settings as suggested by Campbell et al. (2003).

It is important to mention that whilst this study has a conceptual framework, the *methodological outline* has been integrated and is detailed in chapter three to include the *cycles of action research* which are **planning, action, reflection and evaluation** (Streubert and Carpenter, 2006). Nonetheless, presentation of findings in chapter four were discussed according to the integrated conceptual/ methodologic (action research cycles) framework and so were discussions of findings in chapter five.

CHAPTER THREE

3.1. RESEARCH METHODOLOGY

Introduction to Chapter

Chapter Three presents the design employed in the study, namely **Action research** with mixed-method-sequential explanatory incorporated. The study was conducted in **five cycles** namely the **focus and conscience-raising cycle** which included survey (diagnostic), recruitment of and collaboration with research team, **analyse/planning cycle** in which promising solutions were generated and subsequently one solution was selected, the **develop/execute/action cycle** which included the adaptation of an existing, established, standardized and acceptable nursing care measure as well as testing of the new nursing- care tool for applicability. The fourth cycle was the **reflection** which included reflections on the applicability of the newly adapted tool **and lastly evaluative cycle** which evaluated implementation/testing outcomes, the efficacy and relevance of the tool.

3.2. PHILOSOPHICAL UNDERPINNINGS AND JUSTIFICATION FOR ACTION RESEARCH (AR)

Action research is a form of social research which has been in use since the Second World War in which the researcher learns about certain group processes by actively participating in, or manipulating certain aspects of these groups or change processes (Huizer, 1997). This author avers that certain tenets must be considered when putting action research in place. An awareness of one's own limitations as a researcher, a sense of insecurity and one's relative ignorance compared with other people involved are requirements for this type of research. One needs to be conscious of oneself as working with certain values which differ considerably from those of the other people. Again, one needs to accept one's relative ignorance, and then try to learn from the people concerned

through empathy and friendship what their problems, needs and feelings are. Lastly, having acquired sufficient knowledge and understanding of local problems, and having engaged in further dialogue with these people, particularly through discussions in small groups, all search together for a possible solution.

Kurt Lewin (1958) in (Huizer, 1997) often described as the inventor of the term “action research” and ‘father of action research’ once said that, if you wanted to know how things really were, just try to change them. This author was concerned with social problems, focused on participative group processes for addressing conflicts, crisis and change within organizations. Kurt Lewin (1958) viewed action research as an externally-initiated intervention designed to benefit a client group, and this underpins the purpose of this study (which in this study was the need to appraise quality improvement processes and develop instruments/tools for measuring quality of nursing care in the selected teaching hospitals in SW Nigeria) **initiated by the researcher.**

O’Brien (2001) in describing the **basic characteristics of action research** simply explains that people identify a problem, do something to resolve it, see how successful their efforts are and, when not satisfied, try again. Action research differs from other kinds of research. O’Brien (2001) informs that action research focuses primarily on turning people involved into researchers too. People learn best and more willingly apply what they have learnt when they do it themselves. O’Brien (2001) asserts that action research is a kind of learning by doing. Action research is used in real situations, when circumstances require flexibility, the involvement of people in the research or when change must take place quickly or holistically. O’Brien (2001) informs that those who apply the action research approach are practitioners who wish to improve understanding of their practice. However, this writer adds that action research is committed in action to change a system by collaborating with members of the system to change it in a desirable direction. There is active

collaboration of researcher and participants, resulting in co-learning as a primary aspect. The researcher studies the problem and ensures that the intervention is informed by theoretical considerations. The research team collects, analyses, and presents data in an ongoing cyclical manner.

Winter (1996) identifies six **principles** that **guide action research**. These include reflexive critique, dialectical critique, collaborative resource, risk, plural structure and the theory/practice transformation. This study applies four of these principles of **reflexive critique** which implies that the situation is factual and true, and ensures that people reflect on issues and process and then make clear (explicit) interpretations, assumptions and concerns upon which judgements are based. In this study, participants and the researcher explored and reflected on the issues of quality improvement and availability of tools, if any, for measuring the quality of nursing care, and then clearly expressed their concerns and the assumptions on which judgements were made. **Collaborative Resource** explains that participants in action research project are co-researchers, and therefore each person's ideas are equally significant as potential resources for making interpretations.

Risk means that there is risk to the ego of the participants in action research arising from open discussion of their interpretations, ideas or judgment. The researcher had to apply this **principle of risk** and allayed the fears of the participants, encouraging them and observing that the researcher herself was also subject to the same process, and that, no matter the outcomes, learning should take place. The **theory/practice transformation principle** applied in the sense that theory and practice are intertwined aspects of the change process. They both complement one another. Theory informs practice and practice refines theory in a continuous transformation. The theory of **John Heron and Peter Reason's cooperative enquiry** provided the basis for the choice of research methodology.

Amongst other major theories of action research such as Chris Argyris's Action Science; Paulo Friere's PAR; William Tobert's developmental action inquiry; Jack Whithead and Jean Mc Niff's living theory approach, the **collaborative inquiry** as it is also known was applied. The theory supported researching "with" rather than "on" people. It emphasises that all active participants are fully involved in research decisions as co-researchers. Cooperative inquiry created a research cycle amongst four different types of knowledge: **Propositional knowing** (as in contemporary science), **practical knowing** (the knowledge that comes with actually doing what you propose), **experiential knowing** (the feedback expected in real time about our interactions with the larger world), and **presentational knowing** (the artistic rehearsal process through which we craft our new practices). The research process reiterated these four stages at each cycle with deepening experience and knowledge.

The study involved acting upon the conditions faced by the nurse managers in the selected teaching hospitals in SW Nigeria in order to change them for the better. This provided an explanation for the **paradigm of praxis** to which this study belongs. This paradigm purports that action research lies not in the positivist or interpretive paradigms, but in the praxis which is involved with the art of acting upon the conditions one faces in order to change them. It deals with the activities predominant in the political lives of people. The participating nurse managers in these hospitals were empowered during this process to promote positive changes in the quality of care provided to their patients, as they carried out some activities of developing measurement instrument/tools where needed. Participation is empowerment and empowerment is politics (Chambers, 1994).

O'Brien (2001) identifies four **current types of action research** which include traditional action research, contextual action research, radical action research and educational action research. This writer informs that **traditional action research** stems from Kurt Lewin's work with organisations

and it applies in the areas of organisational development, information systems and quality of working life. The traditional approach tends towards the conservative, generally maintaining the *status quo* with regards to organisational power structures. **Radical action research** has a strong focus on emancipation and overcoming power imbalances. It is often found in liberationist movements, international development circles and feminist movements where the need for transformation through an advocacy process is required to strengthen peripheral groups in the society.

O'Brien (2001) infers that **educational action research** has its foundation in the writings of John Dewey (the Great American Philosopher, 1920-30) who believed that professional educators become involved in community problem-solving. This explains why practitioners of this type of action research operate outside their educational institutions, focus on curriculum development, professional development and applied learning in a social context. This study embraces the **contextual action research typology** (Action Learning) because it entails bringing together relations among members in a social environment (i.e. nurse managers within the selected hospital milieu). It involved all of them as affected parties and stakeholders and holistically, each participant understood the working of the whole, as they acted as project designers and co-researchers.

Action research accommodates several **methodologies** of which Creswell (2003) refers to as mixed methods. The study utilised a mixed data collection approach which was quantitative and qualitative. The mixed method approach evolves from psychology, and in the multi-trait-multi method matrix of Campbell and Fiske (1995) in Creswell (2003), with an aim of converging or triangulating different quantitative and qualitative data sources. The researcher employed a mixed method design to expand an understanding from one method to another; as well as to confirm findings from different data sources. In this study, mixed research designs were used to complement

each other so as to produce stronger, potentially valid and reliable findings/results. A survey was firstly carried out, consequent to collecting quantitative data followed by qualitative data. Criteria for choosing the strategy includes the *implementation* which means that the researcher collected both quantitative and qualitative data in phases (sequentially) with quantitative data coming first. *Equal Priority*/weight was given to both quantitative and qualitative data with no bias towards any particular one. Information from both was emphasised because findings from one led to the other.

Implicitly, if appraisal of quality improvement mechanisms was not done and problems not identified, the research team would not have proceeded to the next cycle which involved developing quality care measurement indicators. Developing the quality nursing care indicators was an important task to achieve; or else the nurses in these participating hospitals would remain in or maintain their *status quo* of not having tools for measuring the quality of nursing care. The two types of data were mixed or *integrated* at the stage of data collection and interpretation of findings. The dataset mixed at the data collection cycle (survey) where the instrument for data collection combined both closed-ended questions with open-ended questions. Furthermore, a *sequential-explanatory* design of the mixed method approach referred to as “*Quan-Qual*” was used. This method derived its support from Creswell (2003), where the author identifies **implementation, priority, integration and theoretical perspectives** as criteria for choosing a strategy.

Creswell (2003) further explains that the sequential-explanatory is the most straightforward of the six major mixed method approaches, and that this is its main strength. This is because the sequential-explanatory is characterised by the collection and analyses of quantitative data, followed by the collection and analyses of qualitative data. Creswell (2003) however, explains that the priority is typically given to the quantitative, and that the two methods are integrated during the interpretation phase of the study. This author reminds researchers that the steps in this strategy may

or may not have a specific theoretical perspective, and that the purpose of the sequential-explanatory design is to use the qualitative results to assist in explaining and interpreting the findings of a primarily quantitative study. Several **action research data collection techniques** and/or tools are listed by O'Brien (2001) are as follows:

- ❖ Document collection and analysis,
- ❖ Participant Observation Recordings,
- ❖ Structured and Unstructured interviews,
- ❖ Case studies, and lastly,
- ❖ Surveys and questionnaires. This study used the **survey methods** which included the questionnaires, **unstructured interview** and the **structured interview** which included the focus group discussion.

The **role of action research** is to promote the action research methods in such a manner as to produce mutually agreeable outcomes by all participants, after which they maintain the process. The researcher encouraged the nurse managers to the point where they took responsibility for the process. Having understood the methods, they were able to carry on when the researcher left. In this study, the researcher played different roles at different stages of the process, roles such as that of **planner, teacher, facilitator, listener, observer** amongst several roles identified by O'Brien (2001). The researcher in collaboration with the research team planned the activities that took place during the focus group sessions. Whilst playing the *teacher role*, an update in the form of a tutorial was given by the researcher whereby different literature on quality improvement and measurement tools were reviewed. The research assistant facilitated the focus group discussion sessions; whilst researcher **listened** to their discussions and **observed** their interactions during the adaptation cycle and then reported findings/outcomes from all sessions. However, **no ethical issues** arose during the process.

Winter (1996) in O'Brien (2001) emphasises **ethical considerations for action research**. This writer asserts that the researcher should pay close attention to ethical implications during her work because of the close communication among the people (i.e. nurse managers), as this is research carried out in a real world. In this study, the researcher ensured the following:

- ❖ That the relevant authorities were consulted, and that the principles guiding the work were accepted in advance by all.
- ❖ That all participants were allowed to influence the work, and that the wishes of those who did not desire to participate were respected.
- ❖ That the development of work remained visible and open to suggestions from others.
- ❖ That permission was obtained before making observations or examining documents produced for other purposes.
- ❖ That the description of other work and other points of view was negotiated with those concerned before being published.
- ❖ That responsibility for maintaining confidentiality was accepted.
- ❖ That there was equal access to information generated by the process for all participants.
- ❖ That decision made about the direction of the research and probable outcomes were collective.

That the researcher was explicit about the nature of the research process from the beginning including all personal biases and interests. There were no **ethical implications** associated with the action research design. There were also **no socio-cultural issues** such as language, religion, belief system that impacted on the action research process as would be expected. Even though Nigeria is a multi-lingual nation with religious sentiments, these did not get in the way of the research process. The lingual-franca of Nigeria is English Language and the setting was in the Southern part of the country where English Language was commonly spoken and the majority were Christians.

The action research method uses a cyclic process as revealed by Dick, (2002). The cyclic process, as defined by Inger (1992), is a flexible spiral process that permits change, improvement and understanding/knowledge to be achieved at the same time, and is participatory in nature, because the participants go through the process as mentioned during the cycles. ***Action research encourages empowerment, enhances workplace-learning and permits nurse managers to identify issues and make changes to achieve best practices.*** This approach acknowledges co-responsibility for the outcomes of actions. The researcher and participants took responsibility for the unfolding future. Action research being a dynamic social process, permits the exploration of the relationships between the individual participants and their social environment; and as clarity emerged, so the participants acted and changed. As they acted and changed, so relationships changed and new variables came into play. Action research provided a clear cut direction with no end-point. In justification of the use of this approach, action research has an emancipatory role. It releases the participants from the constraints of irrational, unproductive, unjust and unsatisfying social structures that limit their self-development and determination. ***Action research helps them to investigate reality in order to change it.***

Action research is transformatory; and is intent on transforming some aspects of nursing practice in the five selected teaching hospitals selected for the study in SW Nigeria. Oettle and Law (2005) identify learning as fundamental to action research in which process both the participants and researcher were intimately engaged. Oettle and Law (2005) regard the following as elements of the learning cycle:

- ❖ Reflecting on the current situation
- ❖ Planning a change to improve the situation
- ❖ Acting and observing the process and consequences of the change
- ❖ Reflecting and re-planning the same, or another process of change

These writers further explain that the learning cycle has a number of planning, acting and reflecting reiterations. As each reflection yields new information, the group's understanding of their situation deepens, and the group's sense of empowerment and control over their future emerges.

3.3. SETTING

The setting of the study was in the clinical nursing divisions of the five teaching hospitals in five states in South-West Nigeria. For ethical reasons, *fictitious names (pseudonyms)* were used to represent these hospitals. They included:

- ❖ Diamond University, Teaching Hospital Complex, Ile-Ife, Osun State
- ❖ Gold University Teaching Hospital Sagamu, Ogun State
- ❖ Pearl University, Teaching hospital Ilorin, Kwara state
- ❖ Ruby Teaching Hospital, Benin City, Edo state
- ❖ Platinum Medical Centre, Asaba, Delta State (Recently upgraded to a teaching hospital status). *Refer Map of SW Nigeria in figure 3.1* on the following page.

These teaching hospitals were chosen for two reasons; firstly because they were seen as models for providing quality care services worthy of emulation, and secondly, because they were accessible to the researcher. Participation of nursing staff from these hospitals provided in-depth information for teamwork. The researcher decided to use the tertiary health care hospitals first, with the intention of extending the study to the secondary healthcare hospitals in the future; depending on the findings of this study.

These hospitals offered tertiary health care services with specialty areas in Medicine, Surgery, Perioperative, Oncology, Psychiatry, Orthopaedic, Ophthalmology, Intensive Care services,

Paediatrics, Obstetrics and Gynaecology, Family medicine, Oto-rhino-laryngology (ENT), Physiotherapy services, and Occupational Health services. These hospitals had an average bed capacity ranging from 200-600; and 50-200 cot beds for children (*Refer Table 3.1*). The total number of nurses in these hospitals ranged from 190-500 between the ages of 22-60 years. Twenty-four hour services were offered by these hospitals.

It is important to mention, however, that three states within the SW Nigeria namely Lagos, Ekiti, and Ondo were not included in the study. Although Lagos state has an established teaching hospital, it was not easily accessible in terms of logistics. Ekiti and Ondo states do not have teaching hospitals as yet.

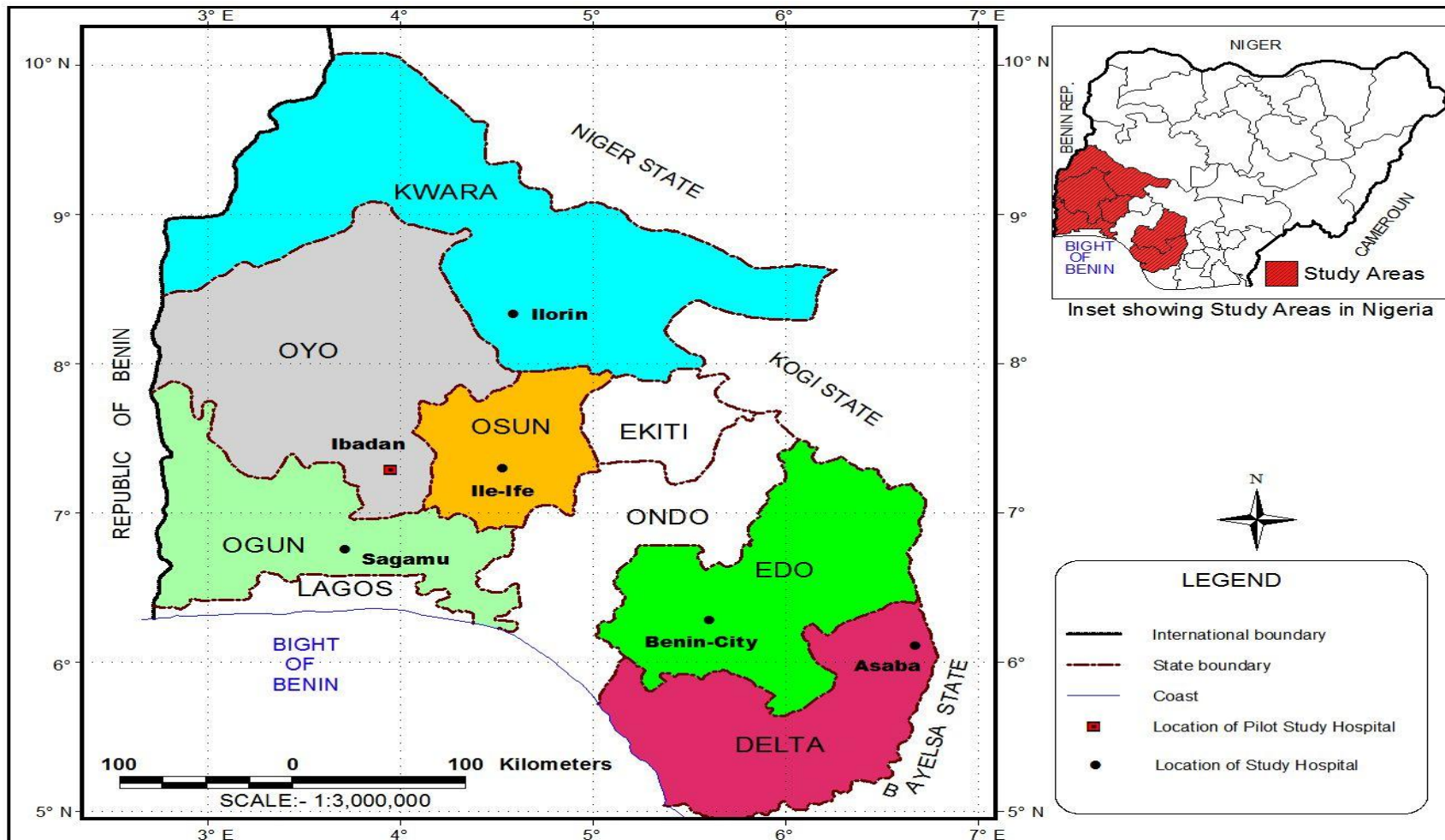


Figure 3.1: Map of South-Western Nigeria showing the Study Locations.

3.4. POPULATION

All registered nurse managers working in all teaching hospitals in SW Nigeria constituted the population. However, 20% sample of the 982 nurse managers which constituted 196 nurse managers were drawn from the nursing population identified. The nurse managers were chosen because this level of nurses were responsible for implementing nursing care services and served as supervisors and mentors to the lower level nurses. A major strength in this study is certainly the involvement of nurses and managers in establishing CQI processes which will provide for more sustainability.

The nurse managers include assistant director of nursing (ADN), chief nursing officers (CNOs), assistant chief nursing officers (ACNOs), principal nursing officers (PNOs), and senior nursing officers (SNO) in a descending order. Population included all registered nurses in permanent employment in the five selected teaching hospitals, SW Nigeria. It is essential to mention that non-professional nurses are non-existent in the government hospitals in Nigeria. Nonetheless, **auxiliary nurses** (as they are often referred to) number is **negligible**, is not included in the register of the Nursing & Midwifery Council of Nigeria. However, auxiliary nurses are only found in the private practice hospital settings.

Table 3.1: VITAL STATISTICS FOR SELECTED TEACHING HOSPITALS IN SW NIGERIA.

Names of Hospitals	Adult Bed Complements	Number of Paediatric Beds	Bed-Occupancy Rates (%)	Total number of Nurses	Number of Male Nurses	Number of Female Nurses	Nursing Staff Statistics (RNs)	Clinical Specialties
DUTHC Ile-ife Osun State.	597	184	97%	592	97	495	DDN-1 ADN-73 CNO-211 PNO-66 SNO-31 NO1-31 NO2-138	<ul style="list-style-type: none"> • Medicine • Surgery • Psychiatry • Orthopaedics • Paediatrics • Obs & Gyn • Family Med • ENT • ICU • Oncology
GUTH Sagamu, Ogun State.	265	58	59.70%	236	9	227	DDN-0 ADN-1 CNO-33 ACNO-67 PNO-50 SNO-20 NO1-37 NO2-38	<ul style="list-style-type: none"> • Medicine • Surgery • Psychiatry • Orthopaedics • Paediatrics • Obs & Gyn • Family Med • ENT • ICU • Oncology
PUTH Ilorin, Kwara State.	234	102	84.3%	516	20	496	DDN-0 ADN-1 CNO-20 ACNO-67 PNO-114 SNO-82 NO1-110 NO2-122	<ul style="list-style-type: none"> • Medicine • Surgery • Psychiatry • Orthopedics • Paediatrics • Obs & Gyn • Family Med • ENT • ICU • Oncology
RUTH Benin-City, Edo State.	517	128	78.02%	506	20	486	DDN-0 ADN-1 CNO-77 ACNO-79 PNO-79 SNO-39	<ul style="list-style-type: none"> • Medicine • Surgery • Psychiatry • Orthopaedics • Paediatrics • Obs & Gyn • Family Med

Names of Hospitals	Adult Bed Complements	Number of Paediatric Beds	Bed-Occupancy Rates (%)	Total number of Nurses	Number of Male Nurses	Number of Female Nurses	Nursing Staff Statistics (RNs)	Clinical Specialties
							NO1-66 NO2-165	<ul style="list-style-type: none"> • ENT • ICU • Oncology
PMC Asaba, Delta State.	164	28	62%	190	18	172	DDN-0 ADN-1 CNO-12 ACNO-7 PNO-27 SNO-8 NO1-71 NO2-64	<ul style="list-style-type: none"> • Medicine • Surgery • Psychiatry • Orthopaedics • Paediatrics • Obs & Gyn • Family Med • ENT • ICU • Oncology

Key: Highlighted categories of nursing staff or categories printed in bold are participants and team members in the study.

3.5. SAMPLE SIZE

The sample size (**SS**) was calculated by applying the standard sample size calculating formula as illustrated in Katzenellenbogen, Joubert and Karim (2001):

Where:

Z = Z value (1.96 for 95% confidence level)

P = Percentage picking a choice, expressed as decimal (here we use .5 for 50%)

C = Confidence interval, expressed as decimal (here we use 0 .0627 for ± 6.27).

Substituting the value in the equation above, the following sample size was obtained:

$$SS = \frac{1.96^2 * 0.5 * (1 - 0.5)}{0.0627^2}$$
$$= 244.$$

However the above sample size applied for an infinite population. With respect to the fact that the target population (**982**) was finite, i.e. less than 50,000, the researcher proceeded by adjusting the above sample size (244) using the finite population adjustment model given by:

$$New_SS = \frac{SS}{\left(1 + \left(\frac{SS-1}{Population}\right)\right)}$$

Substituting in equation 3, the researcher obtained the new sample size as follows:

$$New_SS = \frac{244}{\left(1 + \left(\frac{244-1}{982}\right)\right)}$$
$$= 196.$$

Therefore, the valid sample size was 196. It is noteworthy that the number of nurse managers in the various institutions was not equal as shown in Table 3.2 below of the population distribution of nurse managers.

3.6. SAMPLE SELECTION METHOD

Simple **random sampling** was used to select the participants for the first cycle. This form of sampling worked on the principle that every member of the chosen population had just as much chance of being selected as another member of the same population.

A list of nurse managers (from the positions of SNOs–ADNs in ascending order) working in these selected teaching hospitals in SW Nigeria was acquired and a **sampling frame** was drawn up. The submitted list of nurse managers working in these hospitals constituted the sampling frame. Numbers were assigned to each nurse of the population and on the random sample table, the researcher drew a column with numbers and these were matched with those on the sampling frame.

This sampling approach was supported by Barbie & Mouton (2001) who expressed that studies of organisations were often the simplest from a sampling standpoint, because organisations typically had membership lists. In this instance, the list therefore constituted an excellent sampling frame. When samples were selected randomly from a membership list, they formed a representation of all members included on the list.

Table 3.2: Population Distribution of Nurse Managers in the five Selected Hospitals.

DUTHC	PUTH	RUTH	PMC,ASB	GUTH	Total
350	201	235	46	150	982

Akinsola (2005) explains that each stratum of the study population should be proportionally represented in the sample, and thus a proportional quota sampling strategy of using a 10 to 20%

sample size is suggested. Therefore to account for a fair and proportional representation of the sample in this study, 20% of the total number of nurse managers in each hospital was selected as supported by Akinsola (2005). A graphic representation of the equitable distribution of nurse managers in the five selected hospitals is shown in Figure 3.2 below.

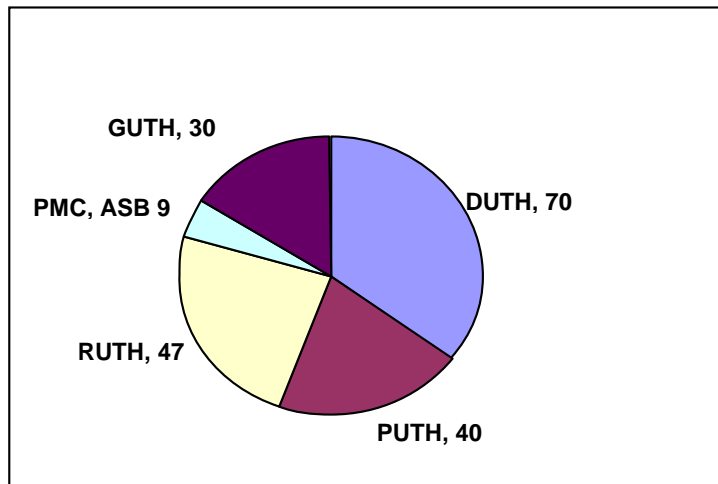


Figure 3.2: Proportional Number of Nurse Managers for each Hospital obtained by 20% of the total number.

3.7. DATA COLLECTION PROCEDURE

Action research was applied all through the five cycles. Data was collected by the researcher in five teaching hospitals in five states in SW Nigeria. Data was collected in all the cycles of the study using the questionnaires, checklist and field notes. Data was structured in such a way as to provide information and answers to the research questions posed. The survey approach was used in cycle one to obtain data on general knowledge and perceptions of the participants on CQI. A checklist was used in the first cycle to assess the content of instruments, where available. This was to see whether the instruments, if any, in use in these participating hospitals were standardised, and whether they measured what they should measure. Data was collected from the nurse managers at

different cadres in the first cycle.

In the second cycle, an unstructured interview was conducted with a maximum of six nurse managers from each of the five participating hospitals, in the higher subcategories of PNOs, ACNOs and CNOs only. In the third cycle, a topic guide or set of questions was used to obtain data as discussions about the tool/instrument development took place. Twenty-nine nurse managers who constituted the research team participated in this cycle. In the fourth cycle, field notes were used to obtain qualitative data and a total of seven nurses from three of the five participating hospitals participated. However, a post test questionnaire was used to evaluate the implementation/testing outcomes of the applicability and again, a total of seven nurses from three of the five participating hospitals participated in this fifth cycle.

The idea of mixing approaches as supported by Creswell (2003), Barbie and Mouton (2001) and Carnwell (1997) was referred to as “*within method triangulation*” which involved the use of different methods of collecting data within one general approach. The value of triangulation in data collection could not be over-emphasised, because it was a means of validating conclusions based on one perspective.

Triangulation also helped to uncover unique characteristics of the participants which the participants themselves were insufficiently aware of to reveal, and which would have been neglected should a single method have been used. In addition, Jick (1979) in addition refers to this as “*illumination of context*”, because a deeper dimension of the participants emerged and the researcher’s understanding was enriched. Triangulation also built on the strengths of the different methods and therefore neutralised the problems that could have occurred if a single method was used.

3.8. METHODOLOGICAL FRAMEWORK/OUTLINE OF ACTION RESEARCH PROCESS AS IT APPLIED TO THE STUDY

3.8.1. CYCLE ONE: FOCUS/CONSCIENCE-RAISING: Survey, Collaboration, Analysis, Verification/Attestation, Reflection and Focus on one problem.

A detailed data was generated about the situation as it existed before a change was implemented. The consciences of the participants were aroused to generate lists of problems and this was achieved by developing surveys of knowledge, perceptions, opinions and values about CQI in terms of structure, process and outcome standards in their respective hospitals. These served as a *baseline data* for the study. It is vital to indicate that establishment of quality was not the intention of this study but to establish what standards are used in place of structure, process and outcomes. Being in clinical practice settings, nurse managers which included professional nurses in the positions of senior, principal, assistant chief, chief nursing officers to assistant director of nursing cadres completed the first survey. A list of nurse managers (from SNOs –ADNs cadres) working in these selected teaching hospitals in SW Nigeria was acquired and a sampling frame was drawn up by assigning numbers to each nurse of the population and from the random sample table, the researcher chose a column and the numbers were matched with those on the sampling frame.

On completing the first survey to establish existing structure, process and outcome standards, the researcher constituted a research team to complete the second part of the survey on existing CQI mechanisms which include established nursing audit and continuing education units as well as existence of quality-care measurement tools (Ellis & Hartley, 2000; Campbell et al. 2003). Responses were required from this particular level of nurse managers who constituted the research team because they were in the best position to describe the exact situation of CQI mechanisms as it existed in their respective hospitals.

The research team comprising of selected participants from the first group of nurse managers who completed the first survey, were recruited to also serve as *collaborators* as the action research progressed. A list containing the names of nurse managers in different cadres was provided by the management of the respective hospitals and the participants were randomly (**systematic**) selected using the *nth selection technique* where every 4th name within the cadres of **PNO, ACNO and CNO** only were selected to participate in the study.

The participants (totalling twenty-nine from all five participating hospitals) in these cadres were selected because they were middle-level nurse managers at the supervisory level with vested interest in issues of quality improvement. These nurse managers also served as mentors to the nurses in the lower cadres. The positions of the principal, assistant chief and chief nursing officers were based on promotion, so all participants had similar or equivalent qualifications and experience as did the other staff in the same categories in the SW region.

A self-administered pen and paper questionnaire was used to gather data from both surveys. The questionnaires required responses about information/data on the knowledge, perceptions and opinions of the clinical nurses, as well as existing QI systems, in the selected health care institutions. The researcher explained the purpose of the study to the participants during this first meeting. The concept of using different data collection modes was supported by Barbie and Mouton (2001). The authors identified 'triangulation' as the use of multiple methodologies, methods and investigators. Newhouse et al. (2006) suggest that a staff survey is conducted to provide a baseline description so that subsequent improvement efforts can be evaluated. Polit & Hungler (1996) assert that surveys obtain information from a sample of people and focus on a wide range of topics as the study participants respond to a series of questions posed by the investigator. Surveys are known to collect information on people, knowledge, opinions, attitudes and values. The goal of the survey

was to gain an overall impression of the details of the situation despite the fact that the *researcher initiated the research*. The researcher observed that CQI processes were not evident during informal visits to the clinical nursing division of some teaching hospitals in SW Nigeria.

Following data generation, the researcher with the assistance of the statistician *analysed the quantitative data* using traditional statistical methods for the quantitative dataset collected. Findings from the survey were disseminated to the research team mobilised during the first cycle. The research team played the *roles of verification and attestation* to true situation in a focus group discussion. The research team verified and attested to true situations of CQI as it existed in the participating hospitals. The nurse managers were included in the final interpretation and explanations because their inputs were crucial to establish that the resulting interpretations accurately represented the reality of the situation. Findings were collectively discussed and explanations were sought by the researcher.

The team *reflected* on the problems of CQI identified and contributing factors (as they existed in the context of SW Nigeria) in terms of structure, process and outcomes which included the non-availability of CQI mechanisms /processes such as established/structured nursing audit and continuing education (CE)/ In-service education units, lack of established, standardized and acceptable nursing care measure and other baseline issues. In the course of reflecting on these problems, the research team attempted to assess the content of any measurement instrument using a checklist but none was presented for this purpose as no measurement tool existed. The team whilst *considering options and solutions* to the problems expressed that they did not have control over the **structure** components of the problem, because setting up CQI mechanisms as earlier mentioned would involve their managements and the process may take quite some time to achieve. Besides, outcome criteria depended greatly on process, and so there was a need to establish **process** norms

before establishing **outcome** norms. Conversely, the research team focused on one of the problems identified and that is the non-existence of process-oriented measurement tool.

3.8.2. CYCLE TWO: ANALYSE/PLANNING: Generating promising solutions and Action plan.

The research team **generated promising solutions** and planned the way forward in this cycle. They considered that structure solution was out of their control, outcomes solution depended on process and that process component of the problems could be managed by the nurse managers. Therefore the research team **selected one solution** and put an **action plan** in place to develop or adapt quality-care indicators for measuring quality of nursing care in their hospitals.

A mini tutorial was accordingly given by the researcher to the team on the various types of instrument/tools (e.g. process tools) to inform their decisions on which to develop / adapt to suit their settings. The team **reflected** as they reviewed different quality-care measurement tools such as the QUALPAC, MONITOR and Phaneuf's NURSNG AUDIT taking cognisance of their advantages and disadvantages in relation to the context of the participating hospitals. As a result, the team resolved to adapt (rather than develop) an existing, established, standardized, and acceptable process criteria-oriented tool called the MONITOR used in the United Kingdom, with permission, to suit their respective settings.

The following learning elements were considered during this cycle:

- ❖ Reflection on the current situation
- ❖ Planning a change to improve the situation
- ❖ Acting on and observation of the process and consequences of the change
- ❖ Reflection and re-planning of the same, or another process of change.

3.8.3. CYCLE THREE: DEVELOP AND EXECUTE (ACTION): Adaptation of an existing, established, standardized and acceptable nursing-care indicators and testing the newly adapted instrument for applicability to settings.

The research team (participants and researcher) reviewed the MONITOR which is an anglicised nursing care measure, process-criteria oriented because these are the aspects they, the nurse managers had control over and could foster change. This decision to focus on process tools or indicators is supported by literature (Campbell et al. 2003) where these authors argued that process indicators are a primary object of quality assessment and improvement. While reviewing the MONITOR, nursing care activities there-in which were common practices in the individual hospitals were accepted and taken. The participants accepted responsibility for those nursing care activities which should be standard, but were not maintained and promised to improve on those practices. However, those nursing care activities that could not apply to their settings were rejected. The essence of analysing the MONITOR (*qualitative data*) was to aid the appropriateness of the instrument to the respective hospitals.

During this process of adaptation, the research assistants facilitated the FGD sessions as it was tape-recorded. The researcher *listened* to the discussions, made *observations* of the facial expressions of the participants as well as the interaction within the respective groups. Most of the items in the instrument were adapted with the exception of a few that could not be practicable in these settings due to administrative bottle-necks and bureaucracy beyond the powers of the nurse managers. The research team proceeded to *test* this newly adapted MONITOR in two acute care wards in three of the five participating hospitals. These acute-care wards were chosen because of the patient acuity and easy access. Streubert and Carpenter (2006) describe this stage as the actual implementation of the new idea or change. These authors explain that implementation occurs following action planning over a specified period. In the context of this study, the seven participants altogether

recommended by their respective management from three of the five participating hospitals executed their action plan by testing/piloting the adapted instrument for applicability in two acute-care wards of their respective hospitals. An instructional booklet was developed to assist the research team (**Refer Annexure 3B**). The detailed booklet included the following:

- ❖ An introduction to the study
- ❖ A listing of the nursing-quality-of-care indicators
- ❖ An operational definition of the terms
- ❖ An overview of the scoring method; a detailed scoring sheet for each indicator and the interpretation of scores. It also contained a brief guide on how to obtain the actual measurements using the indicators.

The research team ascertained whether the newly adapted quality-care indicators suited the practice of the individual hospitals. The testing exercise was carried out on the same day in different wards to avoid ward routine changes. Research team sought the cooperation of the ward leaders as well as the nurses and patients before putting the new tool into use. The team completed the measurement of quality-care using the adapted MONITOR within ninety minutes to two hours as consequences were observed.

However, because of time constraints attributed to the period of this study, the researcher could not test for sensitivity to change as advocated by Campbell et al. (2003). One important goal during this cycle was to identify and define, in operational terms, the quality-care index. 'Bottom-up' model quality-care- indicators were identified, monitored and evaluated by the professional nurses at the unit/ward level. This is supported by Harvey (1991) who asserts that the practitioners should be 'proactive' and not 'reactive' in the implementation of quality improvement processes.

3.8.4. CYCLE FOUR: REFLECTION: Narration of experiences and feelings about implementation/testing the adapted tool:

Reflections were made on what was seen to be changed. Changes were the direct results of planned actions, indirect results or change in external conditions; and invariably, an internal change in the way the participants saw their circumstances of measuring quality of nursing care as a form of practice. The research team set out to test the newly adapted instrument during the implementation or action cycle. Reflection is an important aspect of the action research because it provides insight into the process of implementation, the utilization of the new instrument and whether it addressed baseline issues and the overall effect it had on the participants.

The feelings, opinions and experiences of the participants during testing, were recorded as *descriptive notes* data (**Refer Annexure 5E**). Polit and Beck (2006) state that *field notes* represent the researcher's or observer's efforts to record information synthesize and understand the data. Field notes include descriptive or observational, theoretical, methodologic and personal notes and these can be categorized according to their purposes. In this study, descriptive notes were used to objectively describe the conversations that transpired between the research team during the reflective cycle.

The team thought about how the newly adapted tool affected them while they were acting (i.e. testing it out) in a report presented. The team reflected aloud by expressing their feelings there-in about the new practice of nursing care measurement in which they had never been involved in the past. Some of them expressed as thus: "*it is a long awaited development*"..... "*It is amazing how that tool could spell out the areas of strength and otherwise.....*" "*Wouldn't there be need to increase the number of nursing audit officers for effective utilization of this quality-care indicators?*" This stage of the action research process derives support from literature by Streubert

and Carpenter (2006) who remark that data recorded during reflections are important contribution to the theory that could emerge from the action research study.

Furthermore, during the reflective cycle, the research team had series of discussion which provided a path to greater insight. A *reflexive critique* ensued when the researcher asked the research team to discuss what problems they encountered during the testing cycle and whether they found the newly adapted instrument helpful? This reflexive behaviour of the research team again derives support from Streubert and Carpenter (2006) when these authors state that it is imperative that both researcher and participants engage in reflexive critique to reveal the multiple explanations for a phenomenon. Conversely, a *dialectic critique* ensued when the researcher probed further with more questions so as to expose contradiction and subsequently identify factors inherent in these hospitals that could influence the use of the adapted nursing care measure implicitly or explicitly.

3.8.5. CYCLE FIVE: EVALUATE/ EVALUATION: Measuring implementation/testing outcomes and further reflections on change and future plans:

The researcher administered post- test questionnaires to the research team to measure outcomes of the implementation/testing, efficacy and relevance of the new tool. The *quantitative data* was analysed using statistical techniques such as frequencies in SPSS. The researcher met with the research team again to present the interpretation for discussion and verification to determine its true reflection, thereby promoting more meaningful evaluation. The research team again *reflected* on the empowerment and change brought about by the whole process. They began to contemplate aloud how they could in the future, develop instruments to measure quality of care in specialized areas of care such as the theatres, accident and emergency units, sustainability of the instrument, long term implementation of the new tool on their wards, how to deal with time-constraint issues associated with the newly adapted tool, and the presentation of the new 'knowledge and practice' to the

Nursing and Midwifery Council of Nigeria. The research team also pondered how they were going to present this change in practice to their respective management.

Their future plan is to improve practice by taking this change forward. The researcher concluded by writing and presenting a study report (**Refer Annexure 6**). Contemplating future plans and direction of the entire action research process was also paramount in the mind of the researcher. Testing the newly adapted instrument in several hospitals across the regions in Nigeria was beyond the scope of this study, however it was contemplated. **Figure 3.3** in the following page presents a diagrammatic representation of the action research process as it applied to the study and a summary of the research cycles presented in **table 3.3**.

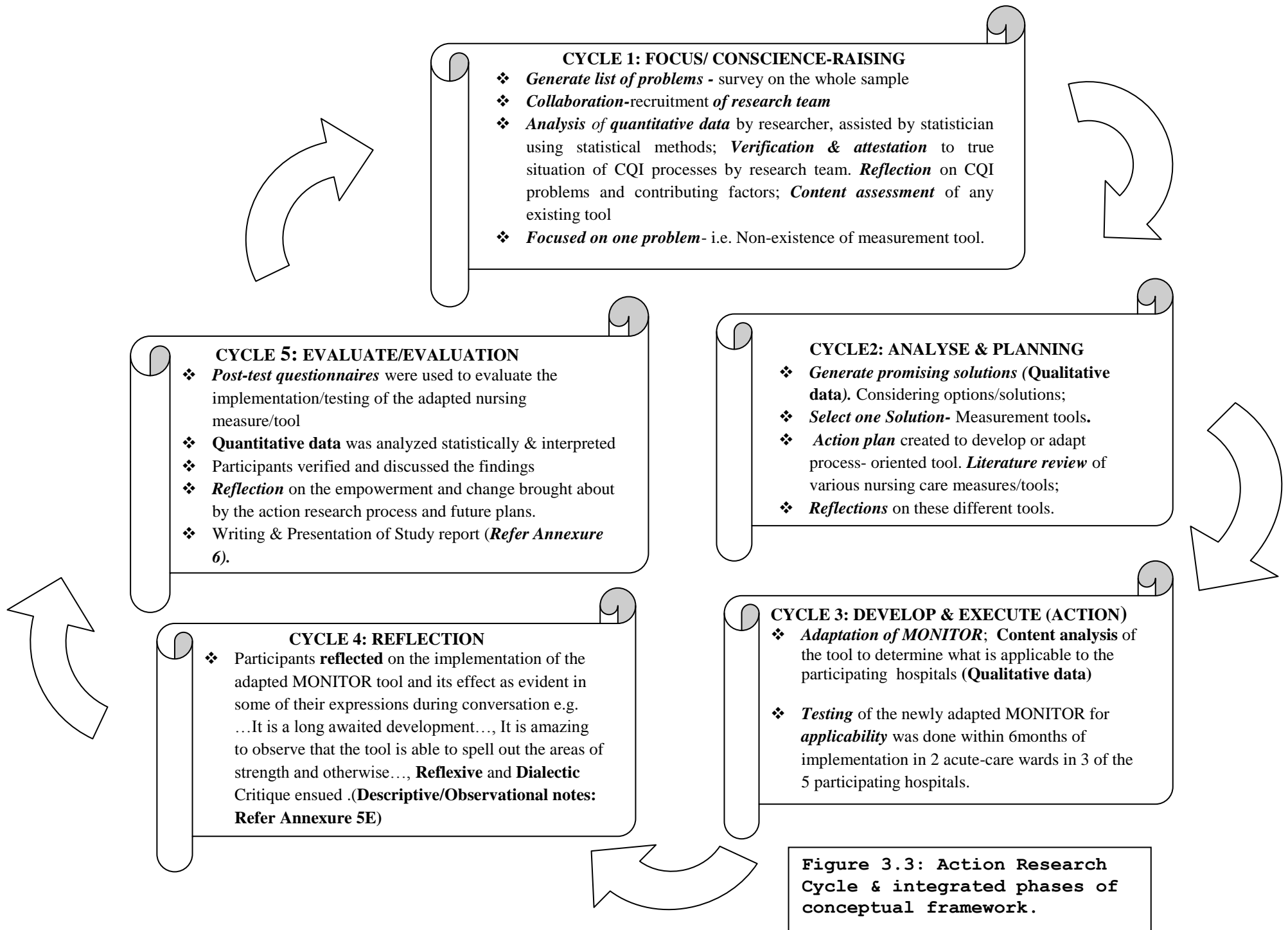


Figure 3.3: Action Research Cycle & integrated phases of conceptual framework.

Table 3.3: Summary of the Cycles of Action Research Process & Integrated Phases of Conceptual Framework

	<i>Cycle 1:</i> <i>Focus & Conscience- Raising</i>	<i>Cycle 2:</i> <i>Analyse & Planning</i>	<i>Cycle 3:</i> <i>Develop & Execute (Action)</i>	<i>Cycle 4:</i> <i>Reflection</i>	<i>Cycle 5:</i> <i>Evaluate/ Evaluation</i>
<i>Approach:</i>	Quantitative	Qualitative	Qualitative	Qualitative	Quantitative
<i>Design</i>	Survey	FGD	FGD	FGD	Survey
<i>Sample</i>	157, then 29	29	29, then 7	7	7
<i>Category of participants</i>	SNO – ADN Cadres; then PNOs, ACNOs, & CNOs only	PNOs, ACNOs, & CNOs only	PNOs, ACNOs, & CNOs only	PNOs, ACNOs, & CNOs only	PNOs, ACNOs, & CNOs only
<i>Data-collection instrument(s)</i>	❖ Questionnaires ❖ Checklist for content assessment	❖ Unstructured interview	❖ Topic guide ❖ Checklist for MONITOR instrument	❖ Field notes	❖ Questionnaires

3.9. DATA COLLECTION INSTRUMENT

Questionnaires, checklists, interview guide and field note (descriptive /observational notes) were various data collection tools/ instruments used in the study.

3.9.1. Structured Questionnaire for Survey:

The Researcher developed a structured questionnaire as a method of data collection to investigate the CQI knowledge, perceptions, processes/programs and measurement tools, where available, in the selected teaching hospitals (*Refer Annexure 5*). The questionnaires were administered to professional nurses in the positions of senior, principal, assistant chief and chief nursing officers working at the unit/ward levels. This questionnaire addressed objectives 1, 2, 3 and 4 of the study. This method was selected because questionnaires were less costly and required less time to administer. The questionnaire also offered the possibility of anonymity which was crucial in terms of information obtained about personal views, perceptions, and knowledge about the state of affairs regarding CQI and evaluative systems in these hospitals.

The choice of questionnaire as a method of data collection is supported by Polit and Hungler (1996) who state that an advantage of using a questionnaire is that of the absence of a bias from the interviewer herself. The questionnaire was simply constructed to facilitate easy analysis. The self-completion questionnaire had six sections within thirteen pages containing eighty item questions to answer. (The questionnaire is included as **Annexure 5**). The preliminary *Section A* dealt with the demographic data and the participants' professional data. *Section B* dealt with the general knowledge about CQI

activities and *Section C* assessed the structure component processes to elicit responses that described the workload and facilities and their overall effects on the quality of care. *Section D* assessed the process components, focusing on the actual process of care-giving both concurrently and retrospectively. It also focused on how nurses perceived their roles. *Section E* assessed the outcome components with a focus on how patients and their conditions were affected by their interactions with the nursing staff. The *Section F* questionnaire covered the current CQI status in the selected health care facilities administered only to the research team soon after they were mobilised in the first cycle. The team, being very senior nurse managers in the position of PNOs, ACNOs and CNOs were in the best position (by virtue of their supervisory and mentoring roles) to describe the actual situation about CQI processes and evaluative measurement tools that existed or were available in their respective settings.

Open-ended questions were included in all sets of questionnaires because they permitted some degree of freedom in the responses provided by the participants, as well as a fuller perspective on the topic since this was required by the study. This also allowed valid information about the status of the CQI and the evaluative processes in these hospitals to be obtained.

3.9.2. Interview Guide for Focus Group Discussion

A interview guide was used to generate questions that addressed objectives 5, 6 and 7 during the analysis of an established measurement instrument and its adaptation in the second cycle of the study (*Refer Annexure 5A*).

3.9.3. Checklist for Content Assessment of Available Instrument

A checklist was designed by the researcher and used by the research team to assess and examine the current tools where available, used for measuring the quality of nursing care in these selected hospitals. The checklist was used to ascertain what aspects of quality improvement the available instruments, if any, measured, and whether these were standardised (*Refer Annexure 5B*).

3.9.4. Field Notes (Descriptive /Observational)

Field notes were used by the researcher to make objective description of the conversation that took place among the research team members during the reflective cycle of the action research process (*Refer Annexure 5C*). This cycle took place after the research team had tested the newly adapted tool for applicability in three of the five participating hospitals. Written reports presented by the participants about their feelings and the effect the change had on them during testing were also imported into the field notes.

3.9.5. Post-Test Questionnaire

This set of questionnaires was used during the fourth cycle when the newly developed instrument was tested for applicability (*Refer Annexure 5D*). The post test questionnaire elicited responses on the perception of the participants about newly adapted nursing care indicators, efficacy and relevance of the new tool. The strengths as well as the difficulties encountered during the use of the instrument were also ascertained

3.10. RELIABILITY AND VALIDITY OF INSTRUMENTS FOR DATA COLLECTION

The instrument for quantitative data collection was subjected to **face validity** carried out by some nursing colleagues in the school of nursing, Emerald University College Hospital (EUCH), and by senior nurse managers with vested interests in quality care in the clinical nursing division of the same hospital. These nursing colleagues in the school of nursing are all graduates from a university and have had training in research methodology and statistics. The face validity was done to ascertain whether the instruments accurately measured what they were supposed to, using the intuitive judgements of these nursing colleagues.

3.10.1. CONTENT VALIDITY

Content validity measure was also carried out to determine if the contents in the instrument for data collection measured what it was supposed to measure. Motheral, 1998 refers to content validity as the degree to which a variable accurately reflects the phenomenon it purports to measure. Content validity (also called convergent validity) addresses whether the construct correlates with other concepts with which one would expect it to correlate (Motheral, 1998). The extent to which similar instrument obtain similar results as suggested by Whichard (2006) was not determined because no similar data collection instrument was available for use.

Whichard (2006) asserts that an important factor in establishing content validity is that at least one of the instruments used must be commonly held as a highly accurate measure of

the underlying theoretical concepts and consequently establishing content validity allows conclusions about the extent to which the assessment instrument compares to a widely accepted benchmark assessment purportedly measuring the same content. That is to say how well does the assessment instrument in question compare to other-like assessment instrument?

Since there is paucity of information/literature in recent years about nursing care measurement as earlier mentioned, the researcher could not find an existing similar instrument for data collection. This prompted the development of this particular instrument used for this study. There was no record of any established, highly accurate measure to serve as benchmark or to be compared with.

However, to validate the content of the instrument for data collection in this study, the researcher devised a method to show where the objectives of the study were fitted in the conceptual framework and the questions that provided answers to these objectives. Refer Table 3.4 below for a presentation of the content validity measure of the instrument for data collection.

Table 3.4: Content Validity Measure.

S/N	Objectives of Study	Conceptual framework	Items in Questionnaires
1.	To determine the knowledge and perception of nurses about CQI in terms of structure, process and outcomes.	Analyze (Collect baseline data/patterns)	Sections B, C, D, E. Items 8-17, 18-68
2.	To establish existing CQI processes /mechanisms such as structured nursing audit, CE/In-service education, quality-care measurement tools	Analyze	Section F; items 4, 18-68, 69-72
3.	To assess the appropriateness of the content of a nursing care measure if available in terms of structure, process and outcomes.	Focus (Generate a list of problems and verify)	Section C; item 25.

Content Validity Measure Continues:

S/N	Objectives of Study	Conceptual framework	Items in Questionnaires
4.	To establish utilization of an evaluative instrument measurement instrument if available to inform practice.	Focus	Sections C; items 73-75,86-89
5.	To identify gaps from the data with regards to existing CQI mechanisms.	Focus	Section B; items 25, Section F; items 78, 82, and 85.
6.	To collaboratively adapt an appropriate, established acceptable, standardized, off-the shelf instrument for measuring quality of nursing care.	Develop (select a solution or develop an implementation action plan	FGD; Qualitative narrative data
7.	To determine the applicability of adapted instrument in three of the five participating hospitals.	Execute and evaluate (Execute plan and monitor outcome).	Quantitative evaluative measure for determining applicability of nursing measure to settings. Items 1-18.

3.10.2. TESTS OF RELIABILITY OF INSTRUMENT FOR DATA COLLECTION

Reliability is an important indicator of an instrument's readability, understandability and general usefulness (Whichard, 2006). Two tests of reliability were carried out and they included internal consistency reliability tests and test retest. These tests tap different meanings of consistency and either or both can be used (Punch, 2005).

3.10.3. An Internal Consistency Reliability Test: Is the degree to which the subparts of an instrument are all measuring the same attribute or dimension as a measure of the instrument's reliability or are consistent with each other (Polit and Beck, 2006). Punch (2005) assert that internal consistency reliability relates to the concept indicator idea of measurement and estimates reliability by grouping questions in a question that measure the same concept. The Cronbach's alpha splits all the questions on the instrument every possible way and computes correlation values. In this study, an inter-item correlation for all variables was estimated and a correlation coefficient of **.637** was obtained. The coefficient ranges from zero to 1 (Motheral, 1998). Though this author assert that a higher coefficient indicates greater reliability (or less measurement error) and that a coefficient of 0.80 is considered to be the lowest acceptable standard, the coefficient value of .637 obtained in this study all the same, is slightly above the periphery or borderline. Nevertheless, a second test of reliability was carried out to shore-up the former and that is the test retest. The primary difference between internal consistency and test-retest is that the former involves only one administration of the instrument and it is a less conservative estimate of reliability than the test retest (Punch, 2005).

3.10.4. A Test-Retest was done to determine if the instrument for data collection measure the same way each time it is used under the same conditions with the same participants. It is the repeatability of a measurement and/or a test of consistency.

Test retest method of reliability can be obtained by administering the same instrument to the same group of people at different points in time. The degree to which both administrations are in agreement is a measure of the reliability of the instrument. It is also referred to as a test or measure of stability (Punch, 2005). In this study, a total of fifteen (15) nurse managers in the position of *PNOs and CNOs* from the five participating hospitals were *randomly selected* using the *nth selection method*. Every 4th nurse manager was selected from the list of nurse managers presented by the respective management.

The first test was administered and within a three week interval, the same participants reconvened and identical questions were administered for the second test. It is believed that enough time would have passed to reduce memorized responses. They were given the same instructions prior to eliminate some test-retest bias. Table 3.5 below illustrates the reliability results of the test-retest study for the participants.

Table 3.5: Test-Retest Statistics of the Survey Instrument (n =15) .

Statistic	Test (T₁)	Retest (T₂)	(T₁- T₂)
Mean	5.5556	5.8889	-0.3333
SD	1.2351	0.924	0.3111

The *Cronbach alpha* for the test-retest reliability of the instrument is:

$$\alpha = 0.979.$$

Correlation coefficient between the test and the retest is:

$$r = 0.959, p < 0.01.$$

The test-retest reliability of the instrument analysis was based on a sample of 15 Nurse Managers. The aggregate values of the individual responses from tests one and two were calculated and the reliability was run based on these aggregates. The 0.959 was the correlation-coefficient value which affirmed that the scores in test one were related to those in test two. The null hypothesis was rejected at 0. 01 level of significance and therefore concludes that the scores were highly related. The statistic ($\alpha = 0.979$) showed an acceptable degree of reliability of the instrument and the correlation statistic between the initial responses and retest responses implied significant homogeneity. This reliability obtained from the test retest derives support from Whichard (2006) who states that the closer the correlation coefficient is to 1.00 the stronger the relationship.

3.11. PILOT STUDY

Burns and Grove (2007) defined this as a smaller version of a proposed study. It is conducted under similar circumstances to the actual study with a purpose of refining the methodology. In the context of this study, a pilot study was conducted in the clinical nursing division of the EUCH. The hospital, located SW of Nigeria, is the biggest teaching hospital in Nigeria with an adequate infrastructure and human resources, and is usually a choice of preference for pilot studies.

The instrument was pre-tested to check for ambiguity, misleading questions and weakness so as to facilitate re-arranging of the items or change as the case may be. The pilot study also permitted the researcher to estimate the time each nurse would take to complete the questionnaires, as well as to identify any administrative problems prior to completing the questionnaires. Sample of participants used for the pilot study was eight (8) percent of one hundred and ninety-six which equalled 15 participants.

It is imperative to mention that these participants were not included in the actual study. *Stratified random sampling* was used to select the participants from a subgroup. A list which included 233 names of nurses within the position of PNO and CNO only, was presented by the management of the hospital. This subgroup of nurses was identified because they share common characteristics of being at the supervisory and mentoring levels. The nurse managers were selected using *the nth name selection technique* whereby every 4th name within the stratum in the list was selected. They completed the questionnaires and subsequently discussed quality care indicators for measuring quality

of nursing care. The results of the pilot study was analysed and a number of changes and refinement to some of the questions were made. Whilst the participants found the process valuable, they also made clear their concern about the large amount of time it took to complete the questionnaires. Nonetheless, the instrument was finalised for use in the main study.

3.12. ESTABLISHING TRUTH AND TRUSTWORTHINESS OF QUALITATIVE DATA

The researcher established that the qualitative data collected was believable, trustworthy and credible. Steps were taken to ensure that sufficient time was provided for data collection at all cycles, and so that an in-depth understanding of the culture, language and views of the participants was reached. Prolonged engagement with the participants promoted trust- building and established rapport. The researcher also persistently observed and focused on the aspects of CQI and evaluative tools for measuring the quality of nursing care as the study progressed. The researcher employed the use of triangulation to enhance credibility, as noted previously. Triangulation refers to the use of multiple referents to draw conclusions about what constituted truth, with an aim to overcome an intrinsic bias that stemmed from a single-method, single-observer (Polit and Beck, 2006).

The academic rigor of qualitative studies is measured by their trustworthiness, or by their being true to the data and their context (Polit and Beck 2006). Trustworthiness is the procedure used by qualitative researchers to evaluate and qualify their data and findings.

There are four criteria for establishing the trustworthiness of qualitative data namely credibility, transferability dependability and confirmability (Polit and Beck 2006).

Credibility is one of the processes through which qualitative data is evaluated, referring to the truth of the data. The researcher ensured credibility through data triangulation and peer debriefing. The researcher utilised more than one method of data collection, namely questionnaires, on site observation and document review in order to provide a basis for convergence on the truth by using multiple methods and perspectives (Polit and Beck 2006). The researcher also utilised the technique of member check. *Member check* is the researcher's ability to check back with the participants to validate the accuracy of the information given and recorded. Finally, the researcher ensured the completeness of the data collection process by using the topic guide.

Transferability: Transferability refers essentially to the generalisability of the data; that is the extent to which the findings from the data can be transferred to other settings or groups (Polit and Beck 2006). Though it is not the intention of this cycle of the study to generalise as a qualitative study, Mile and Huberman (1994) have identified a possibility to transfer data from case to case provided the original researcher has provided enough data to judge potential appropriateness for one's own settings, theoretical diversity of sample to deserve broader applicability and adequacy in the description of the original sample. In order to ensure transferability of the study, the researcher provided a 'thick' description, or sufficient information about the phenomenon and context under study which permitted judgements about its contextual similarity and applicability.

Dependability: Dependability of qualitative data refers to the stability of the data over time and over conditions including convergence of accounts across methods such as quantitative and qualitative methods. To ensure the dependability of the study, the research proposal was first scrutinised by the research committee of the School of Nursing during the presentation for its validation. To further ensure dependability, the process of data collection, analysis and interpretation was monitored by the research supervisor. The dependability audit technique was also utilised, whereby the data and other supporting documents would be scrutinised by external reviewers chosen by the authority of the School of Nursing.

Confirmability: Confirmability refers to the objectivity or neutrality of the data, such that there is to be an agreement between two or more independent people about the data's relevance or meaning (Polit & Beck 2006). The focus of confirmability of qualitative data is on the characteristics of the data (i.e. whether the data were certifiable). In order to ensure confirmability of the data, the researcher developed an audit trail in which materials such as the audio recordings of the focus group discussion sessions and documentation (letters of permission from the institutions where data were collected) was acquired. These allowed the research supervisor and any other reader to come to conclusions about the data. The researcher also preserved the transcripts of the data, the completed questionnaires, as well as any other documents that formed a part of the data analysis for review.

3.13. DATA ANALYSIS

Quantitative data was analysed using the nominal and ordinal measurement scales whereby attributes or variables such as gender and nursing specialty were classified into categories or class. Polit and Hungler (1996) explained that although assigning numbers or numeric codes in nominal measurement did not convey any quantitative information, the numbers were merely symbols representing values of the attributes which helped to make classification mutually exclusive, or collectively exhaustive. During quantitative data analysis, numbers were assigned to classify characteristics like sex and nursing specialty. Frequency counts and percentages were used to analyse ordinal level data. Frequency referred to the number of instances a specific response was given, while a percentage distribution reflected what proportion of the respondents chose a specific answer. Pie and Bar charts were used to represent the percentage of findings. The statistical package for social sciences (*SPSS*) *Version 15.0* was also used to analyse data. A *chi square test of significance* and independence was used to analyse nominal data to determine significant differences between observed frequencies within a data and frequencies that were expected (Burn and Grove, 2007). Pallant (2007) adds that chi-square determines whether two categorical variables are related or homogenous and as well compares the frequency of cases found in the various categories of one variable across the different categories of another variable. A *p-value* is the probability of obtaining a *test statistics* at least as extreme as the one that was actually observed, assuming that the null hypothesis is true. The lower the p-value the less likely the results assuming the null hypothesis, so the *more significant* the result, in the sense of *statistical significance*. Pallant (2007) asserts that one often rejects a null hypothesis if the p-value

is less than 0.05 or 0.01, corresponding to a 5% or 1% chance respectively of an outcome at least that extreme, given the null hypothesis. A statistician was consulted for professional advice during this stage of data analysis.

Discussions from the research team/ focus group were of a qualitative nature, and thus narratives were provided. The qualitative aspect of the study involved an analysis of the data from the participants simultaneously, and key findings from the discussion reflected their perceptions, feelings, attitudes and opinions. The qualitative data was analysed manually using a traditional, but reliable qualitative data analysis approach called the thematic framework analysis. The thematic approach was used to analyse voice data, field notes, textual sources or text-based data (Refer to Chapter Four for a detailed explanation of the thematic approach).

3.14. DATA MANAGEMENT

Neutral persons were used to facilitate the process of the focus group while the researcher observed and periodically interjected where necessary; and to verify qualitative data after it had been collected and transcribed by the researcher to ensure confidentiality. These neutral persons are master degree holders who graduated from the department of social work and have gone through training in research methodology. However, a mini training and instructions was provided before the data collection commenced. Information on what the study is about was given. A digital voice recorder containing the data was stored under lock and key. Hard copies of data were controlled and handled by the researcher, and electronic data was saved on a computer which required a password. All

data collected will be stored safely for a period of five years in the school of nursing, University of KwaZulu-Natal, where the supervisor is based.

3.15. ETHICAL CONSIDERATIONS OF STUDY

Ethical approval was obtained from the University of KwaZulu-Natal Ethics Committee as well as from the Ethical Committees of the various institutions selected to participate in the study because of the participation of nurses working in these institutions. (*Refer Annexure 1 and 2*). Permission was also obtained from the publishers of the instrument (the MONITOR) which was adapted during the third cycle of the study. (*Refer Annexure 3*). Informed consent was also obtained from the participants during the survey cycle as well as during the instrument development cycle to voice-record the focus group discussion (FGD) sessions (*Refer Annexure 4*). This approach has its support in Polit & Beck (2006) where these authors explain that informed consent means that, participants have adequate information regarding the research; comprehend the information; and have the power of free choice, enabling them to consent voluntarily to participate in the research or decline participation.

Confidentiality was maintained. The survey instrument for data collection was marked for identification with no obvious link to the participants or their responses. Approved consent forms and information documents given to the participants were added to the study. The FGD session was recorded in such a way that the individual responses were not linked to the participants. All data collected was kept in strictest confidence. Participants were informed of their freedom to withdraw from the study at any time they

chose to. Respect and courtesy were applied throughout the research process.

The individual hospitals were informed in the letter requesting for consent to conduct the research that findings from the study will be made available to them and may be published in a reputable journal. Upon completion of the study, a copy of the study may be made available to the Nursing & Midwifery Council of Nigeria, School of Nursing library, Howard College Campus of the University of KwaZulu-Natal as well as for publication in journals. All data collected will be stored electronically up for a period of five years in the School of Nursing, Howard College Campus of the University of KwaZulu-Natal, Durban South Africa.

CHAPTER FOUR

4.1. PRESENTATION OF FINDINGS

Introduction to Chapter

Data analyses were done collectively, that is, not hospital by hospital; so that the data remained statistically analysable and friendly. In the first cycle of the study which was the survey of nurses, a total of one hundred and fifty-seven (157) nurses responded to the questionnaires from the five participating hospitals at a proportion of 20% in each hospital. For clarification purposes, as explained in the methodology, the total number of nurses in the five participating hospitals was not equal and so, for purposes of equity and fairness, a twenty percent (20%) of the sample to the total population of nurse managers, was used from each hospital to select the number of nurses who participated in the study. This accounted for the unequal number of nurses in the five hospitals, as presented in the demographic characteristics of respondents shown in Figure 4.5 in this session.

In the second half of cycle one of the study, six (6) nurse managers per hospital (totalling 29) who were part of the 157 surveyed in the first place; were selected from their individual hospitals using the **nth selection technique whereby every 4th nurse was randomly selected from the lists of nurse managers provided by the respective hospitals**. This again accounted for a total of twenty-nine (29) nurse managers who took part in the focus group discussions. A need for representative sampling was apparent, and these twenty-nine nurse managers were nurses from different units of their nursing divisions with vested interests in quality of nursing care and quality improvement. This

selection process approach was adopted from Kunaviktikul, Anders, Chontawan, Nuntasupawat, Hanuchareonkul, Srisuphan, Pumaporn, & Hirunnuj (2005) who developed indicators to assess the quality of nursing care in Thailand. These authors included in their sample, four key stakeholder representatives from one community, one provincial, one regional, and one university hospital with vested interests in the quality of care.

The results of the quantitative and qualitative dataset in the current study were presented according to the cycles of the study as detailed in the methodological outline in the preceding chapter. The **first cycle (Focus/Conscience-raising)** included survey and collaboration. The quantitative data was obtained from the questionnaires used in the survey to appraise the existing continuous quality improvement (CQI) mechanisms and activities carried out by the nurse managers in the five selected teaching hospitals in SW Nigeria.

No specific data was collected during the second cycle because it was an unstructured but interactive interview/FGD session which provided a springboard for the third cycle where a qualitative data was collected. The **second cycle (Analyse/Planning)** mainly included an *action plan* to develop or adapt a process-oriented tool, reviewed literature of various nursing care measurement tools and reflected on the tools). This unstructured, interactive interview session was held with the principal, assistant chief and chief nursing officers only, who subsequently participated in the development of quality care indicators for measuring quality of nursing care in the third cycle. The **third cycle (Develop and**

Execute (Action) presents findings from the qualitative data which analysed and adapted the MONITOR to make it appropriate to the context.

The fourth cycle (Reflection) presents findings from the field notes data whereby the research team reflected on the testing of the newly adapted indicators. **The fifth cycle (Evaluate/Evaluation)** presents findings from the quantitative data collected after the newly adapted quality-care indicators had been implemented or tested for suitability to hospital settings.

4.2. Response Rate of Survey

A total of 200 questionnaires were sent out, based on the list of names of nurses provided by the individual participating hospitals and to accommodate those questionnaires that might not have been returned at the end of the fieldwork.

However, a total number of 157 (78.5 %) nurses responded. The response/return rate (RR) was 78.5 % of the group surveyed. This response rate was well within the acceptable return rates of 60+/-20 for survey research directed towards representatives of organisations, rank and file, middle-level managers and other population groups (Baruch, 1999). Keith (2002) also stated that a response of 50 to 60 percent was often considered an acceptable return rate for survey research. Supporting Keith (2002), Barbie and Mouton, (2001) reiterate that a return rate of 50% was adequate. The standards for acceptable return rates were shaped as much by how many responses a researcher could obtain and the proportion of usable questionnaires returned (Baruch, 1999).

Hager, Wilson, Pollak, and Rooney (2003) maintain that a number of factors could influence the rate of return of questionnaires, and these authors pointed to two factors that particularly influenced the expected rate to include the type of case or subject being investigated and the method of data collection. Two important subjects in survey research were individual and organisation such as an establishment or institution. Surveys of the participating health care institutions were answered by individual nurse managers and included bed status/complement, number of nurses on the wards, availability of physical facilities, adequate support staff and other essential services.

In this study, the questionnaires were delivered to workplaces and some factors such as confidentiality of information, workplace rules, regulations and policies as well as preoccupation with work could have affected the rate of response to the questionnaires distributed. The Distribution of the Questionnaires and the Return Rate according to the hospitals are presented in Table 4.1 below.

Table 4.1: Study Sites.

Hospitals	Distributed Questionnaires	Percentage of Questionnaires Distributed (%)	Returned Questionnaires	Percentage of Questionnaires Returned (%)
DUTHC	65	32.5	53	26.5
GUTH	35	17.5	24	12.0
PUTH	45	22.5	39	19.5
RUTH	35	17.5	29	14.5
PMC	20	10	12	6.0
TOTAL	200	100	157	78.5
GRAND TOTAL	200	100	157	78.5

Table 4.1 shows 78.5 % as the percentage return of the questionnaires from the participating teaching hospitals. This is indicative of a high response which is probably due to the nurses from the teaching hospital setting being very familiar with responding to questionnaires. Hager et al. (2003) maintain that the reason for emphasising an acceptable response rate is that it is not just the number of participants returning completed questionnaires that matters, but the representation of the population being studied. The responses determine the representation and/or validity of results.

4.3. DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

The demographic characteristics of the respondents are presented in the respective figures as shown below. In this study, the demographic characteristics of the respondents were similar to the population of nurses in the teaching hospitals in Nigeria. In Figure 4.1 below, the **Age range** of the respondents was between 20 and 59 years; with a high number of 76(48.4%) for those between the ages of 40-49 years. Many of the respondents within the latter age group were approaching the peak in their chosen career, and this study focused on this group of nurses because, at that level, supervision and monitoring of nursing activities was entrusted to these nurse managers by their management, and again, the researcher trusted that their experience would yield credible results. It is important to explain that in the variable *age-group*, age is the only **continuous variable** present in the questionnaire and as such a *Pearson's correlation analysis* could not be carried out because according to Pallant (2007), a correlation coefficient can only be obtained where there are two continuous variables for a relationship to be observed.

Figure 4.1 also revealed that both **sexes** i.e. males and females responded to the questionnaires; although there were more female respondents 139(88.5%) compared to male respondents 18(11.5%). This merely explains that, until recently, nursing was a female-dominated profession.

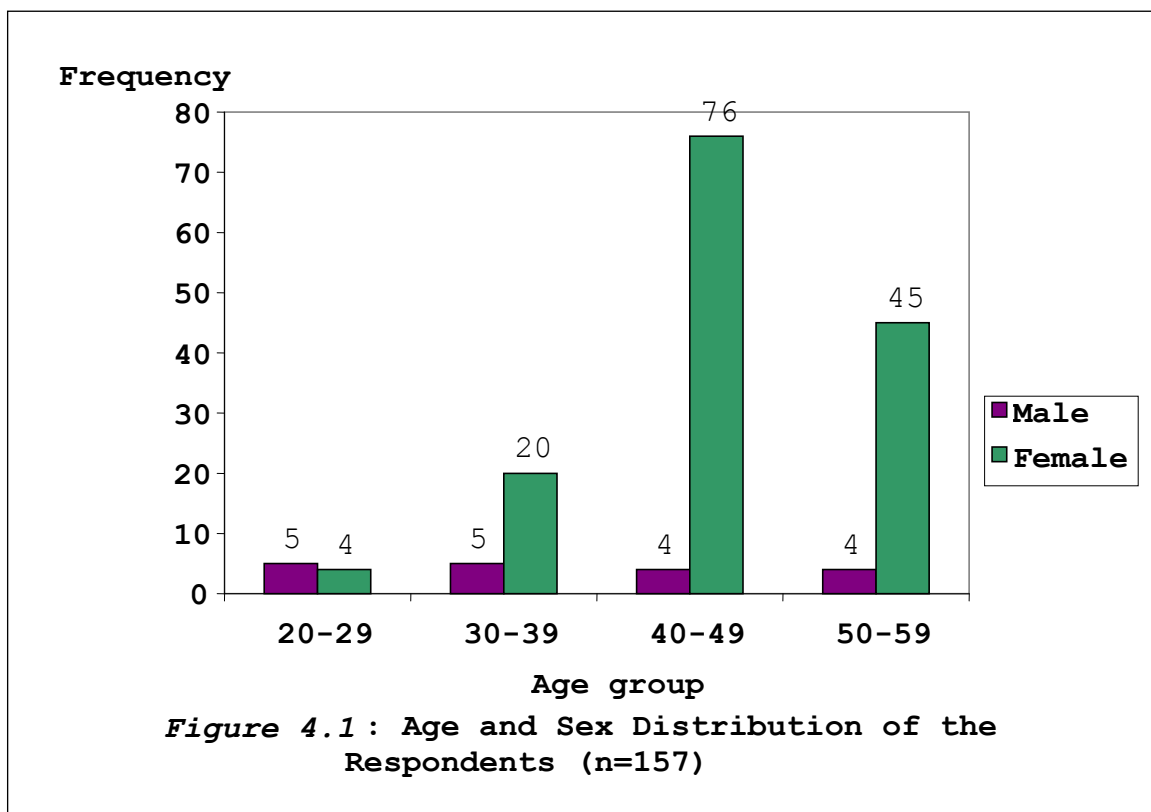


Figure 4.2 below reveals the various **nursing cadres** found in the teaching hospital setting and this study focused on the position of CNO and PNO cadres which are the management and supervisory levels. The highest number of respondents 91(58.0%) who responded to the questionnaires fell within these groups.

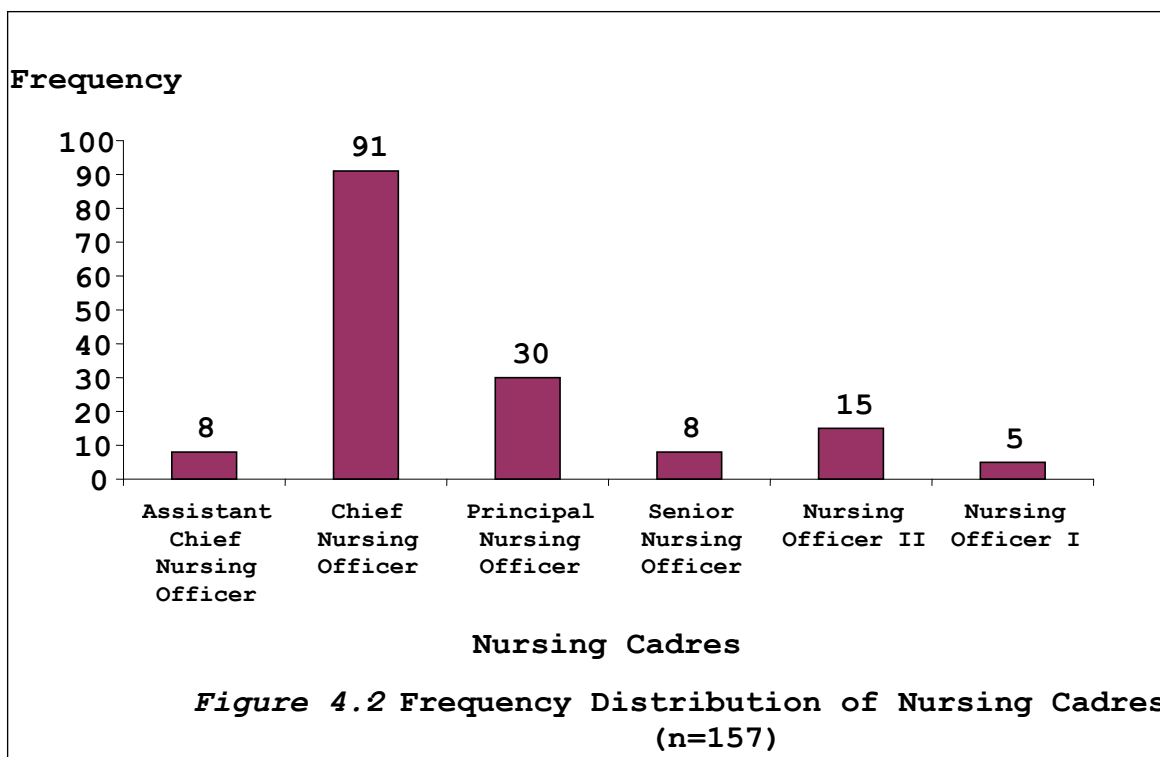
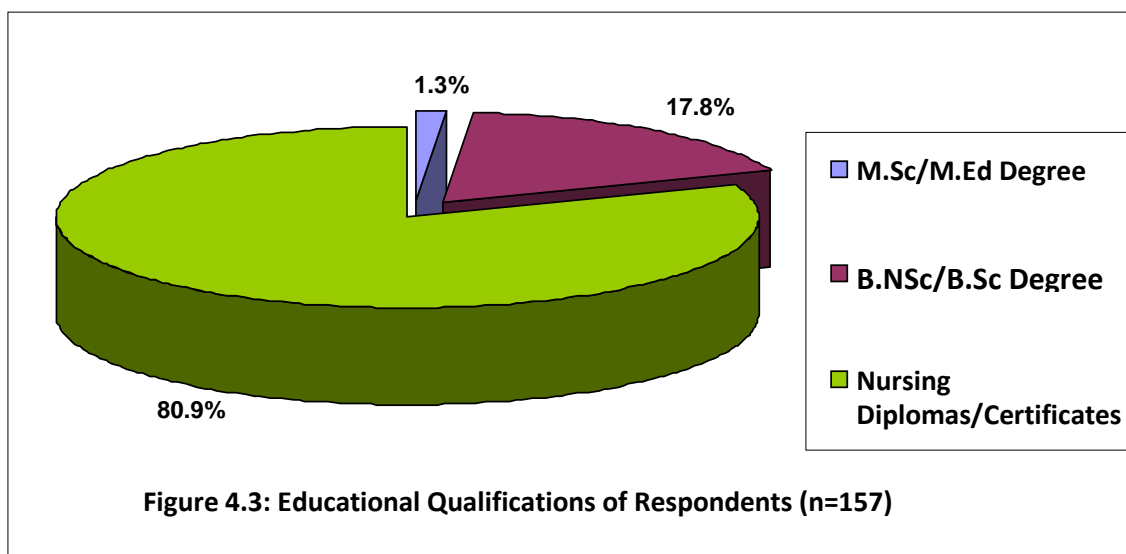


Figure 4.3 below presents the educational qualifications of the respondents. Educationally, the majority, 127(80.9%) of the respondents possessed a nursing diploma certificate because they were basically trained in the colleges of nursing. However, 28(17.8%) respondents had earned either a Bachelor of Science Degree in Nursing (B.Sc Honours) or the Bachelors of Nursing Science degree (B.NSc). Only 2(1.3%) respondents, in addition to their basic degrees, owned a Masters degree in Nursing or another related discipline



The professional qualifications of the respondents as represented graphically, in Figure 4.4 below showed that many of the participants 123(78.3%) are holders of National Registered Nurse (NRN) and National Registered Midwife (NRM) diploma certificates. Approximately 7(5%) of the respondents are Registered Nurse (RN) only (i.e. single qualification), 6(3.6%) are mental health nurses; and other respondents i.e. 21(13.4%) own other post-graduate diploma certificates in nursing specialties such as Orthopedic, Perioperative, Paediatrics, Ophthalmic, Accident and Emergency Nursing.

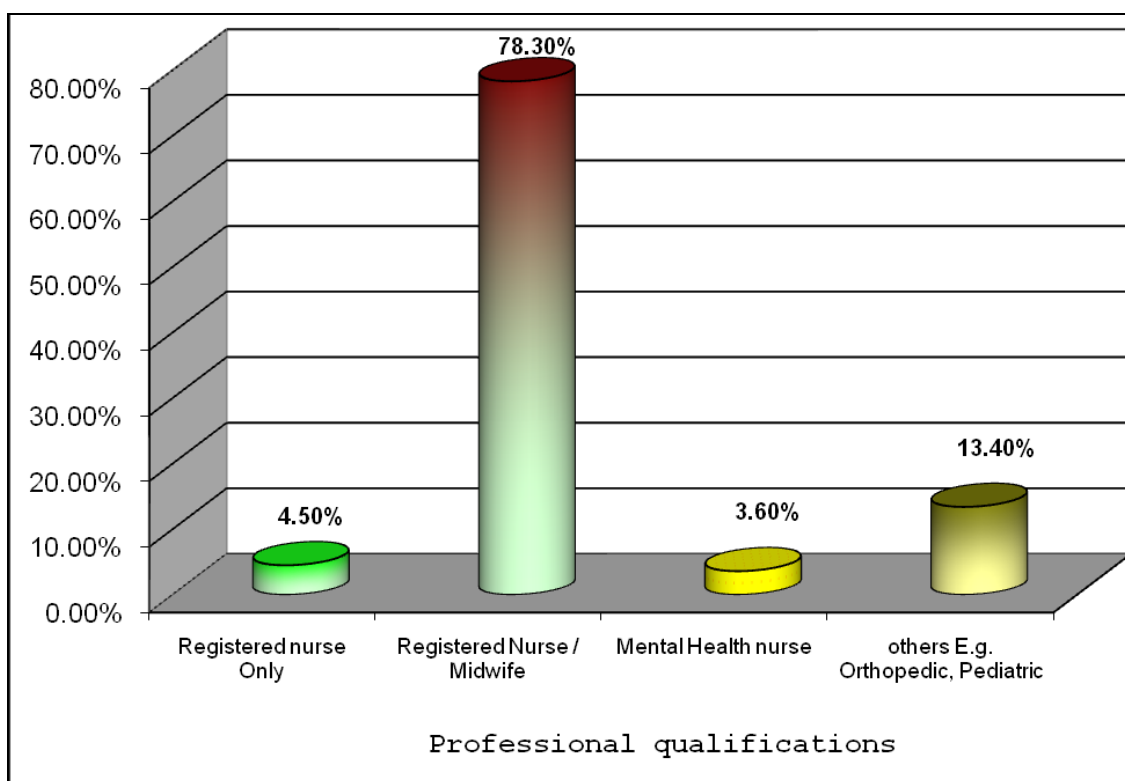


Figure 4.4 Professional Qualifications of Respondents (n=157)

Another characteristic which featured and is duly represented graphically in Figure 4.5 below was the place of work of the respondents. These work places are represented with **fictitious names (pseudonyms)** for ethical reasons. A section of the respondents 53(33.8%) worked at the Diamond University teaching hospital complex (DUTHC), 24(15.3%) of the respondents at the Gold University teaching hospital (GUTH), 39(24.8%) at the Pearl University teaching hospital (PUTH), 29(18.5%) of the respondents at the Ruby University teaching Hospital (RUTH) and 12(7.6%) at the Platinum Medical Centre (PMC) recently upgraded to teaching hospital status.

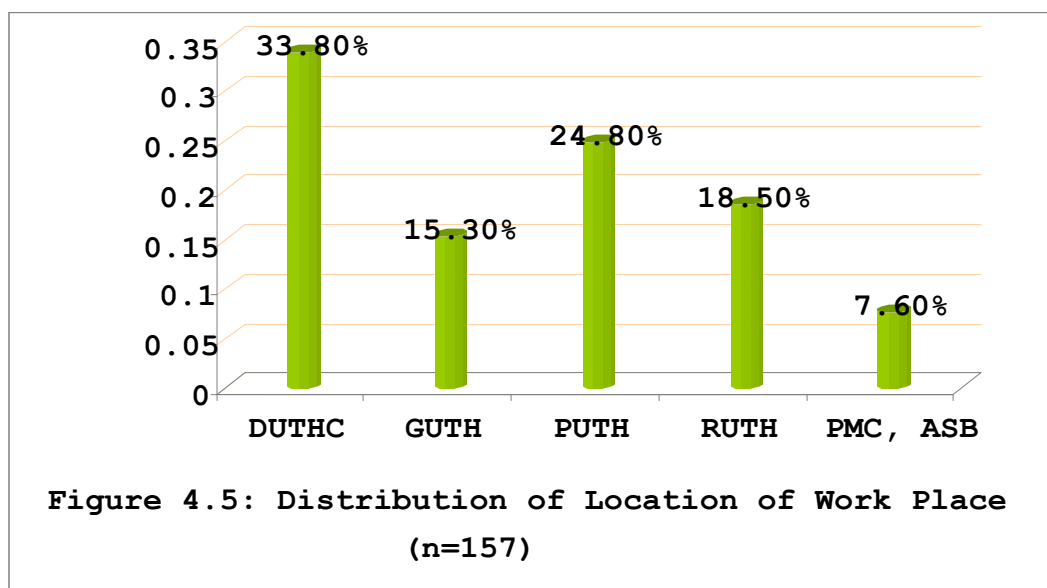
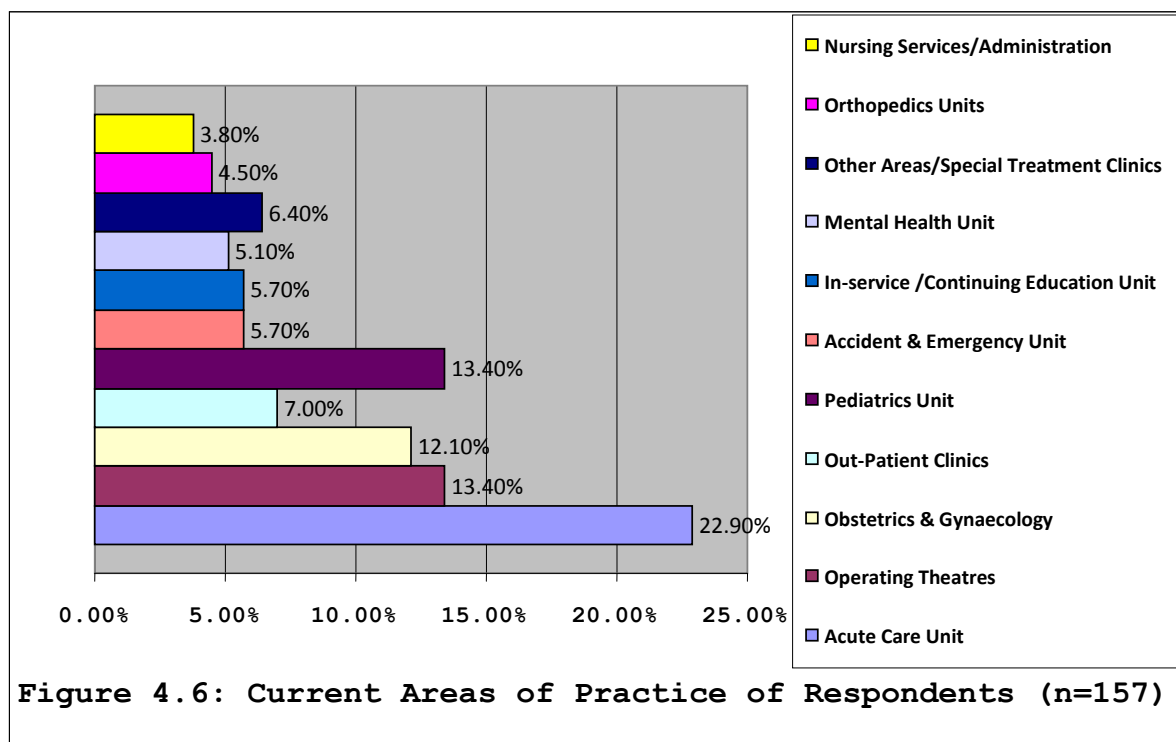


Figure 4.6 below displays the graphic representation of the various department/units of the hospital where the nurse managers were practising. The majority of the nurse managers were professional nurses working in the clinical division or the bedside. A larger percentage of respondents 36(22.9%) as shown in Figure 4.6 worked in the acute care wards namely medical and surgical wards for both male and females; 21(13.4%) of the respondents in the operating theatre and Paediatric units; 19(12.1%) of the respondents in the Obstetrics and Gynaecology unit; 11(7.0%) of the respondents in the outpatient clinics; 10(6.4%) of these respondents in other areas such as Infection Control Unit, Radiology, and special treatment clinics for sexually transmitted diseases and tuberculosis; 9(5.7%) of the respondents in the Accident and Emergency unit; 9(5.7%) of the respondents with the In-service or Continuing Education unit; 8(5.1%) of the respondents in the Psychiatric wards; 7(4.5%) of the respondents in the Orthopedic-

wards and 6(3.8%) of the respondents in the administrative arm of the Nursing Services department.



4.4. CYCLE ONE: FOCUS/CONSCIENCE-RAISING AND COLLABORATION:

QUANTITATIVE DATA FINDINGS.

This cycle presents findings from the data that established existing CQI processes/mechanisms in the five participating hospitals in terms of structure, process and outcome standards. The researcher ascertained the knowledge and perception of the nurses about CQI and thereafter, ascertained availability of resources needed to promote CQI. These resources included workload, human, material and operational resources.

4.4.1. Knowledge and Perception about Continuous Quality Improvement (CQI):

The current status on the knowledge of the respondents about the concepts of CQI was analysed from their responses to ten questions that elicited or gathered information on the knowledge and opinions of CQI activities in the participating teaching hospitals. Table 4.2 below shows the frequencies and responses to the following questions about CQI. The questions were closed-ended and required 'yes' or 'no' responses. Responding to the question which asked **if improvement in the quality of health care was dependent on the contributions of nurses**, the majority of the respondents 153(97.5%) stated in the affirmative and only 4(2.5%) responded in the negative. This explained that nurses were aware that they are stakeholders as far as the quality of health care services is concerned.

The majority of the respondents 156(99.4%) acknowledged that **quality improvement management was an integral part of everyday work indicating that the right things were being done correctly for patients, families and communities**. Many of the respondents, 145(92.4%) viewed **focus on quality, as patient-centred practice**. Again, 150(95.5%) respondents indicated that **CQI was the level of quality to be aimed at for measuring and comparing existing practice against the standards and taking action to improve quality where necessary**. Only 3(1.9%) responded otherwise. Table 4.2 shows that 153(96.8%) respondents were of the opinion that **CQI systematically improved the quality of care from both professional and patient perspectives**. The majority of the respondents 153(97.5%) accepted that **CQI promoted continuing professional development, increased responsibility and accountability** as shown in

Table 4.2 below. One hundred and fifty (95.5%) respondents indicated that **CQI involved an ongoing process where repeated efforts were made to monitor and improve practice until required standards were achieved.**

Table 4.2: Percentage Distribution on Knowledge and Perceptions of Continuous Quality Improvement (CQI) in five Participating Hospitals (n=157).

Variable	Yes (%)	No (%)	Don't know/missing(%)	Total (%)
Improvement in the quality of health care is dependent on the contribution of Nurses	97.5	2.5	0.0	100
Quality improvement/ management is an integral part of everyday work indicating that the right things are being done correctly for patients, families and community	99.4	0.6	0.0	100
Focus on quality is patients/client centred practice	92.4	5.1	2.5	100
CQI is the level of quality to be aimed for measuring & comparing existing practice against standards & taking action to improve quality where necessary.	95.5	1.9	2.6	100
CQI systematically improves quality of care from both professional and patients' perspectives	96.8	1.3	1.9	100
CQI promotes continuing professional development	97.5	0.6	1.9	100
CQI promotes increased responsibility	97.5	0.6	1.9	100
CQI promotes accountability	97.5	0.6	1.9	100
CQI involves an ongoing process where repeated efforts are made to monitor practice until required standards are achieved	95.5	2.5	2.0	100

Furthermore, the researcher ascertained whether the respondents were aware that the **current emphasis in nursing has shifted towards CQI**. The majority of the respondents 152(96.8%) acknowledged that CQI is a contemporary issue in nursing as is evident in Figure 4.7 below; however, 2(1.3%) did not view it as such; and 3(1.9%) of the respondents were not certain of the question.

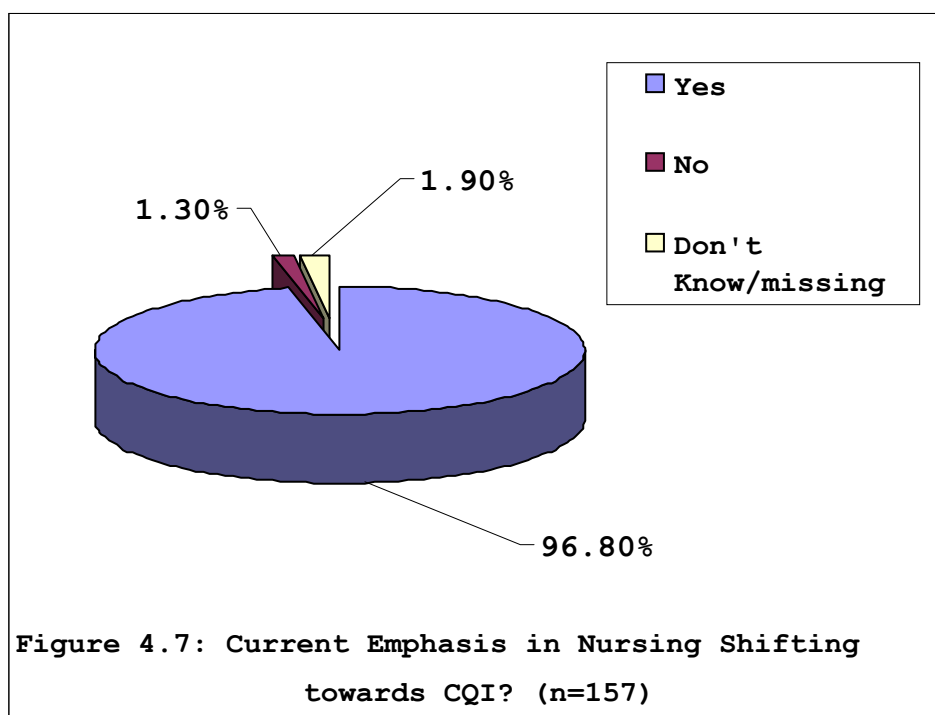
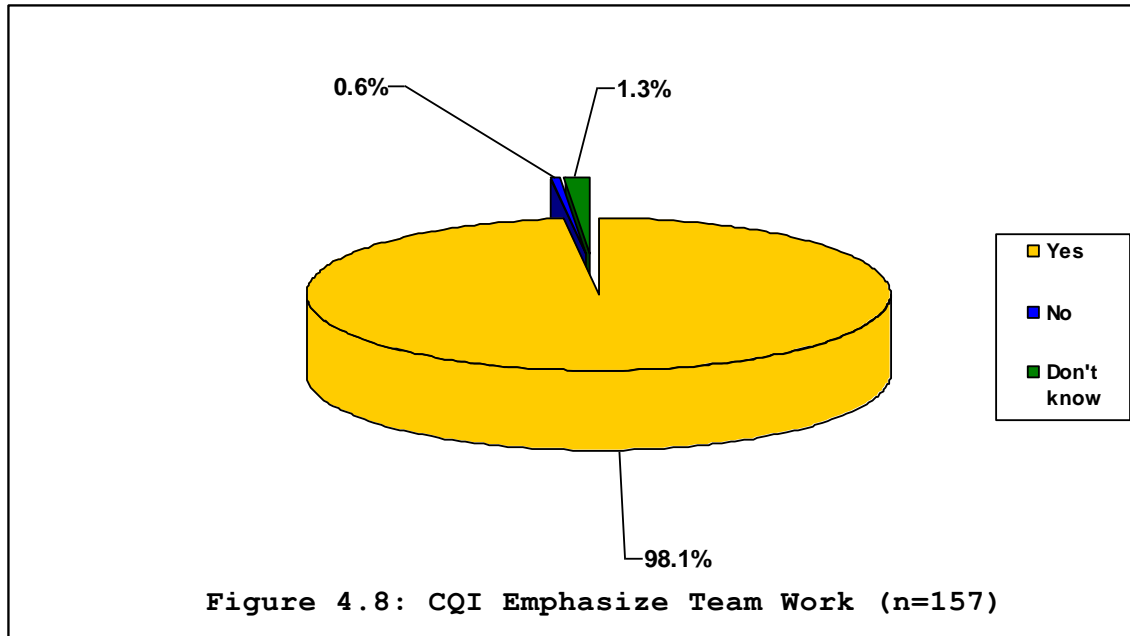
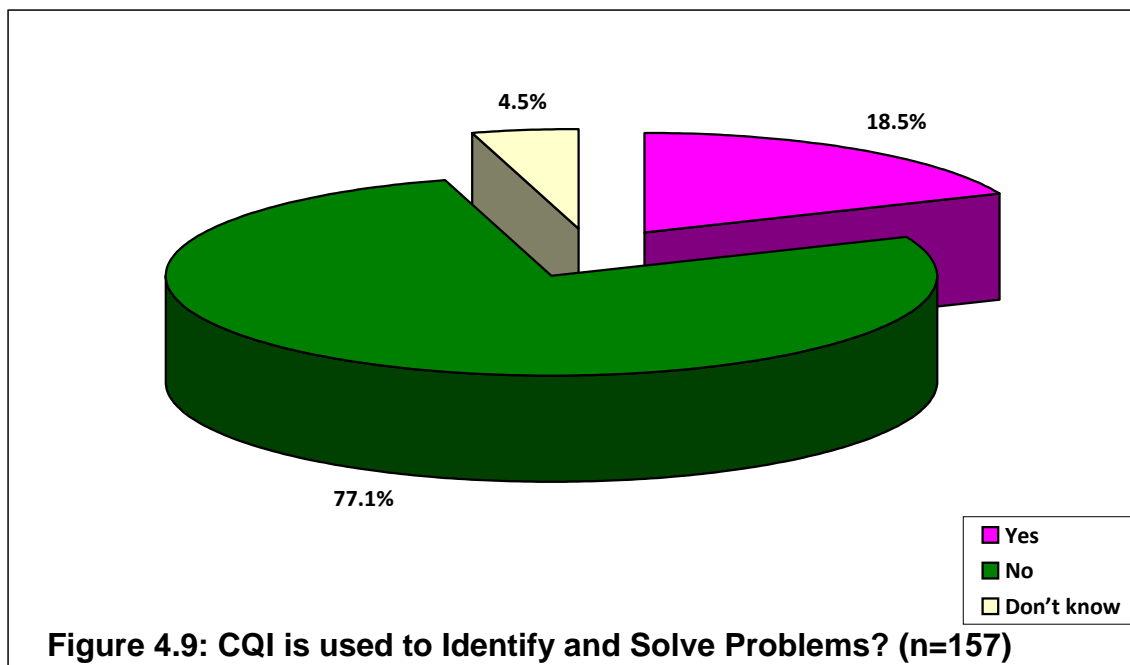


Figure 4.8 below, graphically shows that 154(98.1%) respondents were of the opinion that **CQI emphasises teamwork, evaluates and improves performance**; whilst 2(1.3%) of respondents did not accept and 1(0.6%) respondent did not know, or were not certain about their knowledge.



A large number of the respondents 121(77.1%) concluded that **CQI was not used to verify and solve practice problems** while 29(18.5%) respondents indicated that CQI is, as shown in Figure 4.9 below.



4.4.2. Existing Standards:

Standards in terms of structure, process and outcomes as they existed in the five participating hospitals were established; not with the intention to establish quality but to understand how these standards or components are used. The researcher established what **structure standards** were available in these hospitals in terms of infrastructure, workload, human and material resources. **Process standards** were established in relation to that which constitute care, service and the extent to which the professional nurses performed according to acceptable standards. **Outcome standards** were established from the viewpoint of the nurses vis-à-vis the effect of the care they provided to their patients.

4.4.3. Structure/ Input Standards:

Having ascertained the knowledge of CQI as well as the perceptions, and values of the respondents about CQI, the researcher determined what workload, physical, material and manpower resources were available in these participating hospitals to promote CQI activities.

4.4.3(A). Perceptions of Nurses about Available Resources or Structure Standards

This section introduces following structure criteria i.e. workload, human, operational, and material.

4.4.3A. (i). Workload and *Human Resources*:

Tables 4.3 and 4.4 below show the frequencies and percentage distribution of the workload (firstly the patients) in relation to bed occupancy and bed turnover in the participating hospitals. There were responses to the questions about the facilities such as

bed complement, bed occupancy and bed turnover rate in a given month. Secondly, question about the ratio of nurses to patients, and the total number of nursing care hours put into actual nursing care activities and processes were also put to the participants. In Table 4.3, a section of the respondents (40.8%) informed that there were about 30 beds in their wards; 23.6% reported 20 beds and 28.0% indicated having 10 beds in their wards. Table 4.3 also revealed that 32 (20.4%) respondents informed that over 40 patients occupied these beds in a one month period; 17.8% of the respondents said that about 20 to 29 patients occupied the beds; and 26 (16.6%) indicated that about 10 to 19 patients occupied the beds in their wards.

Responding to the question **of ratio of nurse to patient** in their hospitals, 70 (44.6%) respondents stated that it was 1:10; 17 (10.8%) respondents said it was 1: 20; 4 (2.5%) respondents said it was 1:30; and only 39 (24.8%) said it was 1:4. Twenty-seven (17.2%) could not firmly indicate what the nurse to patient ratio was in their hospitals. However, responses to questions about the adequacy of the nurse to patient ratio continue later in the chapter and are presented graphically in Figure 4.10.

Responding to the **total nursing care hours within shift period**, 73 (46.5%) respondents indicated that they spent all 8 hours providing total nursing care to their patients; whilst 33 (21.0%) said they spent 6 hours providing core nursing care and two hours carrying out non-nursing duties; and 18 (11.5%) respondents said they spent 5 hours providing nursing care to their patients and the other 3 hours attending to non nursing duties. However, 20 (12.7%) claimed to have spent 12 hours providing nursing care to their

patients. The researcher may want to believe that this latter group of nurses may not have understood the questions because the total number of working hours for a nurse in SW Nigeria is 8 hours per day.

Table 4.3: Workload (Patients and Beds) Percentage Distribution for five Participating Hospitals (n=157).

Variable	Frequency (n)	Percentage (%)
Number of beds on your ward?		
5-10 beds	44	28.0
11-20 beds	37	23.6
21-30 beds	64	40.8
Don't know/missing	12	7.6
Total	157	100
Number of Patients occupying beds at any one time (e.g. one month)?		
1-9 patients	32	20.3
10-19 patients	31	20.0
20-29 patients	33	21.0
30-39 patients	24	15.2
40+ patients	37	23.5
Total	157	100
Ratio of nurses to patients in your ward?		
1 nurse to 4 patients	39	24.8
1 nurse to 10 patients	70	44.6
1 nurse to 20 patients	17	10.8
1 nurse to 30 patients	4	2.5
Others	13	8.2
Don't know/missing	14	8.9
Total	157	100
Total nursing care hours provided to patients per shift?		
12 hours	20	12.7
8 hours	73	46.5
6 hours	33	21.0
5 hours	18	11.5
Don't know/missing	13	8.3
Total	157	100.0

Having ascertained the workload available to promote CQI activities in the participating hospitals, the need to evaluate the percentage of nursing personnel became paramount. Table 4.4 below presents the percentage distribution of human resources in terms of nursing personnel working in these participating hospitals. A hundred and six (67.5%) respondents indicated that there were no **Assistant Directors of Nursing (ADNs)** in their wards. Thirty-seven (23.6%) respondents stated that there were about 1-4 ADNs in their ward and 14(18.9%) said that there were over 5 ADNs in their wards. Hospitals where ADNs were found to be more than one per unit (which was the recommended minimum staffing for that position) were unusually “top-heavy” with such nurse managers /directors to provide office spaces for them. Therefore, they were often posted to ‘man’ the wards physically. This accounted for why some hospitals had as many as 4/5 ADNs in their wards.

Furthermore, 115 (73.2%) respondents informed that there were about 4 **CNOs** in their wards; 12 (7.6%) of them indicated having 5 CNOs in their wards and 30 (19.1%) respondents indicated not having CNOs in their wards. The CNOs were basically unit managers except in the instance where there was an ADN in the unit.

For the position of **ACNOs** who were usually ward managers, 65 (41.1%) of the respondents informed that there were about 4 ACNOs nursing personnel in their wards; 72 (45.9%) respondents indicated not having such nursing personnel in their wards; 20 (12.7%) indicated having over 5 ACNOs in their wards and 99(63.1%) respondents stated that there were about 4 **PNOs** in their wards. The majority of the nurse managers fell

within this category. The PNO acted in the capacity of an ACNO in situations where there was no ACNO on the ward. The findings of the other lower level nursing personnel such as the NOs were not so important to this study because they were not the sample for the study; however their findings are represented in Table 4.4.

Table 4.4: Percentage Distribution of available Nurses in the wards of five participating Hospitals: (n=157).

Variable	None n(%)	1-4 (Nursing personnel) n(%)	5+(Nursing personnel) n(%)	Total (%)	Minimum Staffing standard for a 30 Bed-ward as recommended by Nursing & Midwifery Council of Nigeria
ADN	106(67.5%)	37(23.6%)	14(8.9%)	100	1
CNO	30(19.1%)	115(73.2%)	12(7.7%)	100	1
ACNO	72(45.9%)	65(41.4%)	20(12.7%)	100	1
PNO	40(25.5%)	99(63.1%)	18(11.5%)	100	1
SNO	34(21.7%)	110(70.1%)	13(8.3%)	100	2
NO2	24(15.3%)	75(47.8%)	58(36.9%)	100	1:5 patients
NO1	27(17.2%)	101(64.3%)	29(18.5%)	100	1:5 patients

Table 4.5 below shows a percentage distribution of the qualifications possessed by the nurses who worked in the participating hospitals. Eighty-four (53.5%) respondents possessed diploma certificates only, which included the basic nursing, midwifery and specialty qualifications like perioperative, cardio-thoracic nursing, orthopedic, ophthalmic, paediatrics, accident and emergency, and mental health nursing. Four (2.5%)

respondents possessed the Bachelor of Nursing Science degree only. These respondents were products of the generic program. Twenty-five (16.0%) respondents possessed the diploma from the colleges of nursing and then a Bachelor of Science degree in nursing which could have been obtained afterwards. Forty-four (28.0%) respondents possessed the regular nursing diplomas as well as a degree from other related disciplines such as psychology, health education, social-work, and human nutrition.

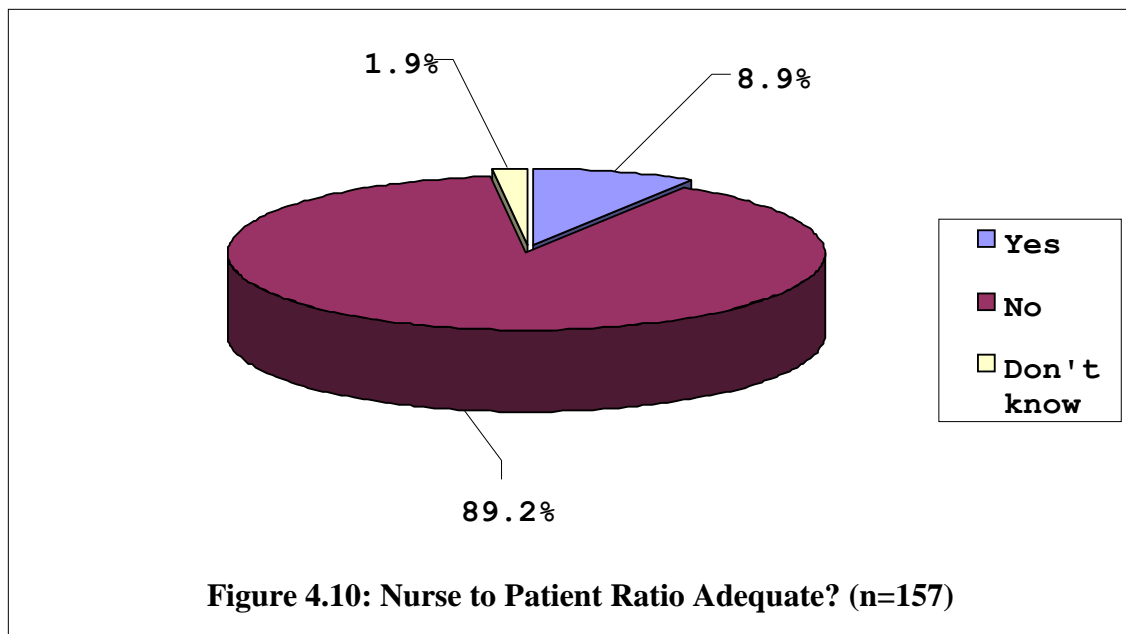
From this table, it can be inferred that a large percentage of the participants were qualified nurses who had received basic professional education during a three year course in nursing and were currently registered with the Nursing and Midwifery Council of Nigeria (N&MCN). They provided basic, as well as skilled nursing and midwifery care independently.

Table 4.5: Percentage Distribution of the Qualification of Nurses working in the wards of five participating Hospitals (n=157) .

Qualifications	Frequency (n)	Percentage (%)
Diploma in Nursing only	84	53.5
Bachelor of Nursing Science (B.NSc) only	4	2.5
Diploma (Nursing) + Bachelor degree in Nursing (B.Sc Honours)	25	16.0
Diploma (Nursing) + Degrees in related disciplines e.g. Human- Nutrition, Psychology, Health Education and Social - Work.	44	28.0
Total	157	100.0

Figure 4.10 below represents the perceptions of the respondents about the nurse to patient ratios in their respective settings. In response to the question: “Is the **ratio of nurse to patient** in these hospitals **adequate?**” Fourteen (8.9%) respondents affirmed that the ratio of nurses to patients in their hospitals was satisfactory; but a greater percentage of these respondents 140 (89.2%) indicated that the ratio was not adequate for quality care.

This finding aligns with the earlier finding of 1 nurse to 10 patients as indicated by the respondents in Table 4.3. This finding was in contrast with the literature of McCutcheon, Macphea, Davidson, Doyle-Waters, Mason, and Winslow (2005). McCutcheon et al. (2005) who maintain that there is sufficient evidence to support the recommendation that hospital in-patient units should strive for a minimum patient-nurse ratio of 4:1; where patient acuity is higher such as in the critical care units, the patient-nurse ratio should not exceed 2:1 ; although the previous regulation of the N&MCN, Section 15.3, page16, (*which is being currently updated and revised*) stipulates 1 nurse: 15 patients which is grossly inadequate for the provision of good quality nursing care. It is important to have as many experienced nurses as possible working per shift that are familiar with the patient population and the unit.



Tables 4.6a and 4.6b below show the percentage distribution of the responses on the nurses' perceptions about the availability of operational and material resources required to promote CQI activities in the participating hospitals.

4.4.3A. (ii). Operational Resources:

In response to the questions which queried the availability of **written standards document for practice** in participating hospitals. Table 4.6a below shows that 44 (28.0%) respondents affirmed that their hospitals had standards of practice to which they conformed. Ninety-nine (63.1%) respondents indicated in the negative and 9.0% did not know if they had any written standards document. However, the majority of the respondents, 150 (95.5%) testified to having **procedure manuals** in their respective hospitals to guide their practice and 7 (4.5%) of the respondents did not know if procedure manuals were available in their respective hospitals.

Table 4.6a: Percentage Distribution of operational materials such as Standards of Practice Document and procedure manuals in five Participating Hospitals (n=157).

Variable	Frequency (n)	Percentage (%)	Minimum Standard
Does your hospital have protocols such as:			1 per hospital
(1).Standard of practice document			
Yes	44	28.0	
No	99	63.0	
Don't Know/Missing	14	9.0	
Total	157	100	
(2). Procedure Manuals			1 per ward
Yes	150	95.5	
No	7	4.5	
Total	157	100.0	

4.4.3A. (iii). Availability of Materials:

Table 4.6b below shows that 145 (92.4%) respondents indicated yes to the availability of physical materials such as **resuscitation trolleys and/or trays**. One hundred and fifty-one (96.2%) of them responded to the availability of **oxygen cylinders**; and 97.5% responded positively to the availability of **bedding**.

Again, 96.2% informed that **medical utilities** such as syringes and needles were available for use in their hospitals; whilst 96.8% confirmed having **drip stands**. In addition, 96.8% of the respondents reported **that stationery** for documentation of care was available. Whether the above **facilities were in adequate supply**, 66.9% of the respondents said NO, and 28.0% indicated YES. If these **basic equipment/materials in their wards were in working condition**, 97 (61.8%) respondents affirmed that equipment were in

working order; while 43 (27.4%) indicated that some of the equipment were not functioning and had been sent for repairs and/or were yet to be replaced.

Table 4.6b: Percentage Distribution of Physical Facilities available in the five Participating Hospitals (n=157).

Variable	Frequency(n)	Percentage (%)	Minimum Quantity Required
Resuscitation trolleys/ trays?			2
Yes	145	92.4	
No	11	7.0	
Don't know/missing	1	0.6	
Total	157	100	
Oxygen cylinder?			2
Yes	151	96.2	
No	6	3.8	
Total	157	100	
Bedding?			<i>12 Bed sheets</i>
Yes	153	97.5	<i>10 Draw sheet</i>
No	4	2.5	<i>4 Hand towels</i>
Total	157	100	<i>1 Mackintosh</i>
Drips stands?			6
Yes	152	96.8	
No	5	3.2	
Total	157	100	
Medical utilities e.g. syringes & needles?			<i>12 various sizes</i>
Yes	151	96.2	
No	6	3.8	
Total	157	100	
Stationery for documentation?			
Yes	152	96.8	
No	5	3.2	
Total	157	100	

Table 4.6b Continues:

Variable	Frequency (n)	Percentage (%)	Minimum Quantity Required
Are the above facilities in adequate supply?			
Yes	44	28.0	
No	105	66.9	
Don't know/missing	8	5.1	
Total	157	100	
Is basic equipment in your ward in working order?			
Yes	97	61.8	
No	43	27.4	
Don't know/missing	17	10.8	
Total	157	100.0	

4.4.3A. (iv). Availability of Support Staff & Other Essential Allied Health Services.

The researcher made certain that the following were available in these participating hospitals as their efforts and contributions served as support and promoted quality care. Allied health workers included the social workers, dieticians, physiotherapists, occupational and speech therapists, medical records and statistics personnel (information officers) and paramedics; however, ancillary staff included clerical staff, porters, ward maids and cleaners.

One hundred and twenty-two (77.9%) respondents in table 4.6c indicated that there were **no adequate support staff** such as ward maids, porters, clerks and cleaners in their hospitals; whilst 30 (19.1%) were comfortable with the number of support staff available in their settings. Ninety-seven (61.8%) respondents affirmed that their **hospitals**

provided allied health services such as social work services, dietetics, physiotherapy, occupational therapy, health records and statistics officers, and pharmacy services.

With regards to queries on hospital catering services, 139 (88.5%) respondents indicated that **meals were provided to the patients through hospital catering services**, whilst 24.8% attested to meals provided to patients through self-catering. However, on a general note, 58.6% of the respondents claimed to have **adequate hospital catering services**, but 29.3% were not satisfied with the hospital catering services. Again, 94.9% of the respondents attested to **functioning pharmacy departments** in their hospitals.

One hundred and thirty-two (84.1%) respondents affirmed that **basic essential drugs** were provided by their hospitals.

Other questions asked in the questionnaires included the availability of and functionality of toilet facilities for patient and staff use. A hundred and one (64.2%) respondents indicated that there were **toilet facilities**; and 131 (83.4%) of them also indicated that the **toilet facilities were in good working order**.

Table 4.6c: Percentage Distribution of Support Staff and Other Essential Services. (n=157).

Variable	Frequency (n)	Percentage (%)
Availability of support staff e.g. porters, ward maids, cleaners?		
Yes	30	19.1
No	122	77.7
Don't know/missing	5	3.2
Total	157	100
Provision of allied health services e.g. social work, dietetics, pharmacy, physiotherapy, medical records?		
Yes	97	61.8
No	40	25.5
Don't know/missing	20	12.7
Total	157	100
Are meals provided to patients through hospital catering services?		
Yes	139	88.5
No	8	5.1
Don't know/missing	10	6.3
Total	157	100
Are meals provided to patients through self-catering?		
Yes	39	24.8
No	107	68.2
Don't know/missing	11	7.0
Total	157	100
Hospital catering service adequate?		
Yes	92	58.6
No	46	29.3
Don't know/missing	19	12.1
Total	157	100

Table 4.6c Continues:

Variable	Frequency (n)	Percentage (%)
Functioning pharmacy department in your hospital?		
Yes	149	94.9
No	4	2.5
Don't know/missing	4	2.5
Total	157	100
Provision of basic essential drugs in your hospital?		
Yes	132	84.1
No	12	7.6
Don't know/missing	13	8.2
Total	157	100
Are there toilet facilities in your hospital?		
Yes	101	64.2
No	49	31.2
Don't know/missing	7	4.5
Total	157	100
Are the toilet facility functioning		
Yes	131	83.4
No	20	12.7
Don't know/missing	6	3.8
Total	157	100.0

4.4.4. Process Standards

This criterion is concerned with assessing activities that constitute care and service because literature informed that structure influences process (Donabedian, 1966). The researcher determined to which extent the professional nurse managers in the participating hospitals have performed according to acceptable standards i.e. what has been done in caring for the patients. The researcher appraised the nursing techniques, procedures, methods of delivery of care, methods of documenting and evaluation of competence of nurses carrying out the care. The researcher needed to deduce what

nursing activities were performed within the context of the study, in order to inform the development of the instrument/tool.

4.4.4(A). Perceptions of Nurses about their Activities that Constitute care and Services.

Having appraised the availability of the structure of the five participating hospitals to include the physical and human resources, the researcher appraised the respondents' opinion regarding process of carrying out nursing activities and the outcome of the care they provide to the patients.

4.4.4A. (i). Perception of Nurses in relation to Competence and Practice.

Table 4.7a below shows the respondents' perceptions of their activities with regards to patients. Responding to a question that elicited responses *about nurses' satisfaction with their role as practitioners* in their respective wards, 81(51.6%) respondents indicated that they were satisfied with their practitioner role; 65(41.4%) respondents indicated non-satisfaction with their role as nurse practitioners; and 11(7.0%) respondents were not certain of their responses to the question.

If the *nurses evaluated their own practice in relation to professional practice*, Table 4.7a shows that 63 (40.1%) respondents in the five participating hospitals stated that they did evaluate their practice in relation to the professional practice; whilst 64 (40.8%) respondents did not evaluate their own practice in relation to professional practice, and 30 (19.1%) respondents did not know. The majority of the respondents 113 (72.0%) claimed

to acquire and *maintain current knowledge and competencies*; whilst 30 (19.1%) respondents in the 5 participating hospitals indicated in the negative and 14(8.9%) respondents did not know. Again, responding to the following question on *contribution to professional development of peers*, 125(79.6%) of the respondents indicated that nurses interacted with and contributed to the professional development of peers; whilst 22(14.0%) of the respondents indicated in the negative and 10(6.4%) of the respondents did not know.

Furthermore, in response to *the use of research findings in practices*, 76 (48.4%) respondents indicated that they did not use research findings in their practice; whilst 49 (31.2%) respondents confirmed using research findings in their practice, but only 2 (1.3%) respondents did not know. In addition, 137 (87.3%) respondents stated that *nurses consider factors related to safety, effectiveness and cost when planning*; whilst 18 (11.5%) respondents answered in the negative and 2(1.3%) respondents were uncertain about their responses. Again, in Table 4.7a, 149(64.9%) respondents indicated that *nurses observed symptoms and reactions related to the course of disease*; whereas 5 (3.2%) respondents stated in the negative and 3(1.9%) did not provide responses.

Table 4.7a below again shows that 122(77.7%) respondents reported that *nursing reporting in their respective hospitals followed prescribed standards*; however, 29 (18.5%) respondents indicated that their nursing reporting did not follow prescribed standards and 6(3.8%) respondents could not tell if nursing reporting in their respective hospitals followed any prescribed standards. In response to the question on

environmental and support systems, 132 (84.1%) respondents affirmed that the nurses in their individual settings ensured that environmental and support systems were provided; whilst 21(3.4%) respondents indicated NO and 4(2.5%) respondents could not tell if nurses in their hospitals ensured provision of environmental and support systems.

Furthermore, in *applying and executing physician's orders*, 152(96.8%) respondents affirmed that nurses in their hospitals applied and executed physician's orders; only 2(1.3%) respondents answered in the negative and 3(1.9%) respondents could not tell if nurses in their respective hospitals applied and executed physician's orders.

Table 4.7a: Percentage Distribution of Nursing Activities/ Processes as related to Practice in five participating Hospitals (n=157).

Variable	Frequency (n)	Percentage (%)
Nurses are satisfied with their practitioner role on the ward?		
Yes	81	51.6
No	65	41.4
Don't know/missing	11	7.0
Total	157	100
Nurses evaluate their own practice in relation to professional practice?		
Yes	63	40.1
No	64	40.8
Don't know/missing	30	19.1
Total	157	100
Nurses acquire and maintain current knowledge and competency?		
Yes	113	72.0
No	30	19.1
Don't know/missing	14	8.9
Total	157	100

Table 4.7a Continues:

Variable	Frequency (n)	Percentage (%)
Nurses interact with and contribute to the professional development of peers?		
Yes	125	79.6
No	22	14.0
Don't know/missing	10	6.4
Total	157	100
Do nurses use research findings in practices?		
Yes	49	31.2
No	76	48.4
Don't know/missing	32	20.4
Total	157	100
Nurses consider factors related to safety, effectiveness & cost when planning care?		
Yes	137	87.3
No	18	11.5
Don't know/missing	2	1.3
Total	157	100
Nurses observe symptoms and reaction related to course of disease?		
Yes	149	94.9
No	5	3.2
Don't know/missing	3	1.9
Total	157	100
Does the nursing reporting in your hospital follow prescribed standards?		
Yes	122	77.7
No	29	18.5
Don't know/missing	6	3.8
Total	157	100
Nurses ensure that environmental and support systems are provided?		
Yes	132	84.1
No	21	13.4
Don't know/missing	4	2.5
Total	157	100
Do nurses apply and execute physicians' orders?		
Yes	152	96.8
No	2	1.3
Don't know/missing	3	1.9
Total	157	100.0

4.4.4A. (ii). Activities as related to Patient Care performed by the Nurse.

In Table 4.7b below, the majority of the respondents 109(69.4%) added that *nurses' decisions and actions on behalf of patients were determined in an ethical manner* in their individual hospitals; 24(15.3%) respondents indicated that nurses' decisions and actions on behalf of the patients were not determined in an ethical manner; however, 24 (15.3%) respondents could not take a standpoint.

Responding to the question of collaboration, 121(77.1%) respondents stated that nurses in their respective hospitals *collaborated with patients, families and other health care providers to provide care*; whilst 12(7.6%) respondents replied in the negative and 24(15.3%) did not indicate any particular response.

In response to the following nursing processes in Table 4.7b, 141(89.8%) respondents from the five participating hospitals affirmed that nurses collected patient health data; but 12(7.6%) respondents stated that nurses in their setting did not collect patient health data; however, 4(2.5%) respondents did not provide a response to the question. In addition, 116(73.8%) respondents affirmed that nurses in their settings analysed these data; 41(26.2%) respondents answered negatively. There were no responses marked under the column labelled 'don't know"/missing'.

Furthermore, 112(71.4%) respondents affirmed that in their individual hospitals, the *nurses developed a plan of care that described intervention*; but 45(28.6%) respondents stated otherwise; and again there were no entries under the column labelled 'don't

know/missing'. Again in Table 4.7b, 112(71.4%) respondents indicated that in their respective hospitals, the nurses evaluated patients' progress towards attainment of goals whilst 45(28.6%) respondents indicated otherwise, and no respondent ticked the column labelled 'don't know/ missing'.

The majority of the respondents, 150(95.5%) affirmed that the patients' physical needs were met; only 4(2.5%) respondents stated otherwise, and 3(1.9%) respondents did not indicate whether the physical needs of their patients were met. One hundred and forty-four (91.7%) respondents also indicated that the emotional and social needs of their patients were met; while 8(5.1%) respondents replied negatively and 5(3.2%) respondents did not provide a response to the question.

Responding to the question on documentation in Table 4.7b below, 141(89.8%) respondents indicated that nurses recorded or documented the care provided for patients; only 6(3.8%) respondents indicated otherwise; and 10 (6.4%) respondents did not know whether nurses documented care provided for the patient in their respective hospitals.

Lastly, 144(91.7%) respondents stated that unit procedures were followed for the protection of the patients from adverse incidents; while 6(3.8%) respondents replied negatively and 7(4.5%) respondents did not know.

Table 4.7b: Percentage Distribution of Nursing Activities/ Processes as related to patients in five participating Hospitals (n=157) .

Variable	Frequency (n)	Percentage (%)
Nurses' decisions and action on behalf of patients determined in an ethical manner?		
Yes	109	69.4
No	24	15.3
Don't know/missing	24	15.3
Total	157	100
Nurses collaborate with patients, families & other health care providers in providing care?		
Yes	121	77.1
No	12	7.6
Don't know/missing	24	15.3
Total	157	100
Nurses collect patient health data?		
Yes	141	89.8
No	12	7.6
Don't know/missing	4	2.5
Total	157	100
Nurses analysed these data?		
Yes	116	73.8
No	41	26.2
Don't know/missing	0	0
Total	157	100
Nurse develops a plan of care that describes intervention?		
Yes	112	71.4
No	45	28.6
Don't know/missing	0	0
Total	157	100
Nurses evaluate patients' progress towards attainment of goals?		
Yes	112	71.4
No	45	28.6
Don't know/missing	0	0
Total	157	100
Are physical needs of patients met?		
Yes	150	95.5
No	4	2.5
Don't know/missing	3	1.9
Total	157	100

Table 4.7b Continues:

Variable	Frequency (n)	Percentage (%)
Are the emotional and social needs for patients met?		
Yes	144	91.7
No	8	5.1
Don't know/missing	5	3.2
Total	157	100
Do nurses record or document the care provided for the patients?		
Yes	141	89.8
No	6	3.8
Don't know/missing	10	6.4
Total	157	100
Are unit procedures followed for the protection of patients?		
Yes	144	91.7
No	6	3.8
Don't know/missing	7	4.5
Total	157	100.0

4.4.5. Outcome Standards

As structure influences process, so the process influences outcomes (Donabedian, 1966). Outcomes assess the effect of the care (i.e. changes in the patient's condition following treatment) which are the results expected in order to achieve the standards in terms of behaviour, responses, level of knowledge, and health status. Outcomes such as patient satisfaction, adherence to discharge plans, average length of stay, hospital acquired infections and death rates were assessed from the nurses' viewpoints.

4.4.5(A). Perceptions of Nurses as related to Patient Outcomes.

This section introduces the nurse's perspective about health indicators in their respective hospitals.

4.4.5A. (i). Patient Satisfaction:

Table 4.8 below reveals the percentage distribution of the activities of the nurses as they affected the patient. Whereas these were determined from their patients, ninety-seven (61.7%) respondents indicated that their patient and family were satisfied with the nursing care given; whilst 60(38.3%) respondents indicated otherwise. In Table 4.8, 91(57.9%) respondents advised that patients in their respective hospitals were satisfied with the time spent with them; but 66(42.0%) respondents indicated patients' dissatisfaction with the time spent with them. Again, 95(60.5%) respondents stated that the patients in their individual hospitals were satisfied with the information provided to them and 62(39.4%) respondents replied negatively. Furthermore, 107(68.2%) respondents affirmed that patients in their hospitals were satisfied with symptom management; but 47(29.9%) of the respondents indicated that their patients were not satisfied with symptom management.

4.4.5A. (ii). Adverse Incidents:

However from the nurses' viewpoints, 95(60.5%) respondents admitted that adverse incidents like *falls of patients* were a frequent occurrence in their hospitals; whilst 62(39.4%) respondents indicated otherwise. In addition, 108(68.7%) respondents affirmed that adverse incidents like *pressure sores* were a frequent occurrence in their

wards, but 4(31.2%) respondents did not acknowledge adverse incidents like pressure sores being a frequent occurrence in their hospitals.

Responding to a question about *infections*, Table 4.8 below shows that 115(73.2%) respondents in the five participating hospitals confirmed that infections were a frequent occurrence and 42 (26.7%) respondents stated otherwise.

4.4.5A. (iii). Hospital Acquired Infections (HAIs):

Responding to the incidence of *hospital acquired infections* (HAIs) records, the majority of the respondents 88 (56.1%) indicated that about 5 to 10 HAIs are recorded per month in their hospitals as revealed in table 4.8 below; 12(7.6%) respondents stated that about 10 to 20 HAIs were recorded in their settings Five (3.2%) respondents stated a figure of about 20 to 30 HAIs being recorded in their hospitals; and 11(7.0%) of the respondents claimed that over 40 HAIs were recorded in their hospitals; however, a large proportion of the respondents 41(26.1%) did not know the number of HAIs recorded monthly in their hospital settings.

4.4.5A. (iv). Length of Stay:

With regards to length of stay over a quarter period, 58 (36.9%) respondents stated that the *average length of stay of patients* in their hospital, ranged between 1 and 7 days; 47 (29.9%) respondents indicated a range of 8 to 14 days; 21(13.4%) respondents affirmed that their patients' stay averaged between 21 and 28 days; and 14(8.9%) respondents informed that the average length of stay of patients in their settings per quarter of a year

ranged from 30 to 60 days. In addition, 48 (30.6%) respondents informed that 10 to 20 discharges were recorded per month in their respective hospitals; 23(14.6%) respondents indicated 20 to 30 discharges per month; 17(10.8%) respondents stated that about 30 to 40 discharges were recorded in their hospitals, and 57(36.3%) affirmed over 40 discharges per quarter year in their hospitals; however, 12(7.6%) respondents did not know the number of discharges recorded in their hospitals per quarter year. In ***adhering to discharge plans***, 94(59.9%) respondents indicated that patients in their hospital settings adhered to discharge plans; but 30(19.1%) respondents indicated NO to patients' adherence to discharge plans.

4.4.5A. (v). Death/ Mortality Rate:

Lastly, in appraising the ***mortality rate***, 112(71.3%) respondents indicated that about one to ten deaths are recorded in their hospitals in one month; 12(7.6%) respondents indicated a monthly record of about ten to twenty deaths; 5(3.2%) of the respondents affirmed to having a monthly record of about twenty to thirty deaths; only 2(1.3%) respondents stated that about thirty to forty deaths are recorded in a one month period in their hospitals and 26(16.6%) respondents were not certain about the number of deaths recorded per month in their individual settings.

Table 4.8: Percentage Distribution of Nursing Activities/ Processes as related to patient Outcomes in five participating Hospitals (n=157) .

Variable	Frequency (n)	Percentage (%)
Are Patient and family satisfied with nursing care?		
Yes	97	61.7
No	60	38.3
Total	157	100
Are Patients satisfied with time spent with them?		
Yes	91	57.9
No	66	42.0
Total	157	100
Are Patients satisfied with information provided to them?		
Yes	95	60.5
No	62	39.4
Total	157	100
Are patients satisfied with pain management?		
Yes	107	68.2
No	50	31.8
Total	157	100
Are patients satisfied with symptom management?		
Yes	110	70
No	47	29.9
Total	157	100
Are adverse incidents like falls of patients a frequent occurrence on your ward?		
Yes	95	60.5
No	62	39.4
Total	157	100
Are adverse incidents like pressure sores a frequent occurrence in your ward?		
Yes	108	68.7
No	49	31.2
Total	157	100
Are infections a frequent occurrence in your hospital?		
Yes	115	73.2
No	42	26.7
Total	157	100

Table 4.8. Continues:

Variable	Frequency (n)	Percentage (%)
Do patients in your hospital adhere to discharge plans?		
Yes	94	59.9
No	30	19.1
Don't know/missing	33	21.0
Total	157	100
Average length of stay of patients in the hospital per quarter year?		
1-7 days	58	36.9
8-14 days	47	29.9
21-28 days	21	13.4
30-90 days	17	10.8
Don't know/missing	14	8.9
Total	157	100
Number of discharges recorded per month in your hospital?		
10-20	48	30.6
20-30	23	14.6
30-40	17	10.8
More than 40	57	36.3
Don't know/missing	12	7.6
Total	157	100
Number of Hospital Acquired Infections (HAIs) recorded per month?		
5-10	88	56.1
10-20	12	7.6
20-30	5	3.2
More than 40	11	7.0
Don't know/missing	41	26.1
Total	157	100
Number of deaths recorded per month?		
1-10	112	71.3
10-20	12	7.6
20-30	5	3.2
30-40	2	1.3
Don't know/missing	26	16.6
Total	157	100

4.5. Existing or Available CQI Mechanisms/Processes

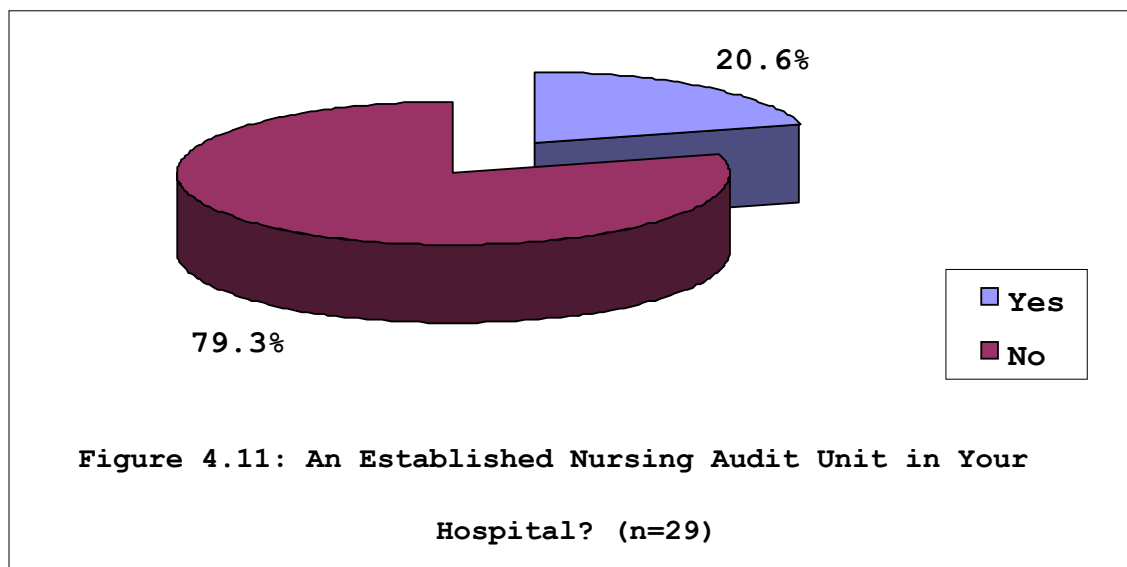
This section introduces findings on quality improvement mechanisms as they existed in the participating hospitals in relation to nursing audit unit, type of auditing, evaluation of care, measurement tool(s), and in-service/CE unit.

The **second part of cycle one** presents findings from a set of quantitative data collected from nurse managers from the five participating hospitals who subsequently constituted the research team. These nurse managers who numbered twenty-nine (29) altogether, were professional nurses specifically from the principal and chief nursing officer cadres. They were systematically selected (using the nth selection technique) because they were in leadership positions, involved in supervision of nurses at ward level, and were in a better position to provide exact and accurate information about CQI activities in their hospitals than were the lower level nurses. The research team provided responses to the actual situation about CQI mechanisms existing in their individual settings e.g. the availability of established nursing audit and in-service education units and quality care measurement tools, which informed the adaptation of quality-of-nursing care indicators for this study.

4. 5.1. Nursing Audit Unit:

A question which ascertained whether CQI and/or quality assurance systems were in place in the nursing division of the participating hospitals was asked. Figure 4.11 below shows that 23(79.3%) respondents stated that they had **no established nursing audit unit** in their hospitals which monitored and measured quality nursing care. However,

6(20.6%) respondents reported that a newly established nursing audit unit had just been put in place in their particular hospital.



However, a *chi-square test of homogeneity* was carried out between variables “Do you have a CQI/QA system in place in the nursing division of your hospital and do you have an established nursing audit unit in your hospital?” using a cross tabulation and a statistical association was identified. A ($p = 0.019$) was obtained which resulted in the rejection of the null hypothesis to mean that a significant relationship/correlation exist between CQI systems and establishment of nursing audit units. The researcher opines that a structured/established nursing audit unit is a system/ mechanism for CQI.

In substantiation of the data findings presented graphically earlier in figure 4.11, Table 4.9a below reveals the percentage distribution for other existing processes of CQI. Twenty-four (82.8%) of the respondents indicated that **no CQI or quality assurance mechanism was in place in the nursing division of their hospital**. Only 5(17.5%) responded in the affirmative. Twenty-two (75.8%) respondents stated that they had **no established nursing audit units which monitored nursing care activities in the wards**; but 7 (24.2%) respondents indicated that their nursing audit unit monitored care provided by nurses. Responding to questions which ascertained the active participation of nurses in evaluating nursing and the use of external assessors to evaluate care, Table 4.9a shows that 15(51.7%) respondents indicated that **evaluation of care was done at ward level by the nurses participating actively in monitoring**.

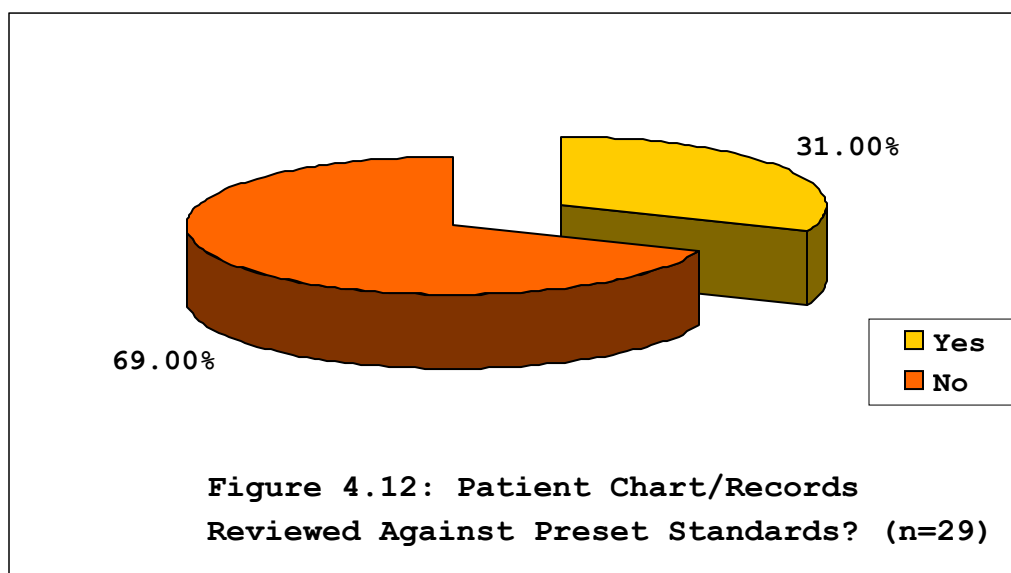
Twelve (41.4%) respondents asserted that evaluation of nursing care was done at management level hence nurses did not participate actively in the monitoring of care. Seventeen (58.6%) respondents maintained that **evaluation of nursing care was not done at management level using external assessors**; but at ward level, whilst 5 (17.2%) of them stated that evaluation was done at ward level, using external assessors. However, a greater percentage of the respondents (51.7%) asserted that **evaluation of quality of nursing care was not a regular occurrence** in their hospitals; although 14 (48.3%) claimed to have evaluation of nursing care carried out frequently (either bi-annually or annually) in their setting on a regular basis. Eighteen (62.1%) respondents indicated that **patients' records amongst others, were reviewed during evaluation of nursing care, to identify strengths and deficit of care**; while 11(37.9%) indicated in the negative.

Table 4.9a: Percentage Distribution of existing quality assurance processes/evaluation activities in the five participating Hospitals (n=29).

Variables	Frequency (n)	Percentage (%)
Have a CQI/QA system in place in the nursing division of your hospital?		
Yes	5	17.2
No	24	82.8
Total	29	100
Does the nursing audit unit, if any, monitor nursing care activities on the wards?		
Yes	7	24.2
No	22	75.8
Total	29	100
Is evaluation of care done at ward level by nurses participating actively in implementation of instrument?		
Yes	15	51.7
No	12	41.4
Don't know	2	6.8
Total	29	100
Is evaluation of quality care done at management level using external assessors?		
Yes	5	17.2
No	17	58.6
Don't know/missing	7	24.1
Total	29	100
Frequency of Evaluation of care?		
Non regular	15	51.7
Regular*	14	48.3
Total	29	100
During evaluation of care, only patient records are reviewed to identify strengths and deficit of care?		
Yes	11	37.9
No	18	62.1
Total	29	100

4.5.1.1. Type of Auditing (Concurrent/retrospective) Activities:

The researcher needed to determine what form of auditing activities in line with quality improvement efforts if any, were carried out in these participating hospitals. Questions were also posed to establish whether staff interviews and/or observations of nursing behaviours were carried out in these participating hospitals. Figure 4.12 below show that 20 (69.0%) respondents, forming the greater percentage of the respondents stated that the **patients' charts and records were not reviewed against a preset standard while the patients were still receiving care.** These responses stirred up questions about the availability of evaluative/measurement instrument in these participating hospitals. Nine (31.0%) respondents indicated that patients' charts and records were reviewed against preset standards as the patients were still receiving care.



In table 4.9b below, 26 (89.7%) respondents stated that **post-care interviews were not conducted with the patients and family members when the patients had left the hospital.** Twenty-seven (93.1%) respondents informed that **post-care questionnaires**

were not completed by patients on discharge to measure patient satisfaction. Two (6.9%) respondents did not know if post-care questionnaires were completed by the patients in their setting.

Twenty-three (79.3%) respondents indicated that **patients' interviews or observations of aspects of care were conducted at the bedside;** while 5(17.2%) respondents responded in the negative. Whether the participating **hospitals organised group conferences involving patients, families and staff about care being given,** 20(69.0%) respondents stated that such quality improvement activities did not take place in their settings; but 9(31.0%) respondents indicated that it was common place in their hospitals, to find group conferences involving patients, families and staff about care being given, for example, group conference organised periodically for mentally-ill patients.

Sixteen (55.2%) respondents indicated that it was **common practice to interview staff and/or observe their behaviours;** while 13 (44.8%) respondents averred that staff interviews and/or behaviours were not carried out in their settings as shown in table 4.9b below.

Table 4.9b: Percentage Distribution of CQI as related to type of auditing (concurrent/retrospective) (n=29).

Variable	Frequency (n)	Percentage (%)
Post care interviews are conducted with the patients and family members when the patients have left the hospital?		
Yes	3	10.3
No	26	89.7
Total	29	100
Post-care questionnaires are completed by the patients on discharge to measure patients' satisfaction		
Yes	0	0.0
No	27	93.1
Don't know	2	6.9
Total	29	100
Patients' interviews or observations of aspects of care are conducted at the bedside?		
Yes	23	79.3
No	5	17.2
Don't know	1	3.4
Total	29	100
Your hospital organises group conferences involving patients, families and staff about care being given?		
Yes	9	31.0
No	20	69.0
Total	29	100
Staff interviews and/or observations of nursing behaviour are carried out?		
Yes	16	55.2
No	13	44.8
Total	29	100

4. 5.1. 2. Evaluation of Quality Nursing Care to promote Changes in Practice:

Table 4.9c below presents the percentage distribution of the outcome of monitoring quality nursing care in the selected teaching hospitals if ever carried out. Eighteen (62.1%) respondents asserted that the exercise of evaluation via the monitoring of nursing care if carried out, often brought changes into practice; but 11(37.9%) respondents did not subscribe to that opinion.

When asked to comment on their responses, some of them indicated that they did not have established evaluative or monitoring units like the nursing audits to see to the quality of care provided, and, as such, the issue of changes in nursing practice might not arise. Those who responded YES as an option commented that the exercise of monitoring and evaluation of care usually promoted improvement in the nursing care; and on a common note promoted a therapeutic environment.

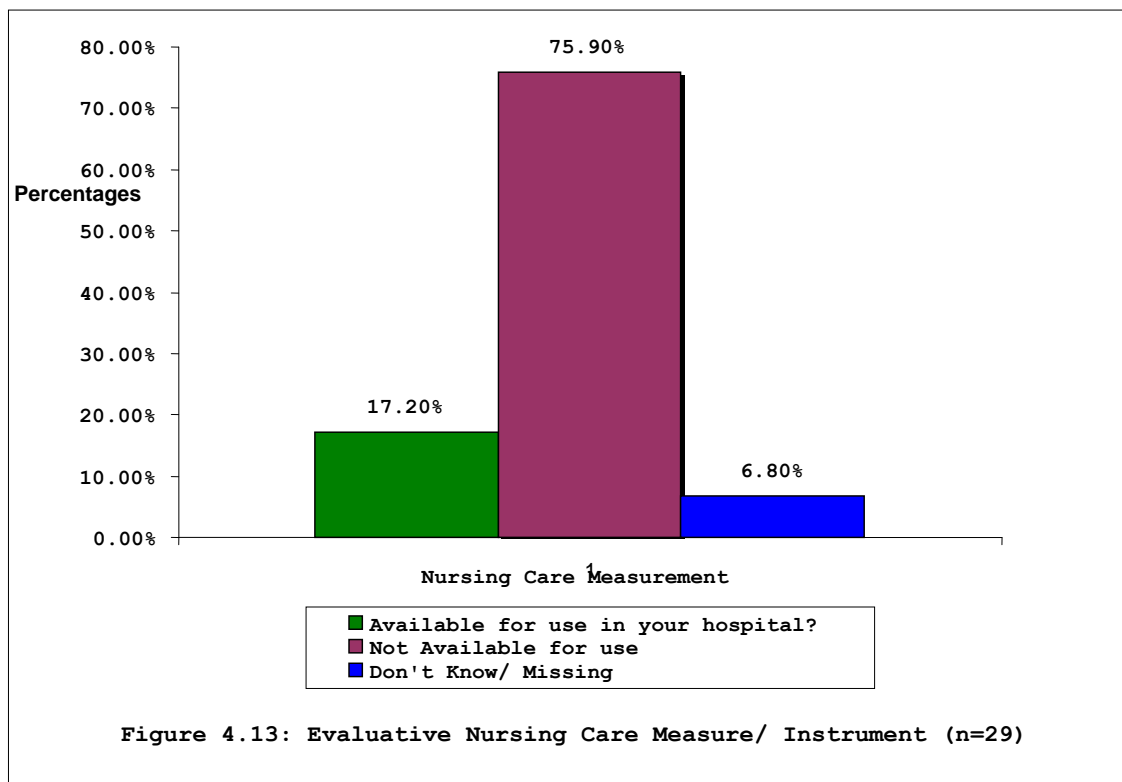
Table 4.9c: Percentage Distribution of Processes of CQI in the Health Facilities as related to Outcome of Evaluation Activities (n=29).

Variables	Frequency (n)	Percentage (%)
Does the exercise of monitoring and evaluation of the quality of nursing care bring changes in nursing practice?		
Yes	18	62.1
No	11	37.9
Total	29	100
Comment briefly		
Improvement in nursing care on the wards	8	27.6
Neatness in all units	2	6.9
Improvement in nursing audits	5	17.2
No monitoring and evaluation units	4	13.8
No Response (NR)	10	34.5
Total	29	100.0
Are outcomes of evaluation activities carried out in your hospital communicated to the nurses?		
Yes	11	37.9
No	18	62.1
Total	29	100

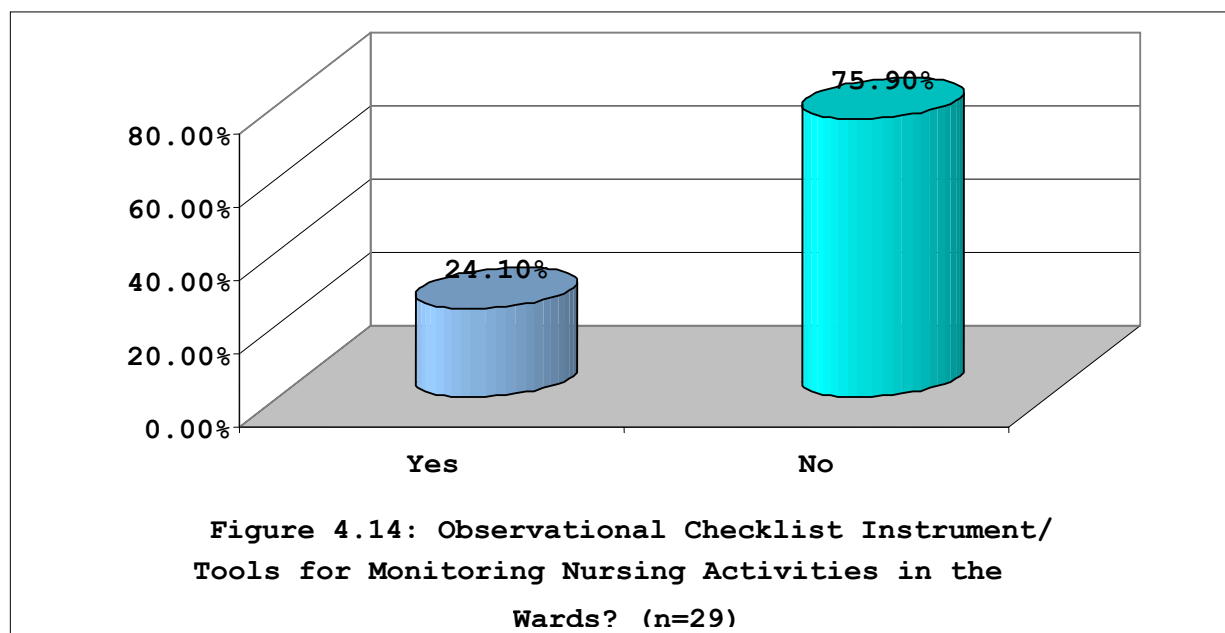
A *chi-square test* for two variables using a cross tabulation was carried out to ascertain statistical association between the responses of participants to the following questions “Does the exercise of monitoring and evaluation of quality nursing care if ever carried out in your hospitals, bring about change in nursing practice and the responses to “are outcomes of evaluation activities carried out in your hospital communicated to the nurses” as presented in table 4.9c. It was observed that the responses to the former are similar to the latter (i.e. those that expressed that evaluation activity are not communicated to them). Therefore, a correlation or relationship existed between them. This further explains that one cannot believe in what she/he does not know; if communications about outcomes of evaluative processes/ activities is not promoted. A ($p=0.012$) i.e. a p value less than 0.05 was obtained and subsequently, the null hypothesis was rejected to mean that a correlation exist between the two variables.

4.5.2. Quality-care measurement tools

In respect to measurement instrument, when the research team was asked whether evaluative nursing care measurement instruments such as quality-care-indicators were available for use in their hospitals, Figure 4.13 below revealed that a greater percentage of the respondents (75.9%) indicated that they had **no such measurement instruments/tools** in their hospitals; while 5(17.2%) respondents indicated having quality-care indicators for measuring the quality of nursing care in their facility; 2(6.80%) respondents were not certain if evaluative nursing care measures/ instruments were available in their settings.



Twenty-two (75.8%) respondents in Figure 4.14 below confirmed that there were **no observational checklist tools for monitoring the activities of the nurses in the wards**; although 7(24.2%) respondents indicated having a checklist monitoring tool.



Nevertheless, a chi-square test of independence was also used to explore the relationship between availability of observational checklist tools for monitoring quality of nursing care and presence of an established nursing audit unit, a CQI mechanism expected to use these observational checklists periodically to evaluate quality care provided by the nurses in the five participating hospitals. Though a *chi-square test* showed there was no significant homogeneity / relationship at a 0.05 level ($p = 0.148$) for the responses thereby accepting the null hypothesis, a cross tabulations table clearly showed that out of the 22 nurse managers that responded to the question of no checklist tools for monitoring activities, 16 of these nurses also responded that there was also not an established nursing audit unit in their hospitals. Nonetheless, the researcher opines that one major tool of an established nursing audit unit is a checklist for observing or assessing the nurses as they carry out their work.

4.5.2.1. Utilization of any Existing Instruments:

Data findings revealed that respondents in some hospitals claimed to have an evaluative measurement tool; although when asked to comment during the FGD session, a respondents candidly admitted that they had never put the tool to use; that it was given to them when they went to some other hospital with established CQI mechanisms like the nursing audit unit for training. Casually, the respondents in this hospital admitted as thus in the space provided for open-ended responses /comments:

We have an 'in-house tool' obtained from.....when we went to under-study them so as to set up our nursing audit unit, but it is as good as not having one because we have never used or put the instrument into use.

The researcher who was obviously not certain as to which hospital had established, standardised, and acceptable nursing care measurement instruments, resolved to find out whether there were any factors that prevented the use of such measurement instruments where available; and/or promoted them and thus posed the aforementioned question. Tables 4.10a and 4.10b below show the distribution of the responses to the question of factors preventing and/or promoting the use of existing evaluative measurement instruments.

4.5.2.2. Factors Preventing/promoting the use of Evaluative Measurement Instruments if any:

Eighteen (62.1%) respondents stated that no factor prevented the use of any quality care indicators. When asked to comment on their responses, they stated emphatically that

there were no evaluative measurements instruments for measuring the quality of nursing care and for this reason, there were no factors to consider. For those who responded by providing factors that prevented the use of their evaluative instruments, Table 4.10a, shows that these 4(36.4%) respondents indicated a “shortage of manpower” as a factor that sometimes hindered the use of the indicators. Thirty-five percent of the respondents itemised factors such as “improvement in the area of staff strength”, “continued sensitisation of nurses”, and “established nursing audit unit” as factors that promoted the use of the monitoring/measurement instruments in their settings.

Table 4.10a: Factors preventing the use of evaluative measurement Instrument (n=29)

Variable	Frequency (n)	Percentage (%)
Does any factor prevent the use of the evaluative instrument?		
Yes	11	37.9
No	18	62.1
Total	29	100.0
Factors as listed		
Shortage of man power	4	36.4
Evaluation instrument are not available	7	63.6
Total	11	100.0

Table 4.10b: Factors promoting the use of evaluative measurement Instrument (n=29)

Variable	Frequency (n)	Percentage (%)
Does any factor promote the use of evaluation instrument?		
Yes	10	34.5
No	8	27.6
Don't know	11	37.9
Total	29	100.0
Factors as listed		
Improvement in the area of staff Strength	3	30.0
Continued sensitisation of nursing	3	30.0
Inauguration of established nursing audit in the system	4	40.0
Total	10	100.0

4.5.2.3. Content Assessment of Instrument if Available, in five Participating Hospitals:

Table 4.11 below presents the percentage distribution of content assessment of any existing instruments for appropriateness in terms of structure, process and outcome. All respondents, 29(100%) admitted that they did not have any form of tool/instrument that contained the items there-in table 4.11 but on the other hand all 29(100%) respondents indicated that they had procedure manuals in their respective hospitals to guide their practice.

Table 4.11: Percentage Distribution of Content Assessment of Instrument (Structure, Process and Outcome) for Appropriateness if available (n=29).

Variable	Frequency (n)	Percentage (%)
Does your instrument/tool if available contain the following? A). Structure Criteria e.g. Availability of Human resources		
Yes	0	0
No	29	100
Total	29	100
Availability of Material Resources?		
Yes	0	0
No	29	100
Total	29	100
Availability of operational resources such as: i) Standard of practice document?		
Yes	0	0
No	29	100
Total	29	100
(ii). Procedure manuals and other policy documents?		
Yes	29	100
No	0	0
Total	29	100
B).Process Criteria e.g. Nursing Assessment of Patients to include: i. Formulation of Plan of nursing care?		
Yes	0	0
No	29	100
Total	29	100
ii. Meeting Psycho-social Needs of patient?		
Yes	0	0
No	29	100
Total	29	100

Table 4.11 Continues:

Variable	Frequency (n)	Percentage (%)
iii). Meeting physical needs of patients to include execution of nursing procedures and techniques, such as administration and/or supervision of medications, vital signs and nursing documentation?		
Yes	0	0
No	29	100
Total	29	100
iv). Evaluating nursing objectives?		
Yes	0	0
No	29	100
Total	29	100
v). Pain Assessment?		
Yes	0	0
No	29	100
Total	29	100
vi). Meeting communication/ teaching needs of patients?		
Yes	0	0
No	29	100
Total	29	100
vii). Ward preparation for Emergency situations?		
Yes	0	0
No	29	100
Total	29	100
viii). Provision of environmental and support services?		
Yes	0	0
No	29	100
Total	29	100
C). Outcome Criteria e.g. Measurement of health indicators such as (i). Infections?		
Yes	0	0
No	29	100
Total	29	100
ii). Frequency of adverse incidents like falls and pressure sores?		
Yes	0	0
No	29	100
Total	29	100
iii). Patient Morbidity and Mortality?		
Yes	0	0
No	29	100
Total	29	100

Table 4.11 Continues:

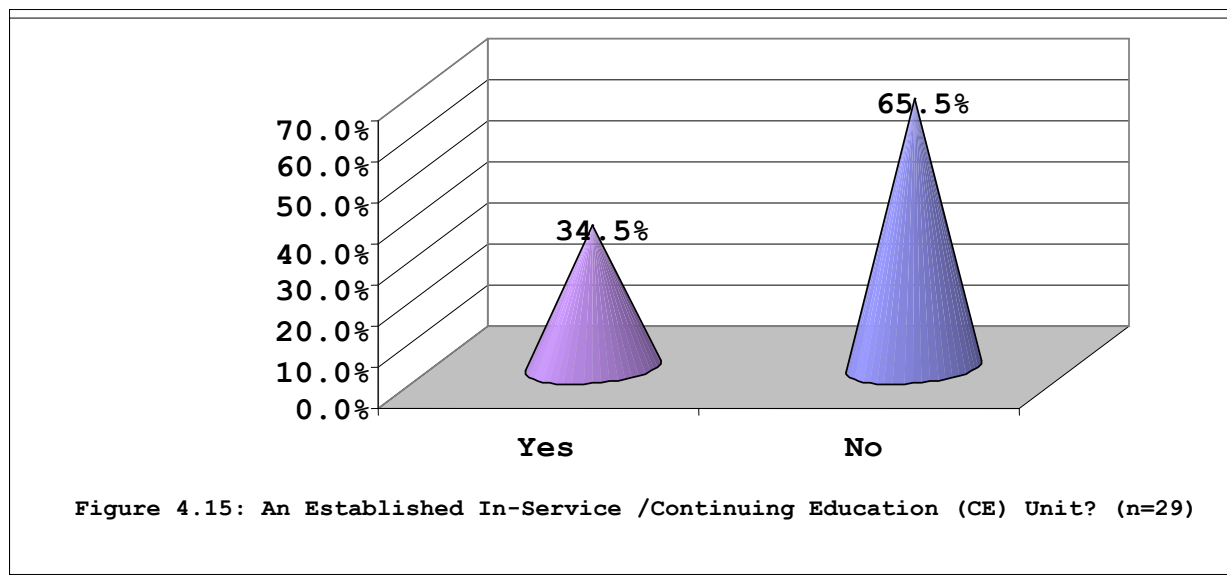
Variable	Frequency (n)	Percentage (%)
iv). Patient Satisfaction?		
Yes	0	0
No	29	100
Total	29	100
v). Average Length of Stay?		
Yes	0	0
No	29	100
Total	29	100
Scoring System e.g. Best care; Average care; or Poor care; Yes or No, or not Applicable?		
Yes	0	0
No	29	100
Total	29	100

4.5.3. In-service/CE Unit:

Whether their nursing divisions had established an in-service and/or Continuing Education (CE) unit, which is also regarded as a CQI mechanism, 10(34.5%) respondents indicated YES as reflected in figure 4.15 below. A member of the research team from one of the participating hospitals commented as follows in the portion provided for open-ended response:

We have an established in-service education unit which organises training, seminars/symposiums, and refresher programs for all cadres/levels of nurses on a monthly basis all through the year, using internally and externally invited resource persons in specialised fields to facilitate training. Our in-service education unit also organises quarterly scientific sessions and our yearly activities culminate with an annual clinical workshop. For continuing education, the management periodically provides sponsorship for nurses interested in furthering their education in some post graduate diploma nursing programs such as Mental Health Nursing, Orthopaedic, Accident and Emergency nursing; to mention but a few.

Nineteen (65.5%) respondents advised that **they did not have an established in-service /CE unit** like the type described above in the nursing division of their hospitals. The participants added that management periodically (e.g. once in two to three years) organised CE programs using external consultancy groups to provide the training.



4.6. Summary of Appraisal of Cycle One (Structure, Process and Outcome Criteria) and existing CQI mechanisms:

In conclusion, the majority of the respondents were knowledgeable about CQI and they perceived themselves to be stakeholders as far as quality improvement processes in nursing are concerned.

Structure:

- ❖ The human resources (i.e. nursing personnel) met basic requirements and the nurses were qualified; but the ratio of nurses to patients in these participating hospitals was not adequate.

- ❖ Furthermore, basic materials and equipment to promote CQI were available; however, some of these facilities were not adequate.
- ❖ With regards to the availability of operational resources, procedure manuals were available to the nurses in their hospitals, but standards of practice documents were not evident in all five participating hospitals.

Process:

- ❖ Half of the respondents perceived their practice role as satisfactory while the other half did not.
- ❖ Although the majority of the respondents claimed to acquire and maintain current knowledge and competencies, they did not utilise research findings in practice.
- ❖ The majority of the respondents however, met the physical, emotional and social needs of their patients as well as following unit procedures for the protection of patients against falls and HAIs.

Outcomes:

From the respondents' viewpoints, patients and families were satisfied with the nursing care given but not with the time spent with them.

- ❖ Adverse incidents like falls of patients, pressure sores and infections were frequent occurrences in these hospitals.
- ❖ The length of stay in these hospitals over a quarter period was somewhat prolonged.
- ❖ The incidence rate of hospital acquired infections (HAIs) was high.

Existing/Available CQI Mechanisms:

- ❖ In addition, there were no established, well-planned or structured nursing audits and in-service/continuing education units (CQI mechanisms) to promote CQI.
- ❖ There were also no established, acceptable, standardised, evaluative nursing care measurement instruments for measuring the quality of nursing care. In fact, there were no forms however rudimentary of quality-care- indicators or observational checklists developed in-house to promote CQI.
- ❖ Concurrent or retrospective auditing is not common practice in the five participating hospitals even the one hospital where it was claimed that audit unit was recently established.

4.6.1. Annotation for Cycle Two:

It is essential to mention that no data was collected in **cycle two** because it included unstructured interview, discussions, reflection and interactions amongst the research team. This cycle comprised of *analysing* the identified CQI problems and *planning* the way forward. *Promising solutions were generated consequent to selecting one solution* i.e. measurement tool. *Action plan* was created to develop or adapt a process-oriented measurement tool. *Literature review* of various nursing care measurement tools as well as reflection on the diverse/varied tools was also part of cycle two.

**4.7. CYCLE THREE: DEVELOP AND EXECUTE (ACTION): ANALYSIS,
ADAPTATION AND TESTING OF NEWLY ADAPTED NURSING-CARE**

MEASURE: QUALITATIVE DATA ANALYSIS:

This second half of Chapter Four begins with the presentation of findings from the qualitative data analysis. This dataset was collected during the third cycle of the study.

This cycle presents the gap identified from the data collected from cycle one; the reflection on appropriate feasible CQI mechanisms in key areas which informed CQI; and the development of an appropriate instrument for measuring the quality of nursing care in the five participating hospitals.

A focus group discussion with the research team which comprised of twenty-nine nurse managers from the five participating hospitals, in the positions of principal and chief nursing officer took part in the interactive session which was the highlight of cycle three. The team was *systematically selected using the nth selection technique* and it is essential to mention that they were part of the sample and activities of cycles one and two.

4.7.1. Identification of Gaps in relation to Existing CQI Mechanisms.

In the course of establishing existing CQI processes/mechanisms such as the availability of human and material resources, the existence of a nursing audit and in-service/continuing education units which oversaw affairs concerning the quality of nursing care, as well as the measurement and evaluation of care processes in the five participating hospitals, the research team identified gaps.

From the survey data which elicited responses on the actual situation regarding existing CQI mechanisms/processes in the participating hospitals, these gaps were identified in the participating hospitals:

- ❖ There were no established, well-planned or structured nursing audit and in-service/continuing education units (CQI mechanisms) to promote CQI.
- ❖ There were also no established acceptable, standardised, evaluative nursing care measurement instruments for measuring the quality of nursing care.
- ❖ There were no forms however rudimentary, of quality-care-indicators or observational checklists developed in-house to promote CQI.
- ❖ However, the research team collaboratively decided to pursue the analysis, and adaptation of an established, standardised and acceptable measurement tools to suit their hospital settings.

4.7.2. Analysis and Adaptation of the Chosen Instrument

The team decided to collaboratively adapt an established, acceptable, standardised, off-the-shelf nursing care measure called the **MONITOR**, for measuring the quality of nursing care in these participating hospitals to suit their settings. The team also decided to pilot the newly developed instrument for applicability in three of the five hospital settings. This resolution to use the **MONITOR** derives its support from Campbell Marshall, Shekelle, McGlynn, Brook and Roland (2003) where these authors maintain that there is a considerable benefit in using work from other settings to develop measures

of quality care. *However, these authors warn that indicators cannot simply be transferred directly between countries without an intermediate process to allow for variation in professional culture or clinical practice.* The decision to work with and test an established, acceptable, off-the-shelf, quality care nursing measure rather than develop new tools is again supported by literature in Kozier and Erb (1987) when the authors attested that developing a new quality care tool is a challenge for the nursing profession; but revealed that much work continues even on established tools.

4.7.3. Description of Chosen Instrument: MONITOR

The **MONITOR** is an anglicised version of the American Rush Medicus system for evaluating the quality of nursing care in general medical and surgical wards. It is a useful tool (Hilton and Dawson 1988), is sensitive (Barnett and Wainwright 1987), and is an easy and accessible method of measuring the quality of care (Whelan, 1988). Goldstone, (1986) describes it as a useful pointer to aspects of nursing care that require further attention and again, makes it quite clear that the **MONITOR** is concerned with process criteria only.

It is of the essence to mention that the **MONITOR** was revised in 1993 with a later edition called **MONITOR 2000**; however, the contents of this would not be appropriate for use as yet, in a poor resource country like Nigeria which is still developing in terms of technological advancement. For **MONITOR 2000** to be applicable to the present dispensation, certain complex technology, equipment and/or facilities would need to be in place to facilitate its use. This motivation therefore informed the need to put into use the

1983 version of MONITOR whose services are still relevant to some extent, to the practice of the participating hospitals.

4.7.4. Content Analysis of the Monitor Instrument

The research team reviewed the MONITOR. The team chose to review the aspects of nursing care measure, which are process-criteria oriented because these are the aspects they, as nurse-managers have control over and believe can foster change. The analysed content was informed by the content of the MONITOR. The review/interactive sessions were tape-recorded as research team had consented to this. The team reviewed four aspects and/or criteria of the MONITOR. It is important to mention that the two criteria under listed were not reviewed during the focus group discussion sessions in all five participating hospitals as a result of time constraints. The process of analysing the MONITOR in an efficient manner took a lot of time – about four to five hours and members of the research team indicated their interest to discontinue on grounds of fatigue/exhaustion. These criteria include:

- ❖ Unit procedures followed for the protection of all patients to include isolation, infection procedures, and unit preparedness for emergency situation
- ❖ The delivery of nursing facilitated by administrative and managerial services to include nursing reporting, provision of nursing management, clerical services, environmental and support services.

While reviewing the MONITOR, nursing care activities therein which were also common practices in their individual settings were accepted and retained. The research team

accepted responsibility for those nursing care activities which should be standard, but were not maintained, and promised to improve on those practices; but those nursing care activities that could not apply to their individual hospital settings (as a result of factors not within the control of the nurse-managers), were rejected. The essence of analysing the MONITOR was to facilitate the applicability or suitability of the instrument to the individual hospital settings.

Qualitative data was collected during the third cycle of the study and the **thematic framework approach** as identified by Pope, Ziebland and Nicholas (2000) and Miles and Huberman, (1994) was used to analyse the data collected from the focus group session, during the review of the MONITOR. These authors itemised five stages of data analysis in the framework approach and these included the following:

- ❖ Familiarisation (to include transcribing and reading data)
- ❖ Identifying a thematic framework
- ❖ Indexing
- ❖ Charting
- ❖ Mapping and Interpretation (explained in chapter five because it is part of the discussion of findings).

4.7.4.1. Familiarisation:

The researcher familiarised herself by immersion in the raw data. The tapes were listened to and subsequently transcribed verbatim (*Refer Annexure 5E*). The transcripts were read, and notes were studied over and over, in order to list key ideas and recurrent themes.

4.7.4.2. Identifying Themes:

This process is also referred to as coding (Miles & Huberman, 1994) and it involves coding developed from priority issues and issues from familiarisation. Important issues from the study survey and questions were derived from objectives and/or research questions of the study. Key issues, concepts and themes by which the data could be examined and referenced were identified. From the four sections in the process criteria of the MONITOR, the following themes emerged.

4.7.4.2(A).Theme One:

Appraisal of Patient on Admission to Ward to include emerging issues such as:

- ❖ *Information collected on admission*
- ❖ *Assessing current condition*
- ❖ *Nursing care plans*
- ❖ *Harmonisation of nursing care with medical plan of care.*

4.7.4.2(B). **Theme 2: Meeting Patients' Needs** to include *emerging issues such as the following:*

- ❖ *Meeting physical, comfort and rest needs*
- ❖ *Hygiene needs*
- ❖ *Nutrition and fluid balance needs*
- ❖ *Elimination needs*
- ❖ *Activity needs*
- ❖ *Skin care needs*

4.7.4.2(C). **Theme 3: Meeting Psychological/Emotional Needs** to include emerging issues such as the following:

- ❖ *Orientation to hospital facilities*
- ❖ *Nursing staff courtesy towards patients*
- ❖ *Patients' privacy and civil rights*
- ❖ *Consideration of psycho-emotional wellbeing*
- ❖ *Teaching measures of health maintenance and illness prevention*
- ❖ *Family-centred care*

4.7.4.2(D). **Theme 4: Valuation of Nursing Care Objectives** to include emerging issues such as the following:

- ❖ *Evaluating patients' responses to treatment.*

4.7.4.3. Indexing

Miles & Huberman, (1994) also refers to this stage as 'memoing'. This process involves using headings from the themes to create charts of the data, so that one can read easily across the whole database. The annotation of the transcripts was done in a textual form, supported by short text descriptions to elaborate the index headings. At this stage, the researcher presents the findings of the data from the five participating hospitals as such:

4.7.4.3(A). APPRAISAL/ASSESSMENT OF PATIENT ON ADMISSION TO**WARD:**

In this section, the following criteria were addressed and they included assessment of patient on admission, formulating nursing care plan and coordinating nursing care with medical plan of care. The research team (who are also respondents in this cycle) affirmed that in their respective hospitals:

-Assessment of nursing problems was carried out through nursing observation and/or interview within 12 hours of admission.

-Details of patients with physical disabilities such as impaired hearing, vision, speech, were recorded within 24 hours of admission.

- Statements about allergies were written within 24 hours of admission.

-Twenty-three respondents from 4 participating hospitals reported that details of *patients' dependence on prosthetic devices for activities of daily living (ADL) were recorded within 24 hours of admission*; however, 6 respondents from only one of the hospitals indicated that it was not common practice in their setting, to record within 24 hours of admission, whether the patient depended on prosthetic devices for activities of daily living.

-In response to the question on the *elimination pattern of the patient being recorded within 24 hours of admission*, 18 respondents from 3 of the 5 participating hospitals reported the practice of recording a patient's elimination patterns within 24 hours of admission; but in one hospital setting, 5 respondents indicated that only abnormal elimination patterns such as incontinence were recorded within 24 hours of admission;

whilst in another hospital, 6 respondents stated that it was not common practice in their setting to record a patient's elimination patterns within 24 hours of admission.

- Twenty-four respondents from 4 of the 5 participating hospitals reported that in their individual settings, there was *documentation of observation of behaviour indicative of a mental and emotional state within 24 hours of admission*; however, data about this nursing activity was not provided by 5 respondents from one of the hospitals.

- Responding to a written statement about skin condition during admission, 23 respondents from 4 of the 5 hospitals stated that more often than not, a statement about skin condition was written within 24 hours of admission; but in one hospital, the 6 respondents expressed that it was not common practice in their setting to routinely write statements about the skin condition of the patient, unless it was *abnormal*.

4.7.4.3A. (i). Information Collected on Admission:

In response to the following questions on information collected on admission, 29 respondents in all the five participating hospitals respectively expressed that the *general physical appearance of the patient was recorded within 24 hours of admission in their individual hospital settings*.

-In response to *recording indications of a patient's understanding of his/her illness on admission*, 23 respondents from 4 of the 5 participating hospitals reported as such:

We do not, as a matter of practice, document or record information relating to a patient's understanding of his illness. However, 6 respondents in one of the 5

hospitals stated that in their setting, a patient's understanding of his/her illness was recorded on admission.

-As for patient's ***weight being recorded on admission***, 18 respondents from 3 of the 5 hospitals stated that it was common practice in their individual settings to weigh, as well as record a patient's weight on admission; but 6 respondents from one hospital explained that they did not record a patient's weight on admission, except for paediatric patients; while 5 respondents from another hospital stated:

We do not weigh patients as a routine in our hospital.

-Again for the nursing activity that required ***writing a statement about a patient taking any medication immediately prior to admission***, all 29 respondents in the 5 participating hospitals respectively affirmed that a written statement was made within 24 hours of admission as to whether or not the patient was taking any medicines immediately prior to admission or for any chronic condition.

-Twelve respondents from 2 of the 5 participating hospitals **reported recording a patient's diet and food preferences within 24 hours of admission**; while in the other 3 hospitals, a patient's diet and food preferences were not recorded within 24 hours of admission as reported by 17 respondents.

4.7.4.3A. (ii). Assessing Patient's Current Condition:

The researcher needed to establish whether a patient's current condition was assessed in practice in these 5 participating hospitals, and the following responses were elicited from the respondents in the individual hospitals.

-Twenty-nine respondents from the five hospitals respectively, reported that *pulse, respiratory rates and the quality of vital signs were recorded in their hospitals. The statement of one respondent from one of the participating hospitals is recorded below:*

Yes, behaviours such as alertness, talkativeness, and mutism –indicative of current emotional state are recorded in our kardex or progress notes, but not in the patient's charts.

However, behaviours indicative of a patient's current emotional state were recorded in the other 5 hospitals, but the 23 respondents did not state categorically where they recorded these behaviours.

4.7.4.3A. (iii). Nursing Orders or Care Plan:

-Five questions were raised about the *use of nursing care plans* in the five participating hospitals and these were the responses generated from the data.

Twelve respondents from 2 of the 5 hospitals indicated that their nursing order or care plan specified times, frequency and methods for carrying out therapeutic measures. Six respondents from another hospital expressed the contrary - that specifying times, frequency and methods for carrying out therapeutic measures was not common practice in their setting. However, eleven respondents from 2 other hospitals frantically reported that the nursing process framework for practice and/or record booklets was not in use in

their individual settings and as such, they did not write care plans to specify times, frequency and methods for carrying out therapeutic measures.

-Furthermore, there was a need to ascertain whether their *care plans included specific nursing measures for particular conditions such as pressure sores, exercise for immobile patients*, and 18 respondents from 3 of the 5 participating hospitals expressed the following:

Yes! What we plan to do for the patients such as plan of care for treatment of bedsores is often reflected in our care plan.

Again, 11 respondents from the two hospitals where the nursing process framework was not in use indicated that they did not draw care plans and thus the nursing activity of specifying nursing measures for particular conditions such as pressure sores and exercise for immobile patients was not applicable to their respective settings.

-In addition to responding to questions about the utilisation of nursing care plans, 18 respondents from 3 hospitals stated that their *nursing care plans distinguished between the activities the patient was expected to do himself and activities the nursing staff performed*. Eleven respondents from the other two hospitals did not provide data nor did they respond to that aspect of care plan. When probed, they admitted to not using the nursing care plan.

-Again 18 respondents from 3 participating hospitals advised that **their nursing care plans included attention to the patient's needs for discharge teaching** e.g. "diabetic

management teaching". However, 11 respondents from the other two hospitals where nurses did not as a practice draw care plans did not provide responses to this aspect of nursing activity.

-As to whether their *care plans indicated the specific extent of ambulation*, 12 respondents from two hospitals utilising the nursing process framework for practice, explained that their care plans indicated the specific extent of ambulation i.e. what activity the patient can achieve in ambulating prior discharge; whilst 6 respondents from another hospital informed as follows:

Our care plan does not indicate the specific extent of ambulation.....we do not write that.

Again 11 respondents from the two hospitals not utilising the framework for practice who had stated from the beginning of this session, that it was not commonplace in their settings to draw care plans, did not provide responses to this question about specifying extent of ambulation in the care plan.

4.7.4.3A. (iv). Harmonisation of Nursing Care Plan with Medical Plan of Care:

-Twenty-nine respondents from all five participating hospitals respectively informed that *medically prescribed treatment was included in the nursing care records*.

-Eighteen respondents from 3 of the 5 hospitals affirmed that their *nursing care plans indicated pertinent signs and symptoms to be observed with regards to medical treatment, medications, disease process or possible complications*; however, 11

respondents from two of the hospitals where a nursing process framework was not in use, reiterated that they did not draw nursing care plans to indicate pertinent signs and symptoms to be observed.

-Responding to a question about doctor/nurse discussion, 23 respondents from 4 of the 5 hospitals expressed that doctors and nurses in charge of patients did not discuss current plans for the patients; but only in one hospital, did the 6 respondents report that *doctors and nurses in charge discussed current plans for patients daily* during the ward rounds; although not in an “*efficient or accepted manner*”.

-Responding to the question on interdisciplinary collaboration, 29 respondents in the five respective hospitals reported that *nurses discussed plans for the patients with other disciplines (besides medicine) who were also working with the patients*. The respondents gave examples of collaborating with the Social Workers, Dieticians, Physiotherapists and Occupational Therapists.

4.7.4.3 (B). MEETING PATIENTS’ NEEDS

The following criteria were addressed in this section to include safety needs (i.e. protection from accidents, injury and infection), comfort, rest, hygiene, oxygen supply/administration, activity, nutrition/fluid balance, elimination and skin care needs.

4.7.4.3B. (i). Safety Needs:

-Responding to question about patients’ identification bracelets, 29 respondents in all five participating hospitals agreed with the one who said:

It is not our practice at all for the patient to wear an identification bracelet on his/her person.

-Twenty-nine respondents from all five hospitals confirmed ***that assigned nursing staff were informed of the patients' present condition.***

-Again, all 29 respondents from their five respective hospitals agreed that it was not common practice in their individual settings to ***display a patient's name on his bed.***

-All twenty-nine respondents from the 5 participating hospitals indicated that ***all care of the patients was accurately done and appropriately prescribed as evident by their documentation of such at the exact time it was carried out.***

- Twenty-nine respondents expressed that, in their individual settings, the ***bed was at a "suitable", normal height for the patient except when treatment was being given.***

Respondents from one hospital added that only in their theatre did they adjust beds to suit various theatre procedures.

-Again, twenty-nine respondents in the five participating hospitals expressed that ***all machinery was at a safe distance from the patient's bed;*** but in only one of the hospitals, 6 respondents added that electrical machinery such as the suction machine was sometimes left at the bedside of the patient needing it; but at a safe distance from the patient's bed.

-Furthermore, 23 respondents in 4 of the 5 hospitals participating in the study stated that it was commonplace in their respective settings ***to have a list of a patient's allergies on the front page of the chart/records.*** Respondents from one of the hospitals added that

the list of allergies was written in “red ink” on the front page of the chart/records/case notes; but 6 respondents from another hospital expressed the following:

We do not have a list of the patient’s allergies written on the front page of the chart/records in our hospital.

-Twenty nine respondents from all five hospitals accepted that it was common practice in their settings to *teach patients with special equipment such as intravenous (IVs) or other tubing precautions on getting out of bed.*

-All twenty-nine respondents from the five participating hospitals explained that it was common place in their individual hospitals to have *bedside tables and other self-care equipment positioned within the reach of the patient.* However, 6 respondents from one of the hospitals clarified as follows:

Bedside tables are not sufficient in our setting to cover every patient and so the patient in our hospital uses the bedside locker which of course is positioned within the patient’s reach.

4.7.4.3B. (ii). Comfort/ Rest Needs are met:

-Twenty-nine respondents in all five participating hospitals stated that it was common practice in their individual settings to *pay attention to complaints of nausea and vomiting* to ensure comfort to patients.

-Twelve respondents from two hospitals informed that the patient’s bed was not at all times free from extraneous items (not personal items); while 17 respondents in three other hospitals, indicated that *the patient’s bed was free from extraneous items (not the patient’s personal items).*

-Furthermore, in response to questions on comfort and rest, 23 respondents from four of the five hospitals stated that a patient's sleep and rest was sometimes interrupted. Respondents clarified that this sometimes happened when nursing procedures were being carried out; and sometimes by visitors and environmental noise or sometimes by a co-patient. However, 6 respondents from one of the hospitals explained that in their setting, *patient's sleep and rest was often uninterrupted* because visitors were made to visit at visiting times only.

-Again responding to further questions, 29 respondents in all 5 participating hospitals expressed that *water and glass jugs were placed within a patient's reach* to quench thirst.

-As to questions about the nurse's call system, 23 respondents from 4 of the 5 hospitals had these to say as their responses are separated with semicolon:

A call system in which the relatives call out verbally are in place; we do not have call bells they are no longer functioning; Patient's relatives call out if the nurse is not close by; Nurse's call system is not in place in our settings; all bed call switches are no longer in working order; patient's relatives call out if they need the nurse. Electronic call systems are not available in our setting.

However, in spite of the above statements, 6 respondents from one hospital notably agreed that the *nurse's call system was within the patient's reach*. The participants advised that whenever the patient's relatives were around, they helped to call the nurses as the case might be; but at night when the relatives had all gone, the patient called out.

The nurses were also quite vigilant and checked on the patients frequently to see if they needed help.

-In response to controlled lighting near a patient's bed, 18 respondents from 3 of the 5 hospitals maintained that the *patient controlled the lighting near his bed*; while 11 respondents from 2 of the 5 hospitals commented as follows:

Light or call bells are positioned near the patient's bed for control purposes, but the patient cannot control the lighting near his bed because the controls are no longer in working order.

-In response to this, 12 respondents from two of the hospitals informed that a *patient's call and light bell was answered promptly*; however, 11 respondents from 2 of the other hospitals reported:

We do not even have call lights or bells for us to answer to promptly; the patient's call/light bell is not in use in our setting, but in one hospital, 6 respondents explained that, although there are no call/light bells in use in our setting, when patients or relatives call out, we answer promptly.

-The following responses were elicited from questions about a patient's position and medication. Twenty-nine respondents from all five participating hospitals indicated that it was common practice in their settings to *change a patient's position in order to relieve pain/pressure*. Respondents however added that a patient's position was changed every 3-4 hours.

-Again, twenty-nine respondents from all five hospitals affirmed that *medication was given as prescribed to relieve pain*, as a matter of practice in their settings. All respondents concluded that a patient received medication for prompt relief of pain in their

individual hospital settings. However, a respondent from one hospital explained the following:

Yes, a patient receives medication promptly to relieve pain; the nurse would not be comfortable keeping the patient in pain and delaying the administration of medication unnecessarily.

4.7.4.3B. (iii). Hygiene Needs are met:

-Twenty-nine respondents in the five participating hospitals reported that *equipment for oral hygiene was adequate and available for the patient* in their individual settings.

-Twenty-nine respondents from 5 hospitals proclaimed that *bedpans and urinals were kept clean by mechanical washing (bedpan washer) and were disinfected by boiling, then stored according to the individual hospital policy.*

-Twenty-three respondents from four of the five hospitals admitted to *caring for patients' nails* and described the different means by which patients' nails were cared for in their settings as follows (responses separated with semicolon):

Yes, patients' nails are kept clean with the assistance of their relatives; patients' nails are sometimes cleaned by the nurse and sometimes by their relatives; yes, patients' nails are kept clean; Their relatives help to keep their nails clean and sometimes the nurse does this if she is not so busy.

However, in only one of the hospitals, did 6 respondents express the following:

We do not know if patients' nails are clean; but we encourage them to keep their nails clean.

4.7.4.3B. (iv). Nutrition and Fluid Balance Needs were met:

-Twenty-nine respondents from the five hospitals participating in the study informed that it was common place in their individual settings for *nursing staff to be accessible to patients during meals*. Respondents in one hospital added that they (i.e. the nurses) helped to serve the meals and to feed the helpless.

-Again, twenty-nine respondents in all five hospitals indicated that where a *patient has dietary restrictions or special meals, these were always observed and/or provided*.

-Furthermore, 23 respondents from 4 of the 5 participating hospitals in the study stated that *there was a written plan for fluids for the patient who had either forced or restricted oral fluids*; but in one hospital, 6 respondents reported that there was no written plan for the patient on either forced or restricted oral fluids.

-Twenty-three respondents from 4 hospitals indicated that their *plan for oral fluids specified time, kind of fluid and amount of fluid to be given*; but 6 respondents from one hospital commented that there was no plan for oral fluids which specified the times fluids were to be given as well as the kind of fluid and amount of fluids to be given.

-Again, twenty-five respondents from all five participating hospitals advised that it was common practice in their respective settings to *record the amount of fluid intake and output*.

-Twenty-three respondents in 4 hospitals again reported that it was common practice in their settings to *have all fluids removed from the bedside of a patient who had been*

designated “nil by mouth”. However, in one hospital, 6 respondents explained as follows:

A patient designated “nil by mouth” does not always have all fluids removed from the bedside.

4.7.4.3B. (v). Elimination Needs were met:

Twenty-nine respondents from all five participating hospitals affirmed *that bowel functions of the patient were recorded daily* in their “temperature, pulse, respiration (TPR) chart” and not specifically on an intake and output chart.

-Twenty-nine respondents in all 5 hospitals again reported **that usual bowel or bladder problems were noted** in their respective settings, and that it was common practice *to help a patient to the toilet or to use the urinal/bedpan if he /she asked for help.*

4.7.4.3B. (vi). Need for Activities were Met:

-Twelve respondents from 2 participating hospitals informed that the patient *was ambulated the number of times indicated in the nursing care plan*; whilst 6 respondents from one of the hospitals did not respond clearly to this question; however, 11 respondents from a further 2 hospitals noted that:

Ambulation of a patient is not written in the care plan because care plans are not used in our setting, but patients are ambulated the number of times prescribed.

-Responding to questions about activities of daily living (ADL), all twenty-nine respondents in these participating hospitals expressed that the patient was helped with ADL when needed such as bathing, grooming, toileting and feeding.

4.7.4.3B (vii). Need for Skin Care were met:

In response to meeting this need, all twenty-nine respondents in the 5 participating hospitals, confirmed the following:

Ostomy bags if applicable are properly in place especially for surgical patients with colostomy; and they are often changed when full of faecal matter.

4.7.4.3(C). MEETING PSYCHOLOGICAL/EMOTIONAL/SOCIAL NEEDS:

In this section, quality-care indicators that addressed patient's orientation to hospital facilities on admission, extension of social courtesy by nursing staff, patient's privacy and civil rights, health maintenance and illness prevention and family centred care are presented.

4.7.4.3C (i). Orientation to Hospital Facilities on Admission:

The following responses were provided to questions about orienting patients in terms of hospital facilities and routines on admission.

-All twenty-nine respondents in the five participating hospitals affirmed *that patients were contacted by the nursing staff within 15 minutes of their arrival in the ward.*

-Twenty-nine respondents reported that it was common place in their respective settings to *explain hospital routine to patients on admission*. Respondents itemised such routines as bed-making and feeding times, medication rounds, vital signs times, as well as bedpan/urinal rounds.

-Again 23 respondents from 4 of the 5 hospitals stated that in their settings, *care and use of personal property were explained to the patient and/or family on admission*; but 6 respondents from one hospital expressed that it was not common practice in their hospital to explain care and use of personal property to the patient or family.

-Furthermore, twenty-nine respondents from all 5 participating hospitals attested to informing the *patient of visiting hours on admission to the ward*; however, respondents from 2 of the hospitals added that the patient often violated the visitation policy by not “abiding by the regulations”.

-Responding to questions on *telephone use*, the responses from all five hospitals are summarised as follows with semi-colon indicating statement from individual hospital:

This practice is not applicable to our settings. Patients have individual cell phones or they patronise public phone booths or request the telephone operator in the exchange room to help them with calls; our patients are directed to the telephone room when they ask to use a phone; No, it is not in our practice to tell patients how to use the telephone on admission; No! Informing patients about the use of the telephone on admission is not common practice in our hospital; and

there are no telephones for the patients' use in the ward except those available for staff members. A Patient who needs to use the telephone is assisted to dial the number. However, most of our patients prefer to use their mobile phones for their private calls.

-Responding to questions on safety measures and smoking regulations, 17 respondents from 3 of the 5 hospitals in use, stated that *safety measures such as precautions on getting in/out of bed and smoking regulations*, were explained to the patient on admission. However, 6 respondents from one hospital expressed that:

It is not cultural for patients to smoke on admission or in the ward, and so it is not commonplace in our setting to explain smoking regulations to patients on admission; but precautions on getting in/out of bed were explained to the patient on admission. Another 6 respondents from other hospitals explained:

It is not a usual occurrence in our culture to see a patient smoking in the ward, however, the patient is still informed of the 'no smoking' regulations on admission; and safety measures such as avoidance of slippery floors, getting in/out of bed are duly explained to the patient on admission.

-In response to a patient's orientation to hospital facilities, twenty-nine respondents from all five participating hospitals expressed that *patients were shown the necessary facilities such as the bathrooms, washrooms, and even the TV room.* Again, the twenty-nine respondents in all 5 hospitals reported that the patients in their respective hospitals were *instructed on how to call the nurse when they were in the toilet.*

4.7.4.3C. (ii). Nursing Staff Courtesy:

-All twenty-nine respondents in the five hospitals affirmed that *nursing staff called the patient by the name he or she preferred* in their respective settings. The respondents explained by listing the various titles used in their individual settings for the patient which included Prof, Dr, Chief, Alhaji, Pastor, Arc, and SAN.

-With respect to nurses introducing themselves, 18 respondents in 3 of the 5 hospitals advised *that nurses introduced themselves to the patient on admission*; but 11 respondents from 2 hospitals agreed as follows:

It is not common to introduce ourselves, as such, to the patients for security reasons: And for avoidance of mistaken identity..... remarked other respondents from the one hospital; however, the respondents acknowledged that they welcomed the patient and took him/her to the bed.

Again, 29 respondents from all 5 hospitals seemed to have this in common in their settings: that the *patient was greeted by the nursing staff on admission*.

-Eighteen respondents from 3 hospital settings affirmed respectively that *nurses showed kindness and politeness to the patient*; but in 2 hospitals, 11 respondents had this to say:

Yes we try our best to express kindness and politeness to our patients, but it is not an easy task to satisfy every patient; yes, nurses are kind and polite to the patient but sometimes one or two nurses may be impolite.

-All 29 respondents from all 5 participating hospitals proclaimed that in their individual settings, *the patient was encouraged to participate during ward rounds* by asking questions and discussing his/her feelings and/or opinions with his/her doctor.

4.7.4.3C. (iii). Patient's Privacy and Civil Rights:

In response to questions on patient privacy and civil rights, all twenty-nine respondents from the five participating hospitals stated emphatically that it was common practice in their individual settings *for written or informed consent to be obtained before special procedures were undertaken such as* "surgery and endoscopies". All twenty-nine respondents from the 5 respective hospitals stated *that special procedures/studies were explained to the patient;* and that it was common practice in their *settings to draw curtains (or close doors) for examination, treatment or privacy.*

-Again, in response to this, 23 respondents in 4 of the five hospitals reacted passionately to nurses being unaware of what the patient had been told about his/her illness; although 6 respondents in one hospital expressed that *nurses in their hospital were aware of what the patient had been told about his illness.*

4.7.4.3C. (iv). Psychological /Emotional Well-Being Considered:

-Twenty-nine respondents from the five participating hospitals had this in common as far as their practice was concerned: That the *nurses, social workers, occupational therapists discussed with the patient how his illness might affect his home situation or his work and helped to plan how he could cope when discharged.*

-Twenty-nine respondents in the 5 hospitals confirmed that *nursing staff in their individual settings informed the patient about activities before they were carried out.*

Twenty-three respondents from 4 of the five hospitals explained that *nurses gave attention to the patient for diversion activities when the patient's condition warranted it*, e.g. playing games with the patient, watching TV as well as listening to the patient and *considering the patient's religious observances*. However, data from one hospital was not as audible or clear from the voice recorder as the researcher could not make out what was said.

-Furthermore, 29 respondents from the individual participating hospitals responded positively to the question regarding a *patient being allowed to wear his/her own clothes if he/she wanted to*; but in two hospital settings, the respondents added that patient's clothes were no longer provided by the hospitals, as it had been in the past except in the case of psychiatric patients; while respondents from another hospital reported as follows:

Our patient says the "hospital clothes make him look like a prisoner".

- Again, twenty-nine respondents from the 5 respective hospitals confirmed that it was common place in their settings *to discuss the physical dependence /independence of the patient with him/her.*

-Twenty-nine respondents from the five hospitals respectively reported that *the use of special equipment e.g. suction machine, IV etc. was explained to the patient.* Respondents also claimed *to be available to the patient when the shift was changing over and/or while taking reports.*

4.7.4.3C. (v). Patient was taught Measures of Health Maintenance and Illness Prevention:

Responding to questions on health maintenance and illness prevention, all five participating hospitals seemed to have these practices in common in their respective settings:

-Twenty-nine respondents confirmed having planned teaching for the patient. Respondents gave examples of “*diabetic talks*”, “*colostomy care*”, “*wound care*” and “*diet talk*” as ***health teachings that were planned and taught to their patients in their respective settings to promote health and prevent illness.***

-Twenty-nine respondents from the 5 participating hospitals said that it was common practice in their individual settings to ***inform patients or families before discharge regarding instructions in care that needed to be carried out at home.***

-Twenty-nine respondents in the 5 hospitals explained that ***a plan for oral fluids was formulated by patients and nurses.*** Respondents added that both the nurse and the patient agreed on the amount of fluid to be taken orally per hour when graded oral sips were commenced.

4.7.4.3C. (vi). Patient family/Close friend was included in the plan of Care:

In response to questions generated from the above theme, 23 respondents from 4 of the 5 participating hospitals frankly explained that it was not common practice in their settings to write statements indicating the family’s level of understanding of the patient’s illness;

however, 6 respondents from one of the hospitals affirmed that there was *a written statement indicating the family's level of understanding of the patient's condition* in their setting.

-Twenty-nine respondents in all five hospitals stated that *the name and phone number of the person to contact in case of an emergency was written* in the kardex or other appropriate record.

Again, the family of *patients were informed of visiting hours in the unit*, but 17 respondents reported non-compliance with the visiting policies in their respective hospitals; 6 respondents in one hospital did not provide data regarding these, and the other 6 respondents did not make further comments other than that the patients were informed of visiting times.

4.7.4.3 (D). VALUATION OF NURSING CARE OBJECTIVES.

Under this section, criteria such as provision of record document and evaluation of patient's response to treatment were addressed.

4.7.4.3D. (i). Care provided for the patient is recorded:

Responding to the question regarding *documentation of care*, the twenty-nine respondents from all five participating hospitals reported the following nursing activities as common practice in their respective hospitals.

-All 29 respondents reported *that records in their respective hospitals documented written prescribed treatment whether by medicine, or nursing* in the progress notes or medication chart. Twenty-nine respondents reported that records in their respective settings *documented the vital signs and blood pressures as ordered on admission and as specified for the last 2 days* in the temperature, pulse and respiration (TPR) chart.

-All respondents reported that their *records documented the reasons for administration of medication and the effect of the administration*; and that these were documented in the medication chart in the column labelled “remarks”.

-Twenty-nine respondents reported that their *records documented the administration of medication to include time given, dosage, routes of administration, as well as the name and initials of the person who gave the medication*.

4.7.4.3D. (ii). Patient’s Response to therapy was evaluated.

-All twenty-nine respondents from the five participating hospitals reported that *observations related to the disease process or possible complications were noted (e.g. changes in condition, observations to detect any set of complications)*.

-Twenty-nine respondents in all five hospitals reported that *their records documented the patient’s response to teachings* and such responses were written in their ward kardex or progress notes with examples such as teaching a diabetic patient how to self-administer insulin together with the patient’s response to such teaching.

- In response to documenting additional instructions, 23 respondents from 4 of the 5 hospitals informed that it was not common practice in their respective settings, *for records to document the need for additional instructions given to the patient*; but in one only hospital, 6 respondents reported that their records documented the need for additional instructions. Furthermore, 23 respondents from all 4 hospitals affirmed **that the patient's self-care activities e.g. activities of daily living (ADL), doing own treatment, were recorded**; but 6 respondents in one hospital asserted that they did not record a patient's performance of self-care such as ADL; although they did document a patient's self-administration of medication like insulin. Finally, all respondents from all five participating hospitals indicated that the *records in their respective hospitals documented the side-effects of current therapy, reaction to medicines and treatment.*

Table 4.12: SUMMARY OF QUALITATIVE DATA ANALYSIS

TARGET POPULATION /FGD MEMBERS	PARTICIPATING HOSPITALS	NUMBER OF RESPONDENTS	THEMES	EMERGING ISSUES	SOURCE OF INFORMATION
Nurse- Managers in the position of PNOs and CNOs	-DUTHC -GUTH -PUTH -RUTH -PMC, ASB	6 6 6 5 6	(1). Appraisal of patient on admittance to the ward	-Information collected on admission -Assessing current condition -Nursing care plan -Harmonisation of nursing care with medical plan of care	-Excerpts from review of the MONITOR -Procedure Manuals
			(2).Meeting patient's physical Needs	-Physical needs Comfort & rest. -Hygiene needs -Nutrition & fluid-balance needs -Elimination needs -Activity needs -Skin care needs	-Excerpts from review of the MONITOR -Procedure Manuals

TARGET POPULATION / FGD MEMBERS	PARTICIPATING HOSPITALS	NUMBER OF RESPONDENTS	THEMES	EMERGING ISSUES	SOURCE OF INFORMATION
			(3). Meeting psychological /emotional well-being needs	<ul style="list-style-type: none"> -Orientation to hospital facilities -Nursing staff courtesy towards patient -Patient privacy & civil rights -Consideration of psycho-emotional well-being -Teaching measures of health maintenance & illness prevention. -Family centred care 	<ul style="list-style-type: none"> -Excerpts from review of the MONITOR -Procedure Manuals
			(4).Valuation of Nursing care objectives	<ul style="list-style-type: none"> -Evaluating patient's response to treatment 	<ul style="list-style-type: none"> -Excerpts from review of the MONITOR -Procedure Manuals

4.8. Test of Applicability of newly adapted Quality-care-indicators:

In line with the principles of action research (AR), the research team from three of the five teaching hospitals, collaboratively participated in the testing phase of study. The research team ascertained whether the newly adapted quality care indicators suited the individual hospital settings, and whether they applied to their kind of practice.

Seven nurse managers who participated in the adaptation of the MONITOR were drawn from 3 of the 5 participating hospitals. The research team was recommended by their respective managements having been part of the previous cycles to partake in the third cycle which included the testing of the newly adapted instrument for applicability.

The team **tested** the measurement instrument in two acute-care wards per hospital namely a medical and surgical ward respectively on the same day. This was prearranged for the exercise. The team sought the cooperation of the ward leaders as well as that of the nurses and patients and put the tool into use. The *role of the researcher* during the implementation cycle was that of a *participant observer*. The participants completed the measurement of nursing care within ninety minutes to two hours and subsequently completed a post-test questionnaire. The research team however, because of time constraints attributed to the period of this study, could not test for sensitivity to change as advocated by Campbell et al. (2003).

4.8.1. SUMMARY OF CYCLE THREE

In conclusion, at this cycle, the instrument was adapted from the MONITOR established by Goldstone, Ball and Collier (1983). This newly adapted nursing quality of care measurement instrument was extracted from information in the MONITOR instrument that was considered by the team to be relevant to the context under study (**Refer to Annexure 3b for the newly adapted instrument**). The newly adapted instrument was subsequently tested for applicability/suitability in two acute-care wards in 3 of the five participating hospitals in SW Nigeria.

4.9. CYCLE FOUR: REFLECTION (FIELD NOTES)

This cycle was characterised by *reflections* on the experiences and ‘mind-boggling’ feelings of the team during the testing cycle. The research team expressed verbally what they felt whilst the testing of the newly adapted instrument was in progress and these reflections were recorded as excerpts in the **researcher’s field notes (Refer Annexure 5E)**. Evaluation questionnaires were administered at the end of the action research process and analysed quantitatively using statistical methods.

4.9.1. Reflections: Descriptive/Observational: Excerpts from Field Notes

The following are a number of expressions from the participants that were described during the conversation that transpired among the research team members. One of the participants expressed as thus: “it is a long awaited development....” another said “maybe this could sensitize our management to put in place a proper monitoring unit that could see to quality care measurement...., our nursing division has been clamouring for this for a long time and our management have not heeded to our request. A participant said she was amazed to observe that the tool was able to spell out the areas of strength and otherwise.....We must utilize this new knowledge of nursing care measurement to improve our practice in the wards”..... says a team member. Another team member questioned as thus.... “Wouldn’t there be need to increase the number of nursing audit staff officers for effective utilization of quality care indicators?”.... again, utilizing the new instrument could be made less time consuming if the number of items there-in are reduced”..... “the indicators are too many and could be compressed to avoid time consumption”.

4.9.2. Summary of Cycle Four

The research team reflected on their experiences during the testing cycle and shared their feelings in a conversation that transpired between them. This was recorded in the field notes of the researcher.

4.10. CYCLE FIVE: EVALUATE/EVALUATION OF IMPLEMENTATION/

TESTING OUTCOMES: QUANTITATIVE DATA

Having noted the reflections of the participants, the researcher *evaluated* the efficacy of the newly adapted instrument by administering post-test questionnaires to the participants. The researcher determined what the perceptions of the nurses were about the newly developed quality-care indicators and whether they encountered any difficulties using the new tool. Several responses to the following questions were provided by the nurse managers who participated in this cycle. The following section presents findings from the evaluation questionnaires.

4.10.1. Perception of Nurses about the newly Developed Nursing Care Measure.

Table 4.13 below reveals that one of the seven respondents (14.3%) indicated that the newly developed measurement instrument allowed for “well organized nursing care”; while another respondent (14.3%) advised that she found the new tool “very helpful” in evaluation. A third respondent (14.3%) stated that the newly developed quality care indicators were “quite relevant to nursing practice” and so encouraged nurses to use them in the measurement of nursing quality.

However, one of the respondents (14.3%) stated that most of the content of the new instrument suited their kind of practice with a few exceptions (i.e. quality-care indicators) that did not actually fit well into some of their systems. Two of the respondents (28.6%) perceived the new tool as comprehensive, easily adaptable, but good to use in nursing care measurement. Lastly, one respondent (14.3%) perceived the new tool as a “very appropriate instrument for quality of care measurement”.

Table 4.13: Nurses’ Perception about the Newly Developed Nursing Care Measure : (n=7)

Responses	Frequency	Percent
-Gives adequate and well organised nursing care	1	14.3
-Very helpful	1	14.3
-Quite relevant to nursing practice, and so should be encouraged	1	14.3
-Applicable but a few indicators do not fit well into some of our systems	1	14.3
-It is comprehensive and will be quite good to be used	1	14.3
-It is good and is easily adaptable	1	14.3
-It is very appropriate to measure the quality of nursing care	1	14.3
Total	7	100.0

4.10.2. ASPECTS OF CARE MEASURED

Findings from the following aspects of care measured were obtained and they include:

4.10.2(A). Are Newly Adapted Quality-Care Indicators Measurable?

Table 4.14 reveals the responses of the respondents to the above objective question for the instrument development. Six (85.7%) respondents from the participating hospitals acknowledged that the contents therein were measurable; whilst 1 (14.3%) respondent indicated that the instrument did not meet the criteria of measurability.

Table 4.14: Percentage Distribution of Responses for Measurability (n=7).

Responses	Frequency	Percent
Yes	6	85.7
No	1	14.3
Total	7	100.0

4.10.2(B). Are Newly Adapted Quality-care indicators Achievable?

Table 4.15 shows the percentage distribution of the respondents to the above question. Again 6 (85.7%) respondents asserted that the content of the new tool was realistic and achievable; but 1 (14.3%) respondent believed that the content was not achievable.

Table 4.15: Percentage Distribution of Responses for Achievability (n=7).

Responses	Frequency	Percent
Yes	6	85.7
No	1	14.3
Total	7	100.0

4.10.2(C). Is the Newly adapted Instrument Time-bound?

Table 4.16 shows that 6 (100%) respondents agreed that using the instrument achieved the measurement of nursing care quality within a stipulated time frame.

Table 4.16: Percentage Distribution of Responses for Time-frame (n=7).

	Frequency	Percent
Valid Yes	6	85.7
Missing Item	1	14.3
Total	7	100.0

When asked to make comment on the length of time it took the nurse managers to measure the quality of care during the implementation phase, 2 (33.3%) respondents indicated that it took an hour to conclude measurement; 3 (50.0%) respondents said they spent more than an hour to completing measurement of care and 1 (16.7%) respondent indicated using two hours to complete the measurement process (See table 4.17 below).

Table 4.17: Length of Time of measurement, using the new Instrument (n=7).

Responses	Frequency	Percent
1 hour	2	28.6
More than 1 hour	3	42.9
2 hours	1	14.3
Missing item	1	14.3
Total	7	100.0

4.10.2 (D). Relevance of the Newly Adapted Instrument to Practice?

Table 4.18 below shows that 6 (85.7%) respondents affirmed that the newly developed instrument to measure nursing was relevant to their kind of practice.

Table 4.18: Percentage Distribution of Responses to Relevance (n=7).

Responses	Frequency	Percent
Yes	6	85.7
Missing Item	1	14.3
Total	7	100.0

Again, in response to the question above on the relevance of the tool, 85.7% of the respondents indicated that the new instrument measured criteria of various aspects of nursing care as shown in Table 4.19 below.

Table 4.19: Instrument Measured Criteria that were Relevant Aspects of Nursing Care? (n=7)

Responses	Frequency	Percent
Yes	6	85.7
Missing Item	1	14.3
Total	7	100.0

4.10.3. Aspects of Nursing care measured by the newly Developed Instrument.

The researcher ascertained from the team their perceptions of the aspects of nursing care which the newly adapted instrument measured, and the following were the responses

elicited from the respondents. Two (28.6%) respondents indicated that the instrument measured *admission processes*; 2(28.6%) respondents stated that the instrument emphasized *meeting the client's needs*; 2 (28.6%) respondents affirmed that the new instrument measured the coordination of *nursing care with a medical plan* and 1 (4.3%) respondent indicated that the instrument measured *aspects of psychological, emotional and physical care* (Refer table 4.20 below).

It is important to mention that the two criteria under listed were not addressed during the focus group discussion sessions in all five participating hospitals as a result of time constraints. The process of analysing the MONITOR in an efficient manner took a lot of time – about four to five hours and members of the research team indicated their interest to discontinue on grounds of fatigue/exhaustion. These criteria include:

- ❖ Unit procedures followed for the protection of all patients to include isolation, infection procedures, and unit preparedness for emergency situation
- ❖ The delivery of nursing facilitated by administrative and managerial services to include nursing reporting, provision of nursing management, clerical services, environmental and support services. On the other hand, the researcher left a copy of the MONITOR booklet with the research team to review these criteria with the intention to come back to follow up in subsequent research; as it is the area of interest because of my position as a quality assurance nurse.

Table 4.20: Percentage Distribution of Aspects of Nursing (n=7) .

Responses	Frequency	Percent
-Admission Process	2	28.6
-Meeting the client's need	2	28.6
-Coordination of nursing care and medical plan	2	28.6
-Psychological, emotional and physical care	1	14.2
Total	7	100.0

4.10. 3(A) ADMISSION PROCESS

This section introduces the perception of the nurses about the new tool with regards to admission process.

4.10.3A. (i). Patient's Appraisal/Assessment on Admission?

According to table 4.21 below, all 7 (100%) respondents indicated that the newly developed instrument *evaluated patients' assessments on admission*.

Table 4.21: Instrument evaluated Patient's Assessment on Admission (n=7) .

Responses	Frequency	Percent
Yes	7	100.0

4.10.3A. (ii). Instrument measured that data relevant to Hospital care were ascertained on Admission?

All 7 (100%) respondents again advised that the new tool measured that *data relevant to hospital care were ascertained on admission* as shown in Table 4.21(i) below.

Table 4.21(i): Percentage Distribution of Data relevance to Hospital Care (n=7).

Responses	Frequency	Percent
Yes	7	100.0

4.10.3A. (iii). Instrument measured that Patient's Current Condition was assessed?

Seven (100%) respondents affirmed that the new instrument measured that the *patient's condition was assessed* as shown in Table 4.21(ii) below.

Table 4.21(ii): Percentage Distribution of Assessment of Patient's condition (n=7).

Responses	Frequency	Percent
Yes	7	100.0

4.10.3A. (iv). Instrument measured that a written care plan of nursing care was formulated?

In Table 4.21 (iii) below, 6(85.7%) respondents indicate that the instrument measured that a *written care plan of nursing was formulated*. One (14.3%) respondent was not certain that the new instrument measured that criterion.

Table 4.21 (iii): Percentage Distribution of written care Plan (n=7).

Responses	Frequency	Percent
Yes	6	85.7
Not certain	1	14.3
Total	7	100.0

4.10.3A. (v). Instrument measured the Criterion that the Plan of Nursing Care is Coordinated with the Medical Plan of Care?

Again, 7 (100%) respondents indicated that the new instrument measured that a *plan of nursing care was coordinated with the medical plan of care* as revealed in Table 4.21(iv) below.

Table 4.21 (iv): Percentage Distribution of Harmonization of Care (n=7)

Responses	Frequency	Percent
Yes	7	100.0

4.10.3A. (vi). Instrument measured that the needs for protection from accident and injury by patient were met.

Table 4.21(v) below reveals that 7 (100%) respondents expressed that the instrument measured *that the needs for safety (i.e. protection from accident and injury) of the patient were met.*

Table 4.21 (v) : Percentage Distribution of Safety of patient from Accident /Injury (n=7) .

Responses	Frequency	Percent
Yes	7	100.0

4.10.3(B). MEETING THE PATIENT’S NEEDS

This section introduces numerous needs of the patient and they include:

4.10.3B. (i). Needs for Physical Comfort, Rest and Hygiene are met?

Table 4.21(vi) below shows that 7 (100%) respondents indicated that the newly developed tool measured that *needs for physical comfort, rest, and physical hygiene*.

Table 4.21 (vi) : Percentage Distribution of Comfort/Rest/Hygiene Needs (n=7) .

Responses	Frequency	Percent
Yes	7	100.0

4.10.3B. (ii). Needs for Supply of Oxygen, Fluid Balance and Skin Care are Met?

In addition, as shown in Table 4.21 (vii) below, 7 (100%) respondents affirmed that the new instrument measured that the *need for supply of oxygen, nutrition, fluid balance, and skin care were met*.

Table 4.21 (vii): **Percentage Distribution of oxygen/fluid Balance/skin care Needs (n=7).**

Responses	Frequency	Percent
Yes	7	100.0
Total	7	100.0

4.10.3B. (iii). Needs for Activity and Elimination were Met?

Table 4.21 (viii) below reveals that 6 (85.7%) respondents indicated that the newly developed quality care indicators measured that *the needs for activity and elimination were met*; while 1 (14.3%) respondent was again not certain.

Table 4.21 (viii): **Percentage Distribution of Activity/Elimination Needs (n=7).**

Responses	Frequency	Percent
Yes	6	85.7
Missing Item	1	14.3
Total	7	100.0

4.10.3B. (iv). Needs for Protection from Infection were Met?

Furthermore, 6 (85.7%) respondents indicated that the new nursing care measure, measured *that the needs for protection from infection were met*; while 1 (14.3%) respondent was not certain of that as is evident in Table 4.21 (ix) below.

Table 4.21 (ix) : Percentage Distribution of Protection from Infection Needs (n=7) .

Responses	Frequency	Percent
Yes	6	85.7
Not certain	1	14.3
Total	7	100.0

4.10.3(C). MEETING PSYCHOLOGICAL NEEDS OF PATIENT

This section introduces the psychological /emotional needs of the patient

4.10.3C (i). Needs for orientation to the hospital facilities on admission and that honouring the patient's privacy and civil rights were met?

In Table 4.21(x) below, 7 (100%) respondents affirmed that the new instrument measured that the *patient's needs for orientation to the hospital facilities on admission were met*; as well as meeting the *needs for honouring the patient's privacy by nursing staff*.

Table 4.21 (x) : Percentage Distribution of Orientation Needs (n=7) .

Responses	Frequency	Percent
Yes	7	100.0

4.10.3C. (ii). Needs of extension of social courtesy to patients by nursing staff were met?

Six (85.7%) of the respondents affirmed that that new tool measured that *the needs of extension of social courtesy to patients by nursing staff are met*; whilst 1(14.3%) of the respondents indicated in the negative as displayed in table 4.21(xi) below.

4.21 (xi): Percentage Distribution of Social Courtesy to Patients (n=7).

Responses	Frequency	Percent
Yes	6	85.7
Not certain	1	14.3
Total	7	100.0

4.10.3C. (iii). Meeting Psychological and Emotional Well-being Needs of Patients?

Again, in Table 4.21(xii) below, 6 (85.7%) respondents confirmed that the newly developed tool measured that the psychological and emotional wellbeing needs of patients were met; while 1 (14.3%) respondent was not certain whether the instrument measuring that criterion.

Table 4.21 (xii): Percentage Distribution of Psychological Needs (n=7).

Responses	Frequency	Percent
Yes	6	85.7
No	1	14.3
Total	7	100.0

4.10.3C. (iv). Needs for Measures of Health Maintenance and Prevention of Illness is taught?

Table 4.21(xiii) below shows that 6 (85.7%) respondents affirmed that the new tool measured that the *needs of teaching the patient the strategies of health maintenance and prevention of illness* were met.

Table 4.21 (xiii): Percentage Distribution of Health Prevention /Illness Prevention (n=7) .

Responses	Frequency	Percent
Yes	6	85.7
Missing Item	1	14.3
Total	7	100.0

4.10.3C. (v). Needs for the Inclusion of Patient's Family in Nursing Care Process were Met?

Again, the *needs for the inclusion of the patient's family in the nursing care processes* were measured by the instrument as indicated by 6 (85.7%) respondents in Table 4.21(xiv) below.

Table 4.21 (xiv): Percentage Distribution of Family Centred Care (n=7) .

Responses	Frequency	Percent
Yes	6	85.7
Missing item	1	14.3
Total	7	100.0

4.10.3(D). EVALUATION OF NURSING CARE OBJECTIVES

4.10.3D. (i). The Instrument evaluated whether Record Documents were provided for the Patient?

Again, Table 4.21(xv) below reveals that 6 (85.7%) respondents indicated that the newly developed instrument measured whether *record documents were provided for the patients*; but 1 (14.3%) respondent responded negatively to the issue of documents being provided for patients.

Table 4.21 (xv): Percentage Distribution of Record Documents (n=7).

Responses	Frequency	Percent
Yes	6	85.7
No	1	14.3
Total	7	100.0

4.10.3D. (ii). Patient Response to Care and Treatment was evaluated?

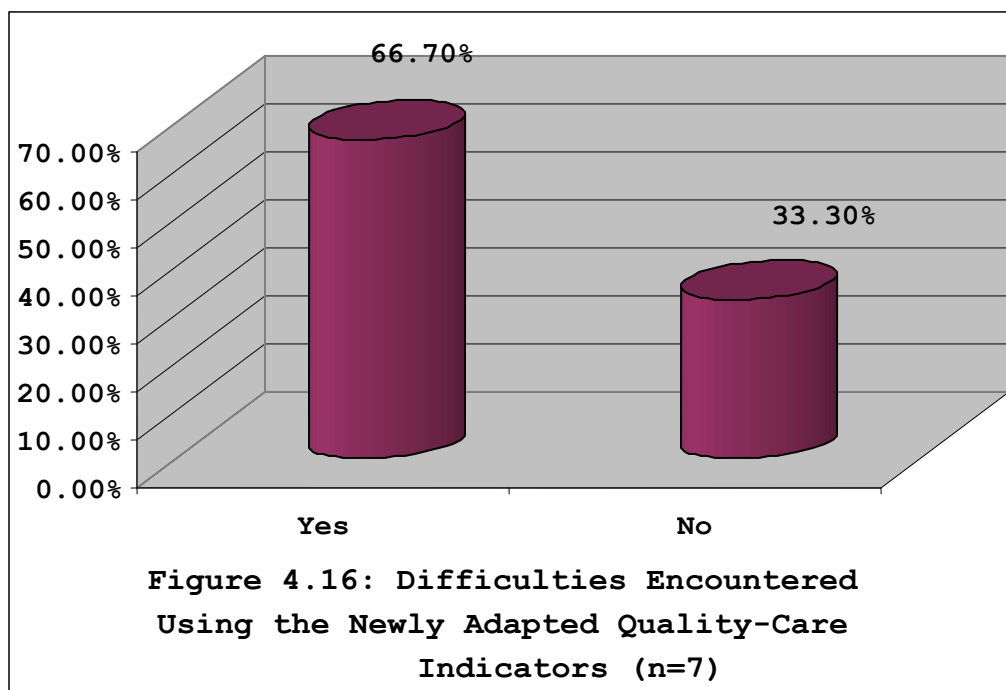
Seven (100%) respondents indicated in Table 4.21(xvi) below, that the new instrument measured that *the patient's response to care and treatment was evaluated*.

Table 4.21 (xvi): Percentage Distribution of Patient's Response (n=7).

Response	Frequency	Percent
Yes	7	100.0

4.11. Difficulties Encountered with the New Instrument

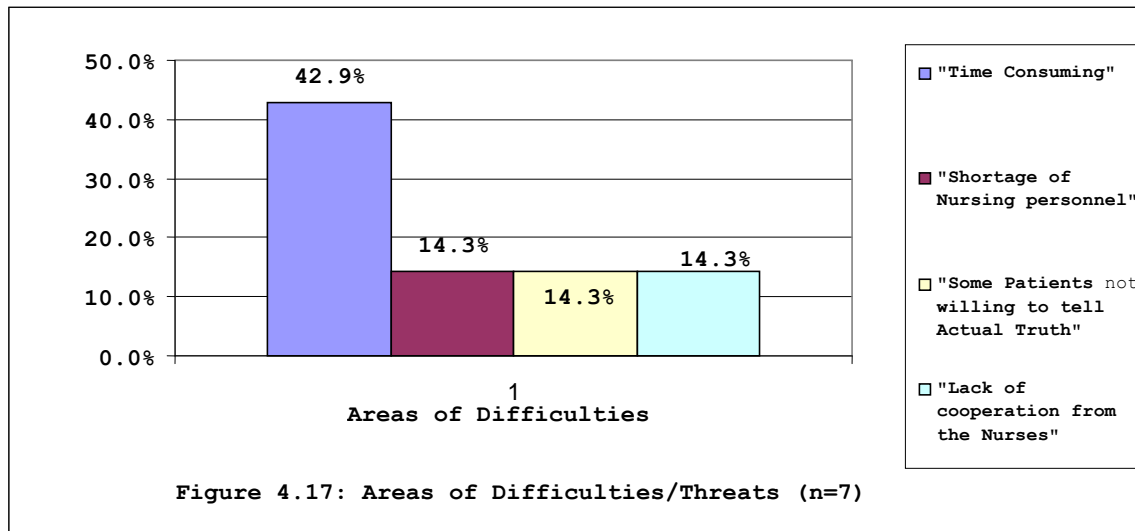
The researcher needed to know if the participants had encountered difficulties in the course of testing the quality-care-indicators in the chosen wards using the newly developed instrument. In Figure 4.16 below, 4(66.7%) respondents indicated YES to having encountered difficulties using the new instrument; while 2(33.3%) respondents indicated NO.



4.11.1. Areas of Difficulties and Threats encountered with the New Instrument

When asked to comment or specify areas of difficulties/threats, Figure 4.17 below displays respondents' individual comments on the areas of difficulty as follows: 3(42.9%) of the respondents gave reasons such as "time consuming"; 1(14.3%) saw "shortage of nursing personnel" as a threat; 1(14.3%) of the respondents indicated that

“not all nurses cooperated and were not keen to know the quality of care they provided”; and 1(14.3%) of the respondents stated that “some of the patients were not willing to tell the truth, so as not to implicate the nurses” nor did they respond to questions asked.



Four (57.1%) respondents added that the nurses were not keen to know the level of quality of care they provided; and 1 (14.3%) respondent finished by indicating that gaining the attention of nursing staff so that they would use the instrument was not an easy task as is evident in table 4.22 below.

Table 4.22: Percentage Distribution of Specific Areas of Difficulties/Threats 2 (Continued) (n=7)

Responses	Frequency	Percent
-Nurses are not keen to know the level of quality of their nursing care.....	4	57.1
-Some of the indicators are not relevant to this hospital	1	14.3
-To gain the attention of nursing staff was not easy.....	1	14.3
Total	7	100.0

4.11.2. Difficulties encountered with the Scoring format?

In addition, the need arose to ascertain whether the participants encountered difficulties with the scoring format of the new nursing measure. Five (71.4%) respondents indicated that no difficulties were experienced and explained further that the scoring format was “simple to use”, “explicit enough” and “accurate”; but 2 (28.6%) respondents replied negatively because of the “time it took to score” (See table 4.23) .

Table 4.23: Percentage Distribution of the response to difficulties with Scoring Format (n=7)

Responses	Frequency	Percent
Yes	2	28.6
No	5	71.4
Total	7	100.0

4.11.3. Enquiry about Areas of Strengths using the newly developed nursing tool

Five (71.4%) respondents indicated there were areas of strength during the course of using the newly developed nursing care measure as shown in table 4.24(i) below, whilst 2(28.6%) did not identify areas of strength.

Table 4.24(i): Percentage Distribution of Areas of Strength during the Period of using the Instrument (n=7).

Responses	Frequency	Percent
Yes	5	71.4
Missing item	2	28.6
Total	7	100.0

Areas of Strengths Specified by Respondents? (Continued)

Table 4.24(ii) below lists the exact areas of strength as expressed by the participants, 14.3% of whom stated that the new quality-care-indicators served as pointers to deficiencies that needed adjustment in the wards. One (14.3%) respondent stated that putting the new nursing care measure into use, afforded them, as nurse leaders, the opportunity of being in the wards to observe situations personally, as well as enabling them to check the case notes to identify lapses/errors in documentation.

Again, 1(14.3%) of the respondents stated that using the new quality-care tool broadened their scope in aspects of quality nursing care and stimulated their measurement skills for quality nursing care. One (14.3%) respondent saw the “clarity and simplicity” of the new quality care indicators as well as “availability of materials” as a source of strength; while

3(42.9%) of the respondents valued the “cooperation of the nurses” as a source of strength for continual use of the quality-care measurement indicators.

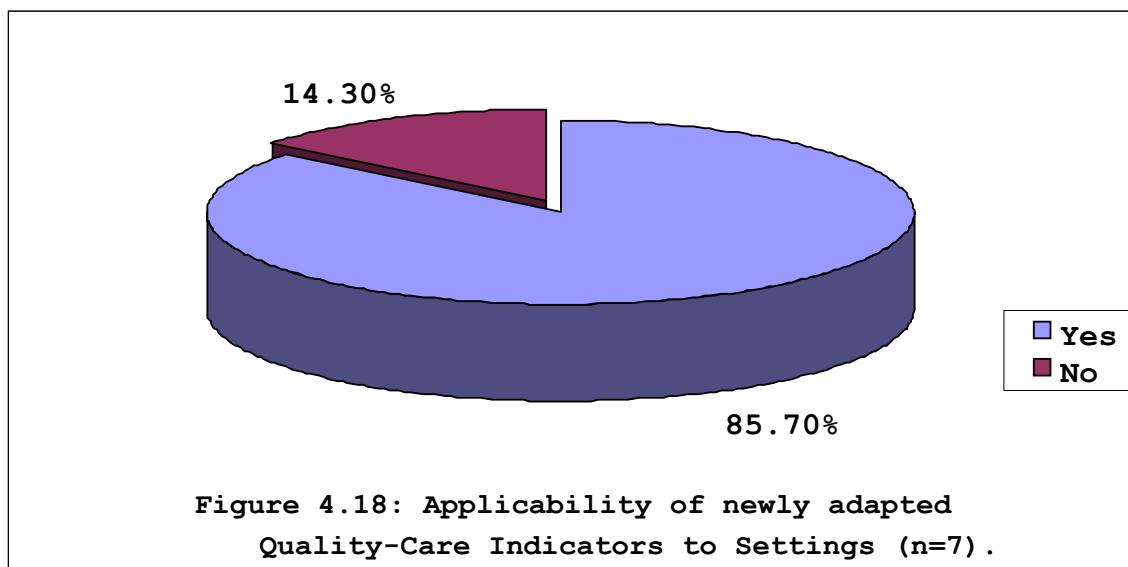
Table 4.24(ii): Percentage Distribution of Areas of Strength (n=7).

Responses	Frequency	Percent
-Nurses were cooperating	1	14.3
-Nurses were cooperating & the patient's record charts were used.....	2	28.6
-Indicated where adjustment is needed in the ward.....	1	14.3
-Clarity and simplicity of the instrument and availability of materials.....	1	14.3
-It broadens my horizon in the area of measuring quality nursing care....	1	14.3
-Being on the ward to observe personally and using the case notes to evaluate care.....	1	14.3
Total	7	100.0

4.11.4. Relevance/Applicability of the New Nursing-care Measure?

Figure 4.18 below, shows the percentage distribution of the responses of the participants to the relevance and suitability and/or applicability of the newly developed quality-care indicators to their practice despite the difficulties pointed out above. Six (85.7%) respondents *affirmed that the instrument was applicable to their setting and kind of*

practice; while 1 (14.3%) respondent indicated that the new instrument was not totally suitable or applicable in all cases to her setting/kind of practice.



4.11.5. Contributions to and Suggestions for the new Instrument

The research team made contributions and/or suggestions supporting the newly developed nursing quality-of-care-measurement indicators and their responses are displayed in Table 4.25. One (14.3%) of the respondents stated that “nurse staffing in SW Nigeria should be looked into; *to improve the ratio of nurse to patient which was very inadequate*”. Two (28.6%) respondents suggested that the contents of the instrument be reduced so as to be “*less time consuming*”. Two (28.6%) respondents suggested that *the use of quality-care-indicators be embraced by the Nursing and Midwifery Council (N&MCN) of Nigeria as this would improve nursing practice*. Lastly, 1 (14.3%) respondent suggested that staff strength be increased for ease of use of the new

instrument, and advocated the development of other measurement instruments. (See as table 4.25 below).

Table 4.25: Percentage Distributions of Responses to Contributions /Suggestions to new nursing measures (n=7) .

Items	Responses	Frequency	Percent
Contributions and Suggestions(a)	Increase staff strength for ease of use; and further development of other measurement instruments will be needed	2	28.6%
	Improve Nurse staffing to improve the ratio of one nurse to 10 patients (not adequate)	1	14.3%
	“It could be made less time consuming if the number is reduced”; “Compressed to avoid time consumption”	2	28.6%
	It should also include the personnel's welfare because a staff poorly taken care of, cannot give quality care	1	14.3%
	Use of quality-care-indicators should be embraced by the N & MCN; it would improve nursing practice	1	28.6%
Total		7	100.0%

4.11.6. Summary of Cycle Five

Post-test questionnaires (quantitative data) were administered and analysed statistically. Although the research team encountered some difficulties in the course of putting the tool into use, they however acknowledged that the benefit of having an established, acceptable and standardised instrument for measuring the quality of nursing care was far greater than the difficulties they encountered. The research team concluded that the nursing quality of care measurement indicators were very suitable and applicable to their settings.

CHAPTER FIVE

5.1. DISCUSSION OF RESULTS, CONCLUSION AND RECOMMENDATIONS

Introduction to Chapter

This chapter presents the discussion and conclusion of the findings; including the recommendations and limitations of the study. The discussion of the findings places the study in the context of existing literature and the integrated action research and conceptual framework. The objectives to be achieved in the study have been organized according to the cycles as indicated below:

Cycle One: FOCUS AND CONSCIENCE- RAISING

The objectives of this cycle of the study were to:

- ❖ *Determine* the knowledge and perceptions of nurses about continuous quality improvement (CQI) as well as to **establish** available CQI processes and/or mechanisms such as nursing audit and in-service education units. In addition, the availability of nursing care measures or instruments for quality care measurement, and the evaluation of care processes (which are also CQI mechanisms/processes) were to be established in five selected teaching hospitals in SW Nigeria.
- ❖ *Assess* the appropriateness of the content of the instruments /tools such as the standards of practice document, procedure manuals, if available; as well as an assessment of the process of nursing interventions in care giving and nursing documentation in the context of Nigeria.
- ❖ *Establish* whether the instruments, if available, are being used to inform practices.

- ❖ **Identify** gaps from the data collected during cycle one with regards to existing CQI mechanisms/processes in the five participating hospitals and subsequently.

Cycle Two: ANALYSE AND PLANNING

The objective of this cycle was to:

- ❖ Consider and **propose** an option among others on appropriate /feasible CQI mechanisms in key areas to inform CQI according to the guidelines suggested in the literature,

Cycle Three: DEVELOP AND EXECUTE (ACTION)

The Objectives of this cycle of study were to:

- ❖ Collaboratively **analyze** and **adapt** an established, acceptable, standardised, off-the-shelf instrument for measuring quality of nursing care in the five participating hospitals.
- ❖ **Test** for applicability to settings, the newly adapted instrument in three of the five participating hospitals in SW Nigeria.

Cycle Four: REFLECTION:

The Objective of this cycle of study was to:

- ❖ **Reflect by reason and respond** on the applicability of the newly adapted nursing care measure and determine if the applicability addressed baseline issues.

Cycle Five: EVALUATE AND EVALUATION

The Objective of this cycle was to:

- ❖ **Evaluate** the implementation/testing outcomes, efficacy and relevance of the newly adapted nursing care measurement indicators in these participating hospitals.

5.2. FOCUS AND CONSCIENCE-RAISING: CURRENT STATUS OF CQI MECHANISMS/PROCESSES IN THE FIVE PARTICIPATING HOSPITALS, SW NIGERIA.

Cycle one focused on generating a list of problems, survey of knowledge and perceptions of nurses on CQI, recruitment of research team, establishing existing CQI through a survey and analysing the quantitative data. It also focused on verification and attestation of true situations of CQI, reflection on CQI problems as they existed in the context of SW Nigeria. A content assessment of any existing measurement tool and a focus on one problem in the context of this study, i.e. non- existence of measurement process tools was also part of this cycle.

5.2.1. Demographics:

The majority of the participants actually required for the study fell between the ages of 40-49 years and within the levels of Chief Nursing Officer and Principal Nursing Officer. The study used this specific group because of their experience in supervisory and mentoring roles. According to Greene and Puetzer (2002), mentorship helps to maintain a

relationship between the new or young, and the experienced nurses, especially in hospital settings, thereby helping to retain and support them in the delivery of high-quality patient care. These authors maintain that supervision and mentoring creates a supportive environment where nurses want to come and work. Mentors are committed to the process of teaching and guidance. Mentorship also helps nurses to build a working environment of clinical knowledge in the ever-changing patient care delivery system. Andrews and Wallis (1999) add that the supervision of nurses, and in particular, mentorship suggests that nurses value the opportunities that such experiences or schemes present for developing practice.

In the realm of educational qualification, the majority of the participants (80.9%) in the five participating hospitals possessed nursing diploma certificates. A few of them (17.8%) possessed a Bachelor of Science degree in Nursing or in another related discipline. Again, most of the nurses (78.3%) in these hospitals were registered nurse midwives, and a few of them had specialised post-graduate nursing diplomas in Mental Health, Orthopaedic and Ophthalmic nursing.

The finding from the educational qualifications of the respondents shows that the hospital wards, and in a wider perspective, the nursing profession today in developing countries like Nigeria and countries in transition, like South Africa and India is still weighed down by a very high number of 'nurse diplomats, rather than nursing degree holders when compared to other allied healthcare disciplines (Khadria, 2007). However, Coelli and Wilkins (2008) maintained that in developed countries such as the USA, Canada,

Australia and the UK, credential changes within nursing have indicated a move from predominantly certificate and diploma qualifications to university bachelor's degree or higher education qualifications.

It is worthy of mention that the majority of the participants (22.9%) who participated in the study and responded to the questionnaires, worked in the acute care settings where patient acuity is high, and attention to quality care is paramount to promote quality improvement.

5.2.2. Knowledge and Perceptions of Nurses about CQI:

Having established knowledge and perceptions of the participants about CQI, data revealed that the majority of the participants were not oblivious of the concepts of CQI as was evident by the high percentages of positive responses (which ranged between 70-99%) recorded for the questions that tested knowledge. The majority of the participants were aware that improvement in the quality of health care is dependent on the contributions of nurses as asserted by Cooper and Benjamin (2004) and Irvine, Sidani, and McGilles Hall (1998).

The participants were aware that CQI management is an integral part of everyday work indicating that right things are being done right for patients, families and their communities; and that the focus on quality is patient or client centred practice as endorsed by Hyrkas and Lethi (2003). The participants acknowledged that CQI is the

level of quality to be aimed for when measuring and comparing existing practice against standards and action taken to improve quality where necessary.

The participants in these hospital settings acknowledged that the current emphasis in nursing is shifting towards quality improvement as informed by Evans (2002) and Hyrkas and Lethi (2003). The participants recognized that CQI emphasises team work, a need to evaluate and improve performance with a vision to improve patient satisfaction and overall quality of care.

The participants accepted as a group, that CQI promotes professional development, increases responsibility and accountability as asserted by Irvine et al. (1998) and Evans (2002). Evans (2002) explained that nursing practice has entered an era of increased responsibility and accountability with a greater emphasis on team work.

Having appraised knowledge, the participants in the five hospital settings acknowledged that CQI involves an ongoing process where repeated efforts are made to monitor and improve practice until required standards are achieved. In response to the remarks of Brook et al. (2000), the nurses accepted that CQI is used to identify and solve practice problems. Conclusively, findings from the above dataset revealed that the nurse managers were well-informed about the concept of CQI and that their perceptions were positive.

5.2.3. Existing Structure Standards (Human, Physical and Material) to promote CQI:

Having established the existing CQI process or mechanism in terms of structure, with regards to human, material and operational resources, it was evident that the five participating hospitals in SW Nigeria were staffed with all levels of nurses according to the minimum staffing standard for a 30-bed ward stipulated by the Nursing and Midwifery Council of Nigeria (N&MCN). The levels of nurses ranged from the Assistant Director of Nursing to the low levelled nursing officers or staff nurses. The minimum staffing standards included 1ADN, 1CNO, 1ACNO, 1PNO, 2SNOs, 6NO11s, and 6NO1s. This means that on average, in the five participating hospitals, there were about 18 nursing personnel in the 30 bed wards in these hospitals. This falls within the acceptable number expected by the N&MCN.

On the other hand, with regards to the ratio of nurse to patient in these respective hospitals, quantitative data revealed that it was inadequate. This finding is in contrast with recommended literature which states that there is sufficient evidence to support the following recommendations that hospital in-patient units strive for a minimum patient-nurse ratio of 4:1, and that where patient acuity is higher, such as in the critical care units; patient-nurse ratio should not exceed 2:1 (McCutcheon, Macphee, Davidson, Doyle-Waters, Mason and Winslow, 2005). It is important to have as many experienced nurses per shift as possible who are familiar with the patient population and the unit assets (McCutcheon et al. 2005). In conclusion, even though the findings revealed a shortage of

nursing personnel, they also infer that wards were adequately equipped with experienced nursing personnel.

Having established the availability of materials, findings from the data revealed that there are basic material resources available in the five participating hospitals, although two-thirds of the respondents indicated that these materials are not in adequate supply to facilitate their work. However, Stone et al. (1996) suggested that one of the methods and systems of quality improvement is its practicability in terms of the required quantity of resources to promote CQI efforts.

A problem/gap was identified in terms of operational resource/protocols such as the standard of practice document. Findings revealed that procedure manuals were available for use in these hospitals; but that the standard of practice document was not available in any of the participating hospitals. Apparently none of the nurses had seen such a document.

Herman, (2007) advises that nurse practitioners or registered nurses (RN) should use the scope of nursing practice standards to support their practice and to guard against litigation. This author points out that the regulations set out the scope of practice in a fairly broad manner and should constitute the first level of control over registered nurses' practice. This author itemises the following as some activities that should be within the scope of practice:

- ❖ Can the RN carry out a particular activity within the standards, limits and controls?
- ❖ Is the activity appropriate practice in a particular unit; and should there be any restriction on carrying out the activity?
- ❖ Is the individual RN competent to carry out the activity?

If this is to be accomplished, the RN is expected to be able to read, and to know about the aforementioned activities and how they can be achieved. The scope of practice or standard of practice document was not made readily available so that the RN in the ward could be aware of what is expected of him/her.

Nevertheless, when asked for reasons why the standard of practice document was not readily available in hospitals, an official of the N&MCN informally advised that the standard of practice document is currently being updated by the N&MCN, and may even have been withdrawn at the time of this study. Moreover, the informant added that the revision of the standard of practice document had been completed but had yet to be ratified by the Board before it could be made public. The informant assured that in due course, the standard of practice document would be made available to all hospitals for reference purposes.

The problem of the inadequate nurse-to-patient ratio and that of the non-availability of operational protocols such as the standard of practice document in the ward constitutes a source of concern that should be viewed critically.

5.2.4. Existing Process standards to promote CQI:

Findings from the data which questioned the perceptions and opinions of nurses about activities that constitute care revealed that about half of the nurses (51.6%) in the five participating hospitals were satisfied with their roles as practitioners, while the other half of the nurses were not. Reasons for dissatisfaction may not be farfetched; as Williams (1998) has indicated that when nurses are unable to deliver quality nursing care to all their patients, negative emotions of dissatisfaction, frustration and guilt are experienced. This may be attributed to the limited amount of time available for nursing care delivery.

Non-availability of resources (human and physical) can also impact on the amount of time available for nursing care delivery. These feelings usually lead to stress, informs Williams (1998). In the opinion of the researcher, the problem of the shortage of nursing personnel resulting in “Burn-Out” and poor remuneration could lead to the dissatisfaction of nurses in their practice roles, although this was not established in this study.

Notwithstanding, findings revealed that the nurses in these hospital settings acquired and maintained current knowledge and competency (ANA, 1998) as well as interacted with, and contributed to the professional development of their peers. The majority of the nurses observed symptoms and reactions related to the course of disease, and the nursing reporting in these hospitals followed prescribed standards.

Another gap identified from the findings revealed that 76% of the nurses in the five hospitals participating in the study indicated that they did not use research findings in

practice, in spite of the fact that this formed part of the standards for professional performance (viii) developed by ANA, (1998). This professional performance standard stipulates that, as part of professional accountability for quality care, and because services provided by nurses are essential to patients/clients, the nurse is expected to use research findings in practice.

Current status with regard to the nursing process framework in these participating hospitals showed that the majority of the nurses (89.8%) collect patient health data and analyse these in line with the ANA (1998) standards for clinical practice. Again, the majority of the nurses developed a plan of care that described intervention, and evaluated the patient's progress towards the attainment of goals; however, a few of them, as a matter of practice, did not carry out these processes in their respective hospitals.

As for nursing documentation, Kozier et al. (2004) and Delaune and Ladner 2002) explained that effective communication by documentation amongst care professionals is vital to the quality of patient/client care. However, findings revealed that 89.8% of the nurses in the participating hospitals recorded or documented the care provided for their patients. Again, findings showed that the nurses in these hospital settings met the physical, emotional and social needs of their patients.

Findings which linked to established CQI Mechanisms in terms of Nursing Care Processes surmise that the nurses in the participating hospitals were partially satisfied with their roles as practitioners. Even as the nurses acquired and maintained current

knowledge and competency, they also interacted with, and contributed to the professional development of their peers in line with the recommendations of their regulatory body. The nurses also observed symptoms and reactions related to the course of disease, and their nursing reporting followed the prescribed standards. On the other hand, the nurses did not utilise research findings in their practice, nor did they make the most use of the nursing process framework for practice. The nurses in these hospitals did not draw nursing care plan which forms a component of the nursing process, although the majority of them claimed to document the care provided to the patient. Finally, the nurses in the participating hospitals met the physical and emotional needs of their patients.

5.2.5. Existing Outcome Standards to promote CQI:

Lichtig, Knauf, and Mullholland (1999) in their study identify that there is a relationship between proper nursing care and patient outcomes such as falls, pressure ulcers, infections and patient satisfaction. Shullanberger (2000) adds that patient satisfaction reflects one's perception that the expected experience is being met or has been met at an adequate or superior level of quality.

However, ANA (2000) noted that satisfaction measures are influenced by factors such as age, gender and health status that may not truly reflect quality of care; and so have suggested a research need, to link patient satisfaction to outcomes. Ebin and Odette (2008) in their article recounting outpatients' experiences of quality service delivery at a teaching hospital in Gauteng indicate that a patient's experience of a particular service is an indicator of his/her level of satisfaction with the quality of that service. These authors

brought to the fore the negative experiences of the quality of service delivery by outpatients, amongst which powerlessness is related to a lack of information, a lack of service commitment, a culture of non-caring and inhospitality, an unfriendly, unsafe, non-enabling environment, dehumanization and a lack of consideration for the person. If nurses, who claim to be caring professionals, want to deliver quality healthcare service, they should be much more aware of the behaviour that they demonstrate towards other people and to their patients in particular.

Ebin and Odette (2008) recommend that quality improvement programmes which exemplify well-organised reporting and working relationships between patients and various committees such as QI committees, customer-services, and grievance/patient care committees should be re-formulated. Even though Armstrong (2008) in her article on improving the quality care-learning through case studies, recommended that nursing staff members, especially in casualty departments should receive in-service education on communication and interpersonal relationships, particularly with very ill patients and stressed relatives. The researcher is of the view, nevertheless, that all staff members working in various departments where there is any form of interaction with the patients and their relatives, should benefit from such in-service education.

Findings revealed that the *patient and family were satisfied with nursing care; as well as the time spent with them; and again, patients were satisfied with information provided to them; as well as with symptom and pain management* but they (i.e. nurses) never established this from the patients as is revealed in Table 4.9b. In response to the question

that determined the CQI monitoring processes as related to patient care, the majority of the respondents (93.1%) indicated that a post-care questionnaire is not completed on discharge of the patient to measure satisfaction. This contradiction in responses brought to the fore the ‘beauty of triangulation’ in a study, because the question was put differently in different contexts. Conclusively, in establishing CQI Mechanisms/Processes in terms of Outcome Criteria, the researcher summarised that the nurses perceived that the patients are satisfied with the care nurses provided; as well as the time spent with them. Again, the nurses perceived that the patients were satisfied with the information provided to them.

Findings also pointed to the fact that adverse incidences like falls of patients and pressure sores were a frequent occurrence in these hospitals. Infections also occurred frequently in these settings as mentioned by 73.2% of the participants who formed the majority. Leape and Abookire (2005) state that adverse incidents, or events such as patient falls and pressure ulcers amongst others, are caused by errors, either of commission or omission and that these do, in fact, reflect deficiencies in the system of care. Buerhause and Needleman (2000) in their review of patient fall literature, reveal that falls were the single largest adverse incident reported in hospitals; although a California Nursing Outcomes Coalition (2000) recently caution that patient falls can not always be predicted or prevented in hospitals. Albeit, Buerhause and Needleman (2000) again add that 20% to 70% of these falls are preventable. Furthermore, hospital-acquired skin breakdown is closely associated with the quality of care, specifically nursing care, within a hospital. Dibsie (2008) and Williams (2001) also confirmed that pressure ulcers are a serious

adverse outcome affected by nursing care; and that they can be potentially preventable through changes in the process of care.

However, Leape and Abookire (2005) state that the most important knowledge in the field of patient safety is how to prevent harm to the patient during treatment and care. These authors acknowledged that health care errors are provoked by weak systems and often have common root causes that can be generalised and corrected. Leape and Abookire (2005) state that reducing adverse events and errors has become an international concern and they recommend that a minimum reporting of these adverse incidents can help to identify hazards and risks and provide information as to where the system is breaking down. This information, surmise the authors, can help target improvement efforts and systems can be changed to reduce the likelihood of injury to future patients.

In addition, about five to ten Hospital-Acquired Infections (HAIs) or nosocomial infections are recorded on a monthly basis in these participating hospitals as indicated by half of the participants. This finding is in keeping with several literary sources such as Burke (2003) who reports that about 5% to 25% of patients who are admitted to acute-care hospitals acquire one or more infections and that the risk has increased steadily during recent decades. Wenzel and Edmond (2001) explain that incidence of 5 infections per 1000 patients a day or closer to 10%, is recorded for larger institutions in hospitals annually. Plowman, Graves, Griffin, Roberts, Swant, Cookson, and Taylor (2001) and Gaynes, Richards, Edwards, Emori, Hovan, Alonso-Echanove, Fridkin, Lawton, Reavy

and Tolson (2001) maintain that at any one time, approximately 10% of hospitalised patients have an infection acquired after admission to hospital. Nosocomial infections, more appropriately called health-care associated infections are by far the most common complications affecting hospitalised patients remarked Burke (2003). In addition, HAIs are a major health problem not only in terms of morbidity and mortality, but also because they extend hospital stay and therefore hospitalisation costs (Mahieu, Buitenweg, Beutelst, and De Dooy, 2001).

Although HAIs occur in clusters or outbreaks, they can be detected by a careful review of surveillance information (Burke, 2003). In his colloquium paper, Swartz (1994) informs that during the last two decades, hospitals have established internal systematic monitoring of HAIs rates.

Some of the patients in these hospitals adhered to discharge plans as indicated by 59.9% of the nurses; and other patients did not adhere. However, many of the nurses 59.9% noted that the average length of stay of the patients in their respective hospitals is 10 days.

In conclusion, the researcher infers from the findings, that adverse incidents like falls, pressure ulcers and HAIs were frequent occurrences in the five participating hospitals and were indications of poor quality care. It was obvious that they were not monitored because there were no monitoring and/or measurement instruments that could help to “mirror” or identify deficiencies in the quality of nursing care.

5.2.6. Existing CQI Mechanisms/Processes as related to Measurement and Monitoring of Patient Care:

In appraising CQI mechanisms like the Nursing Audit and In-Service Education units in these five participating hospitals, findings revealed that there were no *established or well planned nursing audit and in-service education units* that promote quality improvement as motivated by Ellis and Hartley (2000). These authors recommend the use of a “*quality circle*” as a form of quality improvement program and they maintain that this “*quality circle*” comprises a team of workers who meet regularly for the purpose of identifying ways of improving quality within their own work setting.

In view of the recommendations of Ellis and Hartley (2000), Stone et al. (1996) inform that continuing education is predominantly a method of quality improvement that enables nurses to act in ways which will result in improvement. These authors advise that in-service educational programs should be designed to implement objectives where nursing personnel strive continually to improve their knowledge and skills by utilising reference materials and resource persons.

Furthermore, findings revealed that there were also no evaluative nursing care measures or monitoring instruments available for use in the five participating hospitals in SW Nigeria, despite the suggestions of the literature. Suggested literature refers to the importance of developing instruments for quality of nursing care measurement (Kunaviktikul, 2002; Archibong, 1999; Kozier and Erb, 1987).

Kunaviktikul (2002); Archibong (1999); Kozier and Erb (1987), Stone et al. (1996) emphasise the need to measure the quality of nursing care, so as to identify areas of deficiency and/or opportunity for improvement. This fact is also supported by Kunaviktikul et al. (2005); Uys and Naidoo (2004); Brook, McGlynn and Shekelle (2000); Archibong (1999); and Donabedian (1982).

Kozier et al. (2004); Taylor, Lillis and LeMone (2001) and Sale (1996) suggest that during the retrospective review of patient records, a post-interview can be conducted with the patient or family members when the patient has left the hospital; or a post-test questionnaire can be completed by the patient on discharge to measure patient satisfaction. Notably, findings from the current study revealed that it was not common practice in the five hospital settings to measure patient satisfaction on discharge using any of the aforementioned approaches.

In addition, concurrent evaluation of patient care or peer review is also not “popular” in these hospitals. Findings showed that the patient’s charts and/or records are not reviewed against preset standards while the patient is still receiving care. Consequently, findings also revealed that there was no observational checklist for monitoring the activities of the nurses in the wards. It is therefore implied that neither concurrent nor retrospective auditing of care is carried out in these hospitals. These developments substantiate the fact that measurement and monitoring of patient care were not quality improvement practices used in the five participating hospitals.

Again, findings revealed that the outcomes of evaluation of activities, if carried out in these selected hospitals, are often not communicated to the nurses as was confirmed by 62.1% of the participants. However, the participants in the only one hospital which recently put in place a nursing audit unit claimed that findings from the utilisation of the instrument where available, were used to inform practices which led to the improvement of nursing care in their respective wards, and the promotion of a therapeutic environment as commented by the participants.

5.2.7. Content Assessment of existing Instrument where Available

In terms of the assessment of their instruments/tools, where available, which measured the quality of nursing care by means of human, material and operational resources (Delaune and Ladner 2002 and Donabedian, 1982); no measurement instruments/tools were available for use, nor were any presented in the five respective hospitals for content assessment. This again supports the previous quantitative data findings indicating that there were neither evaluative measurement instruments nor observational checklist tools for measuring and/or monitoring the quality of nursing care as shown in table 4.9a; despite the literature's advice or guidelines advocating nursing care measures (Booyens, 2005; Ellis and Hartley, 2000; Kozier and Erb, 1986).

Stone et al. (1996) emphasise the need to develop acceptable and useful methods and/or tools to monitor and evaluate care; to provide support for much needed improvement action. Conclusively, in a situation where there were no instruments for nursing care

measurement or observational checklists as the case may be, it therefore meant that judgement of the quality of nursing care provided by the nurses in the participating hospitals was emphatically non-existent, and of course, there would be no room for improvement if needed; since there was nothing to point to or reveal deficiencies.

5.3. DEVELOP AND EXECUTE (ACTION): ANALYSIS, ADAPTATION AND TESTING OF AN ESTABLISHED INSTRUMENT

The research team collaboratively analysed the content and adapted an established, acceptable, standardised, off-the-shelf instrument called the MONITOR for measuring the quality of nursing care in the respective participating hospitals. Permission of the then Newcastle-upon-Tyne Polytechnic Products Ltd, currently referred to as Unique Business Services, University of Northumbria at Newcastle, and Publishers of the MONITOR was obtained as reflected in **Annexure 3A**.

While reviewing the MONITOR, nursing care activities pertaining thereto which are also common practices in the context of the participating hospitals were accepted and retained. The participants accepted responsibility for those nursing care activities which should be standard, but are not maintained, and promised to improve on those practices; but those nursing care activities which could not apply to their individual hospital settings (as a result of factors not within the control of the nurse managers), were rejected. However, in the course of **content analysis** of the MONITOR, the following were identified as lapses and/or gaps in their practice and they are hereunder discussed as the last stage of a thematic framework of a qualitative analysis.

5.3.1. Mapping and Interpretation of Qualitative Dataset:

This was the last stage of the thematic framework approach used in the analysis of the qualitative data; and it involves searching for patterns, associations, concepts and explanations in the data aided by visual displays or plots with a view to providing explanations for the findings.

Pope, Ziebland and Mays (2000) surmise that the process of mapping and interpretation is influenced by the original research objectives as well as themes which have emerged from the data themselves. In this study, the area of choice of focus of the qualitative analyst depends on the research objectives and/or questions. The **content analysis** of the MONITOR instrument considered the following:

5.3.1.1. Assessment of patient on Admission:

The assessment of the patient is the first step of the nursing activity in the nursing process, which is a standard of care. It is a very important step, because the completeness and correctness of the information obtained in this step is directly related to the accuracy of the steps that follow (Delaune and Ladner, 2002), such as meeting the patient's needs, meeting his/her psychological/emotional needs, as well as the evaluation of nursing care objectives as identified in the emerging themes. However, nurses in the five participating hospitals found the assessment of patients on admission to be a common practice in their different settings.

As for information obtained on admission, some information was not obtained on admission and was not documented. Examples of such details include obtaining and recording the patient's understanding of his/her illness; recording of a patient's weight on admission; and recording a patient's diet/food preferences on admission. Some aspects of assessment of care were not "popular", and as such were omitted in their practice. These included use of nursing care plans; the wearing of a patient's identification bracelet on his/her person; and the display of the patient's name on his/her bed to mention a few.

It was also a common practice in the majority of the hospitals (four of the five hospitals) to record a patient's disabilities within 24 hours of admission, as this practice derived its support from the literature which informed that it was standard practice to document limitations such as impaired hearing, vision, speech as part of the neurological assessment (Delaune and Ladner, 2002). These nurses have shown that they maintained this practice.

Again the literature has reported that it was standard care to obtain a history of the patient's elimination pattern and to record this within 24 hours of admission (Schilling, 2000 and Delaune and Ladner, 2002). The elimination pattern includes both urinary and bowel elimination frequency and patterns. Any recent changes or problems in these should be noted. However, findings from the qualitative analysis revealed that nurses in some of the participating hospitals recorded elimination patterns of their patients as a matter of practice; while in other settings, nurses recorded only the details of the incontinent patient, and in some settings, it was not commonplace at all to record

elimination patterns of a patient on admission. A common feature and practice in all five hospital settings was the observation of behaviours indicative of the mental/ emotional state of the patient.

Moreover, findings revealed that the majority of the nurses in most of the hospitals (four out of five hospitals) did not record the patient's understanding of his/her illness on admission; except for one hospital which had a practice of doing so. The literature explicitly suggests that during the first meeting/orientation phase, apart from introducing him/herself by name and establishing a rapport with the patient by building a trusting helpful nurse-patient relationship, the nurse is expected to observe the patient's behaviour and listen attentively. This is to determine the patient's self-perception and the way the patient sees/understands his/her health problems and then to validate the patient's perceptions (Craven and Hirnle, 2000).

Nurses should provide the patient with an opportunity to discuss his/her feelings about him/herself and his/her health problems and expectations and ensure that such understanding of his/her current health status is documented during admission (Craven and Hirnle, 2000). Chandler (2008) adds that it is essential that any information obtained during the interview between the nurse and patient is documented accurately and concisely, as the nursing assessment form is retained for future reference together with other documentation.

5.3.1.2. Utilization of Nursing Process:

A major observation and/or gap identified in the course of adapting the MONITOR was that of the ineffective and inefficient use of the nursing process in these five participating hospitals. Nonetheless, several sources of literature\ have provided relevant insight to the importance of the nursing process framework (Chandler, 2008; Craven & Hirnle, 2003; Schilling, 2003; DeLaune & Ladner, 2002). The nursing process is dynamic and requires creativity for its application. It is designed to be used with patients throughout the lifespan, and in any setting in which the nurse provides care for patients/clients (DeLaune & Ladner, 2002). The literature suggests that it is important for the nurse to recognise that the nursing process is ongoing; just as it is essential to revise and update any plan of care continually in order to meet a patient's needs (Chandler, 2008).

By utilising the nursing process, each individual's specific needs are assessed, problems are identified and a care plan is developed and implemented in order to meet those needs. The effectiveness of any care given is continuously evaluated in terms of the individual's needs. The nursing process complements the current role of the patient/client in healthcare which is that patients play an active role in decisions affecting their health; and no longer passively accept a decision that healthcare professionals make (Craven & Hirnle, 2003). Literature further informs that the nursing process serves as a guide for a professional nursing practice and that it has the following characteristics as itemised by Craven & Hirnle, (2000):

- ❖ It is a framework for providing nursing care to individuals, families and communities.

- ❖ It is orderly, systematic and interdependent.
- ❖ It provides specific care for the individuals, families and communities and it is client-centred, using the client's strength.
- ❖ It can be used for all settings.

Schilling (2002) elaborates that when effectively used; the nursing process offers several important advantages such as:

- ❖ The patient's specific health problem not the disease becomes the focus of healthcare. This emphasis promotes the patient's participation and encourages his/her independence and compliance-factors important to a positive outcome.
- ❖ The nursing process provides a consistent and orderly professional structure, which promotes accountability for nursing activities based on evaluation which, in so doing, leads to quality assurance and/or improvement.

In support of the nursing process framework, the Nursing and Midwifery Council of Nigeria (1979) in its policy statement acknowledges that, "Nursing practice is a dynamic, caring, helping relationship in which the nurse assists the patient/client to achieve and maintain optimal health by integrating knowledge and skills from nursing related areas through the utilisation of the nursing process" and thereby recognises the "utilisation of nursing process as a standard tool for uniformity of client care". To this end, it recommends under ***Section 15.2 of the Scope of Practice of the Standard for Nursing Education and Practice in Nigeria*** that, *once registered, every nurse is subject to the code of ethics, and is accountable to the N&MCN for any omission or*

commission. The nurse therefore, guided by nursing knowledge and skill is personally accountable and responsible for all her actions and while rendering care, the nurse shall ensure that the pattern of care for use shall be the nursing process (N& MCN, 1979).

Furthermore, one of the steps of the nursing process involves writing a nursing order/care plan to communicate the exact nursing interventions that are to be implemented for the patient. A nursing care plan or nursing order, as is often referred to in some literature, is a statement written by the nurse that is within the realm of nursing practice to plan and initiate (Delaune & Ladner, 2002).

Delaune & Ladner, (2002) remark that the nurse is responsible for writing nursing orders or care plan that involved health promotion, observation of care and prevention. The plan of care directs the efforts of the entire health team regarding each patient. A written plan of care authenticates activities of assessment. This maintains written records and provides evidence for nursing intervention and changes in the patient's condition. The plan of care is realistically designed, and customised to each individual patient's health status. It is the final result of the planning component of the nursing process. The nursing care plan documents health care needs, coordinates nursing care, promotes continuity of care, encourages communication within the health team and promotes quality of nursing care (Delaune & Ladner, (2002). However, responses from the questions asked about the utilisation of nursing care plans in the current study, revealed that the nursing process framework is not too "popular" in these participating hospitals. Again, the problem of not efficiently

obtaining some important information as previously noted on admission, while carrying out assessment is an indicator of where the lapses lie. Nurses from only two of the participating hospitals responded satisfactorily to the following questions on the nursing care plan:

- ❖ Whether their nursing care plan specified times, frequency and methods for carrying out therapeutic measures.
- ❖ Whether their nursing care plan included specific nursing measures for particular conditions such as pressure sores, exercise for immobile patients.
- ❖ Whether their nursing care plan distinguished between the activities the patient was expected to do himself and activities the nursing staff should perform.
- ❖ Whether their nursing care plan included attention to the patient's needs for discharge teaching.
- ❖ Whether their nursing care plan indicated the specific extent of ambulation, and
- ❖ Whether their nursing care plan indicated the pertinent signs and symptoms to be observed with regard to medical treatment, medication, disease process or possible complications.

The nurses from one of the hospitals provided haphazard responses to these questions on the care plan, even though they claimed to be using the nursing process as a standard for practice. Nurses from two other hospitals, however, frankly reported that the nursing process is not in use in their respective settings and, as such, they did not draw nursing care plans. This group of nurses from the latter hospital did not provide answers to these questions on nursing care plans or to the nursing process related question.

The researcher needs to include here that the nurses in these hospitals where the nursing process was not in use, accepted that officially, and in principle, the nursing process framework is in place to be used for practice in their respective settings; because they presented a copy of the Nursing Process Record Booklet provided by the N& MCN as evidence that, in policy, the framework is in use; but in practice, the nursing divisions of these hospitals have not actually implemented the policy. Reasons given for this are not implausible and include very ill patients, “shortage of nursing personnel”; “time consuming”, while nurses in these hospitals obviously favoured the ‘school of thought’ that promotes “task-oriented” nursing as an approach to practice.

Notwithstanding, it is pertinent to mention that poor implementation of the nursing process framework and the problems associated with the utilisation of nursing-care plan in the participating hospitals are similar to the findings from an intervention study carried out by Habermann and Uys (2005) in some of the countries such as USA, Australia, Germany, Czech Republic, Caribbean and South-Africa. These authors found out that incomplete implementation of the nursing process, including insufficient documentation, contributed to poor outcomes of the nursing care. It was also found out that the care plan was checked and written to the end of the shift and not attended to when starting the shift, so that it did not guide the actual work. Habermann and Uys (2005) conclude that the plans have been found to be illegible, confusing, lacking actuality, validity and reliability. These writers surmise that even if care plans are available in correct form, it does not mean that the right care or quality nursing has been provided nor does it make a difference in outcome. Habermann and Uys (2005) point to the poor practice impact

which is based on feelings of inadequacy owing to difficult working conditions and severe health problems of the African population and question how nursing care plan can be developed when rendering of basic care and therapeutic interventions are hardly realised owing to an overload of work. Nevertheless, Habermann and Uys (2005) put forward that the resistance of the nurses on the bedside must be taken seriously and plans adapted to the demands of wards should be developed.

Conclusively, findings from the dataset have shown that there was poor implementation of the nursing process framework in the five participating hospitals if what the literature suggests (Kozier, Erb, Berman, & Snyder, 2004; Craven & Hirnle, 2003; Schilling, 2003; Harkreader, 2000; DeLaune & Ladner, 2002; and Chandler, 2008) within the context of this study is anything to go by.

5.3.1.3. Documentation:

A common feature in these five hospital settings is inefficient documentation. A quick look at the findings from the qualitative analysis brought to the fore issues of inefficient recording and documentation with litigation as an implication. According to the literature, Craven & Hirnle (2003), information about each patient is recorded in writing to communicate details about patient health status and care.

Records promote continuity of care, and are the means by which various members of the health team communicate information about the patient's condition and the type of care which has been implemented. If nursing care is not documented, it is alleged that it has not been carried out. Written records provide a permanent and accurate assessment of the

patient, his/her health status and his/her progress; and they provide the data necessary to plan and implement care.

Conversely, the participants had one explanation or the other to give on behalf of their nursing colleagues, for not recording one nursing activity or the other. However participants reportedly claimed to be regularly involved in recording information about their patients. Having identified these gaps in the inefficient use of nursing process and documentation in the five participating hospitals, the need to re-visit the notion of the nursing process again in SW Nigeria is imperative.

5.4. EVALUATE AND EVALUATION: IMPLEMENTATION/TESTING

OUTCOMES

Findings from the testing of the newly adapted measurement instrument as well as an evaluation of its applicability to settings of the participating hospitals are presented hereunder.

5.4. 1. Applicability of the newly adapted Nursing Quality Indicators.

Campbell, Braspenning, Hutchinson, and Marshall (2003) advise that measures should be tested during their development and application for acceptability, feasibility, reliability, sensitivity to change and validity, as these factors would optimise their effectiveness in quality improvement strategies. In view of this, cycle 3 encompassed the highlights of testing for the suitability/applicability of the newly adapted instrument for quality care

measurement. The newly developed instrument/nursing care measures were tested in two acute care wards in three of the five participating hospitals in SW Nigeria.

Findings from the **test of applicability** revealed that the new instrument for measuring quality of nursing care was perceived by the nurses who applied it to practice in their respective hospitals as an “adequate and well organized nursing care tool”; “quite relevant to their nursing practice” and that they indicated that the use of the tool be encouraged. The instrument was also said to be “comprehensive, good and adaptable” and lastly, amongst the above comments, some of the nurses perceived the new instrument as “very appropriate to measure the quality of nursing care”.

Findings from the *quantitative data used to evaluate* the suitability of the newly adapted instrument reveal that the majority of the respondents (85.7%) in all five participating hospitals accepted that the contents in the newly developed instrument are measurable, *realistic, achievable* and *time-bound* which are characteristics of objective criteria. Findings reveal that the new tool measured the criteria of various aspects of nursing such as the admission process, meeting patient’s needs, meeting psychological/emotional needs of the patient and evaluating the objectives of the care provided.

The research team encountered some difficulties however, in the course of putting the new instrument to the test. The findings reveal that 67.7% of the participants in the five participating hospitals reported having difficulty with the amount of time to be expended

on the use of the new quality care indicators. Comments from some of the nurses about the difficulties encountered are listed below:

- ❖ “It is time-consuming”
- ❖ “Shortage of nursing personnel”
- ❖ “Lack of cooperation from a few of the nurses in the wards”
- ❖ “Unwillingness of some patients to tell the actual truth, so as not to implicate the nurses”
- ❖ “Some nurses were not eager to know the level of quality of care they were providing” and this the researcher interpreted to be the ‘non-responsive’ attitude and/or disinterestedness of nurses towards quality improvement.
- ❖ “Gaining nursing staff attention/approval to be part of the exercise of evaluating care was not an easy task”

These difficulties were not unusual, especially given the issue of time expended in auditing nursing care say Cooper and Benjamin (2004). These authors have confirmed that auditing is always a time-consuming activity, but they remark that staffs are able to counter-balance this, when they see how worthwhile it can be.

Despite the difficulties encountered, the participating nurses still made positive remarks and comments about the newly developed quality care indicators. Some nurses expressed positive feelings about the cooperation received from some of their colleagues in the wards, and patients; as well as the opportunity it afforded them to broaden their scope in the area of quality care measurement, to critically review patients’ records and identify areas of deficiencies that require adjustments. The nurses again praised the instrument

for its simplicity and clarity. The exercise afforded them the opportunity to personally observe nursing activities in the ward and thus promote the evaluation of nursing care.

Commenting on the scoring format, the majority of the nurses in these five hospital settings described the **scoring format** of the newly developed quality-of-nursing-care indicators as “simple to use”; “explicit enough”; and accurate; however, a few of the nurses commented on the “time it took to score”. Booyens (2005); Goldstone et al. (1993) and Kozier and Erb (1987) inform that scoring formats differ in tools, and that levels of care may be rated as excellent, good, incomplete, poor or unsafe; or could be rated by a simple “YES or NO”; even so, nurses’ performances can be rated on a scale ranging from (5) as best nurse to (1) as worst nurse; however these authors advise that scoring formats should not be complicated to use, but simple. Nevertheless, the research team used a scoring format for the study which combined the simple ‘YES’ or ‘NO’ and a care rating of ‘good’ to ‘unsafe’.

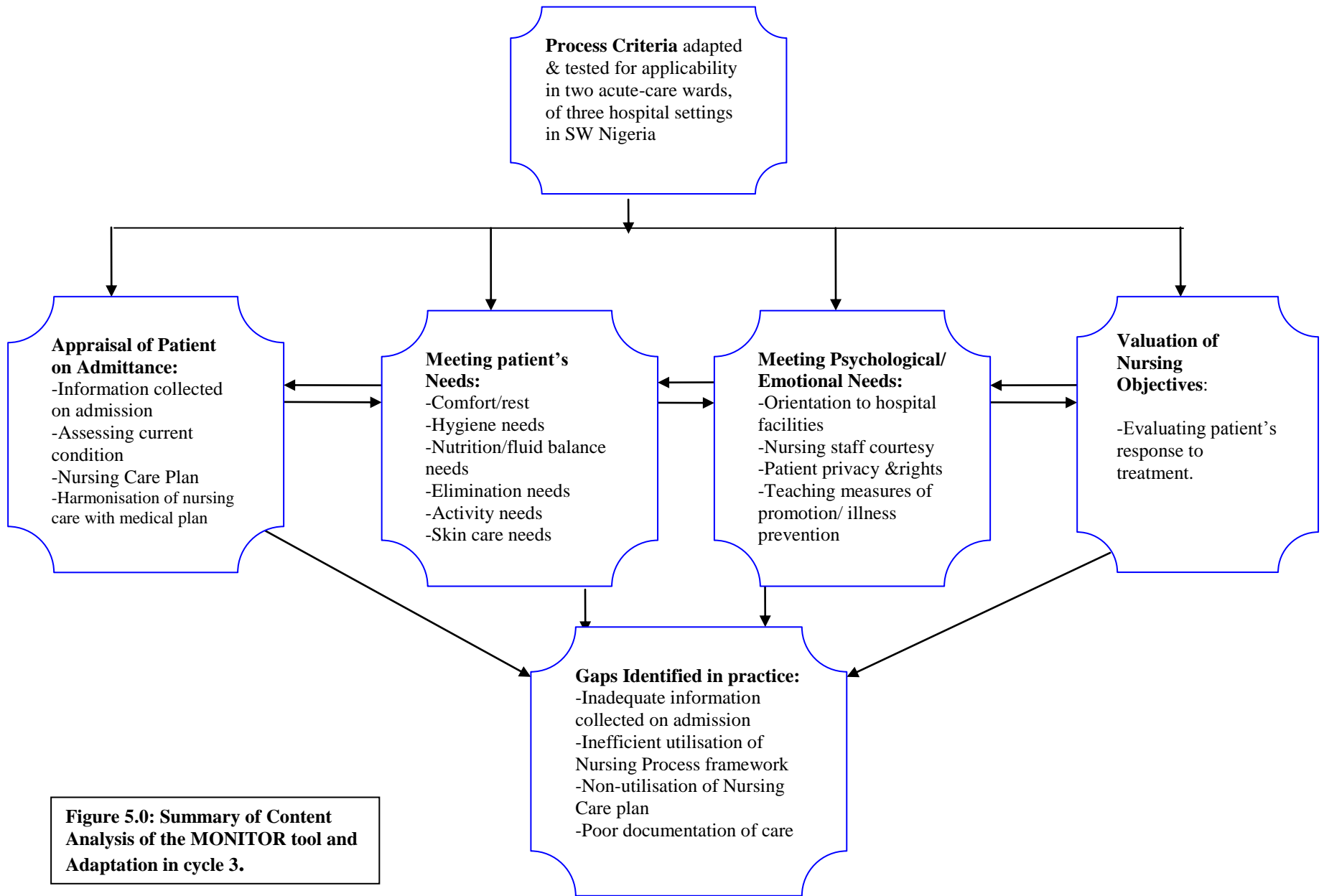


Figure 5.0: Summary of Content Analysis of the MONITOR tool and Adaptation in cycle 3.

5.5. RECOMMENDATIONS TO STUDY ACCORDING TO FRAMEWORK

Recommendations from this study are made in the context of the integrated conceptual/methodological framework and they are informed by findings. Recommendations are presented as they relate to clinical nursing (practice), nursing management, nursing education, and nursing research.

5.5.1. Recommendations for Practice:

- ❖ This study has revealed the significance of the tool as commented by the research team during the reflection on the applicability of the newly adapted tool. Given the importance of ensuring that the public receives quality care, continuous quality improvement mechanisms/processes such as established quality-care indicators, structured nursing audit and In-service education units should be put in place and maintained in all secondary and tertiary health care facilities to promote quality improvement efforts.

- ❖ The newly adapted tool should be formally presented to the management by the nurse leaders of the participating hospitals. It should also be presented to the Nursing and Midwifery Council of Nigeria (N&MCN) and the Federal Ministry of Health by the researcher. Through the cooperation and collaboration with the stakeholders, the evaluative instrument for nursing care measurement and monitoring could be piloted and tested on a wider scale in other tertiary hospitals across Nigeria and subsequently utilised in health care facilities to promote quality nursing

care. This recommendation derives support from Campbell et.al. (2003) who advised that it is essential amongst others to consider the importance of considering the stakeholder's views /perspectives when developing quality care indicators.

- ❖ The importance of measuring quality of nursing care has been highlighted in this study. The value of measuring and monitoring the quality of nursing care should be embraced by all nurses; especially in the tertiary health care hospitals in Nigeria. Quality information obtained from the measurement of nursing care can be used to develop and implement staff development plans designed to address identified problems.
- ❖ Registered nurse managers should use these newly adapted nursing measures/ quality-care indicators as part of a performance-improvement activity to continually monitor and improve nursing care provided in acute-care health facilities.
- ❖ Since the literature suggests the use of scope of practice standards, to support practice, it is imperative for such a vital document as the standards of practice to be readily available in the wards of hospitals for practicing nurses to use as a guide, a standard for judgement, and as a reference document. This would afford the nurses the opportunity and the responsibility to refer to it; to know and work within its scope; to know which activities are not within their scope of practice and cannot be delegated by other healthcare providers. Standards represent best practices

as a target to aim for, and they are a means to an end and not an end in themselves. The availability of standards does not mean that the organisation is capable of reaching the target at once, but these are ideals that the organisation should work towards (Herman, 2007).

- ❖ The newly adapted tool is formatted according to the nursing process framework. Nursing process, a framework for practice, as well as a standard of care should be embraced, and its application should be emphasised, not only in tertiary healthcare services, but at all levels of health care.
- ❖ Despite the fact that the nursing process framework has been in place in Nigeria, it has still not been implemented or effectively utilised by participating hospitals which are tertiary healthcare institutions supposed to be models of emulation as far as nursing practice is concerned. The Nursing and Midwifery Council of Nigeria should organise a national workshop and/or refresher course on the concept of the nursing process to re-sensitise the nurses again about this phenomenon.
- ❖ Revelation of poor or inefficient documentation necessitates or warrants that nurses be reminded or made aware of the importance of documentation and implications of non documentation. This can be achieved through conference/workshops and presentation of litigation cases by the N&MCN. Nurses should keep in mind that nursing actions should be recorded

immediately to avoid errors and/or omissions; and that nurses are responsible for accurate, complete and timely documentation.

5.5.2. Recommendations for Management:

- ❖ In clinical nursing areas, nurse administrators can use these findings as benchmarks for other local hospitals and even at state and national levels
- ❖ Nurses need to ensure that quality patient care is being provided. The nurse-to-patient ratio should improve to 1:5 as suggested by the literature (McCutcheon, A., Macphee, M., Davidson, J., Doyle-Waters, M., Mason, S., & Winslow, W., (2006). However, this may be unrealistic because it may not be suitable for the local context of Nigerian nursing practice; even if currently in SW Nigeria, the ratio of nurse to patient is 1:10/15 (evident from the data) which is grossly undesirable. In the mid-point, one nurse to seven patients (1:7) may be realistic to the local context where there could be over-crowding of patients in hospitals and is therefore recommended. According to Needleman, Buerhaus, Stewart, Zelevinsky, and Mattke (2006), the growing body of evidence linking hospital forces to patient outcomes have suggested that one way to improve quality is to increase nurse staffing amongst things, including improving quality by equipping hospitals with new technology, investing in training and continuing education and imposing regulations that would promote or bring about adequate nurse staffing. Structure facilitates the process (Donabedian, 1982). It is suggested that structure standards be improved so the process (i.e. the tool) functions well. The researcher therefore recommends that adequate provision for human resources, equipment and

supplies, operational tools such as checklists for audit, protocol guidelines and algorithms are made.

- ❖ Now that the process standards have been secured through the adapted tool developed in this study, the researcher recommends that once the tool has been consolidated, the outcome standards be developed and utilized to evaluate the quality of care to tell the difference.

5.5.3. Recommendations for Nursing Education:

- ❖ The need to evaluate care should be instilled in training to promote accountability. Therefore, the concept of nursing care measurement should be integrated into the knowledge base of nurses. Nursing educators should ensure that the curriculum accurately reflects nursing care indicators and measurements.

5.5.4. Recommendations for Nursing Research:

- ❖ The researcher recommends that future research should include the two aspects of care processes that were not considered in the study due to time constraints.
- ❖ The use of research findings in practice should be promoted and encouraged. Major barriers to research utilisation, as itemised by Kajermo, Nordstrom, Krusebrant, and Bjorvell (1998) include the implementation of research findings, the lack of competent colleagues with whom to discuss research findings; the lack of time for reading and implementing research

findings; and nurses' lack of authority in the organisation which are all barriers which should be eliminated.

- ❖ Research orientation among nurses could also encourage use of findings from the audits as the developed tool would inform.

- ❖ Continuing research is needed to improve the quality of nursing care indicators and these measurements should be done collaboratively with the nurses, so that those (Nurses) who would own the findings can be motivated to implement them. This will also teach them research skills which will promote evidence-based practice. Testing the modified tool in the future with a larger population is also recommended.

5.6. LIMITATION TO STUDY

One main draw-back of the action research design was the awareness of one's own limitations as a researcher, insecurity and a non-member; having come from a work environment and/or setting different from those of the participants and working with certain values which differ considerably from theirs. The researcher was mindful of the traditions and socio-cultural issues that may exist in the participating hospitals which needed to be understood as the research progressed. The researcher accepted her relative ignorance about the various hospital settings and nursing staff, and then tried to learn from the nurse managers concerned through empathy and friendship what their problems, needs and feelings were.

Given that Nigeria has about 20 teaching hospitals and 10 federal medical centres, with the majority of them located in the urban areas, the need for a

representative sampling is apparent. Because of limited resources, as there was no form of funding for this research, the number of hospitals selected for the appraisal of CQI mechanisms and the development of quality-care indicators was limited. The sample included five teaching hospitals in SW Nigeria.

A considerable amount of time was spent with the research team in each of the five participating hospitals to reach consensus regarding the appropriateness and suitability of the newly developed quality of nursing-care indicators. However, the study could not measure sensitivity to change as advocated by Campbell et al. (2003) due to time constraints. These authors suggest that quality measures need to detect changes in the quality of care in order to discriminate between and within subjects; however, sensitivity to change is suitable for longitudinal or time-series studies which this study could not accommodate due to time constraints.

5.7. CONCLUSION

This study appraised continuous quality improvement mechanisms/processes in five selected teaching hospitals in SW Nigeria. The findings from these participating hospitals showed that there were no established or well-planned Nursing audits and in-service education units and above all, no nursing care measurement instruments/tools (which are CQI mechanisms) for the appropriate measurement of quality nursing care. The study furthermore identified relevant literature which supports, promotes and/or emphasises the importance of establishing such CQI mechanisms and/or processes in health-care facilities to promote quality improvement efforts. However, based on the findings from the

appraisal, established quality care indicators were adapted from the MONITOR for each of the five hospital settings for quality nursing care measurement.

Action research with mixed method-sequential explanatory design integrated used for the study, followed that recommended by the scientific literature. The newly adapted quality care indicators were tested in three of the five selected hospitals for applicability in two acute-care wards in each of the three hospitals. The results of the study can be used in Nigeria and elsewhere, as a means to protect the rights of the patient by measuring and monitoring the quality of nursing care.

As members of a profession, nurses will be able to take their place among other disciplines within the health care system that functions in the patient health review, only when they can identify deficits in patient health status through nursing activities such as measurement, monitoring and evaluation of care. To this end, development and the use of nursing capability to function in quality improvement deserve the highest priority in the nursing profession.

REFERENCES

- Akinsola, H. A. (2005). *Research Methods in Medical and Nursing Practice* (1st ed.). Ibadan: College Press and Publishers Ltd.
- Althabe, F., Bergel, E., Cafferata, M.L., Gibbons, L., Ciapponi, A., Aleman, A., Colantonio, L., & Palacios, AR. (2008). Strategies for improving the quality of health Care in maternal and child health in low-and middle-income countries: an overview of systematic reviews. *Paediatric and Perinatal Epidemiology*, 22 (1), 42-60.
- American Nurses Association (ANA 1998). *Standards of clinical nursing practice*. (2nd ed.). Washington DC: American Nurses Publishing.
- American Nurses Association (2000). *Nurse staffing and patient outcomes in the Inpatient hospital setting*. Washington DC: American Nurses Publishing.
- Andrews, M. & Wallis, M. (1999). Mentorship in Nursing: A literature review. *Journal of Advance Nursing*, 29, 201-07
- Archibong, U.E. (1999). Evaluating the impact of primary nursing practice on the quality of nursing care: A Nigerian study. *Journal of Advanced Nursing*, 29 (3), 680-689.
- Argyris, C. (1994). *Knowledge for action*. San Francisco CA: Jossey- Bass.
- Armstrong, S. (2008). Improving the quality of care-learning through case studies: Death in Line. *PNT*, 12 (6), 4-6.
- Armstrong, S. (2008). Improving the quality of care-learning through case studies: the patient and the plaster cast. *PNT*, 12 (4), 10-12.
- Armstrong, S.J. (2001). *A quality audit system for nursing colleges in Gauteng*. Unpublished doctoral thesis, Rand Afrikaans University South Africa, 2, 1-16.

- Ashley, J.S. (2000). People behind the healthcare delivery system: the key to QI and expense reduction. *Nursing Administration Quarterly*, 24 (4), 1-10.
- Baker, G.R. (2006). Strengthening the contribution of quality improvement research to evidence based healthcare. *Quality Saf Health Care*, 15 (3), 150-157.
- Barbie, E., & Mouton, J. (2001). *The practice of social research*. South Africa: Oxford.
- Barnett, D., & Wainwright, P., (1987). Between two tools. *Senior Nurse*, 6 (4), 40-42
- Baruch, Y. (1999). Response rate in academic studies: A comparative analysis. *Journal of Human Relations*, 52 (4), 421- 438.
- Berwick, D.M. (1989). Continuous improvement as an ideal in healthcare. *The New England Journal of Medicine*, 320, 53-56.
- Bloch, D. (1995). Evaluation of nursing care in terms of process and outcomes: issues in research and quality assurance. *Nursing Research*, 24 (4), 256-263.
- Blumenthal, D., & Kilo, C.M., (1998). A report card on continuous quality improvement. *The Milbank Quarterly*, 76 (4), 625-648.
- Booyens, S.W (2005). *Dimensions of Nursing Management*. (2nd ed.). South Africa: Juta &Co Ltd.
- Brook R.H., McGlynn, E.A., Shekelle, P.G. (2000). Defining and Measuring Quality of Care: A perspectives From US Researchers. *International Journal for Quality in Health Care*, 12 (4), 281-295.
- Buerhause, P.I. (2009). Avoiding mandatory hospital nurse Staffing Ratios: an economic commentary. *Nursing Outlook*. 57, 107-12.
- Buerhause, P., & Needleman, J., (2000). Policy implications of research on nursing staffing and quality of Patient Care. *Policy, Politics and Nursing Practice*. 1 (1), 5-15.
- Burke, J. (2003). Infection control: a problem for patient safety. *New England Journal of Medicine*, 348 (7), 651- 656.

- Burn, N., & Grove, S.K., (2007). *The practice of nursing research; conduct, critique and utilization*. (4th ed.). Philadelphia: W.B Saunders Company.
- California Nursing Outcomes Coalition, (2000). *A State-wide nursing outcomes database: Linking patient outcomes to hospital nursing care-firs: Summary report of key findings*. 1998-1999 Data.
- Campbell, S.M., Braspenning, J., Hutchinson, A., & Marshall, M.N., (2003). Improving the quality of health care: research methods used in developing and applying quality indicators in primary care. *BMJ*, 326, 816-819.
- Cavendish, R., Lumey, M., Liuse, B.k., & Richardson, K., (2001). The Nursing Outcome Classification: its relevance to school nursing. *The Journal of School Nursing*, 17 (4), 189-197.
- Chambers, R. (1994). Participatory Rural Appraisal (PRA): Analysis of experience. *World Development* 22 (9), 1253-1268.
- Chandler, J. (2008) *Tabbner's Nursing Care: Theory and Practice*. (5th ed.). Australia: Elsevier Churchill Livingstone.
- Chang, B.L., Lee, J.L., Pearson, M.L., Kahn, K.L., Rubenstein, L.L., (2002). Evaluating nursing care: the gap between theory and practice. *Journal of Nursing Administration*, 32 (7/8), 405-418.
- Changwa, M.C., & Pather, M.K., (2008). The management of sexual assault victims at Odi District Hospital in the North-West province: how can quality of hospital care be improved? *SA Fam Pract*. 50 (6), 45-45d.
- Carnwell, R. (1997). *Evaluative research methodology in nursing and healthcare*. London: Churchill Livingstone.
- Cholewka, P.A., (2000). Implementing nursing practice standards in the post-soviet nations of Central and Eastern Europe. *Journal of Nursing Administration*, 30 (1), 6-10.

- Clark, A., & Rao, M., (2004). Developing quality indicators to assess quality of care. *Qual Saf HealthCare*. 13, 248-249.
- Coelli, M., & Wilkins, R., (2008). Credential changes and education earnings premia in Australia. Melbourne Institute working paper No. 11/08, ISSN 1447-5863 (online), Melbourne institute of Applied Economic and Social Research, 1-41.
- Collins English Dictionary (2007). (6th ed.). Italy: Harper Collins Publishers.
- Cooper, J., & Benjamin, M., (2004). Clinical audit in practice. *Nursing Standard*, 18, (28), 47-53.
- Craven, R.F., & Hirnle, C.J., (2003). *Fundamentals of nursing, human health and functions*. (4th ed.). Baltimore: Lippincott Williams &Wilkins.
- Craven, R.F., & Hirnle, C.J., (2000). *Fundamentals of nursing, caring and clinical judgement*. USA: W.B Saunders Company.
- Creswell, J.W. (2003). *Research design: qualitative, quantitative, and mixed methods approaches*. (2nd ed.). California: Sage Publications Inc.
- DeLaune, S.C., & Ladner, P.K., (2002). *Fundamentals of Nursing, Standards and Practice*. (2nd ed.). New York: Delmar Publishers.
- De Jager, J., & Du Plooy, T. (2007). Measuring Tangibility and Assurance as Determinants of Service Quality for Public Health Care in South-Africa. *Acta Commercii*, 96-111.
- Department of Community and Family Medicine, Duke University Medical Center [FADE] (2005) Retrieved March 10, 2009 from [http:// CFm_webmaster@mc.duke.edu](http://CFm_webmaster@mc.duke.edu)
- Dibsie, L. (2008). Implementing EBP to prevent skin breakdown. *Critical Care Nursing Quarterly*, 31 (2), 140-149.
- Dick, B. (2002) Action research: action and research. *Online Journal of Action Research*, Retrieved October 10, 2008 from <http://www.scu.edu.au/schools/gcm/ar/aandr.html>

- Donabedian, A. (n.d.). *An introduction to quality assurance in health care*. In National Association of State Units on Aging: Supported by the U.S. Administration on Aging. Research Brief #1 Retrieved October 24, 2008 from http://www.dentalgain.org/quality_assurance.html
- Donabedian, A. (1982). *Explorations in Quality Assessment & Monitoring*, Volume 2: The Criteria and Standards of Quality. Illinois: Health Admin Press.
- Donabedian, A. (1966). Evaluating the quality of medical care. *The Milbank Memorial Fund Quarterly*, 83 (4), 166-203.
- Donabedian, A. (2005). Evaluating the quality of medical care. In *The Milbank Quarterly*, 83 (4), 691-729. **(Original work published in 1966).**
- Ebin, J. A. & Odette, N. (2008). Outpatient's experiences of quality service delivery at a teaching hospital in Gauteng. *HEALTH SA GESONDHEID* 13 (1), 41-54.
- Ellis, J.R., & Hartley, C.L., (2000). *Managing and coordinating nursing care*. (3rd ed.). Baltimore: Lippincott Williams & Wilkins.
- Esterhuizen, P. (2006). Is the professional code still the cornerstone of clinical working practice? *Journal of Advanced Nursing*, 53(1), 104-113.
- Evans, B. (2002) Auditing clinical practice. *Journal of Primary Health Care*. 1, 12 (6), 45-50.
- Ferlie, E. B. & Shortell, S.M., (2001). Improving the quality of healthcare in the United Kingdom and the United States: A framework for change. *The Milbank Quarterly*, 79 (2), 281-315.
- Fox, M.J. (1995). *Quality Assurance Management*. (2nd ed.). London: Chapman and Hall.
- Frattali, C.M. (1991). From quality assurance to total quality management. *AJA*. November, 41-47.
- Freire, P. (1970). *Pedagogy of the oppressed*. New York: Herder & Herder.

- French, P. (1999). The development of evidenced based nursing. *Journal of Advanced Nursing*, 29 (1), 72-78.
- Gaynes,R., Richards, C., Edwards, J., Emori, T.G., Hovan, T., Alonso-Echanove, J., et al. & National Nosocomial Infections, Surveillance (NNIS) System Hospitals, CDC.(2001). Feeding Back Surveillance Data to prevent HAIs (Special Issue). *Journal of Emerging Infectious Diseases*, 7 (2), 295-298.
- Gerrish, K., & Lacey, A., (2006). *The Research Process in Nursing*. (5th ed.). Oxford: Blackwell Publishing Ltd.
- Glickman, S.W., Baggett, K.A., Krubert, C.G., Peterson, E.D., & Schulman, K. A. (2007). Promoting Quality: the health–care organization from a management perspective. *International Journal for Quality in Health Care*, 19 (6), 341-348.
- Goldstone, L.A., Ball, J.A., & Collier, M.M., (1983). *Monitor: an Index of the Quality Nursing care for Acute Medical and Surgical Wards*. (2nd ed.). New Castle: New Castle upon Tyne Polytechnic Products Ltd.
- Goldstone, L..A. (1986). A pointer to quality. *Nursing Times*, 82 (45), 38-39.
- Greene, M.T. & Puetzer, M. (2002). The value of mentoring: a strategic approach to retention and recruitment. *Journal of Nursing Care Quality*. 17 (1), 63-70.
- Grover, F.L., Cleveland, J.C., & Shroyer, L.W., (2002). Quality improvement in cardiac care. *Arch/Surg*, 137, 28-36.
- Gunther, M., & Alligood, M.R., (2002). A Discipline –Specific Determination of High Quality Nursing Care. *Journal of Advanced Nursing*, 41 (6), 353-359.
- Hager, M.A., Wilson, A., Pollak, T.H., & Rooney, P.M. (2003). Response rates for mail surveys of non-profit organisation: a review and empirical test. *Nonprofit and Voluntary Sector Quarterly*, 32 (2), 252-267.

- Habermann, M., & Uys, L.R. (2005). *The nursing process: a global concept*. Philadelphia: Elsevier Churchill Livingstone.
- Harkreader, H., (2000). *Fundamentals of nursing, caring and clinical judgments*. USA: W.B Saunders Company.
- Harvey, G.M. (1991). An evaluation of approaches to assessing the quality of nursing care using (predetermined) quality assurance tools. *Journal of Advanced Nursing*, 16, 277-286.
- Hasnain-Wynia, R., & Jean-Jacques, M., (2009). Filling the Gaps between Performance Incentive Programs and HealthCare Quality Improvement. *Health Services Research*. 44, (3), 777-783.
- Hearnshaw, H.M., Harker, R.M., Cheater, F.M., Baker, R.H., & Grimshaw, G.M. (2003). Are audits wasting resources by measuring the wrong things? A survey of methods used to select audit review criteria. *Quality Health Care*, 10, 173-178.
- Hegyvary, S.T., & Haussman, R.K.D., (1976). Monitoring nursing care quality. *Journal of Nursing Administration*, 6 (9), 6-9.
- Herman, C. (2007). Use the scope of practice standards to support your Practice. *Nursingbc*, 6, 29-30.
- Hjort, B. (2008). Quality Health Care: Can Health Information Be Both Available and Private? *Journal of Health Care Compliance*, September – October, 41-66.
- Hilton, I., & Dawson, J., (1988). Monitor evaluated. *Senior Nurse*, 8 (5), 10-11.
- Huizer, G. (1997). Participatory action research and people's participation: introduction and case studies. Retrieved September 29, 2008, from <http://www.fao.org/WAICENT/FAOINFO/SUSTDEV/PPdirect/PPre0030.htm> .
- Hunt, J. (1987). Assuring quality. *Nursing Times*, 83 (44), 29-31.

- Hykras, K., & Lethi, K., (2003). Continuous quality improvement through team supervision supported by continuous self-monitoring of work and systematic feedback. *Journal of Nursing Management*, 11, 177-188.
- Idvall, E., Hamrin, E., Sjostrom, B., & Unosson, M., (2002). Patient and nurse assessment of quality care in post operative pain management. *Qual Saf Healthcare*, 11, 327-334.
- Idvall, E., Rooke, L., & Hamrin, E., (1997). Quality indicators in clinical nursing: a review of the literature. *Journal of Advanced Nursing*, 25, 6-17.
- Inger, M. (1992). *Increasing the School involvement of Hispanic Parents. ERIC digests*. New York: Eric Clearing House on Urban Education, Teachers College, Columbia.
- Irvine, D., Sidani, S., & McGilles Hall, L., (1998). Finding Value in Nursing Care: a framework for quality Improvement and Clinical Evaluation. *Journal of Nursing Economics*, 16 (3), 110-131.
- Jelinek, R.C. (1976). *A Methodology for Monitoring Quality of Nursing Care*. (HRA) 76-25. US Department of Education, Health & Welfare Publishers.
- Jick, T.D. (1979). Mixing qualitative and quantitative methods: triangulation in action. *Administrative Science Quarterly*, December, 24.
- Joint Commission on Accreditation of Health Care Organisations (1991). *An introduction to quality improvement in healthcare*. Chicago: Joint Commission on Accreditation of Healthcare.
- Juran, J.M. ((1979). *Quality control handbook*. (3rd ed.). New York: McGraw-Hill.
- Juran, J.M., (1988). *Juran on planning for quality*. New York: The Free Press.
- Kajermo, N.K., Nordstro", M.G., Krusebrant, A°, & Bjo"rvell, H., (1998). Barriers to research utilization. *Journal of Advanced Nursing* 27, 798–807.
- Kaprelian, V., (2003). Quality improvement at Duke University Medical Centre. Retrieved October 24, 2008 from http://patientsafetyed.duhs.edu/module_a/methods/fade.html

- Katzenellenbogen, J.M., Joubert, G., & Abdool-Karim, S.S., (2001). *Epidemiology: a manual for South Africa*. Cape Town: Oxford University Press.
- Keith, G. (2002). Maximizing response rate and controlling non response error in survey research. Retrieved May 5, 2009 from <http://www.roe.rutgers.edu>
- Khadria, B. (2007). International nurse recruitment in India. *Health Services Research*, 42 (3), 1429-1436.
- Kitson, A.L. (1986). Indicators of quality in nursing care: an alternative approach. *Journal of Advanced Nursing*, 11, 133-147.
- Koch, M., & Fairly, T., (1993). *Integrated Quality Management*. St. Louis: Mosby Year Book Inc.
- Kozier, B., Erb, G., Berman, A., & Snyder, S., (2007). *Fundamentals of nursing, concepts, processs, and practice*. (8th ed.). New-Jersey: Pearson Education Inc.
- Kozier, B., Erb, G., Blais, K., & Wilkinson, J.M., (2003). *Fundamentals of nursing: concepts process and practice*. (8th ed.). California: Addison-Wesley Publishing Company, Inc.
- Kozier, B., & Erb, G., (1987). *Fundamentals of nursing, concepts and procedures*. 3rd ed.). California: Addison-Wesley Publishing Company.
- Krumholz, H.M., & Lee, T.M., (2008). Redefining quality-implications of recent trials. *The New England Journal of Medicine*, 358, (24), 2539.
- Kunaviktikul, W., Anders, R., Srisuphan, W., Chontawan, R., Nantasupawat, R., & Pumarpon, O., (2001). Development of Nursing Care Quality. *Journal of Advanced Nursing*, 36, 776-784.
- Kunaviktikul, W., Anders, R.L., Chontawan, R., Nuntasupawat, R., Hanuchareonkul, S., Srisuphan, W., Pumaporn, O., & Hirunnuj, S. (2005). Development of indicators to

- assess the quality of nursing care in Thailand. *Journal of Nursing and Health Sciences*, 7, 273-280.
- Kurt Lewin (1958). *Group Decisions and social change*. New York: Holt Reinhart & Winston.
- Leape, L., & Abookire, S., (2005). *WHO draft guidance for adverse events reporting and learning systems*. Geneva: WHO Press, World Health Organisation.
- Litchtig, L., Knauf, R., & Mullholland, D.K. (1999). Some impacts of nursing on acute care hospitals outcomes. *Journal of Nursing Administration*, 29 (2), 25-33.
- Long, L.E. (2003). Impending quality improvement into all aspects of nursing practice. *International Journal of Nursing Practitioner*, 9 (5), 280-4.
- Maas, M.L., & Delaney, C., (2004). Nursing process outcome linkage research issues, current status, and health policy implications. *Journal of Medical Care*, 42 (2), 40-48.
- Mahieu, L.M., Buitenweg, N., Beutelst, P.H., & De Dooy, J.J., (2001). Additional hospital stay and charges due to hospital-acquired infections in a Neonatal Intensive Care Unit. *Journal of Hospital Infection*, 47, 223-229.
- Mainz, J., Hammershoy, E.M., Worning, A.M., & Juul, S. (1992). Quality assessment, quality assurance and quality improvement in healthcare: concepts and terminology. *Bulletin for Danish Medicine*, 154 (17), 1151-1156.
- Mant, J. (2001). Process versus outcome indicators in the assessment of quality of health care. *International Journal for Quality in Health Care*, 13 (6), 475-480.
- Marek, K. (1989). Outcome measurement in nursing. *Journal of Nursing Quality Assurance*, 4 (1), 1-9.
- Marriner, A. (1992). *Contemporary nursing management; issues and practice*. Philadelphia: C V Mosby Company.

- Marshall, M.N., Shekelle, P.G., McGlynn, E.A., Campbell, S., Brook, R.H., & Rolland, M.O. (2003). Can health care quality indicators be transferred between countries? *Qual Saf HealthCare*. 12 (2), 4-5.
- McCutcheon, A., Macphee, M., Davidson, J., Doyle-Waters, M., Mason, S., & Winslow, W., (2006). *Staffing for safety: a synthesis of the evidence on nurse staffing and patient safety*. Ottawa: Canadian Health Services Research Foundation.
- Mciza, A.N. (1989). *Evaluation of the monitor quality assurance instrument in Transkei General Hospitals*. Unpublished Dissertation, University of KwaZulu-Natal.
- McLaughlin, C.P., & Kaluzny, A.D., (1999). *Continuous quality improvement in healthcare: theory, implementation and applications*. (2nded.). Maryland: Aspen Publishers.
- McNiff, J. (2002). Action research for professional development. Retrieved May 10, 2009 from <http://www.jeanmcniff.com/booklet1.html>
- Meehan, T.P., Van Hoof, T.J., Giannotti, T.E., Tate, J.P., Elwell, A., Curry, M., & Petrillo, M.K. (2009). A descriptive study of educational outreach to promote use of quality improvement tools in primary care private practice. *American Journal of medical quality*. 24 (2), 90-98.
- Miles, M.B., & Huberman, A.M., (1994). *Qualitative Data Analysis*; (2nd ed.). California: Sage Publications Inc.
- Motheral, B.R. (1998). Research Methodology: hypothesis, measurement, reliability, and validity. *Journal of Managed care Pharmacy*, 4 (4), 382-390.
- Neuhauser, M.B. (2006). Walter A. Shewhart, 1924 and the Hawthorn factory. *Qual Saf Healthcare*, 15, 142-143.
- Newhouse, R.P., Petitit, J.C., Poe, S., Rocco, L., (2006). The slippery slope differentiating between quality improvement and research. *Journal of Nursing Administration*, 36 (4), 211-219.

- Needleman, J., Buerhaus, P.I., Stewart, M., Zelevinsky, K., and Mattke, S., (2006). Nurse staffing in hospitals: Is there a business case for quality? *Health Affairs*, 25 (1), 204–211.
- Nursing & Midwifery Council of Nigeria (Established By Decree 89, 1979). *Standard for Nursing Education and Practice in Nigeria*. pp 2, 16.
- O’ Brien, R. (2001). An overview of the Methodological Approach of Action Research: Retrieved September 29, 2008 from http://en.wikipedia.org/wiki/participatory_Action_Research.
- Oermann, M.H., & Huber, D., (1998). Patient Outcomes: a measure of nursing value. *The American Journal of Nursing*, 99 (9), 40-45.
- Oermann, M.H., & Templin, T., (2000). Important attributes of quality healthcare: Consumers Perspectives. *Journal of Nursing Scholarship*, 32 (2), 167.
- Oettle, N. & Law, S. (2005). Action Research: Extracts EPI News. Retrieved May 20, 2007 from http://www.emg.org.za/documents/Act_Rsrch_sml-NO.pdf.
- Oxford Advanced Learner’s Dictionary (2006). (7th ed.). New York: Oxford University Press.
- Packer, J. (1998). Quality in perspectives: Clinical updates lift out. *Australian Nursing Journal*, August, 1-4.
- Pallant, J. (2007). *SPSS survival manual: a step-by-step guide to data analysis using SPSS version 15*. (3rd ed.). London: Open University Press
- Plowman, R., Graves, N., Griffins, M.A.S., Roberts, J.A., Swant, A.V., Cookson, B., & Taylor, L., (2001). The rate and cost of Hospital Acquired Infections occurring in patients admitted to selected specialities of a district General Hospital in England and the national burden imposed. *Journal of Hospital Infection*, 47, 198-209.

- Polit, D.F., & Beck, C.T., (2006). *Essentials of nursing research: methods, appraisal and utilization*. (6th ed.). New York: Lippincott Williams & Wilkins Ltd.
- Polit, D.F., & Hungler, B.P. (1996). *Nursing research principles and methods*. (6th ed.). Philadelphia: Lippincott Williams & Wilkins Ltd.
- Pope, C., Ziebland, S., & Mays, N., (2000). Qualitative research in healthcare. *BMJ*, 320, 114-116.
- Potter, P., & Perry, A. (1993). *Fundamentals of nursing: concepts, process and practice*. (3rd ed.). St.Louis: Mosby Year Inc.
- Pullan, B., & Chittock, J. P., (1986). Quantifying quality. *Nursing Times*, (1), 38-39.
- Punch, K. (2005). *Introduction to social research: quantitative and qualitative approaches*. (2nd ed.). London: SAGE Publications Ltd.
- Price, P.J. (1993). Parents' Perceptions of the Meaning of Quality Nursing Care. *Advanced Nursing Science*, 16 (1), 33-41.
- Price, M., Fitzgerald, L., & Kinsman, L. (2007). Quality improvement: The divergent views of managers and clinicians. *Journal of Nursing Management*, 15, 43-50. Quality Theories (2008): Retrieved October 24, 2008, from <http://www.omnilingua.com/omnicenter/qualitytheories.aspx>
- Radwin, I., Alster, K., Rubin, & K.M., (2003). Development and testing of the oncology patient's perception of the quality of nursing care scale. *Oncology Nursing Forum*, 10 (1183/03), 283-90.
- Redfern, S. (1993). In pursuit of quality of nursing care. *Journal of Advanced Nursing*, 2, 141-148.
- Ritter-Feitel, J. (2002). The impact of restructuring on professional nursing practice. *Journal of Nursing Administration*, 32 (1), 31-41.

- Ross-Kerr, J.C. & Woods, M.J. (2002). *Canadian nursing: issues and perspectives*. (4th ed.).
Canada: Mosby
- Rothberg, A.D. (2008). Equity and quality of care through racial profiling. *SAMJ*, 98 (6),
435-437.
- Sale, D.N.T. (1990). *Essentials of nursing management: Quality Assurance*. London:
Macmillan Education Ltd.
- Sale, D.N.T. (1996). *Quality assurance for nurses and other members of the healthcare team*.
(2nd ed.). Britain: Macmillan Press Ltd.
- Schilling, J.A. (2002). *Illustrated manual of nursing practice*. (3rd ed.). USA: Lippincott
Williams & Wilkins.
- Simple, S.J., & McKune, A.J., (2007). COPD: Is There Evidence to support a Role for
Resistance Training in Improving Measurable Health-related Quality of Life in
Pulmonary Rehabilitation? *SAJSM*, 19 (5), 108-113.
- Shiou-Hua Wu, & Jwo-Leun Lee. (2006). Comparison study of nursing care quality in
different working status nursing staff: an example of one local hospital. *Journal of
Nursing Research*, 14 (3), 181-189.
- Shortell, S.M, Bennette, C.L, &Byck, G.R (1998). Assessing the impact of CQI on clinical
practice: what it will take to accelerate progress. *The Milbank Quarterly*, 76 (4), 593-
624
- Shullanberger, G. (2000). Nurse staffing decisions: an integrative review of the literature.
Nursing Economics, 18 (3), 124-136.
- Sidika, K. (2000). *Developing quality management program for MOH hospitals in Turkey*.
Un-published research paper presented at Takemi Programs in International Health;
Harvard School of Public Health, Boston, USA.

- Simmons, S.F. (2007). Quality improvement for feeding assistance care in nursing homes. *Journal of Am Med Dir Assoc, March, 8, S12-7.*
- Sparrow, S. & Robinson, J (1992). The use and limitations of Phaneuf's nursing audit. *Journal of Advance Nursing. 17, 1479-1488.*
- Stone, S., Berger, M.S., Elhart, D., Firsch, S.C., Jordan, S.B., (1996). *Management for nurses: a multi-disciplinary approach.* St. Louis; CV Mosby Company.
- Streubert, J. & Carpenter, D.R. (2006). *Qualitative research in nursing: advancing the humanistic imperative.* USA: Lippincott Williams & Wilkins
- Swartz, M.N. (1994). Hospital-acquired infections: diseases with increasingly limited therapies. *Proc. Natl Acad.Sci, 91, 2420-2427.* Colloquium paper.
- Taylor, C., Lillis, C., & LeMone, P., (2001). *Fundamentals of nursing.* (4th ed.). Philadelphia; Lippincott Williams & Wilkins.
- Taylor, J.A., Parmelee, P., Brown, H., Strother, H.S., Capezuti, E., Ouslander, J.G. ,(2007). Quality improvement program for the management of falls in nursing homes. *Journal of Am Med Dir Assoc, 8, S26-36.*
- Toms, E.C. (2000). Evaluating the quality of patient care in district nursing. *Journal of Advanced Nursing, 17, 1489-1495.*
- Torbert, W. (1991). *The Power of balance: transforming self, society and scientific inquiry* New York: Harper.
- Ulrich, B.T. (1992). *Leadership and management according to Florence Nightingale.* Norwalk: Appleton & Lange Publishers.
- Uys, L.R., & Naidoo, J.R., (2004). A survey of the quality of nursing care in several health districts in South Africa. *Journal of Biomed Central Nursing, 3 (1), 1-7.*
- Varkey, P., Reller, K., & Resar, R., (2007). Basics of quality improvement in healthcare. *Mayo Clin Proc, 82 (6), 735-739.*

- Ventura, M. (1980). Correlation between the quality patient care scale and the Phaneuf audit. *International Journal of Nursing Studies*, 17, 155-162.
- Voutilainen, P., Isola, A., & Muurinen, S. (2004). Nursing documentation in nursing homes- State-of-the-Art and implications for quality improvement. *Scandinavian Journal of Caring Science*, 18, 72-81.
- Wandelt, M.A. (1976). *The Slater nursing competencies rating scale and the quality patient scale: In the nursing audit self-regulation in nursing practice*. New-York: Appleton Century-Crofts.
- Wenzel, R.P., Osterman, C. R., Huiting, K.S., & Gwaltney, J.M., (1996). Nosocomial Infections. *American Journal of Epidemiology*, 103 (3), 251-260.
- Wenzel, R.P, & Edmond, M.B. (2001). The impact of hospital- acquired blood-stream infections. *Journal of Emerging Infectious Diseases*. 7 (2), 174-177.
- Whelan, J. (1987). Using Monitor-Observer Bias. *Senior Nurse* 7 (6), 8-10.
- Whichard, J.A. (2006). Reliability and validity of True Colors. Retrieved December 28, 2009 from <http://www.true-colors.com/TCSite/Reliability%20and%20validity%20study.pdf>
- Whitehead, J. & McNiff, J. (2006). *Action research: living theory*. London: SAGE.
- Williams, L. (2001). Health care quality performance measurement: patient outcomes and nurse sensitive indicators-A National Overview. *Rhode Island. Health Care Quality*, 12, 1-18.
- Williams, A.M. (1998). The delivery of quality nursing: a grounded theory study of the nurse's perspective. *Journal of Advanced Nursing* (27), 808-816.
- Winter, R. (1996). *Action research and the nature of social inquiry: professional innovation and educational work*. Aldershot, England: Gower Publishing Company.

Ziegler, S.M., Vaughan-Wrobel, B.C., & Erlen, J.A., (1986). *Nursing process, nursing diagnosis, nursing knowledge: avenues to autonomy*. Norwalk, CT: Appleton Century- Croft.

ANNEXURE 1



RESEARCH OFFICE (GOVAN MBEKI CENTRE)
WESTVILLE CAMPUS
TELEPHONE NO.: 031 – 2603587
EMAIL: ximbap@ukzn.ac.za

21 JULY 2008

MRS. PO ONIANWA (207513067)
SCHOOL OF NURSING

Dear Mrs. Onianwa

ETHICAL CLEARANCE APPROVAL NUMBER: HSS/0165/08D

I wish to confirm that ethical clearance has been approved for the following project:

“An appraisal of Continuous Quality Improvement (CQI) and development of quality-care indicators amongst clinical based nurses in selected teaching hospitals in South-West (SW) Nigeria”

PLEASE NOTE: Research data should be securely stored in the school/department for a period of 5 years

Yours faithfully


.....
MS. PHUMELELE XIMBA

cc. Supervisor (Prof. O Adejumo)
cc. Prof. NG Mtshali
cc. Mr. S Reddy

ANNEXURE 2

OBAFEMI AWOLOWO UNIVERSITY TEACHING HOSPITALS' COMPLEX, ILE-IFE, NIGERIA

ETHICS AND RESEARCH COMMITTEE

CLEARANCE CERTIFICATE

IRB/IEC NUMBER: 00005422

PROTOCOL NUMBER: ERC/2008/06/05

PROJECT TITLE: AN APPRAISAL OF CONTINUOUS QUALITY
IMPROVEMENT AND DEVELOPMENT OF QUALITY
CARE INDICATORS AMONGST CLINICAL BASED
NURSES IN SELECTED TEACHING HOSPITALS IN
SOUTH – WEST NIGERIA.

INVESTIGATOR(S) MRS. O.P. ONIANWA

DEPARTMENT/INSTITUTION School of Nursing,
Howard College Campus,
University of Kwazulu – Natal, Durban,
South – Africa.

DATE CONSIDERED 05-06-2008

DECISION OF THE COMMITTEE Approved

CHAIRMAN: Professor E.O. Ogunbodede SIGNATURE & DATE:  5/6/08

Supervisor: Prof. O. Adejumo.

DECLARATION BY INVESTIGATOR(S)

PROTOCOL NUMBER (Please quote in all enquiries): ERC/2008/06/05

To be completed in four and three copies returned to the Secretary, Ethics and Research Committee, Clinical Services and Training Section, Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife, Nigeria.

I/We fully understand the conditions under which I am/we are authorized to conduct the above-mentioned research and I/we guarantee that I/we will ensure compliance with these conditions. Should any departure be contemplated from the research procedure as approved, I/we undertake to resubmit the protocol to the Ethics and Research Committee.

Signature 

Date 10/6/08



FEDERAL MEDICAL CENTRE

P. M. B. 1033
ASABA.
DELTA STATE

Chairman
XXXXXXXXXXXXX(rtd)
Medical Director/Chief Executive:
XXXXXXXXXXXXX Dr. L.O. Erhunmwunsee
Head of Clinical Services
Dr. O. M. Agdas
XXXXXXXXXXXXX Dr. (Mrs.) J.C. Udi
Asst. Director of Administration
Mr. O. A. Farombi

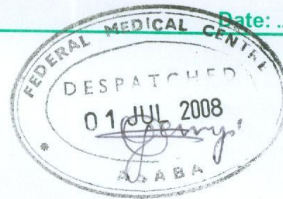
No. FMC/ASB/A.81/59

Our Ref:

Date:

1st July, 2008

Ms. Patricia O. Onianwa,
University of KwaZulu-Natal
School of Nursing,
Howard College Campus,
Durban, South Africa.



**RE: LETTER REQUESTING FOR PERMISSION AND APPROVAL TO
CONDUCT DATA COLLECTION IN FEDERAL MEDICAL CENTRE, ASABA**

With reference to your letter dated May 10, 2008 on the above caption, I am directed to inform you that Management has given you approval to conduct the data collection in the hospital, please.

V. Okungbowa

V. Okungbowa
for: Medical Director/Chief Executive

May, 2008

The Chief Medical Director,
Ogun State University Teaching Hospital,
Sagamu,



Through: The Asst. Director of Nursing, — Endorsed —
Clinical Nursing Division,
OSUTH,
Sagamu.

Dear Sir/Madam,

RE: LETTER REQUESTING FOR PERMISSION AND APPROVAL TO CONDUCT DATA COLLECTION IN OGUN STATE UNIVERSITY TEACHING HOSPITAL, SAGAMU, OGUN STATE, IN SOUTH-WEST (SW) NIGERIA.

PH.D RESEARCH STUDY: AN APPRAISAL OF CONTINUOUS QUALITY IMPROVEMENT (CQI) AND DEVELOPMENT OF QUALITY-CARE INDICATORS AMONGST CLINICAL BASED NURSES IN SELECTED TEACHING HOSPITALS IN SOUTH-WEST (SW) NIGERIA.

My name is Patricia Onianwa, a nurse clinician and a principal nursing officer working in the Nursing audit Unit of the University College Hospital(UCH) Ibadan, presently on study leave and undertaking a doctoral degree study (Ph.D) in Nursing at the University of KwaZulu-Natal (UKZN), School of Nursing, Howard College Campus, Durban, South -Africa.

My doctoral thesis is a research study based on appraising continuous quality improvement systems and developing quality –care indicators for measuring quality of nursing care. The study will be conducted amongst clinical based nurses in six (6) selected teaching hospitals located SW Nigeria namely:

⑤ CMAE
Please this document is for your attention and further necessary action.
[Signature]
CMAE 19/05/08

ADNS
Pl. treat request as approved. Allow access
[Signature] 19/5/08
CMAE, Access allowed. Approved & assignment completed.
[Signature] 19/5/16/08

- Obafemi Awolowo University Teaching Hospital, (OAUTH) Ile-ife, Osun State
- Ogun State University teaching Hospital (OSUTH), Sagamu, Ogun State
- Ladoke- Akintola University teaching hospital (LAUTH), Osogbo, Osun state.
- University of Ilorin Teaching Hospital (UITH) Ilorin, Kwara State.
- University of Benin Teaching Hospital (UBTH), Benin-city, Edo state
- Federal Medical Centre (FMC) Asaba, Delta State.

CQI is a philosophy that encourages all nursing members of a health care facility to identify new and better ways to do their job, improve services and increase job satisfaction. For the patients, CQI efforts save time and reduce stress because patients know what to expect and when, avoids complications and saves money and resources. With such outcomes patient can recover more quickly and view their experiences in the hospital more positively.

For this reason, the need to evaluate quality of nursing care provided to patients has been emphasized in current literature and studies. Nurses are now being asked more than ever, to look critically at what they do, how they do it and the effect it has on those they serve. In a way, nurses should determine what good care is, whether the care they give is appropriate and whether the quality of care provided is good.

In providing care of high quality, it is important that nurses develop appropriate evaluative tools required to measure quality of nursing care and ensure professionalism as individualized care is given to patients.

It is on this premise the topic of study was conceptualized. The researcher felt a need to ascertain what CQI systems especially nursing audit systems are in place to evaluate the activities of the nurses in relation to the patient care, appraise the effectiveness of the existing CQI where available and where these are not available, institute a participatory action process to develop tools for monitoring quality of nursing care on the wards of these selected teaching hospital in SW Nigeria.

The study will be conducted in three phases using the survey approach to obtain data from the nurse managers on general knowledge, opinions, attitudes and values about CQI systems as well as evaluative indexes for measuring nursing care activities.

The second phase will comprise of attestation of the true situation that existed in these health care facilities. Depending on the findings from the survey in phase 1, regarding the status of CQI and measurement instruments, a collective decision will be made as to whether to develop a new tool or modify an existing, established, acceptable off-the-shelf- tools to suit settings.

Based on the outcome, the newly developed instrument may be tested for applicability on two acute-care wards (Medical & Surgical) in one of the teaching hospitals.

Questionnaires and observation of the available facilities will be part of the study.

This study will not pose any harm or ill-effect on the participants in anyway. Efforts will be made to address ethical considerations including rights of the participants in a scientific manner.

Data collected for this study will be used solely for the purpose of this study and key issues regarding research studies with Human subjects have been addressed within the appropriate documents.

Upon completion of data collection, a peer debriefing session will be held with the appropriate persons to give feedback on the findings of the study and for any clarifications on pertinent issues requiring discussions.

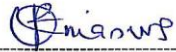
A copy of the completed study will be made available to the nursing division of your hospital, the Nursing and Midwifery Council of Nigeria (N&MCN), National Association of Nigerian Nurses and Midwives (NANNM) as well as the department of nursing libraries and the UKZN Howard College Campus, Durban

In view of the above, I am seeking your kind approval and permission to conduct within the available facilities and access to staff and participants included in the study. Find attached a letter from my supervisor.

Looking forward to a favourable response.

Thank you.

Yours truly,



Onianwa, Patricia. O (Mrs)
PhD student,
University of KwaZulu-Natal,
School of Nursing, Howard College Campus,
Durban, South-Africa.
Email Address: patoboni@yahoo.com
Mobile No: +234-80-23419107
+27-72-5305435

The Chief Medical Director,
University of Ilorin Teaching Hospital,
Ilorin,



Thro The Asst. Director of Nursing,
Clinical Nursing Division,
UITH,-
Ilorin

M.A. Falaye 13/5/08
Curran
Hoffman
[Signature]
[Signature]
[Signature]
13/5/08



Dear Sir/Madam,

RE: LETTER REQUESTING FOR PERMISSION AND APPROVAL TO CONDUCT DATA COLLECTION IN UNIVERSITY OF ILORIN TEACHING HOSPITAL, ILORIN, KWARA STATE IN SOUTH-WEST (SW) NIGERIA.

PH.D RESEARCH STUDY: AN APPRAISAL OF CONTINUOUS QUALITY IMPROVEMENT (CQI) AND DEVELOPMENT OF QUALITY-CARE INDICATORS AMONGST CLINICAL BASED NURSES IN SELECTED TEACHING HOSPITALS IN SOUTH-WEST (SW) NIGERIA.

My name is Patricia Onianwa, a nurse clinician and a principal nursing officer working in the Nursing audit Unit of the University College Hospital(UCH) Ibadan, presently on study leave and undertaking a doctoral degree study (Ph.D) in Nursing at the University of KwaZulu-Natal (UKZN), School of Nursing, Howard College Campus, Durban, South -Africa.

My doctoral thesis is a research study based on appraising continuous quality improvement systems and developing quality –care indicators for measuring quality of nursing care. The study will be conducted amongst clinical based nurses in six (6) selected teaching hospitals located SW Nigeria namely:

ADNS
Implementation Ph
and re course
[Signature]
13/5

The Chief Medical Director,
University of Benin Teaching Hospital,
Benin - City,

May, 2008

Thro The Asst. Director of Nursing,
Clinical Nursing Division,
UBTH,
Benin City.



ADAS
for your info
only expressed could
be considered
23/05/08

Dear Sir/Madam,

RE: LETTER REQUESTING FOR PERMISSION AND APPROVAL TO CONDUCT DATA COLLECTION IN UNIVERSITY OF BENIN TEACHING HOSPITAL, BENIN-CITY, EDO STATE, NIGERIA.

PH.D RESEARCH STUDY: AN APPRAISAL OF CONTINUOUS QUALITY IMPROVEMENT (CQI) AND DEVELOPMENT OF QUALITY-CARE INDICATORS AMONGST CLINICAL BASED NURSES IN SELECTED TEACHING HOSPITALS IN SOUTH-WEST (SW) NIGERIA.

My name is Patricia Onianwa, a nurse clinician and a principal nursing officer working in the Nursing audit Unit of the University College Hospital(UCH) Ibadan, presently on study leave and undertaking a doctoral degree study (Ph.D) in Nursing at the University of KwaZulu-Natal (UKZN), School of Nursing, Howard College Campus, Durban, South -Africa.

My doctoral thesis is a research study based on appraising continuous quality improvement systems and developing quality –care indicators for measuring quality of nursing care. The study will be conducted amongst clinical based nurses in six (6) selected teaching hospitals located SW Nigeria namely:

To have audience with the Nurses at 12 noon of 03/07/08.
ADAS
03/07/08 ADAS.

UNIVERSITY COLLEGE HOSPITAL, IBADAN

P.M.B 5116, IBADAN, TEL: +234-2-2410088, FAX: +234-2-2413545
CABLE & TELEGRAM: TEACHOS, IBADAN. e-mail: uchib@infoweb.abs.net



Our Ref. HG/CON. 88

4th June, 2008.

Mrs. Patricia O. Onianwa,
University of KwaZulu-Natal
School of Nursing, Howard College Campus
Durban, South Africa.

email: - patoboni@yahoo.com

Dear Madam,


Permission to Conduct a Pilot study (Data Collection) in University College Hospital, Ibadan

With reference to your letter dated May 2008 on the above subject, I write to inform you that approval has been given for you to conduct your study in the University College Hospital, Ibadan.

The Deputy Director (Clinical Nursing) and the Head, Medical Records Department are by copies of this letter being informed of this decision for their necessary action. Please liaise with them in this regard.

With best wishes.

Yours faithfully,


Director of Administration
For: Chief Medical Director

Prof. Ade. Elebute Con, MA, MD (Dub) - **Chairman of Board**
Prof. Abiodun Ilesanmi JP, MBBS, FMCOG, FWACS, Cert. Infertility MNIM - **Chief Medical Director**
Dr. A.A. Adenipekun - MBBS, FMCR, FWACS - **Chairman Medical Advisory Committee**
Mrs O.M. Adepoju - Bsc. MPA (Hlth Serv Adm) AHA, MNIM, ACIPM - **Director of Administration**

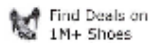


ANNEXURE 3A

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Use of Monitor in studies Tuesday, January 20, 2009 8:32 AM

From: "Debra Mudditt" <debra.mudditt@northumbria.ac.uk>

To: "patoboni" <patoboni@yahoo.com>

Dear Patricia

Further to your letter requesting permission to use Monitor in your studies. This email gives permission to use the publication for the period of your studies.

regards

Debbie Mudditt
Commercial Systems Manager
Northumbria Commercial Enterprises
Northumbria University
21/22 Ellison Place
Newcastle Upon Tyne
NE1 8ST

Tel +0044(0)1912273882
Fax +0011(0)1912273057



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ANNEXURE 3B

NEWLY ADAPTED NURSING QUALITY-OF- CARE

MEASUREMENT INDICATORS

Introduction

The under-listed quality care indicators were adapted from the MONITOR instrument (Goldstone, 1983) for the purpose of this study. Indicators were developed for the following:

- Nursing Records
- Patient Care Needs
- Administration of medication

OPERATIONAL DEFINITION OF TERMS:

Some of the terms commonly used during the process of adaptation were defined as follows:

- **Continuous Quality Improvement:** Involves putting processes in place to improve or make better nursing care activities that are carried out in a professional manner to the satisfaction of the patients. These processes are carried out one at a time (in sequence) and it is a continuous exercise. The processes may include: problem identification, collecting data using statistical measurement, making judgment or interpretation based on criteria and using those judgment to generate alternatives to strengthen deficiencies that were identified.
- **Quality of Nursing Care:** describes the highest standards of nursing care provided to patients. It describes those concerned activities carried

out by the clinical nurses on the words in a professional manner that will bring satisfaction to the patient.

- **Quality-Care Indicators:** Are measures of numeric value of an important aspect of nursing care which indicates whether nursing care provided meet set standards.
- **Standards:** Are measures or specifications to which clinical nurses should conform to; or against which they are judged.

SCORING FORMAT

The MONITOR has three boxes to the right of each component. The score is clearly indicated. The MONITOR questions have 3 main responses; No, YES, Not applicable/Not available.

In a small number of cases the 'Yes' response is differentiated further such as Yes always, yes complete etc, all of which count as a full 'yes'. Additionally, there is a 'lesser' version such as yes sometimes, yes in part, yes incomplete, all of which count as half of a 'yes'.

Therefore score as follows:

Yes, yes always, yes complete = 1

Yes sometimes, yes incomplete = ½

No = 0

Response such as "**Not applicable/Not available**" should be marked X in the score box.

To obtain the % index for each section and for all care of the patient the following steps are performed:

1. Deduct number of non-applicable responses from the total number of questions to obtain the number of applicable responses.
2. Obtain the total score by adding up the entire Yes' responses (1 point each) and the yes, incomplete' type of response (½ point each.)
3. Divide the total score by the number of applicable response and multiply by 100 to produce a percentage, which is the required index.

For example: $1+1+\frac{1}{2}+\frac{1}{2}+1+\frac{1}{2}+1 = 5\frac{1}{2}$ DIVIDED BY 7 X 100

% scores can be grouped as thus:

81-100=**Excellent**

61-80= **Good**

60-41= **Incomplete**

40-21 =**Poor**

0-20 =**Unsafe**

The closer the score is to 100 percent, the better the standard of care being delivered.

Completed questionnaires and score for individual patients were discussed in detail by the assessor with the ward sister and relevant nursing officers.

Attention to '**No**' responses were given and a plan for remedial action (if necessary) can be drawn up.

It is recommended that under normal circumstances, MONITOR should be applied approximately once per year.

DEPENDENCY GROUPS

Patients were classified into depending according to the following factors

- Personal care
- Feeding

- Mobility
- Nursing attention (frequency of nursing requirement
- Others (including incontinence, preparation for surgery, several behavioral problems.)

There are four levels of dependency namely according to Goldstone, (1983) and these include:

- Minimal care
- Average care
- Above average care
- Maximum

MONITOR Quality-of-Care Indicators was developed, each appropriate to a specific dependency category of patients. For the purpose of this study, quality care indicators for patients in **category II average care** was developed based on pre determine criteria, which included six main objectives. Sub objectives within the six main objectives were measured.

Note: Not practicable (NP) indicated within the column N/A represents those quality –care indicators that did not apply or suit the practice in the five settings.

CRITERIA TO BE MEASURED:**1.0 THE PLAN OF NURSING CARE IS FORMULATED**

- 1.1 The condition of the patient is assessed on admission
- 1.2 Data relevant to hospital care are ascertained on admission
- 1.3 The current condition of the patient is assessed
- 1.4 The written plan of nursing care is formulated
- 1.5 The plan of nursing care is coordinated with the medical plan of care.

2.0 THE PHYSICAL NEEDS OF THE PATIENT ARE MET

- 2.1 The patient is protected for accident and injury
- 2.2 The need for physical comfort and rest is met
- 2.3 The need for physical hygiene is met
- 2.4 The need for a supply of oxygen is met
- 2.5 The need for activity is met
- 2.6 The need for nutrition and fluid balance is met
- 2.7 The need for elimination is met
- 2.8 The need for skin care is met
- 2.9 The Patient is protected from infection

3.0 THE PHYSICAL EMOTIONAL AND SOCIAL NEEDS OF THE PATIENT ARE MET

- 3.1 The patient is orientated to hospital facilities on admission
- 3.2 The patient is extended social courtesy by the nursing staff
- 3.3 The patient's privacy and civil right are honored
- 3.4 The need for psychological, emotional well being is met
- 3.5 The patient is taught measures of health maintenance and prevention of illness
- 3.6 The patient's family included in the nursing care process

4.0 ACHIEVEMENT OF NURSING CARE OBJECTIVES IS EVALUATED

- 4.1 records documents the care provided for the patient
- 4.2 the patient's response to care and treatment is evaluated

5.0 UNIT PROCEDURES ARE FOLLOWED FOR THE PROTECTION OF ALL PATIENTS

- 5.1 isolation and infection control procedures are followed
- 5.2 the unit is prepared for emergency situations

6.0 THE DELIVERY OF NURSING CARE IS FACILITATED BY ADMINISTRATIVE AND MANAGERIAL SERVICES.

- 6.1 Nursing reporting follow prescribed standards
- 6.2 Nursing management is provided
- 6.3 Clerical services are provided
- 6.4 Environmental and support services are provided

**INSTRUCTIONAL GUIDE FOR USE OF QUALITY- CARE INDICATORS
DEPENDENCY CATEGORY II PATIENTS**

Instructions:

Fill in the following in the appropriate spaces provided

Assessors name and ward in use, should be coded

Assessor name code:

Hospital code:

Ward name/code:

Study start date:

Stop date:

Please tick one answer per question

Provision has been made for the sources of information (i.e. patients' records/patients/staff member). Scoring format will be as identified in the MONITOR

Questions will be generated from the six main objectives or criteria grouped into four sections namely A to D;

Section A: Planning nursing care

Section B: Meeting the patients physical need

Section C: Non-Physical needs of the patients are met (includes Psychological, emotional, social etc)

Section D: Evaluation of nursing care objectives

NURSING QUALITY-CARE MEASUREMENT INDICATORS (NQUACM1) Adapted from
MONITOR (Goldstone, Ball and Collier 1983).

SECTION A: ASSESSING PATIENT ON ADMISSION:						
S/NO	ITEMS	NO	YES	N/A	SCORE	SOURCE OF INFORMATION
1.	Does the nurse interview/observe the patient for assessment of problem within 12 hours of admission?					Record/patient staff
2.	If the patient has physical disabilities (e.g. impaired hearing, vision, speech etc) are they recorded within 24 hours of admission?					Record/patient staff
3.	Is there a statement about allergies written within 24 hours of admission?					Record
4.	If the patient depends on prosthetic devices for activities of daily living; is this recorded within 24 hours of admission?					Ask Pt/record
5.	Are the patient elimination patterns recorded within 24 hours of admission?					Record
6.	Is behavior indicative of mental-emotional state recorded on admission?					Record
7.	Is a statement written within 24 hours of admission on the condition of the skin?					Record
	Information collected on admission:					
8.	Is the general physical appearance of the patient recorded within 24 hours of admission?					Record
9.	Is the patient's understanding of his illness recorded on admission?					Record
10.	Is patient's weight recorded on admission?					Record
11.	Is there a statement written within 24 hours of admission about whether or not the patient was taking any medicines immediately prior to admission?					Record
12.	Is the patient's diet and food preferences recorded within 24 hours of admission?					Record
	Assessment of patient's current condition :					
13.	Is there a written statement about the current condition of the skin?					Record
14.	Are pulse and respiratory rates and quality recorded?					Record
15.	Are behaviors indicative of current emotional state recorded?					Record

	NURSING ORDERS OR CARE PLAN:					
16.	Do nursing orders or care plan specify times/frequency and methods for carrying out therapeutic measures?					Record
17.	Do the care plan include specific nursing measures for particular conditions such as pressure sores, exercise for immobile patients?					Record
18.	Does the care plan distinguish between activities the patient is expected to do himself and activities the nursing staff should perform?					Record
19.	Does the nursing care plan include attention to the patients needs for discharge teaching?					Record
20.	Does the care plan indicate the specific extent of ambulation?					Record
	COORDINATION OF NURSING CARE WITH MEDICAL PLAN OF CARE:					
21.	Are medically prescribed treatment included in the nursing care records?					Record
22.	Does the nursing care plan indicate pertinent sign/symptoms to be observed in regard to medical treatment, medications, disease process or possible complications?					Record
23.	Do the doctor and nurse in charge of the patient discuss current plans for the patient daily?					Ask nurse/record
24.	Has the nurse discussed plans for the patient with other disciplines (besides medicine) who are also working with Patient?					Ask Nurse

Section A:

Total Questions			
Total Questions not Application			
Total application questions			
Total score			

SECTION B: MEETING PATIENTS PHYSICAL NEEDS:

S/NO	ITEMS	NO	YES	N/A	SCORE	SOURCE OF INFORMATION
1.	Is the patient identification bracelet worn on his person? Specify where.....			<i>NP</i>		Observe Patient/Record
2.	Are assigned nursing staffs informed of the patient's present conditions?					Ask Nurses
3.	Is the patient's name displayed on his bed?			<i>NP</i>		Observe Bed
4.	Is all care of the patient accurately done and appropriately prescribed?					
5.	Is the bed at a suitable height for the patient (except when treatments are being done)?					Observe Environment/Ask patient
6.	Is all electrical machinery a safe distance from the patient's bed?					„
7.	Is there a list of the patient allergies on the front of the chart/records?					Observe chart Record
8.	Is the patient with special equipment such as IVs or others tubing taught precautions on getting out of bed?					Ask patient
9.	Is the bedside table and any other self-care equipment positioned within the patients reach?					Observe patient
	THE PATIENT'S NEEDS & PHYSICAL COMFORT AND REST ARE MET?					
10.	Has the patient received attention to complaints of Nausea or vomiting?					Ask patient
11.	Is the bed free from extraneous items (not patient's personal item)? e.g. nursing equipment etc					Observe Bed
12.	Does the patient have uninterrupted period of sleep and for rest?					Ask patient
13.	Is the patients water glass and jug placed within his/her reach? (Code 'Not Applicable' if nil by mouth).					Observe/Ask patient
14.	Is the nurse call system with in the patients reach?					Ask patient
15.	Can the patient control the lighting near his/her bed					„
16.	Is the patient call light/Bell answered promptly?					„
17.	Is the patients' position change in order to relieve pain?					„
18.	Is medication given to relieve pain?					Ask patient
19.	Does the patient receive medication					„

	promptly for pain relief					
	PATIENT'S NEEDS FOR HYGIENE ARE MET:					
20.	Is adequate equipment for oral hygiene available					Observe Environment
21.	Are the bed pan and/or urinal clean and stored according to hospital policy?					”
22.	Are the patient's nails clean?					Observe patient
	PATIENT'S NEEDS FOR NUTRITION & FLUID BALANCED ARE MET:					
23.	Are staffs accessible to patient during meals?					Ask patient
24.	Where patient has dietary restrictions or special meals, are these always observed and/or provided?					Inference
25.	Is there a written plan for fluids for the patient who has either forced or restricted oral fluids?					Record
26.	Does the plan for oral fluids specify <ul style="list-style-type: none"> • The time fluids are to be given? • The kind of fluids to be given? • The amount of fluids to be given? 					”
27.	Is the amount of fluid intake and output recorded?					”
28.	If the patient has been designated 'Nil by mouth' have all fluids been removed from the bedside?					Observe Environment
	THE PATIENT'S NEEDS FOR ELIMINATION ARE MET					
29.	Is bowel function recorded daily?					Record
30.	Is usual bowel or bladder problem noted?					Record/Ask patient
31.	Is the patient helped to the toilet or with urinal or Bedpan he/she asks for help?					Ask patient
	THE PATIENTS NEED FOR ACTIVITY IS MET:					
32.	Is the patient ambulated the number of times indicated in the nursing care plan?					”
33.	Is the patient helped with activities of daily living when needed?					Ask patient
	PATIENT'S NEED FOR SKIN CARE IS MET:					
34.	Is ostomy bag properly is place?					Observe patient

Section B:

Total Questions			
Total Questions not Application			
Total application questions			
Total score			

**SECTION C: THE NON-PHYSICAL NEEDS OF THE PATIENT
ARE MET: (INCLUDES PSYCHOLOGICAL, EMOTIONAL
SOCIAL ETC)**

S/NO	ITEMS	NO	YES	N/A	SCORE	SOURCE OF INFORMATION
	PATIENT IS ORIENTED TO HOSPITAL FACILITIES ON ADMISSION:					
1	Was the patient contacted by the nursing staff within 15 minutes of arrival of the ward?					Ask patient
2	Was the patient told about hospital routines on admission?					”
3	Are care and use of personal property explained to patient and/or family on admission?					”
4	Was the patient informed of visiting hours on admission to ward?					”
5	Is the patient told how to use the telephone an admission?					Ask patient
6	Are safely measures, such as smoking regulation or precaution getting in and out of bed, explained on admission?					”
7	Is the patient shown the necessary facilities such as the toilet/bathroom on admission?					”
8	Is the patient instructed on how to call the nurse when he/she is in the toilet/bathroom					”
	NURSING A STAFF COURTESY TOWARDS PATIENT:					
9	Do nursing staff call the patient by the name he prefers?					Ask patient
10	Do nurses introduce themselves to the patient?					”
11	Was the patient greeted by the nursing staff on admission?					”
12	Are the nurses kind and polite to the patient?					”
13	Do staffs seek patient participation during the round?					”

	PATIENT PRIVACY AND CIVIL RIGHTS:					
14	Is written consent obtained before special procedures are undertaken? (e.g. surgery etc)					Record
15	Is the nurse aware of what the patient has been told about his/her illness? (code 'No' if nurse is unsure or does not know).					Ask Nurse
16	Are special procedures or studies explained to patient?					Ask patient
17	Are curtains drawn (or door closed) for examinations, treatment or privacy)					„
	PATIENT'S EMOTIONAL AND PSYCHOLOGICAL WELL BEING IS CONSIDERED:					
18	Does the nurse (or other staff e.g. social worker, occupational therapist etc) discuss with the patient how his illness might affect his home situation or his work and help to plan how he could cope when discharged?					Ask patient
19	Do the nursing staffs inform the patient about activities before they are carried out?					Ask patient
20	When patient's condition warrants, does the nurse give attention to the patient's for diversional activities?					Observe Environment/Observe patient
21	Do nurses listen to the patient? Are patient's religious observance considered?					Ask patient
22	Is the patient allowed to wear his/her own clothes if he/she wants to?					„
23	Is the physical dependence/independence of the patient discussed with him / her					Ask patient
24	Is the use of special equipment (e.g. suction machine, IV etc) explain to the patient					Ask patient
25	Are nurses available to the patient when the shift is changing over/taking reports					Ask patient

	THE PATIENTS IS TAUGHT MEASURES OF HEALTH MAINTENANCE AND ILLNESS PREVENTION:					
26	Is there any planned teaching for the patient?					Ask nurse
27	Before discharge, is the patient or family informed of or instructed in care that must be done at home?					Ask patient
28	Is the plan for oral fluids formulated by patient and nurse? (Applies to any patient with order such as 'encourage fluids, 'force fluids' 'restrict fluids' or 'give specific amount of oral fluids per day.					”
	THE PATIENTS FAMILY/CLOSE FRIEND IS INCLUDE IN THE PLAN FOR NURSING:					
29	Is there a written statement indicating the family's level of understanding of the patients conditions?					Record
30	Is the name and phone number of the person to contact in case of emergency writing in the kardex or other appropriate record					”
31	Is the family informed of visiting hours on the unit?					Ask patient

Section C:

Total Questions			
Total Questions not Application			
Total application questions			
Total score			

SECTION D: EVALUATION OF NURSING CARE OBJECTIVES:

S/N	ITEMS	No	Yes incomplete	Yes complete	N/A	SCORE	SOURCE
	THE CARE PROVIDED FOR THE PATIENT IS RECORDED:						
1	All written prescribed treatments either by medicine or nursing						Record
2	Do records document the vital signs and blood pressures as order? (on admission, and as specified for the last 2 days)						”
3	Do records document the reasons for omission of medications? Do records document the reasons for administration of (“as required”) medications.						”
4	Do records document the effect of the administration of (“as required” medication)?					Record	
5	Do records document the administration of medications including: time given, dosage route of administration, Site of administration, Name/initial of person who gives medication?					Record	

	THE PATIENT'S RESPONSE TO THERAPY IS EVALUATED:					
6	Are observations related to the disease process or possible complications noted? (e.g. changes in conditions, observations to detect on set of complications etc) Consider condition of patient and determine whether specific observations should be made. if not recorded, code 'No'					Record
7	Do records document the patient's response to teaching?					Record/Ask nurse
8	Do records document the need for additional instruction?					”
9	Is the patient's performance of self-care activities (e.g. activities of daily living) doing own treatments, etc) recorded?					Record
10	Do records document the side effects of current therapy? (Reactions to medicines & treatment)					”

Section D:

Total Questions			
Total Questions not Application			
Total application questions			
Total score			

Summary of Scores

Score on A			
Score on B			
Score on C			
Score on D			
Total score A+B+C+D			

Application Questions on A			
Application Questions on B			
Application Questions on C			
Application Questions on D			
Total Application Questions A+B+C+D			

Section A Index = (score on A/Applicable Questions on A) x 100			
Section B Index = (score on B/Applicable Questions on B) x 100			
Section C Index = (score on C/Applicable Questions on C) x 100			
Section D Index = (score on D/Applicable Questions on D) x 100			
Monitor index = Total score / Total Applicable Questions) x 100			

ANNEXURE 4A

INFORMATION DOCUMENT: THE PROFESSIONAL NURSE MANAGERS

Study Title: An Appraisal of Continuous Quality Improvement (CQI) and Development of Quality- Care Indicators Amongst Clinical Based Nurses in Selected Teaching Hospitals South West (SW) Nigeria.

Greetings & Introduction:

Good day dear colleagues and I bring you warm greetings!

My name is Patricia Onianwa (Mrs) a nurse-clinician, and PhD student researcher from the University of KwaZulu- Natal, school of Nursing, Howard College Campus, Durban, South- Africa. I am conducting a research on CQI processes/mechanisms and development of quality care index amongst clinical based nurses for measuring quality of nursing care in selected teaching hospital in SW Nigeria. The research study is a process to assist in finding answers to the questions raised in the study, requiring solution. Our language of communication will be English language; but if some of the terms spoken are not understood, do not hesitate to indicate for further clarification to be made. Your participation in this research will contribute towards promotion of CQI programs and development of evaluative care indicators for measuring quality of nursing care in your hospital.

The purpose of the study is to apprise CQI activities in the clinical nursing division of these selected teaching hospitals located SW Nigeria and develop quality-care indicators that can be used to measure and monitor quality of care in these hospitals.

Other major objectives of the study apart from investigating the CQI systems are:

- To establish the human, operational, basic and material resources available in these hospitals to promote CQI efforts.
- To assess the current instrument/tools if any in use for measuring quality of nursing care, and to ascertain what aspects of quality improvement they measure.

- To identify and discuss essential processes required for the development or adaptation of evaluative quality-care indicators for measuring quality of nursing care and possibly develop tools if not available or adapt to suit setting.
- To assess the applicability of newly developed indicators on two acute-care wards (medical & Surgical) in three of the five selected hospitals.

Invitation to Participate: I am therefore inviting you to participate in the research study and equally asking your permission to be part of the study.

What is involved in the Study: This study is a descriptive- exploratory study, using the survey and action research methodology. Surveys approach because data on general knowledge, opinions, attitudes and values regarding a quality improvement programs will be collected. Action research because you will be part of the research team/collaborators that will foster change and improve practice in your setting. However, the findings from the survey will facilitate your collective decisions to either develop or adapt the instrument for use to suit setting.

Your role in the study is to volunteer as one of the participants in the study. You will be asked to fill out a questionnaire or where applicable, participate in a focus group discussion session involving nurse managers. The study will take about thirty (30) minutes to one hour of your time, depending on the type of information needed from you for the study.

Risks of being involved in the Study: The study will not involve any risk or harm to you as a result of your participation. If you feel otherwise, please indicate your concerns or fears to the researcher as you will be provided with more information to clarify any doubt that you might have.

Privacy will be ensured at all times. If you do not wish to be interviewed or questioned in any aspect, please indicate this to the researcher and your wish will be respected.

Benefits of being in the Study: If you volunteer to participate in the study, you will be asked to fill out a questionnaire or assisted to do so if you cannot. You will be given pertinent information on the study and pamphlets on issues of continuous quality improvement systems and evaluative instruments for measuring quality of nursing. Whilst you are involved in the project and after the results of the study are available, if you wish to obtain any information regarding the study, you can do so by contacting me through the address indicated below.

Your participation in the Study is Voluntary. You are free to decline to participate or choose to be part of the study. You are assured that refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled to. You may discontinue participation at anytime without penalty loss of benefits if you wish to do so.

Reimbursement for “Out of Pocket Expenses”: There are no funds available for this research. The researcher therefore, will not be financially responsible for any cost incurred during the course of the interactions. The study will be conducted at scheduled times during the working hours.

Confidentiality: you are assured that all information provided will be kept with utmost secrecy and your name will not be recorded on any of the documents provided for the study. Efforts will be made to keep personal information confidential; away from the hearing of the staff and others. Any information collected during the study will be assessed only by the researcher and used for final reporting granting anonymity. Fictitious name will be used to represent your hospital. Findings from the study will be communicated to your management; may be published in a reputable international journal(s) and kept in the library of the University of KwaZulu-Natal, Howard College Campus Durban, South Africa. All data collected will be stored electronically up to five years in a private computer with a password and ultimately all information will be erased and data collected will be discarded thereafter.

Translation of any documents if required will be in English language which is the official language in Nigeria.

Contact Details of Researcher: if you have any questions or further information on the study, do not hesitate to ask me or my supervisors.

Researcher: Patricia O. Onianwa. (Mrs)

Tel No: +234-80-23419107 (Nigeria)

+27-72-5305435 (South-Africa)

Email Address: patoboni@yahoo.com

Supervisors as at time of Data Collection:

Prof. O. Adejumo

Tel No:

Email Address:

Prof NG Mtshali.

Tel No:

Email Address:

Current Supervisor:

Prof B. R. Bhengu

Tel No:

Email Address:

DECLARATION

I----- (Full names of participant)
hereby confirm that I understand the contents of this document and the nature of the research study and I consent to participating in the research project.

I understand that I am at liberty to withdraw from the project at anytime, should I so desire.

Signature of Participant.

Date

ANNEXURE 4B

INFORMATION DOCUMENT: FOCUS GROUP DISCUSSION PHASE

KEY PERSONS: PRINCIPAL NURSING OFFICERS AND CHIEF NURSING OFFICERS ONLY

No: Code Assigned-----

Country of Study-----

Hospital of Study-----

Location/Area-----

Title of Study: An Appraisal of Continuous Quality Improvement (CQI) and Development of Quality- Care Indicators Amongst Clinical Based Nurses in Selected Teaching Hospitals South West (SW) Nigeria.

Introduction and Purpose of Meeting:

Dear Sir/ madam,

Good morning and warm greetings to you! My name is Patricia Onianwa (Mrs) a nurse-clinician and PhD student at the University of KwaZulu-Natal, Howard College Campus, Durban, South-Africa. I am undertaking a research study in quality improvement systems and quality –of care- indicators for monitoring and measuring quality of nursing care on the wards. I am here to ask you some questions relating to existing status of continuous quality improvement (CQI) and measurement tools in your hospital.

Thank you for accepting to participate in the study and taking time to respond to the questions. This phase is divided into two. First session is directed at appraising the current status of the CQI systems in your hospital (in view of the background to study) and the second session is directed at making a collective decision based on the findings from the surveys, to develop new quality-care indicators or modify established, off-the- shelf measurement instruments to suit your hospital setting and practice.

This interview will be recorded using a digital voice recorder as you have already been informed in our previous conversation and in the participant information letter addressed to you. However, if you do not agree to using the recorder or recording of specific information, please bring this to my notice and your wish will be respected.

You are also assured that your name is not required for the interview and the contents of this interview will be treated as confidential and will only be used for the purpose of this study. Details such as your professional status and capacity in which you are working, will be required in order to assist me in the analysis of the sources of information.

Your participation in the study is voluntary and you are free to express any concerns that may affect your participation in this study. Your right will be respected as an individual in everyway. This study is not intended to discredit the CQI systems if available but rather to create a better understanding of the various components involved and how they fit together to give a holistic view of quality improvement and quality care.

During the course of the interview, the researcher will write down few notes (field notes) to assist her in subsequent analyses of the discussions and be assured that all recordings will be treated as confidential and will only be assessed by me (the researcher) for use specifically for the purpose of the research. Fictitious name will be used to represent your hospital. Findings from the study will be communicated to your management; may be published in a reputable international journal(s) and kept in the library of the University of KwaZulu-Natal, Howard College Campus, Durban, South Africa. All data collected will be stored electronically up to five years in a private computer with a password and ultimately all information will be erased and data collected will be discarded thereafter.

The information provided during this interview will provide me with better understanding of the status of CQI systems and availability of measurement tools for the purpose of this study. The objectives hopefully, will contribute to the promotion of quality nursing care activities and identification of specific areas that need change.

Processes involved may help you as nurse managers/leaders to become competent in planning evaluative activities in your hospitals.

This focus group discussion session will take about 2 to three hours of your time.

Thanks once again for agreeing to participate in the study!!!

DECLARATION

I----- (Full names of participant)
hereby confirm that I understand the contents of this document and the nature of the research study and I consent to participating in the research project.

I understand that I am at liberty to withdraw from the project at anytime, should I so desire.

Signature of Participant

Date

ANNEXURE 5

INSTRUMENT FOR DATA COLLECTION

THE QUESTIONNAIRE.

SECTION A: DEMOGRAPHIC DATA.

INSTRUCTIONS: Mark X in the appropriate box that best provides a suitable response of your choice.

1) **Age:** 20-29 30-39 40-49 50-59 60 and above

2) **Gender:** Male Female

3) **Nursing Cadres/Designation:**

- Asst. Director of Nursing
- Chief Nursing Officer
- Principal Nursing Officer
- Senior Nursing Officer
- Nursing Officer/No11
- Staff Nurse / No 1

4) Educational Qualifications:

- M.Sc /M.Ed Degree: Specify _____
- B.Nsc/ B.Sc Degree: Specify _____
- Diploma (E.G. NRN, NRM, PHN, Etc):

5) Professional Qualifications:

- Registered Nurse Only Registered Nurse/Midwife
- Mental Health Nurse Others;

6) **Place of Work:** _____

7) **Current Practice Area:** _____

SECTION B: KNOWLEDGE/ PERCEPTION OF CONTINUOUS QUALITY IMPROVEMENT

INSTRUCTIONS: For items 8 to 17, Tick 'YES' in the appropriate column if you agree and 'NO' if you do not agree; and if you cannot make up your mind on the answer, tick 'DON'T KNOW'

ITEMS	YES	NO	DON'T KNOW
8. Improvement in the quality of health care is dependent on the contribution of the nurses			
9. Quality management is an integral part of everyday work, indicating that the right things are being done right for patients, families and communities.			
10. Focus on quality is patient/client centred practice.			
11. CQI is described as the level of quality to be aimed for (i.e. standard), measuring and comparing existing practice against the standards, and taking action to improve quality where necessary.			
12. Current emphasis in nursing is shifting towards continuous quality improvement.			
13. CQI systematically improves quality of care from both professional and patient's perspectives.			
14. CQI emphasizes team work and need to evaluate and improve performance.			
15. CQI promotes			
(1). Continuing professional development,			
(2). Increased responsibility and			
(3). Accountability.			
16. CQI involves an ongoing process where repeated efforts are made to:			
(1) Monitor and			
(2) Improve practice until required standards are achieved.			
17. CQI is used to identify and solve problems.			

SECTION C: STRUCTURE ASSESSMENT

INSTRUCTIONS: Provide responses for items 18 to 23 by ticking in the appropriate box that best suits your choice of answer. For items 24 to 37, mark 'YES' in the appropriate column provided, if you agree to the question; 'NO' if you disagree and 'DON'T KNOW' if you cannot make up your mind on the answer. Use the spaces provided below some of the questions to explain further, give reasons for; or make a list.

18) How many beds are on your ward?

a. 5-10 beds

b. 11-20 beds

c. 21-30 beds

d. More than 30 beds

19) How many patients occupy these beds at any one time e.g. 1 month?

20) How many nurses are on your ward?

a. ADN

b. CNO

c. ACNO

d. PNO

e. SNO

f. NO 2

g. NO 1

21). What is the qualifications of the nurses working on your ward?

a. Diploma certificates. (E.g. NRN, NRM, MHN, PHN, PON, DNAM etc)

b. Bachelor of nursing science (B.Nsc)/ B.Sc Nursing degree(Honours)

c. Degrees in Other Disciplines (e.g. Health- Education, Psychology, Human

Nutrition etc

22).What is the ratio of nurse to patient in your ward?

a.1 nurse to 4 patients

b.1 nurse to 10 patients

c.1 nurse to 20 patients

d.1 nurse to 30 patients.

e. Others

23).What is the total number of nursing care hours provided to patients per shift?

a. 12 hours of nursing care

b. 8 hours of nursing care

c. 6 hours of nursing care

d. 5 hours of nursing care.

	ITEMS	YES	NO	DON'T KNOW
24	Is the ratio of nurse to patient adequate in your hospital?			
25	Does your hospital have protocols such as: (1). Standards of practice , (2). Procedure manuals , to which you should conform/against which you are judged?			
26	Are there basic physical facilities on your wards provided by your management such as: <ul style="list-style-type: none"> • Resuscitation trays, • Oxygen cylinders, • Beddings, • Drip stands, • Medical utilities e.g. syringes & needles, • Stationeries, documentation/forms? 			
27	Are the above mentioned facilities in adequate supply?			
28	Are basic equipments on your ward functioning? If No, List what? ----- ----- -----			
29	Are the wards provided with support staff e.g. ward- maids, porters and cleaners?			
30	Does your hospital provide allied health services? If yes, list types----- ----- -----			
31	Are meals provided to patients through hospital catering services?			
32	Are meals provided to patients through self- catering?			
33	Is the hospital catering service if available adequate? If no, give reasons----- ----- -----			

34	Is there a functional pharmacy department in your hospital?			
----	---	--	--	--

	ITEMS	YES	NO	DON'T KNOW
35.	Is there provision of basic essential drugs in your hospital? If no, give reasons ----- -----			
36.	Are there toilet facilities in your hospital?			
37.	Are the toilet facilities in good working order?			

SECTION D: PROCESS ASSESSMENT:

INSTRUCTIONS: For items 38 to 57, mark 'YES' in the appropriate column provided, if you agree to the question; 'NO' if you disagree and 'DON'T KNOW' if you cannot make up your mind on the answer. Use the spaces provided below some of the questions to explain further, give reasons for; or make a list.

	ITEMS	YES	NO	DON'T KNOW
38	Are nurses satisfied with their role as nurses on the ward? If no, give reasons ----- ----- -----			
39.	Do nurses evaluate their own practice in relation to professional practice standards and regulations? If yes, explain how ----- ----- -----			
40.	Do nurses acquire and maintain current knowledge and competency in nursing practice? If yes, how? ----- ----- -----			
41.	Do nurses interact with and contribute to the professional development of peers and other health care providers?			
42.	Are nurses decisions and actions on behalf of patients determined in an ethical manner			
43.	Do nurses use research findings in practice? If yes, give an example of one translated into practice in your hospital. ----- -----			

	ITEMS	YES	NO	DON'T KNOW
44	Do nurses collaborate with patient, family & other health care providers in providing care? If yes, list 5 collaborators. ----- -----			
45	Do nurses consider factors related to safety, effectiveness & cost when planning care?			
46	Do the nurses collect patient health data (assessment)?			
47	Do the nurses analyze these data in determining diagnoses and identifying expected outcomes, individualized to the patients?			
48	Do the nurses develop a plan of care that describes intervention and implement these interventions?			
49	Do nurses evaluate patients' progress towards attainment of goals?			
50	Do nurses apply and execute physician's orders?			
51	Do nurses observe symptoms and reactions related to course of disease?			
52	Are physical needs of the patients met? E.g. safety needs, skin care, elimination needs, comfort & rest needs etc			
53	Are the emotional and social needs of the patients met? E.g. Orientation to hospital facilities on admission, -Social courtesy by the nurse -Privacy & civil rights -Psychological & emotional well-being -Health maintenance & Illness Prevention.			
54	Do nurses record and document or document the care provided for the patients?			
55	Are unit procedures followed for the protection of patients such as isolation & infection control procedures, preparation for emergency situations?			
56	Does the nursing reporting in your hospital follow prescribed standards?			
57	Do nurses ensure that environmental & support systems are provided?			

SECTION E: OUTCOME ASSESSMENT

INSTRUCTIONS: Items 58 to 62 are rated questions, where (0-5) represents 'dissatisfied' and (6-10) represents 'satisfied'. For item 63 only, (0-5) represents 'frequent' and (6-10) represents 'not frequent'. For items 64 to 68, tick in the appropriate box that best suits your answer.

	ITEMS	0	1	2	3	4	5	6	7	8	9	10
58.	Are patients and family satisfied with nursing care?											
59.	Are patients satisfied with the time spent with them?											
60.	Are patients satisfied with the information provided to them?											
61.	Are the patients satisfied with pain management?											
62.	Are the patients satisfied with the symptom management?											
63.	Are adverse incidents like the following frequent occurrence in your ward: <ul style="list-style-type: none"> • Falls of patients • Pressure sores • Infections in your hospital? 											
64.	Do patients in your hospital adhere to discharge plans?											
	<p style="text-align: center;">Yes No Don't know</p>											
65.	Average length of stay of patients in the hospital per quarter year is:											
	a. 1 – 7 days duration											
	b. 8 - 14 days duration											
	c. 21 -28 days duration											
	d. 30 – 90 days duration											

66. How many discharges are recorded per month in your hospital?

a. 10-20

b. 20-30

c. 30-40

d. More than 40

67. How many hospital acquired infections (HAIs) are recorded per month in your hospital?

a. 5-10

b. 10-20

c. 20-30

d. More than 40

68. How many deaths are recorded per month in your ward?

a. 1-10

b. 10-20

c. 30-40

d. More than 40

SECTION F: CURRENT CQI STATUS IN HEALTH CARE FACILITY
(Used for focus Group Discussion Session in phase 2)

***INSTRUCTIONS:** For items 69 to 89, Tick 'YES' in the appropriate column if you agree and 'NO' if you do not agree; and if you cannot make up your mind on the answer, tick 'DON'T KNOW'. Use the spaces provided below some of the questions to explain further, give reasons for; or make a list.*

ITEMS	YES	NO	DON'T KNOW
69. Do you have a CQI /QA system in place in the nursing division of your hospital? If "NO", what system is in place?			
70. Do you have an established Nursing Audit unit in your hospital?			
71. Does the nursing audit unit if any, monitor nursing care activities on the wards?			
72. Your Nursing Audit unit if any, monitors care provided by nurses: <div style="text-align: right;">Daily, Weekly, Monthly, Quarterly,</div>			
73. Is evaluation of care done at ward level by the nurses themselves, participating actively in Implementation of the instrument?			
74. Is evaluation of quality of care done at management level, using external assessors?			
75. Evaluation of care is carried out in your hospital: <div style="text-align: right;">Monthly Quarterly Bi-annually Annually</div>			
76. During evaluation of care, only patients' records are reviewed to identify strengths and deficits of care?			

ITEMS	YES	NO	DON'T KNOW
<p>77. Does the exercise of monitoring and evaluation of the quality of nursing care if any, bring about changes in nursing practice?</p> <p>Comment briefly:</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>			
<p>78. Are outcomes of evaluation activities carried out in your hospital communicated to the nurses?</p>			
<p>79. Post interview is conducted with the patients, and family members, when the patient has left the hospital?</p>			
<p>80. A post care questionnaire is completed by the patients on discharge, to measure patient satisfaction?</p>			
<p>81. The patient's charts and records are reviewed against a preset standard as the patient is still receiving care?</p>			
<p>82. Patients interview or observation of aspects of care is conducted at the bedside?</p>			
<p>83. Your hospital organises group conference involving patient, family, and staff about care being given?</p>			
<p>84. Staff interview and/or observation of nursing behaviour are carried out?</p>			
<p>85. Are evaluative instruments available for use in your hospital?</p> <p>If "YES", list types:</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>			
<p>86. Are there observational checklist tools for monitoring the activities of the nurses on the ward?</p>			

ITEMS	YES	NO	DON'T KNOW
<p>87. Does any factor prevent the use of the evaluative Instrument?</p> <p>List factor(s) if any:</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>			
<p>88. Does any factor promote the use of the evaluative Instrument?</p> <p>List factor(s) if any:</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>			
<p>89. Do you have a Continuing Education Unit in the Nursing Division of your hospital?</p>			

ANNEXURE 5A

***INTERVIEW GUIDE FOR FOCUS GROUP DISCUSSION (FGD) SESSION
FOR INSTRUMENT/TOOL DEVELOPMENT AMONGST CLINICAL BASED
NURSES IN THE PARTICIPATING HOSPITALS IN SW NIGERIA***

1. What are your responsibilities as nurse managers in your respective wards?
2. Are processes or activities of quality improvement an everyday or routine exercise in your hospital?
3. Are you aware of any established, standardized instrument for nursing care measurement? If yes, give an example and how it is used to promote patient care in your hospital. If your response is NO, how then is nursing care measured and monitored in your hospital?
4. What nursing activities relate to admission process in your hospital?
5. what nursing activities relate to patient needs to include the following:
 - Physical Needs
 - Psychological /Emotional Needs
 - Spiritual Needs
 - Socio-cultural Needs
6. Does the nurse coordinate nursing plan of care with medical plan? If yes, how does she/he carry this out to meet patient needs?
7. Does the nurse assess, diagnose, set goals, implement and evaluate patient care?
8. Are nursing care plan developed and updated efficiently?

9. How is documentation of care given to the patient done in your hospital? Or rather describe how patient care is documented in your hospital.
10. Describe how patient teaching is carried out in your hospital?

ANNEXURE 5B

CONTENT ASSESSMENT OF INSTRUMENT (STRUCTURE, PROCESS AND OUTCOME) FOR APPROPRIATENESS IF AVAILABLE:

Please mark X in the appropriate column that best provides a suitable response of your choice.

VARIABLE	YES	NO	DON'T KNOW
Does your instrument/tool if available contain the following: A). Structure Criteria e.g. Availability of Human resources			
Availability of Material Resources			
Availability of operational resources such as: (i) Standard of practice document			
(ii). Procedure manuals and other policy documents.			
B).Process Criteria e.g. Nursing Assessment of Patients to include: iii. Formulation of Plan of Nursing care			
iv. Meeting Psycho-social Needs of patient:			
iii). Meeting physical needs of patients to include execution of nursing procedures and techniques, such as administration and/or supervision of medications, vital signs and nursing documentation			

VARIABLE	YES	NO	DON'T KNOW
v). Pain Assessment			
vi). Meeting communication/ teaching needs of patients:			
vii). Ward preparation for Emergency situations:			
viii). Provision of environmental and support services			
C). Outcome Criteria e.g. Measurement of health indicators such as (i). Infections			
ii). Frequency of adverse incidents like fall and pressure sores			
iii). Patient Morbidity and Mortality			
iv). Patient Satisfaction			
v). Average Length of Stay			
D). SCORING SYSTEMS: (i). Type 1: Excellent; Good; Incomplete; Poor; and/or Unsafe			
(ii). Type 2: Best care; Average Care; Poor Care.			
(iii). Type 3: Yes; No; Unsure			

ANNEXURE 5C

Field notes (Descriptive/ Observational) generated during Reflective Cycle of Action

Research Process:

The participants tested the newly adapted instrument (MONITOR) in the acute care wards in their respective hospitals and commented on the usefulness of the new tool and its attending difficulties. They pondered if there would be another meeting to discuss their feelings and experiences during the testing phase and were glad at today's meeting. In response to the questions posed by the researcher such as this... "Did you find the newly adapted instrument helpful in any way?" The participants answered in the affirmative. One participant added "it is a long awaited development..." another said "maybe this could sensitize our management to put in place a proper monitoring unit that could see to quality care measurement...., our nursing division has been clamouring for this for a long time and our management have not heeded to our request....." In another hospital, a participant expressed as thus... ' something needs to be done to the continuing education/in-service education program that is periodically provided by our management using external consultants.....It is not adequate going by what we have just learnt about what an established CE program should be..... we need to have a structured CE study system to organise training programs all year round for practising nurses.....this method of management bringing in consultants to organise CE programs once in every 3 years or even longer than that would not promote CQI.....in fact, we are not given the privilege to attend seminars/ conferences or even locally or regionally organised workshops in our areas of interest.....it is work! work! work year in, year out.....eh" A participant said she

was amazed to observe that the tool was able to spell out the areas of strength and otherwise.....We must utilize this new knowledge of nursing care measurement to improve our practice on the wards”..... says the participant. One participant questioned as thus.... “Wouldn’t there be need to increase the number of nursing audit staff officers for effective utilization of quality care indicators?”.... again, utilizing the new instrument could be made less time consuming if the number of items there-in are reduced”..... “the indicators are too many and could be compressed to avoid time consumption”. Some of the participants in other hospitals expressed concern about the lack of cooperation of the nurses on the ward observed during testing.....they also wondered if their respective management would swing into action soon to put in place CQI processes such as the nursing audit unit, structured In-service education unit and produce adequate copies of the quality-care indicators for use.

However, the participants concluded that it would depend on the drive of their nurse leaders to present and push the request forward. They hoped for the best and for their collective efforts during the research phases to yield positive outcomes. Nevertheless, The participants expressed that the research process have empowered them with basic skill of instrument development, enhanced workplace-learning and has permitted them as nurse managers to identify issues and make changes to achieve best practices in their respective hospitals.

ANNEXURE 5D

POST- TEST DATA COLLECTION INSTRUMENT FOR EVALUATION OF IMPLEMENTATION/TESTING OUTCOMES: APPLICABILITY OF NEWLY ADAPTED QUALITY CARE MEASUREMENT INDICATORS

INSTRUCTIONS: Provide responses for items 1 to 18 by ticking in the appropriate column that best suits your choice of answer. Mark ‘**YES**’ in the appropriate column provided, if you agree to the question; ‘**NO**’ if you disagree and ‘**DON’T KNOW**’ if you cannot make up your mind on the answer. Use the spaces provided below some of the questions to explain further, give reasons for; or make a list.

	ITEMS	YES	NO	DON'T KNOW
1.	What in your opinion is your perception of the newly adapted quality care indicators? _____ _____ _____			
	<ul style="list-style-type: none"> ❖ Was it measurable? ❖ Was it achievable? ❖ Was it time bound? ❖ How long did it take you to measure, using the instrument? _____ 			
2.	Is the instrument relevant to your kind of practice?			

	ITEMS	YES	NO	DON'T KNOW
3	Did the instrument measure criteria e.g. Relevant Aspects of Nursing Care?			
i	Name the aspects of nursing care that the instrument measured? _____ _____ _____			
4.	Did the instrument evaluate patients' assessment on admission?			
5.	Did the instrument measure that data relevant to hospital care are ascertained on admission?			
6.	Did the instrument measure that patient's current condition is assessed?			
7.	Did the instrument measure that a written care plan of nursing care is formulated?			
8.	Did the instrument measure the criteria that the plan of nursing care is coordinated with the medical plan of care?			
9.	Did the instrument measure that the physical needs of the patient are met? E.g.			
	❖ Need for protection from accident and injury			
	❖ Need for physical comfort and rest			
	❖ Need for physical hygiene			
	❖ Need for supply of oxygen			
	❖ Need for activity			
	❖ Need for nutrition & fluid balance			
	❖ Need for elimination			
	❖ Need for skin care			
❖ Protection from infection				

	ITEMS	YES	NO	DON'T KNOW
10.	<p>Did the instrument measure that the physical emotional and social needs of the patient are met? E.g.</p> <ul style="list-style-type: none"> ❖ Patient orientation to hospital facilities on admission? ❖ Extension of social courtesy by nursing staff? ❖ Honouring patients' privacy and civil rights ❖ Meeting psychological and emotional well being needs of the patient? ❖ Teaching measures of health maintenance and prevention of illness? ❖ Inclusion of patient's family in nursing care process? 			
11	<p>Did the instrument evaluate achievement of nursing care activities? E.g.</p> <ul style="list-style-type: none"> ❖ Records document are provided for the patient? ❖ Patient response to care and treatment is evaluated 			
12.	<p>Did the instrument measure that unit procedures are followed for the protection of all patients? E.g.</p> <ul style="list-style-type: none"> ❖ Isolation and infection control procedures are followed? ❖ Unit is prepared for emergency situations? 	<p>* These two criteria were not addressed and/or analysed during adaptation of the instrument due to time constraints. The research team requested to be excused on grounds of exhaustion/ fatigue.</p>		
13	<p>Did the instrument measure that the delivery of nursing care is facilitated by administrative and managerial services? E.g.</p> <ul style="list-style-type: none"> ❖ Nursing reporting follows prescribed standards? ❖ Nursing management is provident? ❖ Clerical services are provided? ❖ Environmental and support services are provided? 			

	ITEMS	YES	NO	DON'T KNOW
14.	Did you encounter difficulties using the instrument/quality indicators on the chosen wards? If yes, please specify areas of difficulties /threats? _____ _____ _____			
15.	Did you have areas of strength during the period of using of instrument? If yes, please specify what strengthened the use of the instrument? _____ _____ _____			
16.	Did you encounter any difficulty with the scoring format? If yes, specify _____ _____ _____ _____			
17.	In your opinion, would you say the newly adapted quality care indicators are applicable to your setting and your kind of practice?			
18.	What are your contributions and/or suggestion to the development and use of the quality care indicators? _____ _____ _____			

ANNEXURE 5E

CROSS-SECTIONS OF SOME DATASETS TRANSCRIBED VERBATIM

OAUTHC	OOUTHC	UITH	UBTH	FMC, ASB
<i>MEETING PATIENT'S NEEDS</i>				
“Patient’s identification bracelet is not worn on his person”	“Patient’s identification bracelet is not worn on his person in out hospital”	“Not in our practice at all for patients to wear identification bracelet on their persons	“Our patients do not wear identification bracelet on their persons”	“Patient’s identification bracelet is not worn on his/her person except for the newborns”

OAUTHC	OOUTHC	UITH	UBTH	FMC, ASB
<i>MEETING PSYCHOLOGICAL NEEDS</i>				
A call system in which the patient’s relative(s) call out verbally is in place”	“Nurse’s call system is within the reach of the patient”	“We do not have call bells; they are no longer functioning. Patient’s call out if the nurse is not close by”	“Nurse’s call system is not in practice. All bed switches and lightings are no longer functioning. Relatives call out”	“Patients call out if they need the nurse. Electronic call systems are not available in our setting”

OAUTHC	OOUTHC	UITH	UBTH	FMC, ASB
<p>“Yes, yes! Patient is allowed to wear his/ her own clothes if he/she wants”</p>	<p>Umh! Umh...! Patients are allowed to wear their own clothes if they wish.... for example, kjab for the Moslems. Nobody infringes on their right to do so”</p>	<p>“We do not have patient’s gowns anymore. The patient is allowed to wear his/her preferred clothes”</p>	<p>“The patient is allowed to wear his/her own clothes as he chooses to; Our patient says the hospital gown makes him look like a prisoner”</p>	<p>“In fact, there are no longer hospital gowns in use like we used to have in the past, except for psychiatric wards where they can still be found”</p>

OAUTHC	OOUTHC	UITH	UBTH	FMC, ASB
<i>PATIENT'S RESPONSE TO THERAPY IS EVALUATED</i>				
“Certainly, our records document the need for additional instructions”	“No, it is not common practice in our setting for records to document the need for additional instructions”	“Our records do not document the need for additional instructions”	“Eh, we don't do that....not common practice in our setting to document the need for additional instructions”	“There is no documentation on the need for additional instructions”

ANNEXURE 6

Study Report:

The Chief Medical Director,

Date-----

University Teaching Hospital,

Through the Asst. Director of Nursing,

Clinical Nursing Division,

Dear Sir,

Re: An Appraisal of Continuous Quality Improvement Mechanisms/ Processes and Development of Quality-Care Indicators amongst Clinical Based Nurses in Five Selected Teaching Hospitals, South West (SW) Nigeria: Study Report.

My name is Patricia O. Onianwa (Mrs), a PhD student of the School of Nursing, Howard College Campus of the University of KwaZulu-Natal, Durban, South Africa. I want to

thank you sir for granting me the permission to conduct my study in your distinguished hospital sometime between the months of May and November, 2008. I carried out a research study (in partial fulfilment for the award of a doctoral degree in Nursing) in five selected hospitals in SW Nigeria of which your hospital happened to be one of them. Quality improvement systems and/or processes such as established nursing audit unit, continuing education/ in-service education unit and quality-care indicators for measuring and monitoring quality of nursing care on the wards were appraised in the five participating hospitals. Problems were identified following analyses of the survey data; and subsequent, verification and attestation to the true situation that existed in these health care institutions in the South-West of Nigeria by the participants. The identified problems include:

- ❖ CQI was not seen to be a part of everyday routine as maintained by Campbell et al. (2003).
- ❖ Evaluation of nursing care processes which should be systematic and ongoing was not obvious. Evaluation of nursing care is a pragmatic way of ascertaining whether or not the nurse practitioner's work is good (Bloch, 1995).
- ❖ Accountability on the part of the professional nurse to judge whether the quality of care and/or services is appropriate as argued by Esterhuizen (2006) was also not visible.
- ❖ In addition, problems of staff issues and practice guidelines such as operational tools (such as standard of practice guidelines /procedure manuals) were not visible, and these could serve as barriers to CQI activities as maintained by

- Meehan et al. (2009).
- ❖ There was also no evidence of availability of quality- care measurement indicators to ensure accountability and improve quality of nursing care, despite suggested literature (Campbell et al. 2003).
 - ❖ A structured, well-planned, established nursing audit and in-service education/continuing education units to promote CQI were also not apparent in spite of suggested literature (Ellis and Hartley 2000).

In the light of the above problems, the researcher proceeded to recruit research team/collaborators in the positions of principal, assistant chief and chief nursing officers to participate in the study. The team were thus selected because they were registered professional nurses in charge of wards with the vested responsibilities of ensuring that the junior nurses were adequately supervised to provide quality care to their patients. Based on the findings/**identification of gaps or problems** regarding the status of the CQI systems and evaluative measurement instruments in these hospitals, promising solutions were generated consequent to selecting one solution i.e. measurement tool among other problems identified from the survey. Action plan was created to develop or adapt a process-oriented measurement tool.

The research team made a choice to adapt only process standards/criteria because this was what nurses had control over. Nurses did not have control of the establishment of departments or units or infrastructures which constitute structure criteria. In addition to the above, outcome criteria depended greatly on process, and so there was a need to

establish process norms before establishing outcome norms.

Consequently, a mini tutorial was established to review scientific literature about nursing care measures. The researcher presented to the team the various types of established/standardised instruments for measuring the quality of nursing care. Discussions on these variants of measurement instruments progressed, taking cognisance of their advantages and disadvantages, as well as the suitability of these instruments for their settings. The research team were given copies of these established instruments to study and reflect upon, and then a collective decision was made to adapt one of the **process criteria-oriented instruments** for use to suit the individual hospital practices.

This decision to focus on process tools or indicators is supported by literature (Campbell et al. 2003) where these authors argued that process indicators are a primary object of quality assessment and improvement. One important goal during this cycle was to identify and define, in operational terms, the quality-care index. 'Bottom-up' model indicators were identified, monitored and evaluated by the professional nurses at the unit/ward level. This is supported by Harvey (1991) who asserts that the practitioners should be 'proactive' and not 'reactive' in the implementation of quality improvement processes.

The research team reviewed the MONITOR which is an anglicised nursing care measure, process-criteria oriented because these were the aspects they, the nurse managers had control over and could foster change. While reviewing the MONITOR, nursing care

activities there-in which were common practices in the individual hospitals were accepted and taken. The team accepted responsibility for those nursing care activities which should be standard, but were not maintained and promised to improve on those practices. However, those nursing care activities that could not apply to their settings were rejected. The essence of analysing the MONITOR (*qualitative data*) was to aid the appropriateness of the instrument to the respective hospitals. Again, major draw-backs were identified in the five participating hospitals during the review and analyses of the MONITOR instrument for adaptation and they include:

- ❖ Majority of the nurses in most of the hospitals (four out of five hospitals) did not record the patient's understanding of his/her illness on admission
- ❖ Ineffective and inefficient use of the nursing process, a framework for quality nursing care to include use of nursing care plans in these five participating hospitals
- ❖ Inefficient documentation of care and litigation as an implication

Nonetheless, most of the items in the instrument were adapted with the exception of a few items that could not be practicable in these settings due to unwritten hospital policies, administrative bottle-necks and bureaucracy beyond the powers of the nurse managers. The research team proceeded to *test* this newly adapted MONITOR in two acute care wards in three of the five participating hospitals. Seven participants who have part of the whole process from the onset, altogether recommended by their management from three of the five participating hospitals executed their **action plan by testing the adapted instrument for applicability in two acute-care wards of their respective hospitals.**

The team ascertained whether the newly adapted quality-care indicators suited the practice of their individual hospitals. The testing exercise was carried out on same day in different wards. Research team sought the cooperation of the ward leaders as well as the nurses and patients before putting the new tool into use. The team completed the measurement of quality-care using the adapted MONITOR within ninety minutes to two hours as consequences were observed. However, because of time constraints attributed to the period of this study, the researcher could not test for sensitivity to change as advocated by Campbell et al. (2003).

Furthermore, the participants **reflected** on the implementation of the adapted MONITOR tool and its effect as evident in some of their expressions during conversation e.g. ...It is a long awaited development..., It is amazing to observe that the tool is able to spell out the areas of strength and otherwise..., knowledge of nursing care measurement will be utilized on the wards...., Wouldn't there be need to increase the number of nursing audit officers for effective utilization of quality-care indicators?

The implementation of the adapted nursing measure was evaluated using questionnaires. Quantitative data was analyzed statistically & interpreted. Participants verified and discussed the findings and afterward reflected on the **empowerment and change** brought about by the action research process and future plans. The research team appreciated their collaborative efforts to improve practice in their respective settings.

RECOMMENDATIONS TO STUDY ACCORDING TO FRAMEWORK

Recommendations from this study are made as informed by findings and are presented as they relate to clinical nursing (practice), nursing management, nursing education, and nursing research.

Recommendations for Practice:

- ❖ This study has revealed the significance of the tool as commented by the research team during the reflection on the applicability of the newly adapted tool. Given the importance of ensuring that the public receives quality care, continuous quality improvement mechanisms/processes such as established quality-care indicators, structured nursing audit and In-service education units should be put in place and maintained in all secondary and tertiary health care facilities to promote quality improvement efforts.

- ❖ The newly adapted tool should be formally presented to the management by the nurse leaders of the participating hospitals. It should also be presented to the Nursing and Midwifery Council of Nigeria (N&MCN) and the Federal Ministry of Health by the researcher. Through the cooperation and collaboration with the stakeholders, the evaluative instrument for nursing care measurement and monitoring could be piloted and tested on a wider scale in other tertiary hospitals across Nigeria and subsequently utilised in health care facilities to promote quality nursing care. This recommendation derives support from Campbell et.al. (2003) who advised that it is essential amongst

others to consider the importance of considering the stakeholder's views /perspectives when developing quality care indicators.

- ❖ The importance of measuring quality of nursing care has been highlighted in this study. The value of measuring and monitoring the quality of nursing care should be embraced by all nurses; especially in the tertiary health care hospitals in Nigeria. Quality information obtained from the measurement of nursing care can be used to develop and implement staff development plans designed to address identified problems.
- ❖ Registered nurse managers should use these newly adapted nursing measures/ quality-care indicators as part of a performance-improvement activity to continually monitor and improve nursing care provided in acute-care health facilities.
- ❖ Since the literature suggests the use of scope of practice standards, to support practice, it is imperative for such a vital document as the standards of practice to be readily available in the wards of hospitals for practicing nurses to use as a guide, a standard for judgement, and as a reference document. This would afford the nurses the opportunity and the responsibility to refer to it; to know and work within its scope; to know which activities are not within their scope of practice and cannot be delegated by other healthcare providers. Standards represent best practices as a target to aim for, and they are a means to an end

and not an end in themselves. The availability of standards does not mean that the organisation is capable of reaching the target at once, but these are ideals that the organisation should work towards (Herman, 2007).

- ❖ The newly adapted tool is formatted according to the nursing process framework. Nursing process, a framework for practice, as well as a standard of care should be embraced, and its application should be emphasised, not only in tertiary healthcare services, but at all levels of health care.
- ❖ Despite the fact that the nursing process framework has been in place in Nigeria, it has still not been implemented or effectively utilised by participating hospitals which are tertiary healthcare institutions supposed to be models of emulation as far as nursing practice is concerned. The Nursing and Midwifery Council of Nigeria should organise a national workshop and/or refresher course on the concept of the nursing process to re-sensitise the nurses again about this phenomenon.
- ❖ Revelation of poor or inefficient documentation necessitates or warrants that nurses be reminded or made aware of the importance of documentation and implications of non documentation. This can be achieved through conference/workshops and presentation of litigation cases by the N&MCN. Nurses should keep in mind that nursing actions should be recorded immediately

to avoid errors and/or omissions; and that nurses are responsible for accurate, complete and timely documentation.

Recommendations for Management:

- ❖ In clinical nursing areas, nurse administrators can use these findings as benchmarks for other local hospitals and even at state and national levels

- ❖ Nurses need to ensure that quality patient care is being provided. The nurse-to-patient ratio should improve to 1:5 as suggested by the literature (McCutcheon, A., Macphee, M., Davidson, J., Doyle-Waters, M., Mason, S., & Winslow, W., (2006). However, this may be unrealistic because it may not be suitable for the local context of Nigerian nursing practice; even if currently in SW Nigeria, the ratio of nurse to patient is 1:10/15 (evident from the data) which is grossly undesirable. In the mid-point, one nurse to seven patients (1:7) may be realistic to the local context where there could be over-crowding of patients in hospitals and is therefore recommended. According to Needleman, Buerhaus, Stewart, Zelevinsky, and Mattke (2006), the growing body of evidence linking hospital forces to patient outcomes have suggested that one way to improve quality is to increase nurse staffing amongst things, including improving quality by equipping hospitals with new technology, investing in training and continuing education and imposing regulations that would promote or bring about adequate nurse staffing. Structure facilitates the process (Donabedian, 1982). It is suggested that structure standards be improved so the process (i.e. the tool) functions well. The researcher therefore recommends that adequate provision for human resources, equipment

and supplies, operational tools such as checklists for audit, protocol guidelines and algorithms are made.

- ❖ Now that the process standards have been secured through the adapted tool developed in this study, the researcher recommends that once the tool has been consolidated, the outcome standards be developed and utilized to evaluate the quality of care to tell the difference.

Recommendations for Nursing Education:

- ❖ The need to evaluate care should be instilled in training to promote accountability. Therefore, the concept of nursing care measurement should be integrated into the knowledge base of nurses. Nursing educators should ensure that the curriculum accurately reflects nursing care indicators and measurements.

Recommendations for Nursing Research:

- ❖ The researcher recommends that future research should include the two aspects of care processes that were not considered in the study due to time constraints.
- ❖ The use of research findings in practice should be promoted and encouraged. Major barriers to research utilisation, as itemised by Kajermo, Nordstrom, Krusebrant, and Bjorvell (1998) include the implementation of research

findings, the lack of competent colleagues with whom to discuss research findings; the lack of time for reading and implementing research findings; and nurses' lack of authority in the organisation which are all barriers which should be eliminated.

- ❖ Research orientation among nurses could also encourage use of findings from the audits as the developed tool would inform.

- ❖ Continuing research is needed to improve the quality of nursing care indicators and these measurements should be done collaboratively with the nurses, so that those (Nurses) who would own the findings can be motivated to implement them. This will also teach them research skills which will promote evidence-based practice. Testing the modified tool in the future with a larger population is also recommended.

In **conclusion**, the results of the study can be used in Nigeria and elsewhere, as a means to protect the rights of the patient by monitoring and measuring the quality of nursing care. As members of a profession, nurses will be able to take their place among other disciplines within the health care system that functions in the patient health review, only when they can identify deficits in patient health status through nursing activities such as measurement, monitoring and evaluation of care. To this end, development and the use of nursing capability to function in quality improvement deserve the highest priority in the nursing profession. Thank you!

Researcher: Patricia O. Onianwa. (Mrs)

School of Nursing, Howard College Campus,
University of KwaZulu-Natal,
Durban, South Africa.

Tel No: +234-80-23419107 (Nigeria)
+27-72-5305435 (South-Africa)

Email Address: patoboni@yahoo.com

ANNEXURE 7



15 August 2009

To whom it may concern

I Catherine Eberle, sole member of WordWeavers cc. am the holder of an MA (English) from University of Natal. I regularly edit both academic, corporate and publishers' material as part of my business.

I was approached to edit the doctoral thesis of Patricia Onianwa by the student and Prof Busisiwe Bhengu.

I have edited this thesis for grammar, spelling, language, punctuation and sentence construction to the best of my ability in the short time available.

I have produced an Error Report which the student needs to attend to in order to address additional errors or inadequacies which I found in the document relating mainly to format, content or referencing.

Yours faithfully

Catherine P. Eberle

