

**A QUALITY IMPROVEMENT TRAINING PROGRAMME FOR HEALTH  
PROFESSIONALS IN THE MINISTRY OF HEALTH AND SOCIAL  
SERVICES IN NAMIBIA**

**A DISSERTATION**

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## **DECLARATION**

I, Julia Paul Nangombe, hereby declare that this study is a true reflection of my own work, and that all the sources used have been acknowledged in the text and the list of references. The version of this work is an original work and has not previously been submitted in its entirety or in part for a degree at any other institution of higher learning.

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Julia Paul Nangombe

Date: \_\_\_\_\_

## **DEDICATION**

This study is dedicated to my husband, Otto, and my children, Elisabeth, Vanessa, Londeleni, and Sheya.

This study came to fruition as a result of your prayers, patience, courage, and continual serenity that instilled peace and calm throughout my pursuit of this Doctoral training programme.

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## **ABSTRACT**

A quality improvement training programme is important to address the challenges that the health professionals are facing in their quest for quality health care delivery. In Namibia, most health care facilities have not been yielding good results in response to patients' health care needs. Health care dynamics are complex and inundated with several factors; among others new methods, speed of improving medical science and technology, as well as increasing demands of the clients to address emerging and re-emerging diseases. Health professionals are often criticised for unsatisfactory results due to several challenges sometimes beyond their capacity and knowledge to mitigate and manage. The difficulties experienced cannot be ignored, since there is no specific quality improvement / management training programme to prepare health professionals. Without appropriate training and empowerment of health professionals, health care delivery would continue to yield unsatisfactory results. Thus quality improvement training programme seeks to empower health professionals with knowledge, skills, and aptitudes with the aim of enhancing quality health care delivery.

The nature of this study required a clear paradigmatic perspective thus constructivism and interpretivism approaches were adopted. Assumptions such as ontological, epistemological, axiological, methodological and rhetorical were used. Further Practice theory of Dickoff (1968), programme development by Van Niekerk; Kolb's theory of experiential learning, Deming's model of quality improvement, quality improvement management policy of the MoHSS and Centre for disease control (CDC) framework for programme evaluation in public health formed a theoretical basis of the study. The research process was carried out in five phases:

**Phase 1:** A mixed method which is a quantitative, qualitative, exploratory, descriptive, and contextual was used. This was done to achieve the objective one (1) and two (2) as part of situational analysis (phase 1).

*Objective 1:* A checklist was used in order determine the present situation of quality health care / service delivery at health care facilities. The target population were the managers in leadership positions, such as deputy permanent secretary, undersecretary, directors, pharmacist, medical superintends, principle medical officers, health programme officers, matron senior officers and others. A total of twenty-one (n = 21) participants which purposively selected comprised of managers in leadership (n = 6) from the MoHSS head office, while (n = 15) were drawn from the health facilities in the Khomas, Kunene, Erongo and Omusati regional health directorates. A part from the demographic data, participants were given opportunity to rate themselves on Likert's scale with scores ranged from strongly disagree; disagree, agree and do not know on the following variables such policies and guidelines; leadership; human, physical, material and financial resources; patient safety, information as well as monitoring and evaluation. Further participants were given a statements of "yes", "no" and don't know on research ethics and utilization of data. SPSS software was as used tool for data analysis. Data were presented in percentage, figures and tables. To ensure reliability, items in the checklist were tested using the Cronbach alpha coefficient for multiple items measured on the Likert's scale. It was indicated that the items from 1-40 provided a value of 0.95 while the rest of items (measures) was 0.88. For validity, content, criterion and construct were used. The findings of this objective revealed some ambiguities in the availability of policies and guidelines, leadership to facilitate

care delivery, health system infrastructure, patient safety, as well as research and information to facilitate quality health delivery.

*Objective 2:* Concentrated on the exploration and description of the experiences of managers in leadership positions and health professionals with regard to quality health care / service delivery at health care facilities. Individual interviews (n = 12) from twenty-one managers in leadership position, as well as focused group discussions (n = 5) that consisted of eight participants for each FGD were implemented. In addition, field notes were conducted. Participants in the FGDs were 40 from health facilities in the above four regional health directorates as indicated above. The regions were selected based geographical location, population density and services delivery namely referral, intermediate and district hospital. Participants were purposively selected. To achieve that exclusion and inclusion criteria were used. Both individual and FGD data were collected until saturation. Data from the transcription of the recorded audiotapes and field notes were analysed using Tech' steps methods. Independent coder assisted with coding of the results. Various reasoning strategies such inductive, deductive, inferences, reflective and bracketing not only in this objective were used. Five themes and 13 sub- themes were identified that were a basis for the development of the educational programme for health professionals. The themes revealed that the participants' experienced unavailability of guidelines and structure to facilitate QI and QA; inadequate management of resources; inadequate interpersonal relationships amongst the health workers; an inadequate understanding of QI and QA; as well as poor research and information, monitoring and evaluation, and indicators of monitoring and evaluation.

**Phase 2:** The Practice Oriented Theory of Dickoff (1968) was used as practical guidelines to develop the conceptual framework. This framework was employed during the **research** and the **educational programme development** process. During the research process, the agent was the researcher; recipients (Managers / leadership and health professionals); the context (MoHSS head office and healthcare facilities); dynamics (findings for objective one and two); Procedure (research process) and terminus (foundations for development of educational programme).

For the educational programme developing process, agent (quality specialist), recipients (health professional), context (health facilities), procedure (training programme for health professionals), dynamics, (challenges hampering successful implementation of the programme) and the terminus (knowledge, skills and abilities acquired through the training programme).

**Phase 3:** During the development of the quality improvement training programme, an adopted version of two main theories was used. The most prominent one was a model by Meyer and Van Niekerk (2008), which was adapted to guide the process of developing the training programme. While Deming's PDSA model of quality improvements well as quality improvement policy of the MoHSS focused on the content to enhance the findings. Further, Kolb's experiential and Knowles adult learning theories were used to facilitate the teaching and learning process. The educational programme included the name, purpose / aim, objectives, structure / design, facilitation process, implementation process, and evaluation of the programme this was done inline n with Namibia Qualification Authority (NQA) framework.

**Phase 4:** This phase, focused on developing the guidelines for implementing based on UNFPA while the evaluating the training programme were done in line with CDC framework. These guidelines outlined the process, activities, and elements required for implementing as well evaluating the educational programme for health professionals in Namibia.

The study achieved trustworthiness by applying the criteria of dependability, transferability confirmability and credibility (Guba & Lincoln, 1994; Babbie, 2008; Lincoln & Guba 1986; Schwandt, Lincoln, & Guba 2007).

Based on the study findings, it was clear that a need existed for a quality improvement training programme to empower health professionals with knowledge, skills, and aptitudes (KSAs) in quality assurance standards and quality improvement processes to facilitate quality health care delivery at the health care facilities (MoHSS). Specific recommendations of the study were highlighted with reference to the responsibilities and roles of different stakeholders for the successful implementation of the programme, as well as the purpose of improving quality health care goals in the MoHSS. The management, health professionals, education, profession of quality improvement, and research have vital roles in contributing to the sustainability of the training programme.

## **LIST OF ABBREVIATIONS**

AG	Auditor General
AHRQ	Agency for Healthcare Research and Quality
AIDS	Acquired immune deficiency syndrome
ARV	Antiretroviral
BP	Blood pressure
CAT	Classroom assessment techniques
CAT	Computerised axial tomography
CDC	Centre for Disease Control
CM	Change management
CM	Cognitive map
CMS	Central Medical Store
COHSASA	Council for Health Service Accreditation of Southern Africa
CPD	Continuing professional development
CQI	Continual quality improvement
EBM	Evidence-based medicine
EBP	Evidence-based practice

ED	Emergency Department
EPI	Expanded Programme on Immunization
ESW	Evaluation stakeholder workgroup
FDs	Family doctors
FGD	Focus group discussion
GP	General Practitioner
HIS	Health information system
HIV	Human immunodeficiency virus
HP	Health professionals
HPCN	Health Professionals Council of Namibia
HRIS	Human resource information system
HRM	Human resources management
HRSA	Health Research and Service Administration
HW	Health workers
IDI	In-depth interview
ILO	International Labour Organisation
IoM	Institute of Medicine

ISO	International Organisation for Standardisation
JEG	Job Evaluation and Grading
KM	Knowledge management
KSAs	Knowledge, skills, and aptitudes
M&E	Monitoring and evaluation
MO	Medical officer
MoHSS	Ministry of Health and Social Services
MRSA	Methicillin-resistant Staphylococcus aureus
MSH	Management Sciences for Health
NGO	Non-Governmental Organisation
NHS	National Health Services
NID	National Immunisation Day
NLIAH	National Leadership and Innovation Agency for Health
NMC	Nursing Midwifery Council
NQA	Namibia Qualification Authority
NQF	National Qualification Framework
OMAs	Organisations, ministries, and agencies

OPD	Outpatient department
OPM	Office of the Prime Minister
PA	Performance agreement
PAM	Patient Activation Measure
PDSA	Plan-Do-Study-Act
PHC	Primary health care
PLWHA	People living with HIV / AIDS
PMTC	Prevention of mother-to-child transmission
QA	Quality assurance
QCG	Quality competency gaps
QHC	Quality health campaign
QHCD	Quality health care delivery
QI	Quality improvement
QIEPH	Quality Improvement Educational Programme for Health Professionals
QITP	Quality improvement training programme
PSC	Public Service Commission
RMT	Regional management team

RPL	Recognition of prior learning
SBU	Strategic business unit
SOP	Standard operating procedures
SWOT	Strengths, weaknesses, opportunities, and threats
TQM	Total quality management
U.K.	United Kingdom
U.S.	United States
U.S.A.	United States of America
UNAM	University of Namibia
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific, and Cultural Organisation
UNFPA	United Nations Population Fund
WASCOM	Wage and Salary Commission
WCH	Windhoek Central Hospital
WFME	World Federation for Medical Education
WHO	World Health Organisation
WISN	Workload Indicator of Staffing Needs

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## CHAPTER 1

### INTRODUCTION AND BACKGROUND OF THE STUDY

#### 1.1 INTRODUCTION AND RATIONALE

Quality improvement (QI) training refers to any activity that explicitly aims at teaching health professionals about methods that could be applied to analyse and improve quality health care (The Health Foundation, 2012). A QI training programme would equip and empower health professionals with skills and competencies to improve health care delivery and meet the increasing demands of the patients. The need exists in health care “...to provide appropriate training and continuous medical education programs, the aptitude to learn from failure and to be pro-active in the risk assessment” (Casali, Marraro, Spada & Steffano, 2013). “...[T]here is a responsibility on healthcare providers to deliver high quality education and training not just for their students but for all their staff in order to ensure high quality and safe patient care” (Department of Health, 2013).

Health care systems are becoming more complex with paradoxical challenges resulting into inefficiencies due to ever increasing science and knowledge in medicine, which makes it difficult to internalise and understand, as well as to implement certain procedures (Casali *et al.*, 2013). On the other hand, health professionals seem to be blamed and humiliated due to contradictions and disputes that leads to less improvement in quality health care while hampering “...innovation to improve the quality of care and health outcomes” (Towne, Solovy & Hoppszalern, 2006). Research indicates that health care systems in both developed and developing countries seem to

lag behind, consistent with preventable medical errors and sluggish methods that are often blamed upon health professionals (health providers) (Leape, 1994). Research indicates also persistent variations in the degree of providing care resulting in unpleasant results, inefficiencies, constant mistakes, unacceptable services, and poor health care outcomes. Aasland and Forde (2005) attest that at times the consequences of mistakes and errors during treatment and care are borne by the health professionals who suffer the blame and humiliation from their patients and family members. While “...the full responsibility for quality lay beyond individual physicians’ immediate reach, requiring organizational action” (Towne *et al.*, 2006). “...[W]e need to turn our cultural approach to recognize that bright, well-educated, skilled and well-intentioned professional will make errors” (Casali *et al.*, 2013). Unless they are continually equipped and capacitated with the appropriate knowledge, skills, and aptitudes to perform their duties effectively and efficiently.

Although quality health care has been part of national policy frameworks and standards that guide the provision of health care and services, at the time of this study health care facilities were not yet accredited to measure and benchmark the provision of quality health care delivery and sustainable improvement, as well as operate under prescribed quality standardised measures at health care facilities. The findings of this study indicated that not even one facility could meet the criteria for accreditation, which was assessed by the Council for Health Service Accreditation of Southern Africa (COHSASA) in 2013. In comparison, most hospitals in Europe are accredited and operated according to the International Organisation for Standardisation (ISO) that has

specifically developed several indicators and guidelines that are used at those hospitals to design quality management systems, quality assessment, and accreditation.

Øvretveit (2003) outlines several strategies that measure the processes, patient satisfaction, team building, capacity development, and health care outcome, among others “...quality management system, Total quality management (TQM), quality assessment and accreditation”. TQM uses a systematic and consistent approach to keep improving and satisfying the needs of the clients. It is one of the best “...[s]tructured organisational process[es] for involving personnel in planning and executing continuous flow of improvement to provide quality health care” (McLaughlin & Kaluzny, 2006). Although TQM and QI principles seem widely accepted, their implementation is still modest at Namibian health care facilities while these principles mostly remain concentrated in developed countries. This could be one of the difficulties to completely understand and apply the methods in different health care contexts.

Given diverse challenges faced by the health care facilities and technical aspects involved to adopt the methods, the implementation of a QI training programme may require a lot of commitment and support. Firstly, rigorous collection and interpretation of information to generate reports might be slow, especially in the rural areas where public health care facilities may not have adequate equipment and enough skilled personnel. Secondly, health professionals might view a high level of involvement and commitment as an additional burden on their workload. Thirdly, quality needs to be part of the daily actions and behaviour of both health care providers and patients. It requires a particular mind set to understand the roles of improving health care services.

For QI to be successful at health care facilities, several factors need to be enhanced; such as understanding policies and standards, adequate resources, infrastructure, research and information to generate evidence for quality planning, and decision making (World Health Organisation, 2003).

Research indicates that TQM and continual quality improvement (CQI) principles can be applied to strengthen a health system to improve its quality (Coulter & Magee, 2003). This could be particularly useful in Namibia where people demand basic services and the health service users raise their issues with the Ministry of Health and Social Services (MoHSS). It becomes essential to ascertain the extent to which health care facilities have responded to this call. Against this background, it is important to analyse the responses to QI and QA and how it could be used to develop a framework for quality health care delivery at the health care facilities in Namibia.

The main focus of this study was to develop a training programme to empower and equip health professionals with the right knowledge, skills, aptitudes, and behaviour to apply the methods and techniques of quality assurance with the purpose of improving quality health care delivery.

## **1.2 BACKGROUND TO THE PROBLEM**

The MoHSS in Namibia has prioritised the training of health professionals; however, 37% of health professionals indicate that no formal programme is in place to empower health professionals to improve quality health care delivery at the health care facilities (MoHSS, 2014). Health care facilities can no longer remain static given the increasing demand and public pressure to improve quality health care (MoHSS, 2013). The

National Quality Management System Report has pointed at the burden of staff shortage as one of the reasons for transferring some functions to inexperienced health personnel, at least one person (15.4%) out of the staff complement at a health care facility, since the remaining staff members had to attend to long queues with no time to focus on quality (MoHSS, 2014). Most health care systems have existing quality assurance (QA) standards but often these standards are not properly followed to respond to the needs of the clients (WHO, 2000). On the other hand, absence of rewards and a recognition system seem to contribute to poor quality health care delivery by the MoHSS. At the time of this study, there were no effective strategies to retain or attract health professionals to the public health sector. More than sixty per cent (62.5%) of staff members at the assessed health care facilities indicated that staff recognition was only informally done by immediate supervisors but no incentive strategies existed to recognise good performance with the purpose of improving the quality of health care. The result of "...poor performance is few staff or staff not providing care according to standards and not being responsive to the needs of the community and patients" (WHO, 2006).

In Namibia, QA and QI activities depend to a large extent on effective management of resources (human, physical infrastructure, and finance). In addition, the components of quality health care and services are largely dependent on accessible health care and services to those people who need it. Offei, Sagoe, Owusu Acheaw, Doyle and Haran (2004) explain that a number of quality health care components influence the access and provision of health care and services. For example, access to quality health care

can be used as an indicator for the ability of individuals to obtain health care and services.

Technical competencies are another aspect that empowers health professionals with adequate knowledge, skills, and aptitudes to provide excellent and professional care and services. Secondly, it facilitates the functions proficiently according to the standards of quality health care services. Hence, health professionals need to be empowered in order to provide the type of care that produces positive change in the patients' health or quality of life.

The Ghanaian Ministry of Health has prioritised a similar initiative to improve the quality of health services since 1989 and the country has been making advances to increase service coverage but their efforts have not yielded the anticipated improvements in health status; the quality of health services has actually declined (Whittaker, Lynam, Burns & Doyle, 1998).

Furthermore, increasing reports of irregularities and dissatisfied patients about the Ghanaian health system continue to surface in both electronic and print media in Namibia due to "...uneven health care quality, bad interpersonal relations and poor communication between health care providers and clients, mistreatment and missed-treatment" (McLaughlin & Kaluzny, 2006). Similarly; Meyer, Carroll, Kutyla, Stepnick and Rybowski (2004) and Lynn, Baily, Bottrell, Jennings, Levine, Davidoff, Casarett, Corrigan, Fox, Wynia, Agich, O'Kane, Speroff, Schyve, Batalden, Tunis, Berlinger, Cronenwett, Fitzmaurice, Dubler and James (2007) point out that the "...United States health care system consists of preventable errors, unnecessary

surgeries and inappropriate use of medications, procedures, misuse and underservices”. In Namibia, the “...public health facilities are described by the public and health professionals to be below standards, overcrowding at outpatient department (OPD), long queues and long waiting times, as indicators of poor quality patient care” (MoHSS, 2013). These and other problems raise serious concerns, which necessitate immediate actions to adopt appropriate methods to improve health care services.

In context of quality management policy and positive improvement in the area of the HIV / AIDS programme in the MoHSS, there have not been comprehensive approaches to assist and empower health professionals with the necessary competencies to provide quality care at the health care facilities. At the time of this study, the focus of the health facilities was neither on systematic checks, safety controls, nor on significant activities on quality assurance training programmes. Other quality control mechanisms were scattered under different directorates.

On a policy framework, the Namibian Public Service Charter (2008) outlines the principles that guide the actions of the public servants. Despite efforts, there seems to be no significant or deliberate underlying structure to constantly insist on holistic quality care measures. Consequences would include poor performance, ineffective communication, inappropriate systems, as well as demotivated and dissatisfied staff members and patients. Extreme risks may include escalating diseases, social problems, and a fragile health care system. Although the MoHSS has endeavoured to reorganise and restructure some functions, no tangible results seem to focus on quality improvement at the public health care facilities. The main focus seems to be increasing the numbers of personnel to respond to emerging and re-emerging diseases and

additional services. Countrywide, this approach has little or insignificant consideration for addressing quality care at the health care facilities. Often, public health care facilities are perceived as not performing and irresponsible to patient needs. Inappropriate methods, weaknesses, and negligence may result in a loss of lives due to ineffective practices and measures. "...[D]eficiencies in quality of care represent neither the failure of professional compassion nor necessarily a lack of resources rather a result from gaps in knowledge, inappropriate applications of available technology" (Murray & Frenk, 2000), or the inability of organisations to change (Berwick, 1989). The absence of strong leadership and partnership may also jeopardize an effective and timely response to patients' needs. At the time of the study, there seemed to be no appreciation or persuasion of quality approaches to help leaders and employees address quality care problems at the health care facilities. Research presents several models applicable to the health care environment but few or nonspecific studies are focusing on quality improvement at public health care facilities in Namibia. Without a common understanding of quality improvement principles and the value of health care realities, patients' care might be compromised. A need exists, therefore, to (a) broaden the knowledge about quality improvement; (b) assist managers, employees, and patients to appreciate quality improvement models; (c) apply practical tools or techniques to improve quality care; and (d) encourage active participation and involvement of all stakeholders in quality health care delivery. The main focus of this study was to develop a quality improvement training programme, which focused on a situation analysis to understand the approaches on QI and QI to improve health care and service delivery.

### 1.3 CONTEXT OF THE STUDY

Namibia has a total area of about 824 000 square km and population of 2.1 million inhabitants. Despite the expanse of land, few areas are densely populated due to its harsh weather conditions. The country is semi-desert and semi-arid or dry land with a low rainfall except in parts of the eastern regions. Namibia is located in the southwestern part of the southern hemisphere bordered by Angola (north), South Africa (south); Botswana (east); Zambia and Zimbabwe (northeast) and the Atlantic Ocean to the west. The country has 14 demographic regions, which were recently re-demarcated after the study had been conducted.

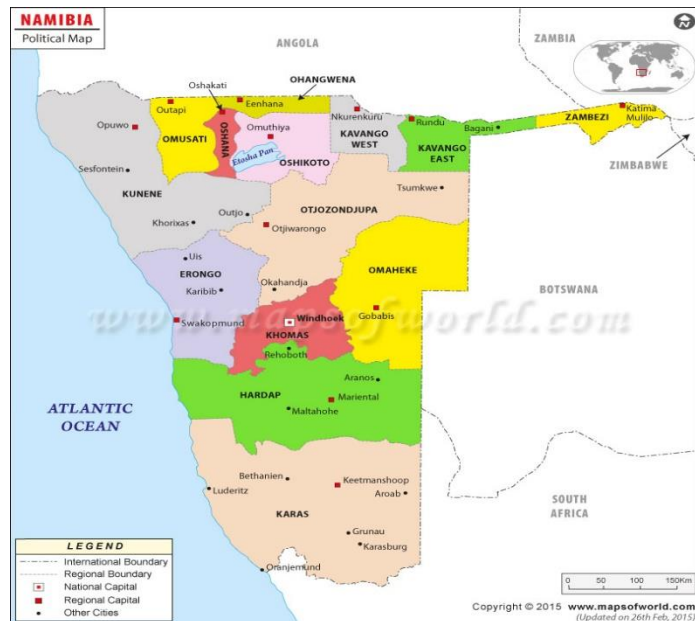


Figure 1.1: Map of Namibia

Source: <http://www.mapsofworld.com> (2015)

The study was conducted at the health care facilities of the MoHSS, since the public sector entity is entrusted with providing quality health care and social services in Namibia. These identified facilities were one referral hospital (Windhoek Central Hospital), the Katutura Intermediate Hospital, the Swakopmund District Hospital (Erongo), the Kamaku District Hospital (Omusati), and the Opuwo District Hospital (Kunene). These regions were purposely selected based on the geographical location, population density, and differences in terms of the remoteness between the regions.

The provision of health care and services in the MoHSS is controlled at a national level and consists of the head office (management and administration), three referral and two intermediate hospitals, and 29 district hospitals that provide institutional medical and nursing care; such as preventive, promotive, primary, and secondary curative care. The 13 Regional Directorates administer the 34 health districts responsible for primary health service delivery by providing technical and referral support to 44 health centres, 269 clinics, and approximately 1 150 outreach points (MoHSS, 2009). The central level consists of eight directorates that are responsible for policy formulation, regulation, planning, management, as well as development and support services. These directorates are the Directorate of Primary Health Care; the Directorate of Special Programmes; the Directorate of Developmental Social Welfare Services; the Directorate of Tertiary Health Care and Clinical Support Services; the Directorate of Policy, Planning, and Human Resource Development; the Directorate of Human Resource Management and General Services; the Directorate of Finance and Logistics; and the Directorate of Atomic Energy and Radiation Protection.

This study was conducted in the Khomas in Windhoek, Erongo Swakopmund, Kunene Opuwo, and Omusati regions. The researcher selected these regions purposive based on their geographical location in the country and the densely populated nature of these regions, since they represented the highest number of patients at the public health care facilities.

#### **1.4 STATEMENT OF THE PROBLEM**

Quality improvement training programme might not be new in health care system however, there seems to be scanty or inadequate training to empower health professionals to understand the principles and methods to meet the expectations of the patients and families within the health facilities in MoHSS. This study took cognisance of QA and QI standards and processes in the health care, and in general health care systems of both developing and developed countries in the midst of serious quality problems owing to the inability to respond to health care needs and patient safety. For example, recent developments in Ghana, America, Britain (National Health Service, 2006).

Namibia emphasise the need for quality improvement in health facilities with the purpose of reducing errors in medical care while facilitating quality health care delivery. This sentiment is supported by the Agency for Healthcare Research and Quality (AHRQ) (2002) that research has even documented several quality problems of variations and disparities in services; such as underuse, overuse, and misuse of services.

These problems might be especially hastened by increasing health care demands and knowledge obsolescence, which require learning new methods to improve quality health care services. “Multiple innovations in therapy and technology, [a] fast increase in sciences and medicines, new substances [sic] procedures, electronic devices or robotics has [sic] increased diagnostic capabilities and other range [sic] of possible interventions” Sottas, Höppner, Kickbusch, Pelikan and Probst (2013).

These developments prompt the need for an educational training programme to update the knowledge, skills, aptitudes to respond to health care demands. In Namibia, a quality improvement training programme seems to be the best option to address quality health care issues; more especially when the MoHSS has planned a new direction in quality improvement and quality assurance to promote quality health care delivery. However, these endeavours are moderately or inconsistently pursued to empower health professionals at the health care facilities. According to the National Leadership and Innovation Agency for Health (NLIAH) (2008), most health systems face challenges in providing high quality patient care to meet health care needs. A study by the Partners for Health Reformplus (2005) concurs that “...[c]linical practice does not meet national standards; there is low satisfaction of both employees and patients, as well as inefficient use of resources”.

Research has even emphasised that health professionals need to be constantly involved in acquiring knowledge, skills, and aptitudes that would enable them to apply new methods to providing quality health care that meets the health needs of their patients (Agency for Research and Quality (AHRQ), 2005). Although health care facilities strive to achieve quality, there seems to be inadequate quality improvement

programmes that could guide and prepare health professionals in their quest to provide quality health care delivery.

Furthermore, over the past years, there have been growing frustrations and a priority to focus on QI and QA approaches in the MoHSS with the result that little improvement would be achieved without a proper understanding of the conceptual framework at all operational levels (MoHSS, 2014). Unless health professionals understand the principles of quality improvement and quality assurance, health care services will remain compromised. Several complaints about mistakes and errors appear in daily print and electronic media and serve as an indication of poor results and an inability to meet patients' health needs.

It seems there are unexplored perspectives that are needed to understand the conceptual framework and the application of quality improvement methods towards safe, effective, efficient, and timely health care services. Hence, there is a need to develop a quality improvement educational programme to facilitate quality health care delivery at the health care facilities.

## **1.5 AIM OF THE STUDY**

The aim of this study was to develop a quality improvement training programme for health professionals that focus on quality health care delivery at the health care facilities in Khomas, Erongo, Kunene and Omusati Regions.

## **1.6 OBJECTIVES OF THE STUDY**

The study objectives were to:

- analyse the present situation of quality health care / service delivery at health care facilities;
- explore and describe experiences of manager in leadership positions and health professionals with regard to quality health care / service delivery at health care facilities;
- describe a conceptual framework for the development of a training programme for health professionals to facilitate quality health care / service delivery at health care facilities;
- develop a programme for health professionals to facilitate quality health care / service delivery at health care facilities;
- describe guidelines for the implementation and evaluation of quality health improvement training programme for health professionals at health care facilities.

## **1.7 SIGNIFICANCE OF THE STUDY**

The study would provide knowledge, skills, and aptitudes in QI and QA to enhance health care and service delivery. The study aims at developing a training programme to empower health professionals with knowledge, skills, and aptitudes (KSAs) about QI and QA. This study is important to empower health professionals and managers with knowledge, skills, aptitudes, and attitudes to enhance quality health care delivery and meet the aspirations of the clients. A QI training programme would assist health professionals such as medical doctors, nurses, pharmacists, social workers and others to reflect on their actions and behaviour during care and treatment, especially when presented with practical tools and methods, such as the Plan-Do-Study-Act (PDSA)

model by Deming, (1994) which is applicable to any organisation, including health care facilities. It seems overwhelming to apply the increasing demands and changes in medical technology in order to meet the expectations of clients. Moreover, there seem to be no framework or programme with the specific focus of providing capacity on quality improvement at the health care facilities in Namibia. The study findings might help health professionals to reflect on their actions and examine whether health care adhere to QI "... [p]rinciples of client focus, responsive systems, effective processes and teams" (U.S. Department of Health and Human Services, 2011). QI emphasises that "...[a]n effective QI program focuses also requires change in an organisation's culture and infrastructure to overcome the traditional barriers and works toward a common goal of quality".

## **1.8 PARADIGM PERSPECTIVES**

A paradigm is a model of framework for observation and understanding that shape the thinking through what we see and how we understand it (Polit & Beck, 2012; Babbie, 2008). Paradigm may be referred also as structures or lenses by which researchers frame their thoughts about phenomenon around them. This study adopted a positivistic and interpretivist approaches.

A Positivistic is an approach that value objectivity, whereby a researcher is independent from those being researched (neutral stance), it beliefs in cause and effect relationships, as well testing the theory or hypothesis (Holloway & Wheeler, 2002; Polit & Beck, 2012). Quantitative research method of self-administered checklist was used to analyse the present situation of quality health care and service delivery in the

health facilities. On the other hand, interpretivism is an approach that uses careful collection and analysis of qualitative materials that are narrative and subjective in nature (Polit & Beck, 2012).

An interpretivist approach was adopted, since it involved participants in defining the meanings of concepts related to their experiences at the health care facilities. The study was based on the specific information that was accepted as true, as obtained from those who lived the experiences of challenges and constraints of providing quality health care at the health care facilities. Research emphasises that "...[t]he central tenet of interpretivism is that people are constantly involved in interpreting their ever-changing world" (Williamson, 2006). Qualitative methods of individual interviews and FGDs were used to explore and describe the experiences and views of managers in leadership positions and health professionals with regard to quality health care and service delivery in the health facilities (context under study). To achieve this, the following assumptions, such as ontological, epistemological, axiological, methodological and rhetorical were used, as discussed below.

### **1.8.1 Ontological assumptions**

Mouton and Marais (1996), and Polit and Beck (2012) refer to ontology as the social context and existence of the real world in which research is being conducted and the interpretation of reality as understood by the participants. In this study, these assumptions were used to determine the phenomenon under study based on the respondents' ideas and experiences in their own environment (Crotty, 2003). Guba and Lincoln (1989) state that ontology tries to answer questions like: what is there that can

be known?”. Just like epistemology, it is also referred as metaphysics that focuses on the understanding of the existence of living things (being) and their characteristics (Jackson, 2007).

Ontological assumptions in this study were used to understand the situation within the context through gauging the experiences and actions of managers and health professionals about their day-to-day activities. The researcher understood that the context (environment) investigated consisted of health professionals, managers, and patients who had different ideas, experiences, thinking, and meaning about reality. To understand the behaviour, thoughts and perceptions of individuals both quantitative and qualitative research methods were used through a checklist, individual interviews and focus group discussions. A mixed method, such as self-administered checklist, interviews, field notes, voice recording, verbal and non-verbal forms of communication were used to understand the context of health care facilities regarding QI and QA. Qualitative research methods have enabled the researcher to be in close contact with the respondents and capture their moods through facial expressions, body movements (lifting of hands and shoulders), which conveyed some emotional feelings, as described in Chapter 3. Similarly, quantitative approach provided descriptive statistics to determine the value of the findings based on percentages representing the reality of the situation under study.

### **1.8.2 Epistemological assumptions**

Epistemology is the study of knowledge and justified belief” (Encyclopaedia of Philosophy, 2005). It refers to “...a way of understanding and explaining how we

know what we know” (Ahmed, 2008). Mouton and Marais (1996) state that the suppositions of social science and systematic research are the search for truth based on valid findings. In this study, the findings were obtained from managers and health professionals who shared their experiences and views in the real environment they worked in. These assumptions emphasise the view that all knowledge and the meaningful reality is contingent upon human practices, being constructed in and out of interaction between human beings and their world and transmitted within the social context” (Crotty, 2003; Creswell, 1994; Culbertson, 1981).

### **1.8.3 Axiological assumptions**

Axiology is considered as “the science of *value*” (Hartman, 1999) and *ethics* that are adopted to guide research principles and respect the rights of subjects. “Ethical issues in research include codes of conduct that are concerned with protection of research from physical, mental, and / or psychological harm (Chilisa, 2005 in Ahmed, 2008). Babbie (2008) adds that “...ethics is typically associated with morality and both deal with matters of right or wrong”. The study adhered to the ethical obligations by following the research protocol according to the guidelines of the MoHSS and the University of Namibia, based on the process followed during research approval by both institutions. Although the objectives of research in health care are mostly to improve the social well-being of the clients, researchers should adhere to ethical guidelines, principles of justice and beneficence so that human subjects are protected all times.

In order to adhere to research protocols and ethical standards, the following obligations and steps were considered: Respect for participants' privacy, confidentiality, rights to withdraw from a study, and anonymity. Before this study commenced, the ethical aspects of the research project had been explained to the participants, as described below.

**Informed consent:** Prior to each interview and focus group discussion, as well as administering a checklist, the researcher informed the participants about the purpose of the study, the methods of data collection, approval of the study by the research ethical committees of the MoHSS and the UNAM. Each participant signed a written letter of consent, which informed them about voluntary participation and their right to withdraw at any point of the study. The participants were also informed that there were no rewards or incentive for participating in the study. Babbie (2008) states that the importance of obtaining verbal or written consent from participants in a research study to remove any form of force or coercion to persuade people to participate in a study.

**Protection from harm and risk:** In this study, the researcher ensured that to the research study neither caused any harm or risk to participants, nor forced them to participate or provide information that would cause physical or emotional harm. No participants were exposed to physically or psychologically harmful situations during their participation. Babbie (2008) states that "...harm may include emotional or psychological distress, as well as physical harm".

**The right to privacy, confidentiality, and anonymity:** Health care deals with sensitive information about patients' illness that are often restricted or confidential.

Sometimes, access to such information may violate people's rights or cause harm that might result in emotional or physical damage. In this study, participants were informed that no information would be related to individuals' names or identity. The study ensured total anonymity through non-identification of names in the process of data collection and analysis. The researcher clarified that the information from the interviews and group discussions would only be analysed by the researcher and kept confidential. During the focus group interviews, participants were allocated number from 1 – 10, which they used to participate in the discussion that were voice recorded.

#### **1.8.4 Methodological assumptions**

The study adopted a constructivism and positivism approach. A mixed methods of quantitative and qualitative, explorative, descriptive and contextualised approaches were used. In this study, the research methodology served as a roadmap that explained the approaches, conceptual framework used in developing the training programme, as well as the data collection and analysis methods of the study. The methods employed in this study were based on quantitative and qualitative approach. The research instruments used in this study were the checklist that consisted of structured closed-ended questions, interviews and focus group discussions to solicit and understand the experiences in relation to quality health care service delivery.

Research methodology "...is defined as the logic of the application of scientific methods to the investigation of a phenomenon" (Mouton & Marais, 1996). Methodology is "the strategy, plan of action, process or design lying behind the choice and use of particular methods and linking the choice and use of the methods to the

desired outcome” (Crotty, 2003). Kielmann, Cataldo and Seeley (2011) state that anthropological methodology, unlike epidemiological research, focuses on social institutions (norms and rules) that govern people’s lives; processes and structures to understand how people communicate and interact; sharing experiences, knowledge and meaning, and on the explanation and rationale that justify their decisions and actions.

### **1.8.5 Rhetorical assumptions**

The Oxford Dictionary (2009) defines rhetoric as the art of effective or persuasive speaking or writing, especially the exploitation of figures, speech and other compositional techniques. Rhetoric is also referred to as the ability to communicate fluently, use of clear and concise language that is understandable to the audience. It is referred as the art of expression and eloquence, oral and written text that persuades the reader to understand the communicated information without any doubt or questions. According to Woods (2006), there are different forms of writing to convey the information to the reader, for example atmosphere, feelings and emotions or to re-create people’s experiences, etc. In this study, the information was presented in such a way to answer all the questions that the readers might want to ask. Rhetoric was employed in this research study by the use of simple language, well-organised flow of thoughts, clear style, and persuasive language to communicate the information about the findings of the study.

The researcher developed her own style based on the views of managers in leadership positions and health professionals in the MoHSS with the aim to produce a quality

piece of academic work. The researcher had to read and re-read the text more than 10 times to clarify the purpose of the study and avoid ambiguous concepts. The structure or format of report was organised into closely related sections with the purpose of indicating and explaining the findings for both quantitative and qualitative approaches.

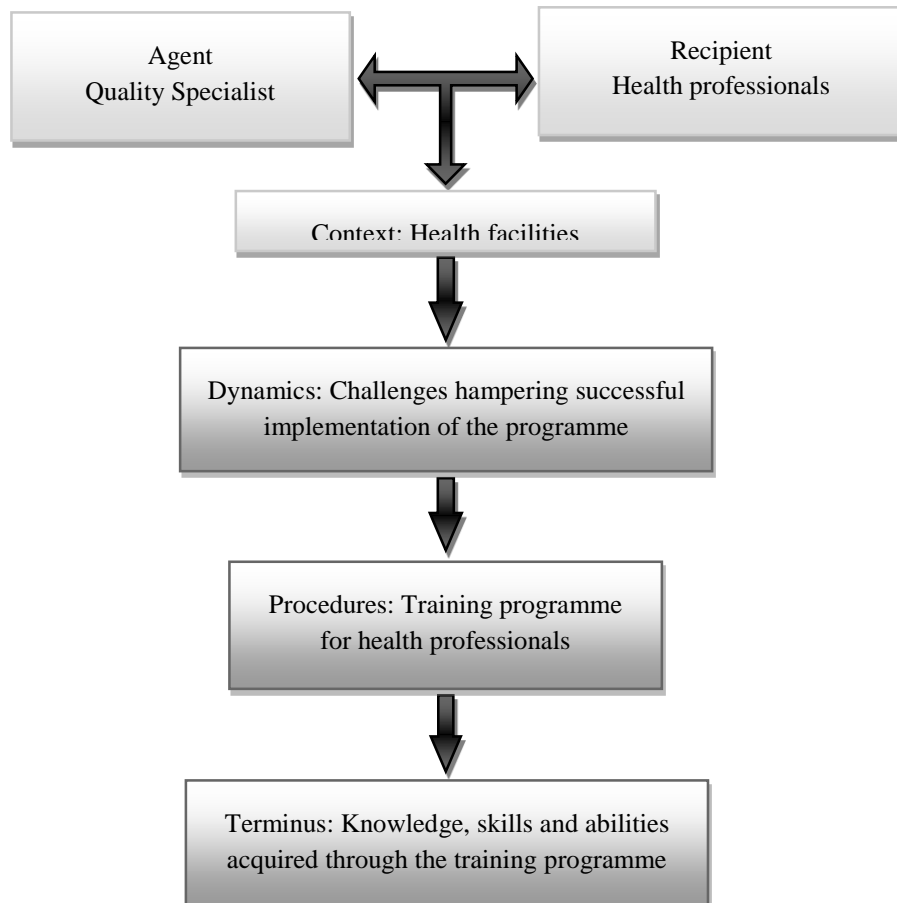
For quantitative, data was presented in percentages, figures and tables while qualitative data was presented in form of themes and sub – themes supported with literature that formed the theoretical basis of the study.

## **1.9 THEORETICAL BASIS OF THE STUDY**

Dickoff's practice orientated theory (1968) was used as practical guideline. This conceptual frame was used during research and the educational programme development process in Chapters 3 and 4. The theory provided "...[u]seful ideas to direct the research planning and decisions (Mouton, 1996; Tomey, 1998; Chinn & Kramer, 1991). Theory may be referred as the best guess statements, suppositions, or structures that direct the researchers' ideas or questions to interpret phenomenon to find possible solutions. The theoretical assumption includes models and theories that already exist in scientific disciplines (Mouton & Marais, 1990). They also include all testable statements derived from existing theories and models (Mouton & Marais, 1990). Henceforth, the fundamental theories are described; namely the practice orientated theory of Dickoff (1968), the five phases of programme development by Meyer and Van Niekerk (2008), Kolb's four-stage model cycle of learning, Deming's PDSA model of quality improvement, the quality improvement management policy of

the MoHSS, and the six steps of the CDC framework for programme evaluation in public health.

### 1.9.1 Practice theory of Dickoff (1968)



**Figure 1.2:** Logical reasoning map adapted from Dickoff Practice Oriented Theory (1968) in Mothiba (2012)

The practice orientated theory of Dickoff (1968) in Mothiba (2012) consists of five components that facilitated the development of the training programme components for health care facilities. The theory consists of six elements: the agent, recipients, context, dynamics, and terminus for the programme activities. The practice orientated

theory by Dickoff (1968) was used to mould the concepts into logical reasoning to develop a quality improvement training programme for health professionals at health care facilities of the MoHSS. A detailed description of the conceptual framework and themes that resulted in a training programme is provided in Chapter 4. The conceptual framework was important to produce pragmatic results, enhance interpretation of concepts, and provide tangible results that would be replicated to similar contexts at health care facilities in Namibia.

Figure 1.2 illustrates the theoretical framework used to develop the conceptual framework of the training programme. The elements discussed in Dickoff *et al.* (1968) practice orientated theory were adapted to describe the situation of developing a quality improvement programme for the health professionals at health care facilities (Chapter 4). The assumptions of the theory were taken into consideration in this study.

### **1.9.2 Meyer and Van Niekerk (2008)**

In developing the training programme, the five phases of programme development by Meyer and Van Niekerk (2008) were modified to support the programme development. The five phases formed the foundation for the objectives of this study, which facilitated the understanding of the research process and flow of information. The Preliminary phase was the first steps taken to submit documentation for approvals; hence it was regarded in this study as introduction to the situation analysis. These phases as described below, as follows

Phase 1: Situational analysis;

Phase 2: Conceptual framework;

Phase 3: Developing of the training programme;

Phase 4: Development of the guidelines for the implementation.

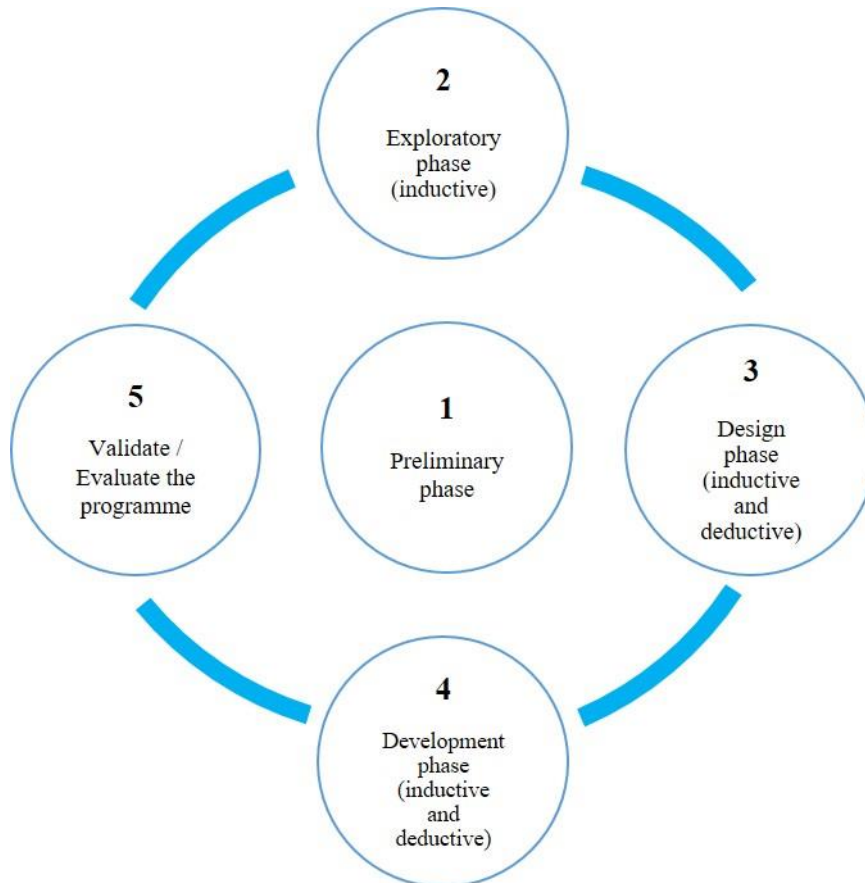


Figure 1.3: Programme development process steps of Meyer and Van Niekerk (2008)

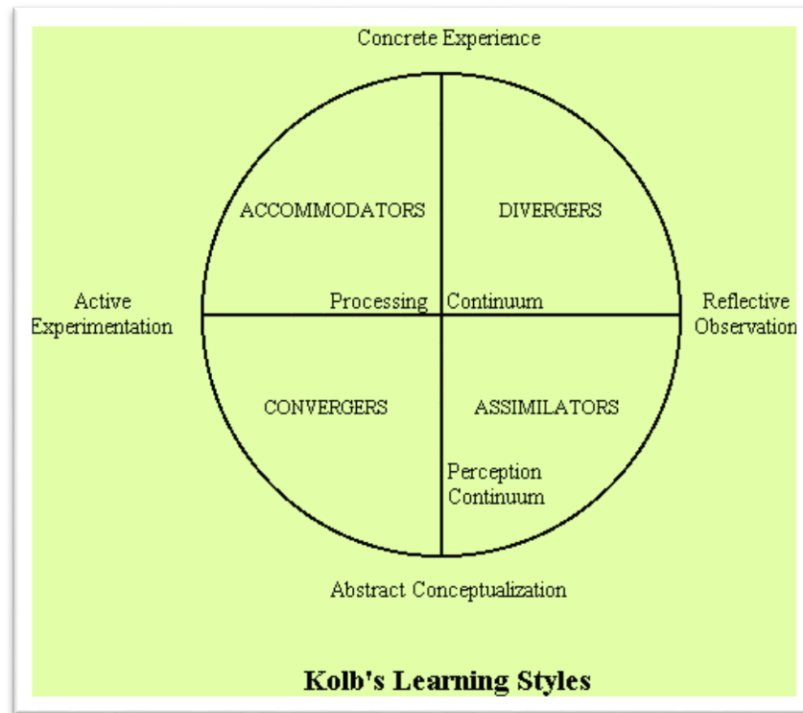
### 1.9.3 Namibia Qualification Authority (NQA) Framework

The Namibia Qualification Authority is the regulatory body of the National Qualification Framework that was mandated by the Act of Parliament, Act No. 29 of 1996 that deals with both national and international qualifications by accreditation, registration and evaluation or recognition of qualifications. The NQF represents a set of agreements, rules and requirements, as stipulated in the Act.

#### 1.9.4 Kolb's theory of experiential learning

Kolb (1984) and Zhang and Sternberg (2000) "...defines [sic] learning process whereby knowledge is created through the transformation of experiences, which develops through combination of grasping and transforming experience. Kolb's model is based on a four-stage cycle of learning, which are elaborated in Chapter 5. The four stages cycle consists of:

- *Concrete experience:* (doing / having an experience) this is learning from discussions and feedback from fellow participants.
- *Reflective observation:* (reviewing and reflecting on experience) - this involves observation of others or to develop observation on own experience that will be made possible through brainstorming or reflective exercises like role plays.
- *Abstract conceptualization:* (concluding / learning from experience) - this is learning from authority, directed learning situations that emphasize theory; for example, learning from lecture presentations and make own conclusion.
- *Active experimentation:* (planning and trying out what was learned) - it includes active learning through experimentation; for example, learners when engaged in small group discussions, learning from case studies, homework or simulations.



**Figure 1.4: Kolb's model of experiential learning**

Source: <http://trgmcbcr.haygroup.com/Products/learning/bibliography.htm>

### 1.9.5 Knowles adult learning theory

According to (Atherton, 2002, 12) two key differences in the ways adults and children to approach learning are that adults desire to be self-directed and want to take responsibility for decisions. Hence, a quality improvement training programme would take into account health professionals' learning needs and their desire and inspiration towards learning new topics or content. In this study, Knowles' (1996) theory was adopted to develop the learning and teaching methods in line with the needs of health professionals in the health care facilities context. The five components are discussed, as follows:

- Promote positive self-esteem: Adults learn confidently when they perceive that they are encouraged and involved in the learning process to understand the end results from the learning process.
- Integrate new ideas with existing knowledge: The content of the training programme would be aligned to really situations or dynamics within the context of the health facilities so that health professionals are able to relate, assimilate and apply theory to practice.
- Show respect for the individual learner: Adults work better when they know that they are valued, which indicate reverence and trust in their work. The approach to learning include a component to motivate health professionals not only improve their mental capacity but their physical needs too; for example, including elements of relaxation, leisure (comfort), snacks, and coffee during breaks.
- Capitalise on their experience: Health professionals have accumulated a wealth of experience from prior learning and work environ that would be utilised to enhance the content of the training programme. Health professionals would be more inspired, as the learning activities would be based on their previous experiences and knowledge. Besides, the learning would be more successful when it considers participants' needs during and even after the learning sessions.
- Allow choice and self-direction: In order to interest health professionals as adult's learners, the programme would include activities that encourage self-directed and interested in learning that impact their lives positively. They are more interested in training programmes that focus on their needs and support the desired behaviour. They want to be included in the goals and agenda of the

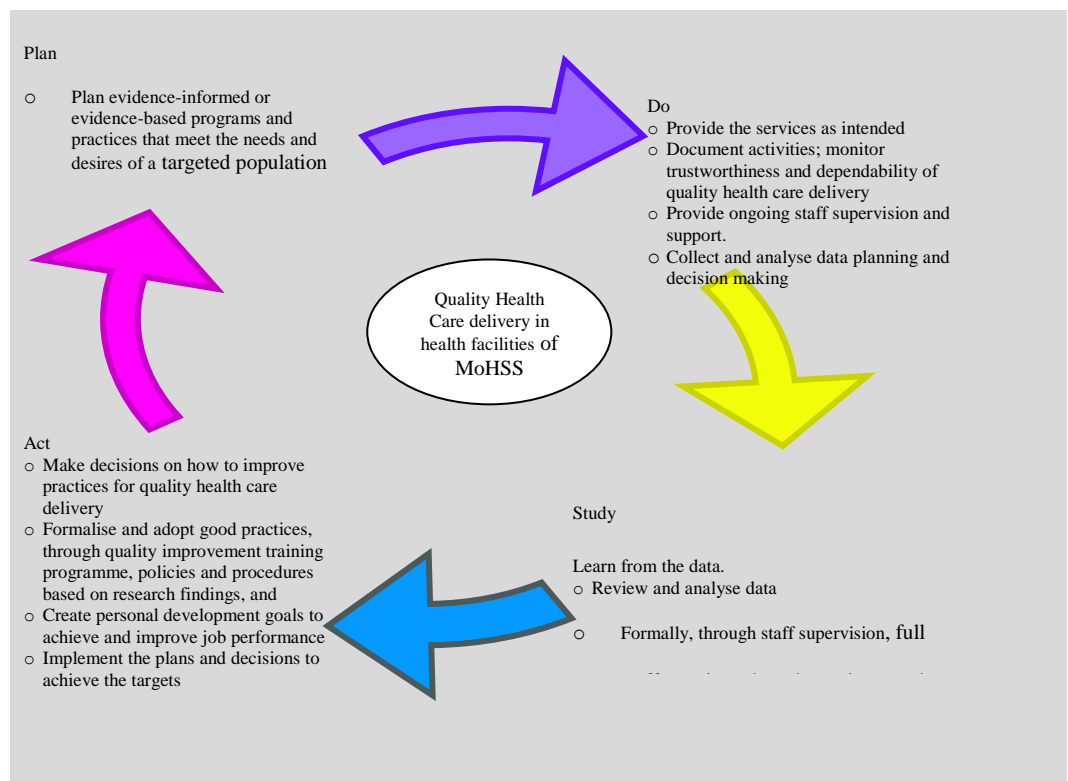
programme, hence they would be happy to provide valuable input to pertinent topics.

#### **1.9.6 Deming's PDSA model of quality improvement**

Research indicates that the Deming (1994) (PDSA) model of quality improvement is appropriate for the development of a quality improvement training programme for the health professionals at health care facilities in Namibia. Deming theoretical model was adopted as a guide to develop the training content of the programme based on fourteen (14) points programme. The model is also supported by the 5S-Kaizen-TQM approach that has been "...[i]mplemented in similar contexts, like Kenya, Tanzania, Singapore, Sri Lanka and others" (Al-Shaikh *et al.*, 2004; Hasegaw & Karandagoda, 2011; Ishijima, 2011). The "...[K]aizen is one of the inexpensive approach[es] applied in any organisations [sic] towards quality improvement, which attracts effective performance towards continuous improvement in any health care services" (Karkoszka & Honorowicz, 2009). The components of Deming's model discussed in Chapter 1 are:

- Create and publish the purpose of the training programme and gain the management commitment on this training programme. The first step in this study is for facilitator to arrange for the introduction of the training programme to MoHSS management, health professionals and stakeholders.
- Learn the new philosophy for the management and health professionals: To improve quality health care and service delivery in the health facilities, a new way of thinking is required through quality improvement training programme to facilitate quality health care delivery.

- Plan evidence-informed or evidence-based programs and practices that meet the needs and desires of a targeted population
- The content of the programme would include the element of conducting inspection to enhance quality improvement in the health facilities.
- Institute leadership and training: Training has been singled out as the key components to improve KSAs of health professionals in the area of QA and QI.
- Encourage education and self-improvement for all health workers, as they are the backbone of health care system and for quality health care to occur, data should be reviewed and analysed continuously to make informed decisions. This should be done formally, through support supervision, staff meetings, planning meetings, and informally, through daily discussions with staff members, stakeholders and customers; self-assessment of job performance, observation of day-to-day progress and satisfaction rate through interviews' feedback sessions.
- Take action to accomplish the transformation: The leadership like health professionals are urged to initiate programmes and projects towards improvement of health care delivery. Provide the services as intended
- Document activities; monitor trustworthiness and dependability of quality health care delivery.



**Figure 1.5: Deming PDSA Cycle of Quality Improvement.**

Adapted from <http://friendsnrc.org/continuous-quality-improvement>

### 1.9.7 Quality improvement management policy of the MoHSS

The National Quality Management Policy is an important document that provides the framework of setting quality standards and guidelines for implementing quality improvement in the MoHSS (2013). The policy outlines the goals, objectives, and strategies to guide the process of quality management, improvement, and performance towards quality health care delivery. In developing the content of the training programme, the researcher used a draft quality management policy from the MoHSS. This enabled the recipients to acquire KSAs about the tenets and policy content to enhance the implementation of quality improvement policies and guidelines in the MoHSS (Chapter 6).

### **1.9.8 Centre for Disease Control (CDC) framework for programme evaluation in public health**

The six steps of the CDC framework for programme evaluation in public health had been adopted for evaluating the programme. The framework consists of the steps indicated below; these steps are explained fully in Chapter 7. The framework comprises the description the programme, focus on the evaluation design, gathering credible evidence, justification of conclusions, ensuring use and sharing lessons learnt, as well as the engagement of stakeholders (Centre for Disease Control, 2011).

### **1.10 METHODS**

The methods used to design the study are described in Chapter 2. The study approach was based on five phases:

Phase 1: Situation analysis;

Phase 2: Conceptual framework;

Phase 3: Development of the training programme

Phase 4: Development of guidelines for implementation and evaluation of the training programme.

#### **1.10.1 Phase 1: Situational analysis (Objectives 1 and 2)**

Since this study was mixed method in nature, situational analysis was done in two phase namely phase one cover objective 1 while phase two cover objective 2. The first objective of the situation analysis focused on the health care facilities to understand

the status of existing QI and QA. A checklist was administered to the managers in leadership positions to confirm the approaches with regard to quality health care delivery at the health care facilities. The methodological approach pursued to achieve this objective is detailed in Chapter 2. The second objective of the situation analysis was to explore and describe the experiences of health professionals in a qualitative design about QI and QA at the health care facilities with the view of improving quality health care delivery. To achieve this objective, individual interviews, FGD and field note with health professionals and managers in the MoHSS were conducted.

### **1.10.2 Phase 2: Conceptual framework**

The conceptual framework of this study was based on the practice orientated theory of Dickhoff (1968), which assisted with explaining the concepts used in developing a quality improvement training programme for health professionals at the health care facilities as described in Chapter 4. The theory outlines six questions, which explain concepts and analyse the prescribed activities that are aimed at realizing the programme goal, namely:

- Who or what perform activities (agent)?
- Who or what is the recipient of the activity?
- In what context is the activity performed?
- What is the guiding procedure technique of protocol of the activity?
- What are energy sources for the activity?
- What is the end product of the activity?

### **1.10.3 Phase 3: Development of the training programme**

In developing a quality improvement training programme, two main theories were adapted. The researcher focused on the model of Meyer and Van Niekerk (2008), which was adapted to guide the process of developing the training programme. For the training programme content, Deming (1994) PDSA and MoHSS Quality Management Policy were used to enhance the findings. Others were Kolb's experiential and Knowles learning theories, which were also used to facilitate teaching and learning processes, as illustrated in Chapter 5. The educational programme included the purpose, programme objectives; benefits to the participants and society; profession (body of knowledge); structure, name; unit standards; quality assured components; outcomes, duration, as well as completion of successful training in line with the NQA framework.

### **1.10.4 Phase 4: Development of guidelines for implementation of the training programme**

Phase 4 of the study focused on developing the guidelines for implementing the training programme. As illustrated in Chapter 5, the components comprise, the name of the programme; aim / purpose, objectives, benefits, structures of the educational programme, educational programme process, implementation and evaluation process.

### **1.10.5 Phase 5: Guideline for implementation and evaluation of the training programme**

For this, two practical frameworks were adapted, as follows: four (4) phases of the United Nations Population Fund (UNFPA, 2013) to guide a team of evaluators or facilitators to conduct the evaluation of a training programme (Chapter 7). The six steps of CDC framework for evaluation in the public health sector: a) describe the programme; b) focus the evaluation design; c) gather credible evidence; d) justify conclusions; e) ensures and shares lessons learnt; and f) engage stakeholders were used, as illustrated in Chapter 7. Further, the programme was evaluated by experts in line with Chinn and Kramer (1991).

The guidelines in this study were developed to direct and promote effective implementation of the training programme. These guidelines outlined the process, activities, and issues required to implement the programme as appeared in Chapter 6. The purpose of guidelines is to assist implementers and beneficiaries with following the steps of implementing the training the programme.

The successful implementation of the training programme had to follow the four steps, as described in Chapter 6.

Step 1: A situational analysis has two components, namely a situation analysis and planning.

Step 2: Facilitation has four components; namely educational approaches, learning content of the programme, facilitation techniques / teaching and learning methods, and evaluation techniques.

- Step 3: Implementation consists of an orientation phase, a working phase, and termination phase.
- Step 4: Evaluation of the programme focuses on evaluation techniques; such as formative techniques, summative methods, and feedback.

## **1.11 DEFINITIONS OF CONCEPTS**

The title of the dissertation requires the definition of specific and additional concepts that are related to quality improvement.

### **1.11.1 Quality of care**

In this study, quality of care refers to the act of accurateness or correctness of the care provided to patients that encompasses human quality elements supplemented by other components in a health care facility context. Quality refers to “...the extent to which a product or service satisfies a person or a group, i.e. how much satisfaction the person gets from the service” (Aaron, Bannerman & Kyeremeh, 2004). Quality is the merit or excellence of a system in all its aspects (WHO, 1998). The Institute of Medicine (IoM) defines quality as the “...degree to which health services for individuals and populations increase the likelihood of desired health outcomes that are consistent with current professional knowledge” (Lohr & Schroeder, 1990). Quality means doing the right thing right, the first time (Jarvis, 2004). Quality care refers to being sympathetic, compassionate, and committed to health care ethics and principles of professionalism, which include the standards of responding to the needs of patients.

### **1.11.2 Quality health care**

Quality health care, in this study, refers to the positive results yielded through the application of knowledge, skills, and aptitudes to improve patient well-being. The IoM (2001) defines quality health care as “...safe, effective, patient-centred, timely, efficient and equitable.” The AHRQ (2006) defines quality health care “...as doing the right thing for the right patient, at the right time, in the right way to achieve the best possible results”. Quality health care means “...[p]roviding effective, efficient, accessible, acceptable, equitable, timely, appropriate and safe health care and services based on scientific methods and standards that are proven to improve health outcome[s]” (WHO, 2000). “Quality health care consists of proper performance based on standards of interventions that are known to be safe, affordable to the society, and able to improve health care outcomes that meet or exceed client expectations” (Jarvis, 2004). Stern, Wiedemann and Wenzlaff (2008) adds that quality health care is about reaching excellent standards of care that encompasses assessing the appropriateness of medical tests, treatments, and measures to continue improving patient care in all areas of health care and social services domains.

### **1.11.3 Quality care delivery**

The first thing that comes to mind is how do we know we are delivery quality care or not? In this study, the measure of the quality care delivery component is viewed in the context of the ability or capacity to provide the needed care on time based on acceptable standards and methods, which satisfy the clients who receive the care and services. Brent (1989) explains that quality has two main components, namely content

and delivery. The writer explains that content quality is concerned with the medical outcome that is achieved while quality delivery reflects an individual client's interaction with the health care system. In this loop, the patient's concern focuses on: "Was the hospital clean? Were the nurses caring and informative? Were services delivered on time, cheerfully, and with understanding of the patient's individual needs and preferences?" In other words, quality is viewed through the eyes of the clients or patients who make a quality judgment about any output or sub-output produced by a health care process, or the personal transaction during which the output is delivered.

#### **1.11.4 Quality health services**

In this study, quality health services refer to the product being cared for or providing medical treatment. In other words, health is viewed as served and not given; hence the element of quality is necessary to provide the service of care or treatment in a cautious and careful way that takes into account the specific health needs of patients and clients. Research indicates that quality health service should be a pre-requisite for accurate methods that have been tested to be safe, affordable to reduce deaths, illness, and disability. The National Health Service (2006) state that the service should be patient-centred, since people expect fast and high quality service according to a set standard that makes the right diagnosis, implement the right treatment, and continues to improve the standards of services until excellence is attained.

#### **1.11.5 Quality improvement (QI)**

In this study, QI refers to initiatives aimed at improving quality health care delivery, recognising mistakes and faults in the present activities, and satisfying the health needs

of the clients by continually improving the efforts of health professionals. “Quality improvement in public health care refers to a continuous and ongoing effort to achieve measurable improvement in the efficiency, effectiveness, performance, accountability, outcome and other indicators based on deliberate and defined improvement process, such as Plan-Do-Check (Study)-Act (PDSA), which is focused on activities that are responsive to community needs and improving population health” (Tews, Heany, Jones, Van Der Moere & Madamala, 1997). Some proponents, such as Cooperberg, Birkmeyer and Litwin (2009), emphasise that quality improvement in health care focuses mostly on structural measures: examine fixed aspects of health care delivery, such as physical environment and human resources. Process measures: assess specific interrelations or exchange of services in patients’ clinical encounters, such as the use of appropriate surgical antibiotic prophylaxis to improve health care outcomes. Outcome measures focus more on three components, such as improving quality of life endpoints; morbidity; and mortality; hence outcome measures are the greatest important to clinicians and patients.

#### **1.11.6 Quality assurance (QA)**

QA is one of the broadly studied areas in health care, which refers to the use of well-planned systematic standards and coordinated activities that support quality improvement at health care facilities. Different studies, such as by Aaron *et al.* (2004); Donabedian, (1980); Palmer, (1983); Roemer and Montoya-Aguilar (1988) indicate that quality assurance uses different approaches and tools, such as quality improvement and PDSA to set standards, monitor progress, identify the gaps between the activities, provide care and services, meet the expectations of clients, and produce

constant interventions that regularly monitor and continually improve the situations. To achieve the standards set for QA, health workers need to be involved in examining the services they are providing, assessing their own actions, and searching for solutions to improve quality of care at all times. For them to do that, the managers in leadership positions should be supportive and committed to change their language, coaching, and mentoring from merely inspecting work to actively using practical guidelines and strategies to assist health professionals with improving the quality of care.

#### **1.11.7 Health professionals**

Health professionals are referred to as trained personnel (human) resources in a health-related domain that provide physical and mental treatment and care by applying medical and scientific methods to improve the status of human health. Health professionals are the people with knowledge, skills, and aptitudes to maintain the health of human beings through the application of the principles and procedures of evidence-based medicine and caring. Health professionals have completed training for a designated period to diagnose, treat, and prevent human illness; injury; and other physical and mental impairments in accordance with the needs of the populations they serve. They advise on or apply preventive and curative measures, promote health with the ultimate goal of meeting the health needs and expectations of individuals and populations, and improve the health outcomes of the population. They are able to conduct research and improve or develop concepts, theories, and operational methods to advance evidence-based health care. Their duties may include the supervision of other health workers (International Labour Organisation (ILO), 2008; WHO, 2010;

Gupta, Hooton, Naber, Wullt, Colgan, Miller, Gregory, Moran, Nicolle, Raz, Schaeffer and Soper (2010).

#### **1.11.8 Training programme**

A training programme is a well-organised collection of activities that focuses on empowering and enhancing health professionals' competencies to improve health care delivery and meet the increasing demands of the patients. It is a designed document consisting of the objectives, activities, and learning content to guide the implementers and learners in relation to the scope of the work to be learnt, as well as the assessment to meet the certification criteria. QI training is defined as any activity aimed at improving the KSAs of health professionals about methods that could be applied to analyse and improve quality care (Health Foundation, 2012).

#### **1.11.9 Health facilities**

Health care facilities are places that provide health care. They include hospitals, clinics, outpatient care centres, and specialized care centres, such as birthing centres and psychiatric care centres (MediLinePlus, 2014). In this study, health care facilities refer to entities providing either primary or tertiary health care services under the auspicious of MoHSS, which included one (1) referral, one (1) intermediate and three (3) district hospitals in four regions (Khomas, Kunene, Opuwo and Omusati).

### **1.12 CHAPTERS OUTLINE**

The outline of the chapters in this dissertation is:

Chapter 1: Introduction and background of the study;

Chapter 2: Research design and methods;

Chapter 3: Discussion of the results and literature control;

Chapter 4: Conceptual framework of programme developed for health professional to facilitate quality health care / service delivery at health care facilities (Phase 2);

Chapter 5: Developing an educational programme for health professionals to facilitate quality health care / service delivery at health care facilities (Phase 3);

Chapter 6: Developing the guidelines for implementing and evaluating the programme at the health care facilities (Phase 4);

Chapter 7: Conclusion, recommendations, contributions, and limitations.

### **1.13 SUMMARY OF THE CHAPTER**

This chapter introduces the rationale, background, and context of the study, statement of the problems, objectives, significance, paradigm perspectives, theoretical basis, and design of methods, definition of concepts, and the chapter outline. The next chapter presents the research design and methodology used in the study.

## **CHAPTER 2**

### **RESEARCH DESIGN AND METHODS**

#### **2.1 INTRODUCTION**

The previous chapter discusses the background and rationale of the study context. This chapter presents the research design, methods, and approaches used for developing the quality improvement training programme for health professionals in Namibia. The research design, population sampling, data collection and analysis methods, and measures to ensure validity and reliability of findings are described.

#### **2.2 RESEARCH DESIGN**

A research design is a plan or structure which outlines the elements that guide a researcher. “It also regarded as a plan or blueprint according to which data are to be collected” (Huysamen, 1994). Further, it is regarded as the main artery of research that connects all parts with one another in the quest to understand all components and elements in the construction of a document or research paper (Johnson *et al.*, 2007). In this study a research design contains the methodological approach, specific variables, concepts and definitions, and statements about theoretical frameworks.

A mixed method which is a quantitative, qualitative, exploratory, descriptive, and contextual was used. Mixed methods research is often thought of as a research practice that uses both quantitative and qualitative methods within a single study (Teddlie & Tashakkori, 2003). The purpose of mixed method was to enhance description and understanding of a phenomenon (Johnson, Onwuegbuzie & Turner, 2007). This

approach was represented by qualitative and quantitative research and their associated paradigm perspective such as constructivism and post-positivism illustrated in chapter 1 as well as the researcher mental map in Chapters 3 and 4. This was done to achieve Objective 1 and 2 as part of situational analysis (Phase 1).

### **2.2.1 Quantitative design**

In this study, quantitative, exploratory and descriptive design was followed to address objective 1. To achieve that a checklist as tool of data collection was developed to capture present situation of quality health care / services delivery at health care facilities. The checklist comprised of the demographic data and variables such policies and guidelines; leadership; human, physical, material and financial resources; patient safety, information as well as monitoring and evaluation and research ethics as well the utilization of data. Creswell (1994) notes that "...[q]uantitative research focuses on numbers and mathematical methods / statistics to analyse data". Simple statistical methods of descriptive analysis were used to draw inferences and test assumptions to determine not only the level of relationships between variables but the status of QI and QA at the health care facilities.

### **2.2.2 Qualitative design**

An explorative, descriptive, and contextual design was used to gather information based on the experiences of the participants in addition to the "...philosophical assumptions that researchers bring their own worldviews and beliefs" (Creswell, 2007). "Qualitative research design aims at producing factual descriptions based on face-to-face knowledge of individuals and social groups in their natural settings"

(Creswell, 2007). A qualitative design was used to understand the experiences in relation to quality health care delivery at the health care facilities. To do this, the researcher visited all selected health care facilities under study in order to meet with managers in leadership positions and health professionals in their real situation. (Shaughnessy, Zechmeister & Zechmeister, 2003).

According to Babbie (2008), the purpose of qualitative research is either to describe, explain, or explore situations (Section 2.2.3). “Qualitative research refers to inductive, holistic, emic, subjective and process-oriented [sic] methods used to understand, interpret, describe and develop a theory on a phenomena or setting” (Burns & Grove, 2003; Morse & Field, 1996).

The researcher selected qualitative research for the following three reasons: (1) it created a practical dialogue and inquiry between the researcher and participants while they were reflecting on issues pertinent to QI and QA of health care. (2) It facilitated the accumulation of a huge collection of hermeneutic (interpretive) data expressed by the health professionals who were working in the real environment, as they narrated the unfolded experiences to construct meaning and conclusions based on rich text. (3) It enabled the researcher to examine the practical situation closely by interacting directly with the participants in the physical or natural setting where the problem emanated, prompting trustworthiness and reliable data.

### **2.2.3 Exploratory design**

Babbie (2008) explains that exploration is conducted to examine a new topic that is rather unfamiliar to the researcher. Unlike a descriptive design, it is used to explore

the factors that interact with the situation or events described in research. In this study, this design was used to investigate the factors influencing quality health care delivery. In order to obtain accurate information about the topic, the researcher used individual interviews and focus group discussions to interrogate the existing conceptual frameworks and theories about developing an educational programme. Although an exploratory design might not necessarily provide an answer to the research question, it is one of the methods used for generating the ground theory. This was particularly useful, especially at the health care facilities where there was scanty information and no specific research findings about this matter.

#### **2.2.4 Descriptive design**

A descriptive design was used to understand the existing approaches by describing the perspectives and experiences of health professionals about QI and QA in the health care facilities. It was used to describe the time of the study, profile or composition and characteristic of participants and context of the health care facilities. “Descriptive research refers to research studies that have as their main objective the accurate portrayal of the characteristics of persons, situations or groups” (Polit & Hungler, 1995) The Association for Education Communication and Technology (2001) explains that a descriptive design can either be quantitative or qualitative, and can assist with organising data into graphics, tabulations, and charts; as well as describing categories of information, such as gender and patterns of interaction to understand the findings. Cooper and Schindler (1999) emphasise that descriptive research seeks to discover *what is going on*, and to provide answers to the *who, what, when, where* and sometimes the *how* questions about the topic, group of problems, or events studied. It is viewed

as a research method that describes the characteristics of the phenomenon under study. “... [D]escriptive [design] is the basis for abstract interpretations of data and theory development” (Strauss & Corbin, 1990).

### **2.2.5 Contextual design**

An inquiry into the state of QI and QA took place in the context of health care facilities and the MoHSS head office by interacting with the participants in their real usual work environment. The inquiry included face-to-face encounters and listening to narrated stories, which informed the design of the training programme for health professionals. This approach assisted with formulating the basis of explaining *what* was happening and *why* certain events were occurring at the health care facilities. In testing these premises or propositions, the training programme was evaluated during discussions with the health professionals, managers in the MoHSS, and other relevant stakeholders.

The data from individual interviews and focus group discussions was consolidated by transcribing the voice recordings into text. After coding and developing themes, the data was merged to form categories, themes and sub-themes, which generated a complete picture of the design of the programme for the health care facilities.

In research, anything studied (aspect or being) is situated in a certain context. Context is referred to as a setting, environment, or background of a situation or phenomenon under study (Beyer & Holtzblatt, 1999).

## **2.3 REASONING STRATEGIES**

The reasoning approach was based on critical thinking and not merely mental construction of what was believed to be true and what had worked under similar conditions to resolve or implement a programme. Critical thinking is defined “...as the art of analysing and evaluating thinking with views to improve the situation” (Paul & Adler, 2007). To achieve the purpose of this study, two reasoning strategies were used to understand the concepts, make inferences, and reach conclusions about the implications for quality health care delivery in the MoHSS. The two arguments used in this study were inductive and deductive reasoning. Inductive reasoning was used to inquire about specific facts of common understanding in relation to the existing approaches to QI and QA at the health care facilities. Deductive reasoning, on the other hand, was used in objective 1 to obtain a general view of the arguments that supported the training programme and how it related to the context of health care facilities. Several strategies; such as reduction, inferences, and bracketing were used.

### **2.3.1 Inductive reasoning**

Inductive reasoning was used based on the specific or the known to provide meanings of concepts that were interpreted and formulated into themes through interactions with health professionals and managers at MoHSS head office and context of health care facilities.

The first phase was a situation analysis, which started by gathering data on the state of quality health care delivery and experiences of health professionals with the purpose to develop a training programme of quality improvement for health professionals. The

research gathered specific information about QI and QA, as discussed by the participants to generalise the conclusion based on collected evidence. In this study, all the information was analysed and adapted to design a training programme that could enhance quality health care delivery at the health care facilities. “It gathers together particular observations in the form of premises, then it reasons from these particular premises to a general conclusion” (Bluedorn, 1995).

Inductive reasoning “...[b]egin[s] with specific observations and measures, distinguish [sic] patterns and regularities, formulate[s] some tentative hypotheses that we can explore, and finally end[s] up developing some general conclusions or theories” (Trochim, 2006). Babbie (2008) states that inductive reasoning starts from particular instances, the known to the unknown, the specific to the general or facts to the theories. To support this argument, Wallace and O’Farrell (2013) explain that “...inductive reasoning approach conduct observations first and then develop the theory”.

### **2.3.2 Deductive reasoning**

The general theory was deduced from the specific and well-known situation at health care facilities before moving to the general concepts of the theoretical framework. Deductive reasoning provided the basis of moving from the specific to the general ideas and arguments of the conceptual framework and theories to develop the training programme with the aim of empowering health professionals to enhance quality health care delivery. Deductive reasoning was used to establish whether quality improvement training programme would be supported by the general views to enhance quality health

care delivery at the health care facilities. Deductive reasoning is the opposite of inductive reasoning; a researcher approaches the investigation based on the general to the theory. “It takes a general premise and deduces particular to conclusions” (Bluedorn, 1995).

### **2.3.3 Inferences**

In this study, inferences were drawn from the experiences shared by individuals through verbal and non-verbal expressions that pointed at the frustrations of participants about weaknesses and constraints in providing quality health care at the health care facilities. The inferences facilitated the interpretation and conclusions to turn these experiences and challenges into a programme to improve the situation at health care facilities. For instance, participants used inferences as part of reasoning and judgements about the meaning of concepts, actions, or events based on what was found in the context of health care facilities.

### **2.3.4 Reflectivity**

In this study, the researcher reflected on the discussions with the participants and related those discussions to the existing theory on the study topic. In the same vein, participants were reflecting on their experiences, day-to-day activities, and encounters with the clients to address the points discussed during FGDs and individual interviews. Throughout the interviews and FGDs, participants reflected on the existing approaches and procedures that were either perceived as weaknesses or areas that required improvement. Since the approach used in the study required participants to take an active role in discussions, it prompted them to reflect on the existing approaches, as

well as on their own behaviour and attitudes during care and treatment. In this study, the researcher reflected on the whole data collection process to gain an understanding of discussions and to improve on the follow-up questions. In this study, the researcher reflected on different steps to connect the ideas and differentiate between the voices in the text. In this study, different voices appeared either to confirm, validate, and support the experiences or to critique the information. The voice of the researcher, participants, managers, and the theoretical voice of author on similar topics supported the ideas of this study.

Reflectivity is common, especially in the educational field while teachers and students reflect on their learning behaviour, attitudes, and the teaching and learning process. This enables students to remember important areas and discover potential weaknesses and new ideas that would augment the understanding of the topic.

### **2.3.5 Bracketing**

Researchers may find it difficult to completely abandon their pre-conceived ideas about certain topics or issues. However, this study had no influence or prejudice on the direction of the study. There were no prior structured questions prepared other than probing questions that emanated from the discussions based on accounts, experiences, and ideas of health professionals. “Bracketing requires the researcher to remain neutral with respect to belief or disbelief in the existence of the phenomenon” (Streubert, Speziale & Carpenter, 2003). This is further supported by Starks and Trinidad (2007) “...[t]hat the researcher must be honest and vigilant about his / her own perspective, pre-existing thoughts, beliefs and developing hypotheses”. Bracketing was also

conducted during the use of scientific methods to collect and analyse data in the context of a conceptual framework to develop a quality improvement training programme. Bracketing was used in this study, as one of the methods for collecting and analysing qualitative data. Drew (2004) explains that bracketing is "...[t]he task of sorting out the qualities that belong to the researcher's experience of the phenomenon". It is "...a method for demonstrating the validity of data collection and analysis process in most phenomenological studies" (Ortlipp, 2008). This researcher emphasises that an explorative and hermeneutic (interpretive) approach is among phenomenology strategies that guide psychological research. This study used an explorative, interpretive approach to gain an understanding of the state of QI and QA in health care facilities.

## **2.4 RESEARCH METHODS**

The five phases of programme development as illustrated by Meyer and Van Niekerk (2008) were modified to support the programme development. These formed the foundation for the objectives of this study, which facilitated the understanding of the research process and flow of information. These modified phases are described below, as follows:

- Phase 1: Situational analysis;
- Phase 2: Conceptual framework;
- Phase 3: Developing of the training programme;
- Phase 4: Development of the guidelines for the implementation.

Phase 2 was focused on the conceptualization as a base for the development of the educational programme illustrated in Chapter 4. Phase 3, outlined the process of developing the training programme as it appeared in Chapter 5, while phase 4 was concentrated on the guidelines for implementation and evaluation of the programme (Chapter 6).

#### **2.4.1 Phase 1: Situational analysis**

Phase 1 situational analysis, was mixed method which were, exploratory and descriptive in nature, which comprised objective 1 and 2. It was done in the contextual because it was health facilities. situation “A situation analysis is the mapping process which allows a clear baseline to be established before any new interventions are considered or existing ones are adapted” (WHO, 2006).

In this study, the objectives as illustrated above, were focused on the analysis of the status of quality health care delivery at health care facilities while number two dedicated on the exploration and description of the experiences of health professionals in the understudy context.

##### **2.4.1.1 Objective 1: Quality health care / service delivery at the health care facilities**

Quality health care / service delivery at the health care facilities: In this study, the objective 1 focused on the analysis of the status of quality health care delivery at health care facilities. To achieve this, the population, sample and sampling method, data collection, data analysis and validity and reliability are described as follow:

### **a. Population**

Babbie (2008) states that a population is a theoretically specified aggregation of study elements. It is "...described as a group of individuals who possess specific characteristics and from which a sample is drawn to determine the parameters or characteristics" (Creswell & Clark, 2007; Mares & Petersen, 2007; Singh, 2007). Brynard and Hanekom (2005) add that a research population refers to the "...objects, subjects, phenomena, cases, events, or activities specified for the purpose of sampling". The population comprised of managers in leadership positions, which included the Permanent Secretary, Undersecretaries, Deputy Permanent Secretary, Directors, Senior Medical Superintended, Deputy Directors and regional health directors

### **b. Sample and sampling method**

Sampling is the process of selecting cases to represent a population in order to make inferences about the population while a sample refers to a subset of the units about which data will be collected (Polit & Beck, 2012). In this objective, a total of twenty-one ( $n = 21$ ) participants were purposively selected, who comprised of managers in leadership ( $n = 6$ ) from the MoHSS head office as well understudy regional health directorates ( $n = 15$ ) in Khomas (Windhoek), Kunene (Opuwo), Erongo (Swakopmund) and Omusati (Outapi), as illustrated in Table 2.1. The regions were selected based on geographical location, population density.

**Table 2.1: Categories of participants per region**

Region	Managers / leadership	Health professionals	Number of participants
Khomas	6	4	10
Kunene	1	3	4
Erongo	1	3	4
Omusati	1	2	3
Total	9	12	21

The following inclusion criteria were utilised:

**i. Participants**

A manager in leadership position at MoHSS head office, regional health directorates or hospitals. Expatriates-managers in leadership position for more than three years. Interested or willing to participate and provides a written informed consent, as a respondent in the study.

**ii. Health facilities**

A trained in health professional related fields registered or recognised by the Health Professional Council of Namibia and Namibia Qualification Authority, and working at the selected health care facilities in the specified regions.

**c. Data collection: Checklist**

A checklist (see Annexure J) was developed in order to meet phase one of the study. The layout of the checklist was demarcated into two sections; namely section A focused on demographic data such as age, gender, level of education, years in current

position, primary role at the health care facility, and current job description. Section B was on the variables for quality assurance and quality improvement such policies and guidelines; leadership; human, physical, material and financial resources; patient safety, research and information, as well as monitoring and evaluation was developed. These variables were derived from the Deming's PDSA model (McLaughlin & Kaluzny, 2006) and MoHSS National Quality Management Policy (2013).

The respondent managers in leadership position were required to indicate their level of agreement on different statements of closed-ended questions on a checklist of 1 – 6 level scale. In this study, a Likert scale was adopted to measure ordinal variables with response options “Strongly disagree”; “disagree”; “neutral”; “agree”, “strongly agree” and “don't know” to indicate the level of agreement. Further checklist included statements on research ethics and utilization of data whereby the participants would be given a statements of “yes”, “no” and don't know to choose (Bethlehem & Biffignandi, 2011).

The researcher prepared the checklist with assistance of the qualified statistician as well as guidance by the supervisor in a self – administered format. This was done in accordance of Andre (2012), which states that a self-administered checklist requires that the respondents would be able to complete without assistance by the researcher. Since the respondents were experienced in the field understudy and articulated the language used in the documents, they had no difficulties in completing the checklist. Part of this was also attributed to the facts that the checklist was piloted and the results were incorporated.

The checklist was distributed by the researcher assisted by the trained assistant researchers. The checklist was distributed concurrent with interviews and focus group discussion (objective 2) during the stipulated day allocated to specific region, prior arranged schedules. The respondents were expected to complete the questionnaires within 30 to 60 minutes and expected to return them immediately to the assistant researchers.

The reliability of a measure denotes the level of consistency of the items (dimensions) or measurement and the unbiased approach during a period of time across multiple items (Babbie, 2008). Reliability is a measure of stability and consistency with which an instrument measures a particular concept (Sekaran, 2003, Davis, Douglas & Silk, 1981). In this study, the reliability of items was tested using the Cronbach alpha coefficient for the multiple items measured on six (6) points scale. The higher the coefficient, the better or reliable the measuring instrument (Sekaran, 2003).

Nunnally (1967) suggests that in studies with substantial samples from a larger population, the reliability is expected to display a Cronbach alpha coefficient above 0.9; however, values ranging from 0.7 are acceptable indicators of internal consistency. In this research study, the Cronbach alpha coefficient indicated that items (measures) from 1 – 40 provided a value of 0.95 while the value for the rest of the items (measures) was 0.88. This signified that both items were significantly very high, which indicated that the tool used was reliable and consistent. It can be stated that the tool did, therefore, measure what it had intended to measure and produced reliable data that could be applied in any health care facility context in similar situations.

#### **d. Reliability of the instrument**

A measure is considered valid when it actually measures what it is intended to measure (Churchill, 1979). The instrument used in this research study was a combination of instruments used in previous studies, hence it had both content and criterion validity. Validity ensures the ability of a scale to measure the intended concept, as explained by Sekaran (2003) that research uses three types of validity: Content validity, criterion validity, and construct validity. In this study, for the content validity the research instrument was generated through intensive literature review of national and international policies and guidelines on QI and QA; use of experts in the field; the checklist was designed in line with the objectives (Brink *et al.*, 2011, and Nieswiadomy, 2011). To ensure criterion validity, prior the commencement of the study the instrument was piloted to ensure the extent to which it correspond to or correlate with some of the criterion measures or the variables in QI and QA (Brink *et al.*, 2011; Nieswiadomy, 2011). For construct validity, the instrument was designed to measure specific aspects regarding QI and QA. This was done in the form of Likert scale, as illustrated in Chapter 2 and Annexure J (Brink *et al.*, 2011 and Nieswiadomy, 2011).

**Table 2.2: Reliability Statistics – Cronbach’s alpha coefficient**

<b>Cronbach's alpha coefficient</b>	<b>N of Items</b>
.95	1 - 40
.88	40 – 42

No of cases = 12

**e. Validity of the instrument**

The aim of this objective was to explore and describe the experiences of managers in leadership positions and health professionals regarding quality health care delivery at health facilities. The population, sample, sampling methods, and data collection process are briefly described as follow.

**f. Data analysis**

The data analysis may be referred to the process of making summaries, simplifying large amount of information into meaningful concepts (Howitt & Cramer, 2000). Further, a descriptive statistical analysis was used to organise, clarify and simplify the data into meaningful concepts. In this research, the data was presented in frequencies, tabular form consisting of percentages and categories, such as sex, gender to describe the variables.

For data entry, editing and handling, immediately after the checklists were collected, the researcher and assistant researchers checked if the checklist was correctly completed and ready for coding and transfer into excel spread sheet. These involved checking and adjusting the collected information to ensure consistency, omissions and legibility. For the errors and missing information identified, the researchers went back to the specific respondents since the checklist were coded.

The researchers developed a process of coding and recording by means of database for all respondents. The checklists were entered in data base for computerised data analysis. Data were cleaned for accurateness and appropriateness (Fan & Geerts, 2011). The data was then stored and handed to the statistician for further analysis.

The data were stored in the researcher's computer as well in the "Drop box" for purpose of retrieval and accessibility. The researcher provides each respondent with a number or code name, which were during discussions or interpreting data and the researcher was the only one accessible to the stored data. The completed checklists were stored in a lockable cabinet to ensure the anonymity. For confidentiality, the researcher ensured that no information was divulged or made available to any person except the statistician (Brink, Van Der Walt, & Van Rensburg, 2011).

The Statistical Package for Social Sciences software was used for data analysis. The data were presented in percentages, figures and tables. To ensure reliability and consistency of data, items in the checklist were tested using the Cronbach's alpha coefficient for multiple items measured on the Likert's scale. A Cronbach's alpha is statistical measure of internal consistency, that focuses on how closely related a set of items are as a group (Tavakol & Dennick, 2011).

In this study, it was indicated that the items from 1-40 provided a value of 0.95 while the rest of items (measures) was 0.88. This means that most of the items in the test were correlated to each other and had lower calculated errors, hence the value of alpha has increased (Tavakol & Dennick, 2011; Streiner, 2003). To ensure validity, content, criterion and construct were used. The findings of this objective revealed some ambiguities in the availability of policies and guidelines, leadership to facilitate health care and service delivery, health system infrastructure, patient safety, as well as research and information to facilitate quality health delivery.

#### **2.4.1.2 Objective 2: Experiences of top manager in leadership position and health professional**

Experiences of top manager in leadership position and health professional: A purposive sampling method was used for selecting both managers in leadership positions and health professionals to participate in the interviews, self-administered checklist and FGDs. The method was used because the participants occupying the high positions in the MoHSS were known by virtue of their position in the organisation structure and the researcher was comfortable that they had relevant experience and expertise in the topic studied. The reason for selecting purposive sampling was because it was considered the most appropriate method to address the purpose of the study and found to be relevant for the exploratory, descriptive and phenomenological study (Burns & Grove, 2005) Further, a purposive sampling technique was specifically used since the managers in leadership positions were well-known, experienced with rich information, knowledge, willingness to participate, ability to communicate and clearly articulate the concepts related to topic (Creswell & Plano, 2011; Bernard, 2002; Spradley, 1979). On the other hand, health professionals were selected based on the type of functions they were performing and units which they were working by the time of the study. In this study the participants were chosen based on the following set of criteria:

- professionally qualified doctors, nurses, pharmacists, social workers, environmental health officers, and dentists working at the public health care facilities in the identified regions;

- a member of the regional management team (RMT) (Senior Medical Superintendent, Chief Medical Officer, Medical Officer, Regional Director, Matron, Nurse Manager); and
- a manager in leadership position at MoHSS national level; regional health directorate, hospital or expatriate health professional who has worked in the MoHSS for more than three years.

**a. Population**

The population comprised of managers in leadership positions, which included the Permanent Secretary, Undersecretaries, Deputy Permanent Secretary, Directors, Senior Medical Superintended, Deputy Directors from regional health directorate were for individual interviews. While health professionals such as Hospital Matrons, Nurses, doctors, health programme office Personnel Officers, Pharmacists and others participated in the Focus Group Discussions (FGDs). The population was drawn from the MoHSS head office, understudy regional health directorates and health professionals from the health facilities in the Khomas (Windhoek), Kunene (Opuwo), Erongo (Swakopmund) and Omusati (Outapi) regional health directorates.

Babbie (2008) states that a population is a theoretically specified aggregation of study elements. It is “...described as a group of individuals who possess specific characteristics and from which a sample is drawn to determine the parameters or characteristics” (Creswell & Clark, 2007; Mares & Petersen, 2007; Singh, 2007). Brynard and Hanekom (2005) add that a research population refers to the “...objects,

subjects, phenomena, cases, events, or activities specified for the purpose of sampling”.

**b. Sample and sampling method**

A purposive sampling method was used for selecting both managers in leadership positions and health professionals to participant in the interviews, self-administered checklist and FGDs. The method was used because the participants occupying the high positions in the MoHSS were known by virtue of their position in the organisation structure and the researcher was comfortable that they had relevant experience and expertise in the topic studied. The reason for selecting purposive sampling was because it was considered the most appropriate method to address the purpose of the study and found to be relevant for the exploratory, descriptive and phenomenological study (Burns & Grove, 2005) Further, a purposive sampling technique was specifically used since the managers in leadership positions were well-known, experienced with rich information, knowledge, willingness to participate, ability to communicate and clearly articulate the concepts related to topic (Creswell & Plano, 2011; Bernard, 2002; Spradley, 1979). On the other hand, health professionals were selected based on the type of functions they were performing and units which they were working by the time of the study. In this study the participants were chosen based on the following set of criteria:

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- a member of the regional management team (RMT) (Senior Medical Superintendent, Chief Medical Officer, Medical Officer, Regional Director, Matron, Nurse Manager); and
- a manager in leadership position at MoHSS national level; regional health directorate, hospital or expatriate health professional who has worked in the MoHSS for more than three years.

**c. Data collection**

Data collection methods refer to the process of selecting subjects and gathering data from these subjects (Grove, Burns & Gray, 2013). The actual steps of collecting data are specific to each study and depend on the research design and measurement methods. In this study, the data collection entailed the collection, analysis and interpretation of the results with regard to the experiences of men diagnosed with prostate cancer in Namibia's four northern regions.

The tape recorder and field notes were also used during the interview to ensure that all of the participant's expressions were captured. This follows specifications set by Brink *et al.* (2013), who caution researchers that without high-quality data-collection techniques, the accuracy of the research conclusions can easily be challenged. It is therefore essential that the researcher is familiar with the various data-collection techniques, including their advantages and disadvantages, so that he or she can select the most suitable technique for the study purpose, setting and population.

#### **d. Locating the field**

In this study, the researcher undertook fieldwork travelling to the health care facilities that were part of the study to conduct interviews and focus group discussions with the participants and explain to them what was expected from them. At each health care facility, the Director was telephonically consulted to inform the Matron or Nurse Manager about the date and time of the interview and the venue. Before the researcher conducted the fieldwork, thorough preparation and considerations were needed before conducting the research. The researcher was fortunate that she had background knowledge about the different communities where the research was conducted and also had been an employee of the MoHSS for more than 9 years. That background facilitated the establishment of good rapporteur and interpersonal relationships with the management and health professionals in the MoHSS.

Before the visits, the first step was sending letters that explained the aim and objectives of the study; those letters were accompanied by copies of the approval letters of the MoHSS and the UNAM to conduct the study at the health care facilities. The correspondence was sent to each Senior Medical Superintendent and Regional Director who informed the supervisors and persons responsible at each health care facility. The second part of the preparation process was facilitated by the Regional Directors and Senior Medical Superintendents who informed the hospital Matrons or Nurse Managers to inform the participants and to make arrangements in terms of the dates, times, and venues for the interviews and focus group discussions at each health care facility in collaboration with the researcher and identified research assistant.

The health care facilities included referral hospital (WCH), Katutura Intermediate Hospital, which were level 1 and 2 in the country. Swakopmund in Erongo Region, Opuwo in Kunene Region, Kamhaku Omusati Region were level 3 district hospitals.

**e. Interviews**

An interview is a method of data collection in terms of which an interviewer obtains responses from participants during face-to-face encounters. The researcher chose this method because it is an appropriate method for an exploratory and descriptive study; it is also a useful method for eliciting facts from the respondents (Brink *et al.*, 2011)

Twelve interviews with managers in leadership positions were conducted. During individual interviews, data was collected until saturation was reached. Data saturation was reached when there was neither enough information replicated nor additional information generated, themes were repeating and no further coding was feasible (Fusch & Ness, 2015).

**f. Focus group discussions (FGDs)**

A focus group as a carefully planned discussion designed to obtain experiences in a defined area of interest in a permissive and no threatening environment Krueger and Casey (2000), Krueger (1988) and Denzin and Lincoln (1994). The researcher chose focus group interviews in order to obtain data directly from the participants, to ensure good interaction with the group, and to ensure free and adequate responses (Merton, Fiske & Kendall, 1990). The participants were selected because they all had certain characteristics in common that were related to the topic. A smaller group of four to six participants (composed of homogeneous persons) is preferable when the participants

have a great deal to share, but, in general, groups are composed of six to ten participants (De Vos, 2002). A total of 16 focus group discussions were conducted.

During these focus group discussions, the researcher established the ground rules in order to regulate the smooth interaction of the participants in either a nondirective or a directive manner (De Vos, 2002). Furthermore, the interviewer briefed the participants about the whole process and encouraged them to participate actively.

In this study, focus group discussions included eight participants per group from different departments (units) in each health facility to discuss a topic of interest” (Krueger, 2002).

In this study, five (5) focus group discussions consisting of 8 participants from different health professionals was conducted. Probing techniques mimic, facial expressions, and follow-up questions were used during group discussions. “Focus groups are group discussions in which about eight people are gathered together to discuss a topic of interest” (Krueger, 2002). The focus group was important to capture diverse point of view about quality improvement, which was a recent topic at the health care facilities. Hence, group interaction was necessary to explain the experiences, related to the topic. As recorded by Babbie (2008), the researcher was able to facilitate both individual interviews and FGD, which strengthened correct use of qualitative research methods, such as transcribing and analysing the data. FGD was remarked as the best tool to generate new concepts related to the topic that assisted both the researcher and participants to gain deeper understanding while consolidating ideas,

reflecting on actions, as well as agreeing and disagreeing about issues on the ground (Krueger & Casey, 2000).

Morgan (1998); the Office of Quality Improvement (1999); and Krueger (2002) describe the guidelines for conducting FGDs, which requires a clear purpose, proficient facilitation skills, and a good understanding of the topic. In this study and prior to the discussions, the researcher had introduced the purpose and objectives of the study, as well as a brief about the research ethics in terms of participants' right to participate. The participants were ensured that there were no right or wrong answers, only differing points of view. They were further introduced to the rules to be observed during the discussion (Krueger, 2002):

- Participants were informed about the voice recorder, hence one person had to talk at a time for the purpose of transcribing the conversation;
- Numbers were used for each participant instead of names, which was mentioned before the interviews commenced;
- Even when participants might disagree with other persons' opinions, they should listen respectfully while other members of the group were sharing their points of view; and
- Cell phones should be turned off or on silent. Only participants on call duty and in cases of emergency may answer calls.

The focus group discussion was guided by one main question: What are your experiences on the present state of quality health care with specific reference to

existing approaches of quality assurance and quality improvement to facilitate quality health care delivery at the health care facilities?

**g. Field notes**

Field notes refer to a researcher's handwritten notes taken during a field research activity. In this study, a field research activity was carried out by "...going directly to the social phenomenon under study and observing it as completely as possible" (Babbie, 2008). The field notes contained data from the participants in their natural work environment. "Field notes are contemporaneous notes of observations or conversation taken during the conduct of qualitative research, the notes taken can be full (e.g. verbatim transcripts of conversations taken by hand or recorded by a tape recorder) or brief notations that can be elaborated later" (Thorpe & Holt, 2008). Bryman and Bell (2003) identify three classifications of field notes based on suggestions by Lofland and Lofland (1995); Sanjek (1990). These classifications are mental notes when it may be inappropriate to take notes, jotted or scratched notes taken at the time of observation (non-participant observation, participant observation) or discussion and consist of highlights that can be remembered for later development, and comprehensive field notes written up as promptly and as fully as possible (Encyclopaedia of Qualitative Research, 2008). In this study, field notes were jotted down in a field notebook, as scratch, shorthand, and paraphrased notes. The transcripts of the voice recordings supported those field notes.

#### **h. Voice recorder**

In this study, a voice recorder was used to capture the conversation during face-to-face interviews and the FGD. Participants were informed prior to recording about the reasons for using the voice recorder, which was clearly understood and no name was attached to participants, since they used numbers to address one another at the time of speaking. The voice recorder was basically used as backup information to obtain correct and true information as told by the participants to support the researcher's written notes. At some point, the participants spoke very fast and the researcher was unable to capture all information and could not manually write down all the points discussed. The use of audio recordings, transcripts, and the analysis of textual data is widely supported by the proponents of qualitative research. This "...[m]odern technology can improve the trustworthiness of qualitative data by making it feasible to leave a sufficient audit trail for other researchers to evaluate (Markle, West, & Rich, 2011). Research using video recorded clips or audio technology and photographic means seems to generate positive debates in recent studies. Studies such as by Knoblauch, Baer, Petschke and Schnettler, (2008) discuss that visual data provides a more direct record of the actual events being investigated than any of the other major forms of data collection used by social researchers. However, the controversy showing visual clips data may hinge on issues of confidentiality and research ethics.

#### **i. Communication strategies**

In health care, communication cannot only be defined as transmission of information between health personnel and patients but its essence is to improve the methods of

communication to enhance quality health care delivery. “Effective communication is an essential part of building and maintaining good physician-patient and physician-colleague relationships” (Fong, Travaline, Ruchinskas, & D’Alonzo, 2005). The information collected in this study required good communication and writing skills for the researcher to work through the huge amount of data in the quest to present an academic report that could be appreciated by scholars who were interested to read about or study the topic. “The amount of textual data collected from in-depth interviews (IDI[s]), focus group discussions (FGD[s]), and direct observations – three common methods in qualitative research – can be extensive and can prove challenging to systematically analyse” (Kodish & Gittelsohn, 2011). Some of the techniques to interpret body language were neutral facial expressions; tentative responses and attention to participants while they were talking by nodding and verbal cues; such as “umm”, “ayah”, “I see”, and eye contact without positively or negatively reinforcing or imposing any answers. Those techniques kept the participants engaged and proactive during discussions. Different techniques were put to good use during the interviews and the FGD.

**Language:** The language used by the researcher was very simple and understandable, since the questions were based on the experiences of and information that was known to the participants and on the concepts and terminology that the participants were familiar with.

**Minimal verbal responses:** Most of the time, the researcher only expressed follow-up questions and probed with minimum interrogation about the responses using phrases; such as “umm”, “aha”; and nodding the head, as well as making eye contact to

acknowledge the participants' ideas and contribution to the discussion. The researcher also paraphrased statements to emphasise the idea of what was said.

**Probing:** Probing was exercised either to express follow-up questions or to emphasise and elicit further discussion or clarity about an idea. Probing was a means to sharpen the understanding about certain information, which was important but not clear enough to enrich the data. Eliot (2012) commends that qualitative researchers use probing and prompting techniques; such as what do you mean, "...[t]ell me more; can you give me an example and I don't understand to bring out a participant who fails to fully express themselves during an interview or focus group". In this study, the researcher provided certain hints to guide the participants to think further and to specify the content discussed.

Silence was one of the best mechanisms in this study and was used in combination with eye contact and a slight smile to encourage the discussion. Sometimes, silence speaks louder than words. It was used to allow the participants to think through and generate ideas to contribute to the discussion. The expression "umm", "I understand", or just eye contact can motivate further discussions and ideas from those participants who are silent. Silence does not necessary mean absence of thought but the person might be busy thinking about a different idea that would be useful to the discussion.

**Paraphrasing:** In this study, most of the sentences or words were paraphrased for the researcher to emphasise or reiterate the statement with a different wording to clarify the idea or to solicit another contribution according to a different thought or wording without diminishing the original thought.

Adequate knowledge: Before conducting the interviews and the FGD, the researcher had familiarised herself with relevant materials and practical lessons about the research topic. Hence, the researcher in advance had prepared background information about the topic under research with the purpose of understanding the participants' reaction better and clarifying any information or concept during the discussions or interviews.

Listening skills: Good listening skills were exercised during the interviews conducted with managers in leadership positions at the MoHSS head office and regional health Directorates. During the interviews and FGDs discussions, listening was highly important to guide the discussion from one idea to another and to keep the group engaged and focused on the topic under discussion. Listening skills were carefully maintained throughout the discussions in order to record each participant's information by making short summaries, shorthand writing, and commenting to further probe the ideas, repetition, and clarification to make sure that there was a common understanding of the proposed ideas. One of the strategies for careful listening learnt during the FGD was to keep silent and use most of the facial or mimic expressions to elicit new thoughts. The researcher was simply moderating the discussions while the group did the talking. However, as much as the notes were necessary, writing too much would have created a vacuum in provoking new ideas and excitements. Throughout the discussion, the researcher demonstrated competent moderating skills and commented when necessary to keep the discussion going and to generate new thoughts from all participants. One does not only need good listening skills but one should think

logically to understand the meaning of the words that generated concepts and repeating themes (data saturation) and be able to formulate good follow-up questions.

**Leadership skills:** The researcher's role was not only to facilitate the discussion but she had a leadership role too because she needed to direct the discussion without dominating or influencing the ideas of the group. The researcher, on the other hand, did not want the group to determine the direction of the discussion. If that occurs, one will not have time to obtain the information one needs to meet the requirements of the research project. Techniques to keep the conversation on the subject flowing are discussed later.

**Relationship with the participants:** The researcher had good relationships with the participants and there was a mutual understanding and a common purpose during discussions. It was noted that participants had developed a connection with the topic, which motivated the discussion and the willingness to share ideas, since they felt comfortable to communicate among themselves. The most important strategy in group discussions is to let people understand the objectives of the topic under discussion that a researcher does not obstruct nor defeat the purpose but serves as a facilitator. In this study the participants were able to participate freely, as the researcher was honest and open about the future benefits that would improve the current situation without having any monetary value for the participants.

**Patience and flexibility:** During interviews, especially during the FGD, it was noted that some participants needed more time to express their ideas. Therefore, it was important for them to be included and allowed time to express their points of view. At

some instances, the group was not just talking at all or no one wanted to continue with the discussion. In those cases, the researcher allowed a few moments of silence before the participants started opening up again. Flexibility was exercised in this study, since the group could not start on time, as no one was present at the venue. The researcher was patiently waiting and started half an hour later but with six participants out of the ten who had been invited to attend. The researcher kept calm and retained a sense of humour because in life things seldom go according to plan.

Observation skills: Just like listening skills, observation of participants' behaviour and actions was very important. For example, while expressing anger, one participant lifted his hands as if he would tear something apart. That prompted loud laughing among the group, which was very impressive because one would not expect a group to remain passive or bored but to actively narrate their actions. To be honest, the researcher had good experience of active groups who were interested in the discussions.

Congruence in this study was reflected in the match between the methodology and the question of discussion, which created consistency in the methods that generated reliable data about QI. The consistent question used during the pilot study was asked: "What are your experiences about existing approaches to quality improvement and quality assurance at the health care facilities?" That was the central question asked during five focus group discussions.

**j. Researcher's role during data collection**

The researcher had multiple and active roles to obtain information from the participants in the context of health care facilities. Among the main roles was verbal and written communication requesting for permission to collect data from the health care facilities and to arrange meetings. Certainly, good skills and mental abilities or preparedness were necessary for the researcher to use qualitative research techniques during unstructured and face-to-face interviews. The researcher had to organise and conduct successful individual interviews and group discussions with health professionals from different categories at the health care facilities. The researcher was familiar with the health care facility context and well-conversant with the terminology, not only about specific fields of health professionals but about the topic of research too. The researcher was skilled and prepared to guide the discussions. One needed good communication, listening, and interpersonal skills. The challenging moments of conducting interviews and focus group discussions were gathering the right people for the required period of time (at least about 45 minutes to an hour). Again, qualitative research requires abilities to formulate follow-up questions, to probe and to capture data extensively that needs to be transcribed and converted into written text before it can be reduced or summarised for accurate interpretation.

**k. Pilot study**

A pilot study of the checklist, interviews and FGDs were conducted in Gobabis district hospital (Omaheke region), Katima Mulilo district hospital (Zambezi region), and Rundu district hospital (Kavango region). This pilot the number of participants for

FGDs consisted of five health professionals from each of the following categories; doctor, registered nurse, social worker, pharmacist, and enrolled nurse. These categories were selected to pre-test whether the data collection methods and the main research question would be relevant and possible to be carried out. The group was limited to a few participants for the purpose of enabling the researcher to manage the group, since it was the first FGD to be conducted; hence it was a learning curve and preparation for the full research. The information obtained from the pilot study assisted the researcher to improve the questions of the checklist, use understandable language, improve the probing techniques to direct and guide the group discussions, gain confidence, which helped to put the researcher's skills into the test. According to Teijlingen and Hundley (2001), a pilot study refers to a small scale version of a full-scale study to pre-test the appropriateness of a particular research instrument, such as a questionnaire or interview schedule.

### **1. Data analysis**

After data collection, the data was sorted, organised to provide structure and simplified to extract meaning from the amount of collected data (Polit & Beck, 2012). In this study, the qualitative analysis was done concurrently with quantitative data collection. The audiotaped interviews, FGDs and field notes constituted the sources for qualitative data, which were transferred into the computer and organised by classifying for transcription and analysis. The transcribed data was then reduced into themes and sub-themes through coding and summarisation of codes, which were converted into text for discussion (Creswell, 2014, Polit & Beck, 2012). For this purpose, Tesch's method for qualitative data analysis was used, as discussed by (Ulin, Robinson, Tolley &

McNell, 2002) and (Creswell, 2014) that Tesch’s method uses eight steps for data analysis process whereby the researcher focus on reading, displaying, reducing and interpreting the data. The researcher decided to use Tesch’s method because of its systematic, approach and clear descriptions. These procedures were applied in this study, as follows:

**Table 2.3: Tesch’s steps of data analysis and its application to the study’ data analysis**

Data analysis and its application to the study	Application to the study
(1) Make sense of the whole. Read all of the transcriptions carefully and jot down some ideas as they come to mind. This step necessitates careful and repeated reading of the transcripts obtained to identify significant words and phrases.	<ul style="list-style-type: none"> <li>• The first approach undertaken by the researcher was to read through the whole documents in totality by viewing whole texts to try capturing its entire meaning. Selected and highlighted texts by extracting statements or phrases that were found to be essential to the knowledge understudy. The next step was analysing in detail all sentences to identify the themes.</li> </ul>
(2) Pick one of the shortest and most interesting interviews, go through it and find the underlying meaning.	<ul style="list-style-type: none"> <li>• The next step was to search for all significant meaning in each statement, analysing and comparing with other data and classifying them to formulate meanings.</li> </ul>
(3) Arrange those topics into columns of major topics, unique topics and leftovers.	<ul style="list-style-type: none"> <li>• The researcher wrote notes in the margins of the transcripts to analyse the database. This was done with all the participants, similar topics were grouped together in column, as themes and sub-themes.</li> </ul>
(4) Assign each topic a code and write the codes next to the appropriate segment of the text to see whether new categories and codes emerge.	<ul style="list-style-type: none"> <li>• Once the arrangement of topics was completed, the researcher analysed the data again and made contraction of the topics to generate codes, which were written in applicable segments of the text. The researcher ensured the measures of trustworthiness and credibility were maintained during coding. Those topics</li> </ul>

Data analysis and its application to the study	Application to the study
	with similarities were put together in the same codes.
(5) Find the most descriptive wording for your topics and turn them into categories. Seek ways of reducing your total list of categories by grouping topics that relate to each other.	<ul style="list-style-type: none"> <li>• Descriptions of the common words were used in the coding process. The researcher verified the coherence and consistency of all topics that were grouped together. A number of themes and sub-themes were emerged through the coding process, which formed the main findings of the study.</li> </ul>
(6) Make a final decision on the abbreviation of each category and alphabetise these codes. To arrive at the final set of categories and codes, the researcher must go through the materials many times.	<ul style="list-style-type: none"> <li>• The last step was to create the three columns for the topic, themes and sub-themes.</li> </ul>
(7) Group the data belonging to each category in one place and perform a preliminary analysis. Data reduction is a form of analysis that sharpens, sorts, focuses, discards and organises data in such a way that final conclusions can be drawn and verified.	<ul style="list-style-type: none"> <li>• The act of giving the same codes to the descriptions was in essence a way to reduce the data.</li> </ul>
(8) Recode your data, if necessary.	<ul style="list-style-type: none"> <li>• The data was securely stored for easy retrieval, editing and re-coding when was necessary</li> </ul>

### 2.4.2 Phase 2: Conceptual framework

In developing the conceptual framework, Dickhoff's Practice Orientated Theory (1968) was used as the basis to develop a quality improvement training programme for health professionals at the health care facilities in MoHSS. The elements in Dickhoff's practice orientated theory (1968) were used to construct a reasoning map and steps for the researcher to understand the basis for developing the educational programme. The

framework provided six (6) components, which served as logical steps followed in this stud, as detailed in Chapter 4.

### **2.4.3 Phase 3: Developing of the training programme**

A model by Meyer and Van Niekerk (2008) was adapted to guide the process of developing the training programme, as described in Chapter 5. The model consists of five steps. In objective 1 and 2 of the situation analysis, the researcher used a preliminary phase to become familiar with the situation and to introduce the programme at health care facilities. This was an exploration and description phase to facilitate the investigation with the view of understanding the situation. The third third phase was to describe the conceptual framework used as the basis for developing the educational programme. The fourth phase of the study was the actual process of developing the educational programme. Lastly, the validation phase was used to present the findings to stakeholders and to verify whether the programme was relevant in the context of health care facilities.

### **2.4.4 Phase 4: Development of the guidelines for the implementation and evaluation**

In developing a quality improvement training programme, two main theories were adapted. The researcher focused on the model of Meyer and Van Niekerk (2008), which was adapted to guide the process of developing the training programme. For the training programme content, Deming (1994) PDSA and MoHSS Quality Management Policy were used to enhance the findings. Others were Kolb's experiential and Knowles learning theories, which were also used to facilitate teaching and learning

processes, as illustrated in Chapter 5. The educational programme to be evaluated included the purpose, programme objectives; benefits to the participants and society; profession (body of knowledge); structure, name; unit standards; quality assured components; outcomes, duration, as well as completion of successful training in line with the NQA framework.

The successful implementation of the training programme had to follow the four steps, as described in Chapter 6.

- Step 1: A situational analysis has two components, namely a situation analysis and planning.
- Step 2: Facilitation has four components; namely educational approaches, learning content of the programme, facilitation techniques / teaching and learning methods, and evaluation techniques.
- Step 3: Implementation consists of an orientation phase, a working phase, and termination phase.
- Step 4: Evaluation of the programme focuses on evaluation techniques; such as formative techniques, summative methods, and feedback.

#### **2.4.5 Validating and quality of educational programme**

As indicated in Chapter 6, the training programme was validated by a team of expertise, managers, health professionals and stakeholders during a meeting to assess whether it was relevant to address the identified gaps in quality health care delivery in the health. Among the stakeholders who contributed to the programme review were Management at MoHSS head office, Health Professionals from Khomas region (WCH

and Katutura Intermediate hospital). The participants were given the opportunity to assess the programme based on the name, purpose, content, objectives proposed methods and learning approaches, as well as benefit of the training programme, as discussed below.

- The objectives and purpose of the training programme are clear and understandable.
- The learning methods, activities, and content are appropriate to meet the training needs of participants.
- The conceptual framework and learning theories are clearly explained.
- The stipulated benefits of the training programme are useful to the health care facilities and customers.
- The training programme will enable health professionals to improve efficiency and effectiveness in health care.
- Once, the training programme is implemented, there will be a significant improvement in quality health care delivery after attending training.
- Good methods had been described to enhance the training activities.
- There is a clear plan for disseminating the evaluation findings used to improve the efficiency of the training programme.

## **2.5 ETHICAL ASPECTS**

Ethics refers to the application of moral values and obligations of research to adhere to principles and standards. In this study, the researcher observed and practised the ethical principles of honesty, integrity, and use of minimum risk in conducting

research. The study followed certain procedures as part of the research principles and standards guiding research protocols. The researcher was very careful to abide by the procedures to ensure that neither the rights of participants were violated, nor were the properties of the research permission by the MoHSS management infringed upon. Research ethics are defined as agreed social norms, principles, and standards that regulate research protocols to minimise undesirable actions or behaviour in conducting research, especially research that involves human subjects. In this study, five main ethical principles were observed.

### **2.5.1 Permission to conduct the research**

Permission to conduct the study at the health care facilities was granted by the University of Namibia (Annexure A); MoHSS (Annexure B), Researcher Proposal to conduct research in the health facilities (Annexure C) and Registration of a research project by MoHSS (Annexure E). Although approval letters were couriered to all the Regional Health Directors, some health care facilities did not receive the letters. The researcher had to follow up with specific Health Regional Directors, Senior Medical Superintendents, Principal Medical Officers, and Nurse Managers and letters were either faxed, or scanned and emailed to them. Telephone calls were made to confirm the dates and times of the scheduled interviews and focus group discussions. In addition, before entering the research venue, each participant was requested to sign an informed consent form to indicate his / her willingness to participate in the study. In the consent form, participants were assured of the ethical principles and rules pursued in this study. Participants in this study were provided with sufficient information about the research right to enable them to participate or not. Polit *et al.* (2005) define informed

consent as the way of providing adequate information about the research to understand the study and make informed decisions.

Participants signed the consent form that confirmed their anonymity, as no name was requested but each participant or group was assigned an ID number (identifiable number), which were used as codes during the transcribing process. That approach protected participants' sharing of information and prevented any one from identifying a particular participant although they knew at which health care facility the information was obtained. The anonymity of the participants was further secured, since it was not possible to trace back any data to a particular participant (City of New York, 2012).

Research indicates that there is a slight difference between anonymous and confidential in the sense that the data obtained during face-to-face interaction, surveys, and focus group discussions can be regarded as confidential, since the possibility exists that data could be traced back to a participant. In this study, the researcher assured that the information provided by the participants would remain confidential and only the researcher was able to view the raw data, especially the voice recorded material. No one had access to the data except the researcher who was in close contact with the participants. After transcribing all the information, the recorded information was copied to CDs that were stored at a safe place and deleted from the computer. The raw data would be kept for a minimum of one year and destroyed once the information had been published. The researcher assured the participants that the information was for academic purposes and future research to improve quality health care delivery at the health care facilities. That objective was inspired by achieving the MoHSS goals and improving patient care for the general wellbeing of the communities.

### **2.5.2 Principle of respect**

According to the United Nations Educational, Scientific, and Cultural Organization (UNESCO) (1997); Medical Research Council of Canada (1987); Department of Health, Education, and Welfare (1979); as well as the Social Sciences and Humanities Research Council of Canada (1997), the principle of respect is considered fundamental to human dignity and comprises privacy and confidentiality. In this study, participants were treated with respect and dignity throughout the research. The researcher visited the office in charge of administration not only out of courtesy but for the principle of respect, which facilitated good involvement and cooperation among participants. The best approach was to clearly clarify the objectives of the study and the anonymity because some patients could not fully express their opinions about the health professionals. Again, they were informed of their rights to participate freely without fear, since the information would not be traced back to any person. They were informed about their right to withdraw from the study at any time without providing any reason.

### **2.5.3 Principle of beneficence**

Although, there were no immediate benefits, the training programme aimed at empowering health professionals with the right knowledge, skills, and aptitudes to continually improve quality health care. One of the quality goals is the reduction of blunders and mistakes during treatment and care. This goal would be achieved only by providing capacity and equipping health professionals with KSAs about quality standards. Again, if the MoHSS strives to be the best public health provider in Africa

and beyond, the ministry would require well-trained and skilled personnel to improve performance and yield positive health care results. The study had many benefits and no anticipated harm except the 30 to 60 minutes' time required to complete the checklist, interviews and FGDs in exchange for the study's contribution to the knowledge in the field of quality health care management. The end results of the training programme are skilled, knowledgeable and change in attitudes of health professionals that would enhance quality health care. More principles of beneficence were applied in this study by "...[m]aximising possible benefits and good for the subject, while minimising the amount of possible harm and risks resulting from the research" (Kopelman, 1995).

#### **2.5.4 Principle of justice**

Although, there were no immediate benefits, the training programme aimed at empowering health professionals with the right knowledge, skills, and aptitudes to continually improve quality health care. One of the quality goals is the reduction of blunders and mistakes during treatment and care. This goal would be achieved only by providing capacity and equipping health professionals with KSAs about quality standards. Again, if the MoHSS strives to be the best public health provider in Africa and beyond, the ministry would require well-trained and skilled personnel to improve performance and yield positive health care results. The study had many benefits and no anticipated harm except the 30 to 60 minutes' time required to complete the checklist, interviews and FGDs in exchange for the study's contribution to the knowledge in the field of quality health care management. The end results of the training programme are skilled, knowledgeable and change in attitudes of health

professionals that would enhance quality health care. More principles of beneficence were applied in this study by “...[m]aximising possible benefits and good for the subject, while minimising the amount of possible harm and risks resulting from the research” (Kopelman, 1995).

## **2.6 MEASURES TO ENSURE TRUSTWORTHINESS**

Trustworthiness of qualitative research might be different from the positivist’s theory (quantitative research methods) but both need to establish whether the findings are authentic and can yield similar results when applied in other settings. Trustworthiness is based on the principles of credibility (internal validity), transferability (external validity, generalisability), dependability (reliability), and confirmability (objectivity) as discussed by Guba and Lincoln (1981).

**Table 2.4: Application of criteria**

Strategy	Criteria	Practical application
Credibility	Prolonged and varied field experience	<p>The study was conducted by a qualified academician with a background in health care with wide knowledge and skills to conduct research.</p> <p>The researcher has wide experience of the study area being worked in planning and management of health care services for 10 years.</p>
	Examine the phenomena under different circumstances	<p>The background and familiarisation of the researcher with the environment through employment experiences, consulting policies, documents and engaging participants in the research process to obtain an understanding of the existing situation in the health care facilities. The data was collected from different hospitals in different regions.</p>
	Reflexivity	<p>The researcher was the main principal investigator who participated fully in all the phases of research: design, data collection, data analysis up to the reporting the findings.</p>
	Triangulation	<p>The study used mixed methods (individual interviews, focus group discussions and observations), as part of triangulation to strengthen the findings.</p> <p>The use of (checklist) questionnaire in data collection and data analysis techniques, such as transcribing, coding, generating themes and subthemes that was supported by credible techniques of research used in similar context. Twelve individual interviews and 5 FGDs were used in data collection.</p> <p>A checklist on health care facilities was administered to the top management.</p>

Strategy	Criteria	Practical application
		<p>Various literature controls were used.</p>
		<p>Use of both qualitative and quantitative methods in data collection and analysis.</p>
		<p>The researcher used probing “iterative questioning” strategies to obtain more evidence and to support the information from different points of view.</p>
	<p>Member checking</p>	<p>The use of consent forms provided opportunities for participants to decide and make choices for participating of their free will to ensure honesty of information without any restrictions.</p> <p>Participants were allowed to ask questions for clarification on the purpose of the study and check their responses and evaluate the outcomes of the study.</p>
	<p>Peer examination and debriefing</p>	<p>Debriefing meetings were constantly held between the researcher, participants, gatekeepers, experts, and supervisor to question the findings and for refinement purposes.</p>
	<p>Code-recode procedure</p>	<p>The researcher analysed the data, produced the themes and gave it to an experienced researcher who assisted with verifying the themes.</p>

### **2.6.1 Credibility**

The data analysis in this study was credible because the data was accessed from people in their social environment using standardised methods that could be applied to similar conditions and would yield the same results. Credibility refers to "...adequate representation of the construction of the social world under study" (Bradley, 1993). Shenton (2004) points out that credibility in qualitative research focuses on internal consistency or congruency of the findings with reality on the ground. Guba and Lincoln (1981) add that credibility is one of the most critical aspects to establish the trustworthiness of a research project. Shenton (2004) explains that in order for researchers to provide assurance with regard to credibility of their studies and to precisely record the phenomena according to acceptable procedures, certain steps should be explained to convince the readers. Among the steps to ensure credibility in this study were debriefing meetings held with experts in the field, participants, and management. In this study, debriefing was used to evaluate the study by external persons during different phases to ensure its credibility. Debriefing can occur among various groups at different phases, such as "...[p]eer debriefing, debriefing the participants on completion of the study, debriefing the gatekeeper, debriefing occurring among multiple researchers involved in the same study, and debriefing focus group moderators" (Leech & Onwuegbuzie, 2008; Lincoln & Guba, 1985; Maxwell, 1992, 2005; Merriam, 1988). This study has followed the research procedures to ensure credible data (Table 2.1).

**Table 2.5: Application of transferability criteria**

Strategy	Criteria	Practical application
Transferability	Dense description	The researcher provided condensed and thick information about the context of the study that was supported by a literature control that enables the findings to be generalised in a similar context.

### 2.6.2 Transferability

The research was based on a recognised theoretical framework that was used in similar studies. An acknowledged theoretical framework facilitates data collection and findings that can be replicated or transferred to other contexts. Similarly, apart from random sampling, purposive sampling is used to collect data from experienced participants who possess expertise about the topic. Horsburgh (2002) echoes that “...the selection of participants should be purposive on the basis of their ability to provide relevant data on the area under investigation”.

Merriam (1998) elaborates that transferability in qualitative research refers the extent in which the results can be generalised or applied to other contexts. At the time of the study, criticism was still levelled to qualitative research because it supposedly “...lack[ed] scientific rigor, measurements and causal relationships used in quantitative” (Horsburgh, 2002). On the contrary, qualitative methods can complement quantitative methods by delving deeper to understand the experiences, views, feelings, behaviour, and attitudes that could confirm and substantiate the outcomes of quantitative methods. For example, qualitative research could facilitate a

deeper understanding of ways to help people cope with or after devastation or decease, such as Ebola. Bassey (1981) suggests that “...if practitioners believe their situations to be similar to that described in the study, they may relate the findings to their own positions”. Health professionals could relate their context to the topic of this study because they believed the challenges and issues were similar in the health care context. Qualitative research does employ a “...systematic and rigorous approach to ensure credibility, transferability and dependability” (Guba, 1981; Schwandt *et al.*, 2007). This was demonstrated through description of the research process and the context of this study. Li (2004) explains that “...thick description enables judgements about how well the research context fits other context[s]” and the results of the study can be generalised to other contexts. “Transferability is achieved by providing a detailed, rich description of the settings studied to provide the reader with sufficient information to be able to judge the applicability of the findings to other settings that they know” (Seale, 1999).

**Table 2.6: Application of confirmability criteria**

Strategy	Criteria	Practical application
Confirmability	Confirmability audit	At the beginning of the study, the researcher attended a training workshop on research methods.  The researcher conducted a literature control.
	Referential adequacy	Use of written field notes and a voice recorder.  The use of a checklist.

Strategy	Criteria	Practical application
	Independent coder and quantitative data analyst	The use of an experienced independent coder to help with data entry while the Data Analyst assisted with interpreting both qualitative and quantitative data.

### 2.6.3 Confirmability

The findings of this study were derived from actual data collected at the health care facilities in relation to experiences of health professionals and patients about the situations they were facing. “Confirmability refers to the degree to which the results of an inquiry could be confirmed or corroborated by other researchers” (Anney, 2002). The results of this study were based on true stories of health professionals and managers about challenges they were facing during health care delivery. Patton (1990) argues that it is difficult to recognise objectivity in research because the questions are developed by the researcher. On the other hand, research indicates that confirmability is achieved through an audit trail, a reflexive journal and triangulation (Bowen, 2009). The results of this study can be confirmed; participants’ points of view can be compared to the findings of previous research conducted in similar contexts of health care. Miles and Huberman (1994) reason that a key criterion for confirmability is the extent to which a researcher admits his or her own predispositions. In this study, the researcher endeavoured to maintain a highly neutral disposition because there were no structured questions apart from probing questions throughout the interviews and focus group discussions.

## 2.6.4 Reflexivity

In this study, the researcher reflected on the whole process of interviews and FGDs, which helped not only to improve the mode of activities but also to extensively elaborate on the meanings of actions and concepts that were added with regard to the topic. Reflexivity is the process that captures the past actions of a person that is representative of past events. Reflexivity is “...an assessment of the influence of the investigator’s own background, perceptions and interests on the qualitative research process” (Krefting, 1991). The approach was used in this study as part of confirmability to reproduce or create a mirror of events that happened during the field research.

**Table 2.7: Application of dependability criteria**

Strategy	Criteria	Practical application
Dependability	Dependability audit	Thorough guidance by supervisor throughout the study.  A condensed description of the methodology was provided.  The researcher consulted the experts in the field.  Literature controls were employed.
	Dense description of the research methods	The research methods used were: Selection of the population of participants, sample and sampling, as well as data collection and analysis.
	Triangulation	Use of different methods of data collection and analysis.
	Peer examination	Evaluation of the programme by experts in the field.

### **2.6.5 Dependability**

In this study, dependability was achieved by using matching methods of FGDs and interviews, which ensured soundness, thoroughness, depth, as well as detailed and vigorous process that, supported the findings to be reliable and applicable in other similar contexts. Shenton (2004) argues that the research design of a study uses a “...prototype model” of research, which enables the reader to assess and confirm whether the use of research practices have been correctly followed. Shenton (2004) attests that the differences are mainly found in the techniques used to ensure that “...if the work were repeated in the same context, with similar methods and participants, it would produce the same results”.

### **2.6.6 Authenticity**

The findings of this study were authentic because it was supported by reliable methods, legitimate information accessed from participants in the context of the health care facilities. The findings were a reflection of experiences of health professionals about the situation in the real environment where they were working. Authenticity may be referred as genuineness or trueness of information that support research findings. Given (2008) states that a research project can be authentic when its accuracy, certainty, validity, reliability, legitimacy, verity, actuality, faithfulness, truthfulness, dependability, trustworthiness, authoritativeness, and factualness are proven.

## **2.7 SUMMARY**

Chapter 2 discusses the procedures adopted in collecting, processing, and analysing the research data. It was based on methods used by other researchers in most health

care contexts. Since health systems are complex, most studies emphasise the use of mixed methods to triangulate the data with the purpose of obtaining reliable and valid information about the status of quality health care. Some statistical methods were applied in this study to define the relationships between variables and interpret the meaning of concepts in relation to quality health care. The statistical methods included analysis of variances and Pearson's correlation coefficient to establish the correlation between variables. Other methods, such as regression and factor analyses were used to further explicate the data to support the findings and framework to improve quality health care delivery. This chapter outlines the research design and methodology of data collection, analysis, and interpretation of findings.

## **CHAPTER 3**

### **DISCUSSION OF RESULTS AND LITERATURE CONTROL**

#### **3.1 INTRODUCTION**

The previous chapter discusses the research design and methods followed in this study. This chapter describes the results based on the experiences and views of managers in leadership positions and health professionals on the state of QI and QA with an emphasis to facilitate quality health care and service delivery at the health care facilities in the MoHSS. The findings from both quantitative and qualitative analysis were consistent and comparable, which verified the aspects that formed challenges hampering quality health care delivery and prerequisite for an educational programme for health professionals to improve quality health care and service delivery in the health care facilities. Eight components emerged from quantitative analysis did support the five (5) main themes and thirteen (13) sub-themes, which emerged from qualitative data analysis. In this study, QA and QI were viewed as two pillars linked to these findings, if adequately implemented could improve quality health care delivery at the health care facilities in Namibia. The five themes are as follows:

- lack of implementation of available policies and guidelines to facilitate QA and QI;
- poor management of resources;
- ineffective interpersonal relationships and inadequate understanding of QI and QA principles and concepts;
- insufficient research to generate evidence-based information; and

- inadequate monitoring and evaluation.

These components resulted into the development of an educational programme for health professionals to facilitate quality health care and service delivery at the health care facilities. It is a known fact that QI might not be achieved without adequately trained health professionals to meet patients' health care needs.

This chapter denotes primarily the experiences and views of managers in leadership positions and health professionals and about quality health care delivery at the health care facilities.

The results from the situation analysis are divided into two sections (A and B) to describe the two objectives of the situation analysis Phase 1. Section A focuses on a descriptive analysis while Section B provides a narrative discussion that contains direct quotations of participants in italics. A literature control was used to substantiate the data and consolidate the findings.

The purpose of this chapter is to present the findings of the study, which were generated from Objective 1 and 2 of the situation analysis, which were to: 1) analyse the current situation of quality health care delivery in the health facilities; 2) explore and describe the experiences of managers in leadership positions and health professionals with regard to quality health care delivery at health care facilities in the Erongo, Khomas, Kunene, and Omusati regions.

### 3.2 DESCRIPTION OF THE FIELD ACTIVITIES

The field activity had two sections: section A focused on individual interviews with managers in leadership positions at MoHSS head office, Regional Health Directors in Erongo, Khomas, Kunene and Omusati, as well as Medical Superintendents at WCH and KIH (n = 21) who were purposively selected. A purposive method was used because managers in leadership positions were well-known by virtue of positions occupied in the MoHSS, abilities to provide rich information, knowledge, willingness to participate, good communication skills, and clear articulation of the research topic, as discussed by Cresswell and Plano (2011); Bernard (2002); and Spradley (1979). The individual interviews were conducted in the participants' work environment (personal offices).

The field activity two (2) concentrated on five (5) FGDs, which were also purposively selected based on their profession, functions performed and department or unit they were working. This included managers in leadership positions and health professionals (n = 40) from Swakopmund district hospital (Erongo region); WCH and KIH (Khomas region); Opuwo district hospital (Kunene region) and Kamaku district hospital (Omusati region). The FGDs were held in conference rooms at these hospitals, which had enough space to accommodate more than 10 participants. The main question that guided the FGDs was: *what were the existing approaches on quality improvement and quality assurance to facilitate quality health care delivery at the health care facilities in the MoHSS.*

### 3.2.1 Participants characteristics

Objective 1, section A had a total number of 12 participants drawn from a sample n = 21 participants. Eight of these participants were females while 13 were males between 35 and 45 years of age followed by females of the same age group. The majority of females were in the age group of 50 years and older. The youngest group of participants ranged between 20 and 35 years and all of them were females. The majority (76%) achieved tertiary education, four (4, 5%) held a Master's or a Doctorate degree while 1% had at least a secondary qualification. The majority of participants had either 2 to 5 years or 10 to 20 years of experience while only few had more than 20 years' experience. The participants occupied different positions, ranging from managerial positions (n = 15), medical doctors (n = 8), as well as registered nurses and social workers (n = 4) while hospital administrators, quality managers, and enrolled nurses represented the smallest number of participants. A summary of the demographic data is presented in Tables 3.1 – 2.3 below.

**Table 3.1: Number of respondents per gender**

Gender	Male	Female
	20	20
Age		
20 – 25 years	5	3
25 – 35 years	4	3
35 – 45 years	8	7
45 – 50 years	5	3

50 years and older

3

5

**Table 3.2: Number of years in current position**

Less than 1 – 2 years	3
2 – 5 years	15
5 – 10 years	10
10 – 20 years	8
20 years and longer	4

**Table 3.3: Occupations per category**

Occupation / area of work	No.
Hospital administration	3
Medical doctors	8
Medical / surgical floor nurse	2
Management / planning	15
Registered nurse	4
Social worker	4
Enrolled nurse	1
Others (quality assurance managers, general ward)	2

### **3.2.2 Data collection process**

The process of arranging the interviews and FGDs in this study took about two months and started with writing letters requesting for consent from participants. Some letters were hand delivered, faxed or emailed by the researcher to the senior management at

the MoHSS head office, regional health directors, senior medical superintendents, and nurse managers at referral, intermediate, and district hospitals requesting them to participate in the interviews, as well as organising teams of health professionals to participate in the FGDs. With regard to the self-administered checklist, follow-ups were made through telephone and email to either arrange or re-schedule interviews; as some health professionals, especially Nurses were busy with the National Immunisation Days (NIDs) and could not keep to the earlier arrangements.

The researcher introduced herself and described briefly the background, rationale, objectives, and problem statement of the study to the participants with the view of enabling them to make informed decisions whether to participate or not. The researcher further highlighted the issues about ethical standards that were adhered to during the entire research process and informed the participants about the process of approval by the MoHSS and the UNAM. She further reassured the participants of their right to privacy and protection from any harm which could arise from taking part in the study. They were also informed about the researcher's conduct and that all the information provided by the participants would be kept confidential. To demonstrate adherence, participants were not required to indicate their names. Numbers were provided to focus group interviewees during the discussion for easy retrieval, transcribing, and coding. The participants were further informed that they had the right to withdraw from the study at any time if they so wished. One of the participants withdrew as a result of information provided to them. The reason for the withdrawal was due to the participant being on a contractual work basis.

### 3.3 DISCUSSION OF RESULTS ON OBJECTIVE 1: SITUATION OF QUALITY HEALTH CARE / SERVICE DELIVERY AT THE HEALTH CARE FACILITIES

The analysis of demographic data included age, gender, occupation, years in current position or duration of work, education attained / level of education, as well as primary roles. The data was collected from respondents through a self-administration checklist that consisted of statements measured on a Likert scale of agree, neutral, disagree, yes and no, as illustrated in the annexure J.

#### 3.3.1 Socio-demographic characteristics of respondents

The socio-demographic data was used to understand the characteristics of respondents in their capacity as managers in leadership positions and health professionals in the MoHSS, as interpreted in Table 3.3 below.

**Table 3.4: Socio-demographic characteristics of respondents**

Item	Count (n = 21)	%	Cumulative %
Age (yr.)			
35 – 45	5	24	24
45- 55	13	62	86
55 >	3	14	100
Gender			
Male	13	62	62
Female	8	38	100
Occupation			

Deputy Permanent Secretary	1	5	5
Under Secretary	2	10	15
Directors	3	14	29
Pharmacist	1	5	34
Medical Superintendents	2	10	44
Principal Medical Officers	2	10	54
Health Programme Officers	3	14	68
Matron	4	19	87
Senior Personnel Officer	1	5	92
Other	2	10	100
Duration of work			
2 to 5	6	29	29
5 to 10	8	38	67
10 to 20	5	24	91
20 >	2	9	100
Education attained			
Primary	0	0	0
Secondary	0	0	0
Tertiary	17	17	17
Other	4	4	21

### 3.3.2 Age

The age of respondents was an important factor to determine whether there were any differences in responses based on perceptions among the age groups and about what were perceived as critical issues hampering health facilities in their quest to deliver and maintain standards of quality health care in the MOHSS. The age groups would

have different views, thinking, and experiences about QI and QA, hence respondents were subdivided into age categories: the majority of respondents 13 (62%) were in the age range of 45 – 55 years, 5 (24%) were between 35 – 45 years while 3 (14%) were above 50 years.

### 3.3.3 Gender

Gender was used to segment the results recognising the effect that it might have on variances in perceptions, thinking, and feeling towards the interpretation of quality health care delivery at the health facilities. The majority of the participants were male 13 (62%) and 8 (38%) were female. This explains the high dominance of males in top managerial positions. Despite the fact that health facilities were viewed as female dominated, the picture had changed, since more and more males were aspiring to high positions than their female counterparts. Further research might provide insight and interpretations into differences between gender and positions, as well as leadership qualities required by those at management levels to facilitate quality health care delivery.

**Table 3.5: Gender and age group cross tabulation**

			Age group			
			> 55	35 – 45	45 – 55	Total
Gender	F	Count	2	1	5	8
		% within Gender	25,0%	12,5%	62,5%	100,0%
	M	Count	1	4	8	13
		% within Gender	7,7%	30,8%	61,5%	100,0%
Total	Count	3	5	13	21	

	Age group			Total
	> 55	35 – 45	45 – 55	
% within Gender	14,3%	23,8%	61,9%	100,0%

Based on the 21 respondents' level of education, as illustrate in Table 3.1, 17 (80%) had tertiary education while 4(20%) specified that they had competed Master of Public Health.

In order to get reliable and balanced data, respondents from different departments and units were selected. Figure 3.2 indicates employees who were at management positions either at the MoHSS head office, regional health directorates or hospital levels. The positions occupied by respondents ranged from middle management to top management. The occupation was analysed to determine whether the position had any influence on quality health care delivery.

### 3.3.4 Duration in position

In this research, the highest respondents in an occupational position ranged from 5 – 10 years which were 8 (38%), 2 – 5 years 6 (29%), 11 – 20 years were 5 (24%), while > 21 years were only 2 (9%). The duration of work in a current position of the respondents, as a manager in leadership position ranged from 2 to 20 years, as indicated in socio-demographic characteristics section. The managers who had longer experience in a current position had broad understanding and experiences of challenges and needs of health professionals to deliver quality health care at the health facilities in the MoHSS. In addition, a reasonable distribution of respondents among

different years in their occupation provided a picture about what was happening at health facilities in terms of quality health care delivery. Based on the chi-square tests shown on Table 3.4 indicates that there was a moderate relationship between gender and duration in an occupational position. Although there was no significant relationship, there still was an opportunity to research QI related matters.

### **3.3.5 Interpretation of statements on quality health care delivery**

The statements discussed in this research focused on the availability of policies and guidelines; leadership, human, physical, material, and financial resources; information, monitoring and evaluation; as well as research to facilitate quality health care delivery.

### **3.3.6 Policies and guidelines to facilitate quality health care delivery**

In relation to policies and guidelines, respondents rated nine items (Table 3.5).

**Item 1:** Seventeen (81%) of the participants agreed that the quality improvement policy and guidelines were aligned to organisations' strategic objectives to prioritise, identify, and address gaps in quality health care delivery at the health facilities; however, one (5%) disagreed while three (14%) were neutral.

**Item 2:** Fifteen (71%) of the participants agreed that health facilities had standards, documents that guided health professionals, and ethic / steering committees to ensure appropriate conducts and compliance to quality health care measures. However, three (14%) remained neutral while one (5%) disagreed.

**Item 3:** Seventeen (81%) of the participants agreed that there were written descriptions of formally agreed quality policy and plans at both operational (health facility) and national levels but three (14%) remained neutral while one (5%) disagreed.

**Item 4:** Thirteen (62%) agreed that health committees that encouraged and supported stakeholders' active participation in quality improvement processes existed at the health facilities, three (14%) remained neutral while five (24%) disagreed.

**Item 5:** Participants were given an opportunity to rate whether health facilities had clear guidelines on quality health care delivery at organisational level that were understood by all health care providers (operational – facilities, intermediate – planners, policy – decision makers, strategic – management). On this item, 14 (67%) agreed, two (10%) remained neutral while five (24%) disagreed.

**Item 6:** In terms of the availability of incentive strategies (moral, materials, or monetary) to encourage participation in quality improvement programmes, 17 (81%) participants agreed, three (14%) were neutral while one (5%) disagreed.

**Item 7:** Fourteen (19%) participants agreed that physical facility planning and maintenance were part of the quality improvement policy to facilitate quality health care delivery, three (14%) were neutral while 14 (67%) disagreed.

**Item 8:** Eleven (52%) participants agreed that health facilities had well-defined Quality Improvement Checklists for indicators and Quality Inventory Plan for all essential supplies, nine (43%) participants opted for neutral while one (5%) participant did not support that statement.

**Item 9:** Participants were given an opportunity to indicate whether health facilities had operational feedback plans to respond to patients' concerns to facilitate good communication. However, 12 (71%) agreed, one (5%) was neutral while five (24%) disagreed.

**Table 3.6: Frequencies on policies and guidelines (n = 21)**

Statements / items	Agree f (%)	Neutral f (%)	Disagree f (%)
<b>Item 1:</b> There is a quality improvement policy and guidelines aligned to the strategic objectives of the organisation to prioritise, identify, and address gaps in quality health care delivery.	17 (81%)	3 (14%)	1 (5%)
<b>Item 2:</b> There are documented standards that guide health professionals and ethic / steering committees to ensure appropriate conduct and compliance to quality health care measures.	15 (71.4%)	3 (14.3%)	3 (14.3%)
<b>Item 3:</b> A written description of a formally agreed quality policy and plans at both operational (health facility) and at national level are implemented.	17 (81%)	3 (14%)	1 (5%)
<b>Item 4:</b> There are health committees that encourage and support all stakeholders' active participation in the quality improvement process.	13 (62%)	3 (14%)	5 (24%)
<b>Item 5:</b> There are clear guidelines on organisational levels of quality health care delivery that are understood by all health care providers (operational – facilities; intermediate – planners, policy – decision makers; strategic – management).	14 (67%)	2 (10%)	5 (24%)
<b>Item 6:</b> There are incentive strategies (moral, material, or monetary) to encourage participation in quality improvement programmes.	17 (81%)	3 (14.2%)	1 (5%)

Statements / items	Agree f (%)	Neutral f (%)	Disagree f (%)
<b>Item 7:</b> The physical facility planning and maintenance are part of the quality improvement policy to facilitate quality health care delivery.	4 (19%)	3 (14%)	14 (67%)
<b>Item 8:</b> There is well-defined Quality Improvement Checklists for indicators and a Quality Inventory Plan for all essential supplies.	11 (52%)	9 (43%)	1 (5%)
<b>Item 9:</b> Health facilities have operational feedback plans to respond to patient concerns to facilitate good communication.	12 (71%)	1 (5%)	5 (24%)

The majority of respondents (50% - 80%) were in agreement with all the statements, which implied that policies and guidelines were available that could be enhanced to facilitate quality health care delivery. On other hand, the results from the FGDs with health professionals indicated that although policies and guidelines were available, often they were neither effectively implemented nor understood to address challenges experienced in quality health care delivery. It could be, therefore, concluded that although policies were available, often there was no common understanding to enhance effective implementation (Table 3.4).

### 3.3.7 Leadership to facilitate quality health care delivery

On leadership to facilitate quality health care delivery at health care facilities, participants were given four items to rate as illustrated in Table 3.5.

**Item 1:** There is visionary and strong leadership to ensure active involvement of health professionals and stakeholders in setting priorities for planning of quality health care

improvement; ten (48%) participants agreed, six (29%) opted for neutral, and five (24%) disagreed.

**Item 2:** Leadership provides guidance and coaching to staff members for strategic planning and testing the process of quality improvement; thirteen (62%) agreed, one (5%) remained neutral, and seven (33%) disagreed.

**Item 3:** Leadership supports employees to build commitment and confidence in process analysis and quality improvement initiatives; twelve (57%) agreed, eight remained neutral (38%), one (5%) disagreed.

**Item 4:** Leadership encourages health professionals to design interventions to improve quality care and service delivery; ten (48%) agreed, three (14.2%) remained neutral, and eight (38%) disagreed.

**Table 3.7: Frequencies on leadership (n = 21)**

Statements	Agree f (%)	Neutral f (%)	Disagree f (%)
<b>Item 1:</b> There is visionary and strong leadership to ensure active involvement of health professionals and stakeholders in setting priorities for planning of quality health care improvement.	10 (48%)	6 (29%)	5 (24%)
<b>Item 2:</b> Leadership provides guidance and coaching to staff members for strategic planning and testing the process of quality improvement.	13 (62%)	1 (5%)	7 (33%)
<b>Item 3:</b> Leadership supports employees to build commitment and confidence in process analysis and quality improvement initiatives.	12 (57%)	8 (38%)	1 (5%)

Statements	Agree f (%)	Neutral f (%)	Disagree f (%)
<b>Item 4:</b> Leadership encourages health professionals to design interventions to improve quality care and service delivery.	10 (48%)	3 (14.2%)	8 (38%)

The responses on leadership indicated a high percentage of 48% - a 57% of respondents who were in agreement that the MoHSS had strong, committed, confident, and visionary leadership to empower employees to improve quality health care delivery. This statement was, however, opposed by the results from FGDs, which indicated that there was neither supportive leadership nor involvement in quality health care planning to assist health professionals in day-to-day scuffle to provide quality health care and meet the expectations of the clients (patients). Thus, it can be concluded that there were inadequate supportive supervision and low involvement to prepare and empower health professionals improve quality health care delivery.

### **3.3.8 Human, physical, material and financial resources to facilitate quality health care delivery**

In this section, participants were given six items that were related to human, material, and financial resources in order to determine how they were facilitating quality health care delivery. These items are illustrated in Table 3.6.

**Item 1:** Fourteen (67%) of the participants agreed that health facilities had adequately trained health professionals to facilitate quality health care delivery at all health facility levels while four (19%) opted for neutral and three (14%) disagreed.

**Item 2:** Eight (38%) of the participants agreed that the resources (human, material, infrastructure, finance) were equitably distributed and utilised to facilitate quality health care delivery; however, five (24%) opted for neutral and eight (38%) disagreed.

**Item 3:** With regard to availability of internal budget to ensure the successful implementation of a quality improvement programme; nine (43%) agreed, eight (38%) opted for neutral, and four (19%) disagreed.

**Item 4:** The design and setting of health facility infrastructure do meet agreed quality improvement standards to address patients' health needs. On this continuum; 13 (62%) agreed, four (19%) were neutral while four (19%) disagreed.

**Item 5:** There are quality teams consisting of health professionals, management, patient, and stakeholders that analysis, evaluate, and compare quality health care results. In this area; seven (33%) agreed, eight (38%) were neutral while six (29%) disagreed.

**Item 6:** There was a continual professional development training programme to improve quality health care delivery. Ten (48%) respondents agreed, four (19%) were neutral while seven (33%) disagreed.

**Table 3.8: Frequencies on human, physical, material, and financial resources (n = 21)**

Statements	Agree f (%)	Neutral f (%)	Disagree f (%)
<b>Item 1:</b> There are adequately trained health professionals to facilitate quality health care delivery at all health facility levels.	14 (67%)	3 (14.2%)	4 (19%)

Statements	Agree f (%)	Neutral f (%)	Disagree f (%)
<b>Item 2:</b> The resources (human, material, infrastructure, finance) are equitably distributed and utilised to facilitate quality health care delivery.	8 (38%)	5 (24%)	8 (38%)
<b>Item 3:</b> There is internal budget to ensure successful implementation of quality improvement programmes.	9 (43%)	8 (38%)	4 (19%)
<b>Item 4:</b> The design and setting of health facility infrastructures do meet agreed quality improvement standards to address patients' health needs.	13 (62%)	4 (19%)	4 (19%)
<b>Item 5:</b> There are quality teams consisting of health professionals, management, patients, and stakeholders that analysis, evaluate, and compare quality health care results.	7 (33%)	8 (38%)	6 (29%)
<b>Item 6:</b> There is a continual professional development training programme to improve quality health care delivery.	10 (48%)	4 (19%)	7 (33%)

On the constructs of human, physical, material, and financial resources; respondents had diverse views that centred on disagreements that resources were not equitable distributed, as shown by the highest 38%. Nine (43% - 48%) agreed that health facilities had neither internal budget nor good plans implemented for continual professional development to enhance quality improvement activities. That pointed at weakness and inadequate training on QI and QA. Health professionals alluded that they lacked knowledge and aptitudes to respond to the increasing demands of patients. The results indicated that health professionals were demotivated, which was a significant explanation for the weakness and errors in the health care system.

### **3.3.9 Patient safety**

Patient safety is one of the most important components in quality health care delivery. In this study, participants were given four items that related to quality health care delivery (Table 3.7).

**Item 1:** Fifteen (71.4%) of the participants agreed that patients' safety was well considered and assured by all health professionals (care givers), three (14.3%) remained neutral while four (14.3%) disagreed.

**Item 2:** Ten (48%) of the participants agreed that patients were always involved to add value to quality health care delivery and challenges faced in quality health care planning, seven (33%) were neutral while four (19%) disagreed.

**Item 3:** Fifteen (71.4%) participants agreed that patient's needs were regularly assessed and integrated into strategic planning to improve quality health care delivery and to ensure that their expectations were included in quality planning, three (14.3%) remained neutral while three (14.3%) disagreed.

**Item 4:** In addition to patients' needs, 10 (48%) of the participants agreed that patients' complaints were studied by the health professionals to identify patterns and prevent problems from reoccurring, seven (33%) opted for neutral while four (19%) disagreed.

The majority (71%) of the respondents agreed that patients' safety was well-considered by all health professionals and that patients' needs were regularly assessed and integrated into strategic planning to improve quality health care. However, 33% of the respondents decided to remain neutral while 19% disagreed on this continuum.

**Table 3.9: Frequencies on patient safety (n = 21)**

Statements	Agree f (%)	Neutral f (%)	Disagree f (%)
<b>Item 1:</b> Patients safety is well considered and assured by all health professionals (care givers).	15 (71%)	3 (14.2)	3 (14.2%)
<b>Item 2:</b> Patient are always involved to add value to quality care delivery and challenges faced in quality health care planning.	10 (48%)	7 (33%)	4 (19%)
<b>Item 3:</b> Patients' needs are regularly assessed and integrated into strategic planning to improve quality health care delivery and to ensure that their expectations are included in quality planning	15 (71%)	3 (14.2%)	3 (14.2%)
<b>Item 4:</b> Patients' complaints are studied by the health professionals to identify patterns and prevent problems reoccurring.	10 (48%)	7 (33%)	4 (19%)

On the patient safety construct, respondents agreed that health facilities were patient focused, as shown in the high percentage that ranged between 48% - 71%. That indicated there was consideration of patient safety, as well as regular assessment and investigation of patients' health needs. On the contrary, 33% disagreed with this statement, which indicated differences in quality health care delivery.

### **3.3.10 Information to facilitate quality health care delivery**

Information and data on quality of care and services for reporting incidences, feedback, and planning for improvement were regarded as crucial aspects of quality health care delivery. In this section, respondents were given four items as illustrated in Table 3.8.

**Item 1:** Six (29%) of the respondents agreed that the hospitals collected a wide range of data and information on quality of care and services delivery, seven (33%) remained neutral while eight (38%) disagreed.

**Item 2:** On the statement that the hospital uses a wide range of data and information on quality of care and services for reporting incidences, feedback, and planning for improvement; 10 (48%) agreed, eight (38%) opted for neutral while three (14.2%) disagreed.

**Item 3:** Twelve (57%) of the respondents agreed that health facilities provided active involvement of health professionals in determining what data and information were collected for the purpose of improving quality health care and services delivery, five (24%) remained neutral while four (19%) disagreed.

**Item 4:** Fifteen (71%) of the respondents agreed, and six (29%) disagreed that the information on quality health care was regularly shared with the client / stakeholders to improve care and service delivery.

**Table 3.10: Frequencies on information system (n = 21)**

Statements	Agree f (%)	Neutral f (%)	Disagree f (%)
<b>Item 1:</b> The hospitals collect a wide range of data and information on quality of care and services.	6 (29%)	7 (33%)	8 (38%)
<b>Item2:</b> The hospital uses a wide range of data and information on quality of care and services for reporting incidences, feedback, and planning for improvement.	10 (48%)	8 (38%)	3 (14.2%)

<b>Item 3:</b> There is active involvement of health professionals in determining what data and information are collected for the purpose of improving quality health care and services delivery	12 (57%)	5 (24%)	4 (19%)
<b>Item 4:</b> The information on quality health care is regularly shared with the clients / stakeholders to improve care and service delivery	15 (71%)	6 (29%)	0 (0%)

On information to facilitate quality health delivery, only one construct was considered not to be significantly observed. Thirty-eight per cent of the respondents disagreed that the hospital did collect data on quality of care and services. The majority of respondents between 57% - 71% agreed with the statement that health professionals are actively involved in the regular sharing of information with the clients to improve care and services.

### **3.3.11 Monitoring and evaluation to facilitate quality health care delivery**

On monitoring and evaluation, respondents were given eight items to determine how quality health care delivery was monitored and evaluated at various health facilities.

**Item 1:** Eleven (71%) of the respondents agreed that the quality improvement programme was effectively and efficiently implemented in agreement with the policy documents while six (29%) disagreed with the statement.

**Item 2:** Eleven (71%) of the respondents agreed that quality indicators to measure processes, outputs, and outcomes of hospital services did exist while six (29%) disagreed with the statement.

**Item 3:** Fourteen (67%) of the participants agreed that the hospital services were regularly and systematically monitored to track any deviations or changes with the purposes of taking corrective measures and to prevent errors during care and treatment while seven (33%) disagreed.

**Item 4:** Ten (48%) of the participants agreed that the outcomes of quality improvement at health facilities was reported annually to facilitate quality planning, six (29%) remained neutral while five (24%) disagreed.

**Item 5:** Eleven (52%) of the participants agreed that health facilities had tools for collecting data and measurements strategies (surveys, self-assessment, audits, supervisory visits), six (29%) remained neutral while four (19%) disagreed.

**Item 6:** Sixteen (76%) of the participants agreed that the hospital services and programmes were audited and accredited by a recognised professional body while three (14.2%) of the respondents were neutral and two (10%) disagreed.

**Item 7:** Eleven (52%) of the respondents agreed that the equipment and supplies at health facilities were regularly checked to make sure they comply with quality requirements and eight (38%) of the respondents remained neutral while two (10%) of the respondents disagreed.

There were high agreement and consistency on most of the statements of these items as indicated by high percentages in the range of 52% - 76%. Three-quarters (76%) of the respondents agreed that hospital services and programmes were audited and accredited by a recognised professional body, there was continual monitoring and evaluation (71%), existence of quality indicators to measure processes, outputs and

outcomes (71%), as well as tools for collecting data (52%). The rest 14.2% - 48% were either neutral or disagreed (Table 3.9).

**Table 3.11: Frequencies on monitoring and evaluation (n = 21)**

Statements	Agree f (%)	Neutral f (%)	Disagree f (%)
<b>Item 1:</b> There is continual monitoring and evaluation to ensure that quality improvement programmes are effectively and efficiently implemented in agreement with the policy documents.	11 (71%)	0 (0%)	6 (29%)
<b>Item 2:</b> There are quality indicators to measure processes, outputs, and outcomes of hospital care services.	11 (71%)	0 (0%)	6 (29%)
<b>Item 3:</b> The hospital services are regularly and systematically monitored to track any deviations or changes, and to take corrective measures and prevention of errors during treatment and care.	14 (67%)	7 (33%)	0 (0%)
<b>Item 4:</b> The outcomes of quality improvement at health facilities are reported annually to facilitate quality planning.	10 (48%)	6 (29%)	5 (24%)
<b>Item 5:</b> The health facilities have tools for collecting data and measurements strategies (surveys, self-assessment, audits, supervisory visits).	11 (52%)	6 (29%)	4 (19%)
<b>Item 7:</b> The hospital services and programmes are audited and accredited by a recognised professional body.	16 (76%)	3 (14.2%)	2 (10%)
<b>Item 8:</b> The equipment and supplies at health facilities are regularly checked to make sure they comply with quality requirements.	11 (52%)	8 (38%)	2 (10%)

The monitoring and evaluation, just like research seemed to be the most contentious construct of all components. There were high percentages of agreement (48% - 71%); however, an average of 33% - 38% remained neutral that most likely indicated that

those components were not well-known or understood to help health professionals address the challenges faced in day-to-day health care and services delivery.

### **3.3.12 Research and indicators to facilitate quality health care and service delivery**

Health professionals can no longer base their practice on rituals and unchallenged principles of tradition, especially on the issues related to quality health care delivery at the health facilities. Health professionals should be motivated to become intelligent users of research. Brink *et al.* (2007) suggest that for health professionals to be motivated, they need to consider the place of research in professionals practice and to provide sound information on which they can base changes for improvement of quality services provided to clients. However, these services need to be guided by the ethical principles; such respect to persons, beneficence, and justice. In agreement with the above statement, respondents in this section were given six items to determine the application of research and indicators to facilitate quality health care delivery.

**Item 1:** The majority of the respondents (13, 62%) indicated there was no national research act regulating human participants in biomedical research to ensure patient safety, five (24%) agreed while three (14%) remained neutral.

**Item 2:** Nine (43%) of the respondents indicated that health facilities had clear research guidelines on fundamental ethical principles and ethical issues for health professionals and patients, 2 (9%) remained neutral while the majority (10, 48%) disagreed with the statement.

**Item 3:** The majority of the participants (10, 48%) indicated that the hospital did not conduct patient safety research to detect and reduce harmful medical practices, six (29%) agreed while five (24%) remained neutral.

**Item 4:** Fourteen (67%) of the respondents agreed that patients' consent was prioritised to safeguard privacy on medical records or specimens used for research purposes, three (14.3%) remained neutral while four (19%) disagreed.

**Item 5:** Eight (38%) of the respondents agreed that hospitals used scientifically designed methods to review medical records, observations, surveys, or interviews (data and statistics) to understand the magnitude and causes of unsafe patient care and lousy service delivery; six (29%) remained neutral while seven (33.3%) disagreed.

**Item 6:** Nine (43%) of the respondents were agreed that potential risks were involved in patient safety research submitted to research committees for analysis and review before approval, three (14%) were neutral while nine (43%) did not support this statement.

**Item 7:** Nine (43%) of the respondents agreed that hospitals did conduct surveys to determine patients' satisfaction to improve care and service delivery, six (29%) were neutral while four (19%) did not agree with the statement.

On research components, respondents had negative views with low scores on yes scale. Although respondents agreed that patient's consent was prioritised to safeguard privacy on medical records or specimens used for research purposes. Most had strong disagreement which indicated that research was not prioritised to facilitate quality

health care delivery, as shared by high percentages between 48% and 62% respectively (Table 3.10).

**Table 3.12: Frequencies on research ethics (n = 21)**

Statements / items	Yes f (%)	Neutral f (%)	No f (%)
<b>Item 1:</b> Is the national research act regulating human participants in biomedical research to ensure patient safety?	5 (23.85)	3 (14.3%)	13 (62%)
<b>Item 2:</b> Are there clear research guidelines on fundamental ethical principles and ethical issues for health professionals and patients?	9 (43%)	2 (10%)	10 (48%)
<b>Item 3:</b> Does the hospital conduct patient safety research to detect and reduce harmful medical practices?	6 (29%)	5 (24%)	10 (48%)
<b>Item 4:</b> Is patients' consent prioritised to safeguard privacy on medical records or specimens used for research purposes?	14 (68%)	3 (14.3%)	4 (19%)
<b>Item 5:</b> Does the hospital use scientifically designed methods to review medical records, observations, surveys, or interviews (data and statistics) to understand the magnitude and causes of unsafe patient care and inferior service delivery?	8 (38%)	6 (29%)	7 (33.3%)
<b>Item 5:</b> Are potential risks involved in patient safety research submitted to research committees for analysis and review before approval?	9 (43%)	3 (14%)	9 (43%)
<b>Item 6:</b> Do the hospitals conduct surveys to determine patients' satisfaction to improve care and service delivery?	9 (41.2%)	6 (29%)	4 (19%)

On the research continuum, there was high level of disagreement in most of the items. Most respondents (68%) stated that patients' consent was a priority while 43% stated

that there were clear research guidelines. However, a good number of respondents between 48% - 62% indicated that there were no adequate national regulations, no clear research guidelines on fundamental ethical principles and ethical issues for health professionals and patients of health research, and no vigorous research to determine the level of deviations on patient safety in attempt to detect and reduce harmful medical practices.

### **3.3.13 Utilisation(availability) of data to evaluate and adjust processes for quality health care delivery**

The knowledge gained through research allows health professionals to make better decisions and plan better strategies for the future. The data is only valuable when it is being utilised by those who need it. To support this statement, respondents were given six items to determine the availability of data to evaluate and adjust processes for quality health care delivery.

**Item1:** Twelve (57%) of the respondents supported that clinical indicators did exist to facilitate quality assessment in health facilities, five (24%) were neutral while four (19%) did not support the statement.

**Item 2:** The majority of the respondents (17, 81%) supported that information about the number of patients treated was available, one (5%) was neutral while three (14%) disagreed.

**Item 3:** Complication on registration; eleven (52%) said yes; four (19%) were neutral while six (29%) said no.

**Item 4:** Incidences reporting system; seventeen (81%) said yes, one (5%) neutral while three (14.3%) said no to this component.

**Item 5:** Interviews / surveys with / among patients; twelve (57%) said yes, five (24%) were neutral while three (14.3%) said no to this statement.

**Item 6:** Assessment of compliance with the guidelines; twelve (57%) said yes, four (19%) were neutral while five (23.3%) said there was no compliance.

**Table 3.13: Frequencies on utilisation of data to evaluate and adjust quality improvement processes (n = 21)**

Statements / items	Yes f (%)	Neutral f (%)	No f (%)
<b>Item 1:</b> Clinical indicators to facilitate quality assessment.	12 (57%)	5 (24%)	4 (19%)
<b>Item 2:</b> Number of patients treated.	17 (81%)	1 (5%)	3 (14.3%)
<b>Item 3:</b> Complication registrations.	11 (52%)	4 (19%)	6 (29%)
<b>Item 4:</b> Incidence reporting system.	17 (81%)	1 (5%)	3 (14.3%)
<b>Item 5:</b> Interviews / surveys with / among patients.	12 (57%)	5 (24%)	3 (14.3%)
<b>Item 6:</b> Assessment of guidelines compliance.	12 (57%)	4 (19%)	5 (23.3%)

The results on utilisation of data indicated that health facilities were very well on course in terms of generating, collecting, analysing, and utilising of data. That, however, contradicted the statements about research, which indicated that health facilities were either not involved or just consumers of data collected at a national level of other entities without a deeper understanding how the information was shared to assist with improving care and service delivery.

### 3.4 DISCUSSION OF RESULTS OF OBJECTIVE 2: EXPLORE AND DESCRIBE THE EXPERIENCES OF HEALTH PROFESSIONALS

Five main themes transpired from the dialogue and storyline of health professionals during focus group discussions and data analysis based on Tech’s methods of qualitative data analysis. Five themes and 16 sub-themes emerged from the data analysis (Table 3.15).

**Table 3.14: Themes and sub-themes**

Themes	Sub-themes
<b>Theme 1:</b> Participants experience a lack of implementation of policies, guidelines and structure to facilitate QI AND QA	1.1 Sub-theme: Availability of policies, guidelines, and structure.
	1.2 Sub-theme: Lack of supportive supervision.
	1.3 Sub-theme: Lack of QI measures / indicators for monitoring and evaluating the implementation of quality health care delivery.
	1.4 Sub-theme: Inadequately defined roles and responsibilities with regard to QI and QA.
<b>Theme 2:</b> Participants experience inadequate management of resources to facilitate QI and QA	2.1 Sub-theme: Experiences of inadequate infrastructure to enhance QI and QA.
	2.2 Sub-theme: Shortage and poor management of resources.
	2.3 Sub-theme: Unequal (inequity) allocation of resources.
	2.4 Sub-theme: Experiences of long waiting times.
	2.5 Sub-theme: Workload and quality health care delivery.
<b>Theme 3:</b> Participants experience inadequate interpersonal relationships in terms of QI and QA.	3.1 Sub-theme: Negative attitudes among staff members and towards patients.
	3.2 Sub-theme: Poor communication among health professionals.

Themes	Sub-themes
	3.3 Sub-theme: Lack of motivation and team work.
	3.4 Sub-theme: Resistance to change.
<b>Theme 4:</b> Participants experience an inadequate understanding of quality improvement and quality assurance.	4.1 Sub-theme: Lack of knowledge and skills in QI and QA. 4.2 Sub-theme: Inadequate training on QI and QA policies and guidelines.
<b>Theme 5:</b> Participants experience research, the information system, monitoring, and evaluation to improve quality health care delivery.	5.1 Sub-theme: Inadequate research and information. 5.2 Sub-theme: Lack of monitoring and evaluation of QA and QI implementation.

Table 3.12 presents the main themes and sub-themes which emerged from data reduction during the analysis process.

The strategies of data reduction applied were based on content analysis for data reduction, as explained by Namey, Guest, Thairu and Jonhson (2007). The researcher evaluated the occurrences or frequencies and significance of specific words expressed by participants, which were extracted from the original transcripts of the interviews and FGDs. Furthermore, the frequency of words was counted and analysed according to the associated characteristics of keywords with their synonyms and storylines discussed in the text, as well as similar phrases to construct ideas as discussed by Dey (1993). The main themes and sub-themes were then identified, as reiterated in the text. The analysis "...focused on [the] close reading of stories conveyed by participants, which helped to understand the experiences of health professionals through the form

and content of stories analysed as textual” (Johns Hopkins University & Katherine Fritz, 2008). The content analysis was used to aggregate the information contained in large amounts in the data sets to convert it into manageable information nuggets, as alluded to by Agarwal and Rao (2010). The participants’ direct quotations were written in *italics* to capture and make references to their stories. Themes and sub-themes were generated and codes were developed manually, as “...abstract entity helped to bring meaning and identity to a recurrent experience and its variant manifestations” (DeSantis & Ugarriza, 2000). The ideas were grouped into main themes and sub-themes to make connections and relationships between quotations, codes, and themes as presented in Table 3.12. The description centred on consolidating diverse experiences of health professionals and managers to understand the emerging themes in meaningful ways in order to form the conceptual framework to facilitate quality health care delivery at the health care facilities. Participants articulated that, if not all, components required to facilitate quality improvement were beyond their control and responsibilities. According to WHO (2009), quality of care is “...determined by many factors, including how its services are organized, leadership, monitoring systems, adequate infrastructure and available resources, both human and material”. For instance, participants pointed out that recruitment of human resources, as well as procurement of equipment and materials were out of their mandate and sometimes beyond the MoHSS’ management decisions. More reliance is placed on the Public Service Commission (PSC) that is mandated with recruitment to support the planning for the health requirements. The factors dominating the challenges of quality health care delivery were, among others, shortage of staff and inadequate organisational structure. The consequences of these maladies seem to result into an inability to

provide quality health care and it has a negative impact on the inter-health system. Health professionals' divergent views were also expressed in relation to the lack of interpersonal relationships and negative attitudes towards patients. Participants emphasised that some of the factors antagonising change were unsupportive leadership and an overwhelming workload that were resulting in long waiting times and dissatisfied patients. To substantiate these views, 5 themes and 16 sub-themes are described henceforth described.

#### **3.4.1 Theme 1: Participants experience a lack of implementation of available policies, guidelines, and structure to facilitate QI and QA**

Participants shared divergent views and sentiments on the main storyline about the availability of policies, guidelines, and structure to facilitate quality health care delivery. Although participants confirmed the existence of the MoHSS strategic plan and several guidelines supporting the provision of quality health care delivery, they however indicated that the guidelines were not effectively implemented to ensure quality assurance standards were properly adhered to at all levels of health care. Participants confirmed experiences of lack of a common understanding, inadequate training, lack of supportive supervision, lack of monitoring and evaluation, and lack of indicators to ensure that quality is well-defined and extensively understood by all health professionals. Seemingly, there were no differences among arguments of FGDs where a member of the hospital management was present. Both groups were actively and freely engaged in discussions to express to their opinions in relation to QA and QI.

Participants expressed their antagonism towards implementation of policies and guidelines as a result of undesirable actions by management to strengthen quality improvement. They also identified discrepancies and a lack of training in QA and QI as one among the elements upsetting quality health care delivery in the health care facilities. The shortage of personnel, as well as inadequate equipment and essential materials undermined patient care and service delivery resulting into frustration and burnout. In response to some of the strategies to ameliorate the situation, the MoHSS developed a roadmap as a guiding framework for training health workers in the health sector (MoHSS, 2014). After data analysis, the following sub-themes emerged under this theme: Lack of implementation of available policies, guidelines, and organisational structure to facilitate quality health care delivery; lack of supportive supervision to facilitate QA and QI; lack of measures or indicators to strengthen performance management and facilitate quality health care delivery; as well as inadequately defined functions, roles, and responsibilities of managing and facilitating QA and QI.

#### **3.4.1.1 Sub-theme 1: Lack of implementation of available policies, guidelines, and inadequate structure to facilitate QA and QI**

Der Waldt and Du Toit (1999) define a policy “...a series of decisions taken jointly by public managers or politicians to address certain goals” while a guideline is “...a principle or criterion that guides or directs action” (Concise Oxford Dictionary 1995 in Kehoe, 2012). In the MoHSS, policies and guidelines are found in various formats of hard and soft copies that guide the implementation and evaluation of different programmes. Policies may also be referred to as statements of intent translating the

planned goals, which are linked to indicators of “...structure, process and outcome” (Donabedian, 1992). This author explains that process standards address areas, such as patient assessment, patient education, medication administration, equipment maintenance, and staff supervision in accordance with the clinical guidelines based on evidence-based medicine (EBM) within a health care facility. Outcome standards focus on the effect of the interventions used during care and treatment and whether the expected purpose of the activity was achieved after administering the correct procedure. Improvement in policies is measured by observing changes in indicators’, such as availability of skilled and capable human resources, adequate physical facilities (building designs), equipment including supplies, and health workers’ personal protective equipment (PPE), soaps, gloves, re-agents and masks; (microscopes and laboratory machineries) and others, as stated by Rooney and Van Ostenberg (1999). Experiences of participants in the MoHSS indicated that both policies and guidelines were expressed differently. Citing the language barriers, participants expressed that some policies were voluminous, making it difficult to interpret them during their day-to-day activities in relation to facilitating quality health care delivery. This might be a result of misinterpretations, insufficient understanding, as well as gaps between practice of medicine and expected health care outcomes. Hence, continual updating of knowledge, skills, and aptitudes with new information may assist to boost health professionals’ confidence, minimise gaps and uncertainties, use correct procedures, and comprehend fully the processes or interventions to deliver quality health care. The WHO (2000) emphasises that “...one of the primary roles of a Ministry of Health is to develop health sector policy, with the aims of improving health system performance and promoting the health of the people”.

Participants applauded the Ministry on a five year “...*strategic plan aimed at ensuring that there are coordination and activities are carried out in eh... eh... planned manner*”. Again, a draft quality management policy was implemented “...to ensure that [the] provision of high quality healthcare services is [a] fundamental principle of the public health and health care delivery system in Namibia” (MoHSS, 2013). The WHO (2000) explains that “...the government exercises its stewardship function by developing, implementing, and enforcing policies that affect the other health system functions”.

Participants criticised the lack of a common understanding of the Ministry’s strategy to translate the vision into executable objectives, which pointed at difficulties of developing indicators to measure quality health care delivery.

*“...when you can’t reflect express yourself in that template, then the result is that then you are not performing is it because you are not performing or is it because you are not sure how to translate what you do into that template? So, my suggestion really is that when people come up with that template, the strategic plan of the ministry, there needs to be a consultation. Is [there] really [a] needed [sic] for that? Where... how do we breakdown for the intermediate hospitals so that they can report and information taken from hospital template national level can use and still feeding somehow to the national one? For the clinics, how do they set targets and activities for them in terms of the work that they are doing that speak to that?”*

*“...me, as a social worker, how do I fit into this strategic initiative, the specific activities, and functions for which I am performing at the hospital? How are the reflected in these set objectives and these indicators which are already set and you can't move them, and that is a biggest challenge for us. When you sit with nurse managers, and even the doctors are worse, it is very hard to say what you are actually measuring and how you project. There is no formula on how you can properly realistically project what your targets are going to be from quarter 1, quarter 2, quarter 3... but that is the format... but if you ask those department[s] give me your quarterly report in terms of what you are doing... what you... not in that format but in their format.”*

*“...maybe one way is eh... to sign performance agreements with them so that you can held [sic] them to account. That is very... very important to hold them accountable unless you say I gave this task to do and I expect you to do it in this way and these are the results I am expecting.”*

Participants doubted whether all staff members were able to appreciate policy goals, as alluded that “...you will only realise the goals and objectives of the programme if you understand what is expected from you, what is the programme about and what is your role as a manager responsible for QA programme otherwise you go nowhere, ...voice change and hands up... otherwise you are also in the dark”. Another participant added that “...this is the new guidelines on what... what people... they don't really know it is really rare. A person reads a book, eh...just say we are busy what... what”. Rashad and Massoud (2014) add that unfulfilled policies goals increase

chances of little adherence to quality management principles; such as focus on clients, a proper understanding or information sharing about the health care system, team work, utilisation of data to identify and analyse processes, as well as performance measuring.

During the interviews, it was demonstrated that the structure was inconsistent to advance QI and QA activities.

*“Currently the Ministry has been operating with outdated staff structure of... is it 2005, last time we err... was it 2000 but since then things have changed dramatically”. The other important thing which is an omission at the hospital level we don't have quality improvement department for the hospital what we currently have at the major hospitals and I am talking specifically of Katutura and WCH unless things have changed now is quality improvement for nursing services that is what is on the staff eh... establishment, so we are trying now to spread out but if we were having a department we could have doctors on board who look at doctors issues, the doctors file”.*

Malonis, in Encyclopedia of Business (1999), states that an organisational structure is important to organise and arrange employees to meet organisational goals. Equally, Ingram (2009) adds that the organisation structure is designed to organise the tasks, group the activities, coordinate, and control with the view of focusing all work effort on the goals of the organisation.

The Health Resources and Services Administration (HRSA) (2011) explains further that an “[o]rganisational structure is a formal, guided process for integrating the people, information, and technology of an organization, and serves as a key structural element that allows organizations to maximize value by matching their mission and vision to their overall strategy in quality improvement”. An organisational structure “...is the framework of jobs and departments that directs the behaviour of individuals and groups toward achieving the organisation’s objectives” (Ivancevich, Lorenzi, Skinner & Crosby, 1997).

According to the Encyclopaedia of Management (2009); IraniLast (2013); Iqbal (2008); and Ivancevich *et al.* (1997), there are different organisational structures and designs; such as teams, real or virtual networks, as well as entrepreneurial, functional, divisional, and strategic business units (SBUs) or matrix structures. Glickman, Baggett, Krubert, Pertson and Schulman (2007) emphasise that as adherence to quality principles and standards becomes a higher priority in health care, it would be advisable for health care “...institutions to evolve organizational and management structures that support the design and implementation of quality improvement initiatives and create mechanisms for accountability for quality of care”. Anttila and Vakkuri (2001) elaborate that all systems have internal structures and processes designed to address the goals and operations in a certain business community (system environment) and to interact with other systems.

In reacting to the situation at the health care facilities, participants exclaimed: “I mean, one demand has increased, even the 2005 when the structure was put in place was late, 2000 and something back, one is demand for services have increased, patient number

also increased”. These statements are indicative of contested interests that dictate the need for a paradigm shift in QI and QA in managing quality health care.

*“Unfortunately, the Ministry... we don’t have a national quality improvement or quality assurance policy in place. So, what seem[s] to be there is a draft which is not yet an approved programme” [present situation]. On the contrary, the participant argued that “we have guidelines, standards, standards eh... operating procedures that are supposed to guide us, eh... to deliver quality health care services because these standard operating procedures are based on evidence of what is effective and what is eh... eh... current eh... but my problem is when you go in the field... when you go in the field eh... you find that these guidelines procedures are lying there and people are doing something else... eh... at the operational level”.*

The immediate roles and interactions between health care facilities and patients should be taken into account, “um... from the... from the hospitals’ services point, the current situation is that there is really no one who is responsible for the unit to say that this person is responsible for the management of this unit on the daily basis. So, meaning that you don’t have a nurse in charge of the unit for example, you are having wards but you don’t have specific someone to say this is the person given those responsibility [sic] to make sure that everything in the unit is going according to the plan”.

### **3.4.1.2 Sub-theme: Lack of supportive supervision**

Supervision may be referred to as a systematic process that enhances quality health care delivery and “...an intervention that extends over time” (Gallon, 2005). The Nursing Midwifery Council (NMC) (2008) in its recent guidance, as reported by Adams (2010), explains that supervision is “...a formal process of professional support and learning which enable[s] individual practitioners to develop knowledge and competence, assume responsibility for their own practice and enhance consumer protection and safety of care in complex situations”. Although supervision was one of the vital components of strengthening quality health care and service delivery, the data analysis indicated that it had been overlooked. Although there were no huge disparities among participants’ supervision, experiences indicated that there were scanty and unorganised supervision methods but with little notion of empowering health professionals to improve patient care and services.

Participants pointed out that supervision was a challenge because “eh... is not well structured, is not well documented. There is not sufficient follow through and follow up. So, if you look at what is happening you know it is more ad hoc but there is no systematic supportive supervision really well done at this stage. Maybe, not to say no... none at all but [it] is the weakest area and I think that cuts across”. Falander and Shafranske (2004) in Gallon (2005) elaborate that a supportive supervisory relationship helps establish the attributes of “...empathy, warmth, understanding, affirmation, acceptance, and respect along with a non-judgmental but a developmental process and the creation of a sense of teamwork between the two”. Supervision does not only involve visiting health care facilities but it is a systematic process, as well as

a well-planned and coordinated model with defined roles and responsibilities. The WHO (2003) explains that "...while supervision can be a very participatory process, traditional supervisory visits focus more on inspection and fault finding rather than on problem solving to improve performance".

In supportive supervision, different roles are adopted depending on activities to be supervised. According to McNamara (2007), a supervisor assumes the role of a teacher, trainer, mentor, and coach while a supervisee takes on an active role during learning and the transfer knowledge while strong relationships are built to produce a positive quality improvement culture. Participants' experiences at the MoHSS confirmed certain weaknesses and gaps in supportive supervision. *"I think we are falling sort sic] a little bit at this stage, is more programmatic supervision, supervising the various components, specifically within say the district settings, and having somebody within the districts who can go out to each of the health centres and clinics etc. That still is a bit of the challenge, the supervision that is taking place currently is a challenge"*. These experiences pointed at inadequate application of methods and little understanding of the importance of systematic and structured supportive supervision to improve quality health care.

Research indicates several models of supervision to strengthen the work of health professionals and managers at the health care facilities. Powell's (1991, 1993) model of supervision focuses on administrative, evaluative, clinical, and supportive activities while Proctor's model of supervision (1987) has three main areas of focus:

Since there was no focus on a specific model that could be suitable in the MoHSS, it does not intent to prescribe any model, as each one has its practical weaknesses. However, the application of supportive supervision models was not mentioned while they would create a strong relationship among supervisors and staff members at the health care facilities. Hence, it does seem that supportive supervision is overlooked and “...probably the least investigated, discussed and developed aspect of clinical education” (Kilminster & Jolly, 2000).

Participants stated that supervision was inactive “maybe the supervision also at that local level is not active because I think... I can imagine if the ward manager was strict you know on the staff that waste segregation should be done properly maybe people will be doing it”. A participant further criticised “...even for me as a manager um... medical superintendent put in there I’m learning administration, I’m learning management, so that is a handicap in itself that you are purely clinical person you must now acquire eh... eh... this administrative and managerial skills while in the office and do this the learning curve is also very steep, is very... very eh... eh... steep”.

To strengthen the work of managers and health professionals, perhaps training on supervision should be prioritised to empower them on this continuum. The LSAMO National Forum (2009) expands on Powell’s model that supervisors require administrative, interactive, and developmental responsibilities and act as mediators or change agents to support the supervisee. Supportive supervision has been used in many environments; such as education, business, and at health care organisations to guide, support, and encourage individuals to be comfortable and confident in performing all activities, sometimes with minimum supervision.

Hypothetically, in the MoHSS there were only three layers in which health care facilities could be supervised; namely national level directorates, referral and intermediate hospitals, as well as regional health directorates (district, health centres, and clinics / primary health care). Communities and stakeholders form part of entities that are indirectly supervised by the health care managers. In a broader context as described by O'Brien *et al.* (2008), and Bosch-Capblanch and Garner (2011), supervision of activities at each level of health care require knowledge, skills, and aptitudes to either manage, lead or facilitate each function.

Thus, a new learning approach on this continuum considers managers as predominantly pre-occupied with administration, planning, budgeting, supervising, and monitoring day-to-day activities of individuals. Leadership on the other hand, sets the vision, inspire, motivate, and guide the process towards a culture of change. Maccoby (2000) argues that although there are fine lines between these distinctions, the eminent one is that "...management is a *function* that must be exercised in any business while leadership is a *relationship* between leaders and follower that can energize an organization".

At the health care facility level, vaguely senior and middle managers seem to provide support on a day-to-day basis with little knowledge on most components of QA and QI. On the other hand, the national level has the general substantial responsibility to ensure both availability of policies, strategic planning, development, implementation, monitoring and evaluation. However, participants expressed disappointments:

*“...um... in words they sound to be supportive um... but eh... in practice, since we have not seen improvement in so many years um... we don't know the reason. Maybe, they themselves um... are limited in what they are allowed to do woo... I do not know is what I am beginning to think because who will be coming every year and hearing the same problems and do not want to do it probable they want to do something but there is something restricting them is what I am beginning to think, is it a very rigid system itself that need to be improved on, is it overall leadership from my sit as an MO at hospital? I cannot answer that question but I know there is a problem. ...sometimes is just lack of management, how to manage things ah... there is lacking somewhere”.*

Without the needed support and effective supervision, quality health care and service delivery would be poor at the operational levels, as expressed by the participants that:

*“... the linkage here with the national level, I can tell you that since 1990 eh... let me take it from 2007 when I started working at quality improvement, I have never seen anyone from the national level requesting this information. Yes, I haven't and I haven't also seen it being forwarded to the national level. So, here I don't know whether there is a linkage when it comes to auditing here, the patient file auditing and the national level”.*

In agreement to weak supportive supervision from the national level, a participant insisted:

*“I think the fact should be tabled as they are or appear to be... So, what I am trying to say is that, the link between, I understand we have a quality assurance at head office but the link between probably they doing eh... eh... in reference to the hospital now, eh... I would say our link is very poor because we don't really have a link, a good link that we are having that link[s] every time with the head office”.*

This particular link confirmed the information about implementation of policies, support, and QI progress. It possibly did not exist due to lack of a structure to support health providers with challenges to deliver quality health care. The supervisors and managers were blamed *“...perhaps it is the supervisors and managers that are not doing their work and the best thing we could do this is through induction process”.*

There seems to be irregular and inconsistent supervision in the implementation of quality health care delivery. Research indicates that supportive supervision should be consistently done to ensure continual QI, however, participants were experiencing lack of support from the national level and even from their immediate supervisors. *“On [the] pharmaceutical side it is done once a year, yeah... it is done once a year, they provide feedback of what eh... transpired um... but from where I come from [sic], for example it used to be done four times a year, you see. So, I think as doctor said if there is close supervisory that can be one way of seeing the problem and how to address the problem but if it [is] done rarely like once a year just give report and then things remain the same here, here if not the same even things are deteriorating so...”*

Enock (2006) suggests that supportive supervision is enhanced when leaders and managers are involved. Without these interventions, quality health care and service delivery might take long to be achieved. At health care facilities, managers are occupied with different operational matters, e.g. office bound activities and a heavy workload, which at times does not allow them for assisting employees with improving health care and service delivery. One participant attested “...*but when it comes to the hospital level, and I am talking on myself, I don't really provide that support visit as I would love to*”.

### **Concluding remarks**

Results from the interviews with the participants revealed a gap in the implementation of the QI policy, as well as an inadequate structure at both national level and at health care facilities. The absence of the QI policy and structure results in unclear roles that culminate in inconsistencies and duplication of functions. Due to increased health care demands, health professionals need to be redefined to alleviate the workload and enable them to focus their attention on patients rather than administrative issues. Although QI and QA require well-established teams and leadership to inspire other members of the multidisciplinary health care team to go the extra mile to provide quality care. Participants' experiences indicated a lack of quality teams and leadership that resulted in both reversed authority inaction and weak patient care.

The nonexistence of certain positions and shortage in critical areas; such as specialist physicians, quality improvement managers, doctors, nurses, pharmacists, and social workers at the health care facilities level resulted in task shifting (transferring

responsibilities to either lower cadres whose scope of practice did not allow them to performed certain functions without adequate training). That resulted in delayed treatment, inaction, or inappropriate decisions taken during patient care. The findings indicated that QI and QA functions were performed on an ad hoc basis, sometimes by those members of staff who had no skills or expertise to perform those additional responsibilities or tasks. The MoHSS has an obligation to recruit additional skilled personnel in critical areas, train or equip health personnel in QI and QA to enhance implementation, communicate effectively, and reduce confusing roles.

Overlapping functions, as well as ambiguous roles and responsibilities contributed to a limited focus on quality care and unrealistic workloads resulting in weak planning, lack of priorities, and lack of control. Although re-organisation of certain services at facility level was a positive exercise, the immediate outcomes were substandard health care delivery, and activities were neither properly followed nor supervised. The result of vagueness in the core functions of QI and QA is poor patient care. There is a need for redistribution of roles and responsibilities to alleviate the burden of workloads, since some activities were non-core functions that did not take into account the number of patients who had to be attended to.

Supportive supervision is one of the components that cannot be disregarded in a health care system, given the weight of public complaints and recorded errors during diagnoses and treatment. Most – if not all – programmes require supportive supervision to enhance quality results. Despite its importance, there is no systematic plan or guidelines to ensure adherence to procedures and consistent support for QI and QA with a view of improving performance.

### **3.4.1.3 Sub-theme: Lack of QI measures / indicators for monitoring and evaluating implementation of quality health care delivery**

At the time of this study, health care facilities lacked concrete quality measures in the area of QA and QI, which made it difficult to relate reporting improvement to other programmes. Three important measures are discussed in this chapter to assess quality health care delivery and service provision, as discussed by Donabedian (1992) in Glickman *et al.* (2007) that the "...importance of health care structure is a driving force for care processes and ultimately health outcomes". Donabedian (1988) emphasises further that "...[i]nformation from which inferences can be drawn about the quality of care can be classified under three [of] these measures". According to the WHO (2000) "...structure encompasses features, such as the number and types of personnel, age and type of equipment and other infrastructure, working groups or taskforce". Indicators provide a quantitative basis for clinicians, organisations, and planners aiming at achieving improvement in care and the processes for providing care to patients (Worning, Mainz, Klazinga, Gotrik, & Johansen, 1992). "These indicators enable [sic] professionals and organisations to monitor and evaluate what happens to patients as a consequence of how well professionals and organisational systems function to provide for the needs of patients (Mainz, 2003).

Health care quality measures or indicators can be viewed as a priority factor to enhance the provision of quality health care. Measures can be referred to as the process strategies; such as special surveys, self-assessment, audits, patient satisfaction, and supervisory visits. These instruments need to be designed to assess the achievement and gaps between the actual and planned goals with regard to the quality of health care.

The team in charge of making improvements should fully participate in defining standards, identifying indicators, and developing a measurement strategy. The Agency for Healthcare Research and Quality (2012, online version) emphasises that quality can and must be measured, monitored, improved. Policymakers – whether at the central level, public or private sectors, regional governors, local authorities and councils – must insist that the tools for measuring and improving quality be standardised and correctly applied.

The indicators used to measure quality may vary in each setting, based on the particular standards used and the level of the system (facility, district, regional, or national) on which measurement focuses. Studies, such as the one by Kimberlin and Winterstein (2008), indicate that categories of measures of quality health care use reliable and valid instruments that should provide same results in the same reading regardless of who does the measuring or when and where the measurement is taken. The measuring tools need to provide valid data to ensure that it measures what it is supposed to measure. Quality measures require standardised instruments or tools and well defined data elements, data collection, and data analyses to ensure that information is understood and can be applicable in the same way regardless of who refers to or applies it.

If performance of activities is not measured, there would be no clear indication of achievement of results. Experiences at health care facilities indicated that a number of factors were interlinked. Firstly, at the time of the field research, the quality management policy was not yet implemented to facilitate quality health care delivery at the operational level. Secondly, there was no adequate structure to spearhead quality activities at the health care facilities. A participant confirmed that they did not “...*audit*

*what is done we could have pharmacists also on board. I know the ministry is busy working on that but that is also a challenge of not having a QI department for the hospital".* Another participant continued that *"I think in the ministry the department which is lacking is a department in every organisation that they call it quality assurance, which is to ensure that quality is according to standard procedures of that organisation but I think in the ministry of health eh... that thing is lacking"*.

Thirdly, a reflection on the data analysis indicated some weakness on a practical level with regard to the state of QI and QA at health care facilities. Those issues generated contradictions and frustrations that were highlighted in divergent experiences. The paradoxes were associated with an ineffective and unclear quality framework, especially at the operational levels. The participants concurred that *"if you don't have a framework as a ministry, that is a problem on its own. You cannot expect, because the problem there we are employed to act within the rules and regulations and the accountability when it comes in, if really there is accountability on me to do certain things"*. These discrepancies were further reflected in the comments, such as *"thus why you find us struggling with um... the, the, the standard operating procedures at clinical level at some departments"*. The struggle referred to in this context emphasised the lack of implementation of policies, not understanding what to do, the disarray, and a sense of disempowered to take any decisions to improve health care and services.

Participants spoke in an unflinching manner about aspects they probably had never thought of or disclosed before. *"...but the QI project really has been the most instrumental tool if I can put it that has gotten us in terms of enabling us to look in the*

mirror so to speak and say we are not doing great and... and this is what we need to do". The "...process indicators of quality may involve aspects such as timeliness, continuity and patient compliance while outcomes of care involve the effects of health care on the health status of the patient and may include measures of quality of life, functional status and patient satisfaction" (ibid.).

### **Concluding remarks**

Public health care facilities are required to operate as well-established institutions of government by an Act of Parliament, Act No. 36 of 1994. As a mother ministry, the MoHSS has been mandated by this Act to develop policies and guidelines to regulate the provision of health care services. It emerged that QA was on an advanced stage but the policy objectives were not clearly understood to facilitate quality health care delivery at the health care facilities. In terms of policy implementation, more attention was given to infection control and waste management than to other departments in hospitals.

On the other hand, the development of QI was at an infant stage with little or scanty information to facilitate quality health care delivery. Whereas health care facilities were operating under a well-established entity, its poor or non-existent structure made the implementation of those policies ineffective and inefficient. Similarly, without adequate input and little effort to promote an understanding of policy objectives, challenges remained and similarly had subsequent poor quality health results, as reflected in consistently shared experiences at the health care facilities.

Evidently; information sharing, communication, and training are the best tools to facilitate implementation of any policy strategies but health care facilities do not effectively use these tools. In the same vein, ineffective implementation of policies was more related to inadequate training than other aspects in this theme. Therefore, in order to strengthen QI and QA policies, other elements were regarded as extremely important; such as organisational structure, health information systems, expectations of health professionals, methods of communication among different stakeholders, quality improvement indicators, employees' conduct, and an understanding of the legal framework. In general, lack of communication and coordination affected quality health care delivery at health care facilities.

Health professionals have to develop strong relationships with patients and clients in a health care system, hence the need to cultivate that relationship by empowering them with the right aptitudes i.e. management, accountability, commitment, awareness and relations to quality care and treatment, and an opportunity for continual learning and self-development to improve patient care and services. In this study, it was expected that QI and QA specialists / managers be able to design, plan, implement, monitor and evaluate specific programmes that focused on implementing quality health care at the health care facilities while linking to other supporting sub-systems.

Although opportunities to build capacity and empower health professionals exist, there is often no follow-through process to maintain proactive supervision and harmonise the theory in improving quality patient care.

The study revealed that health professionals lacked certain skills; such as leadership and management, effective interpersonal relationships and communication, organisational culture skills, teamwork, research and information, developing adequate data analysis, measuring quality health care (indicators and tools), decision-making, and problem solving. Without these skills, professionals remained too insecure to make decisions independently. That situation was exacerbated by the overwhelming workload and negative attitudes towards patients. Without a proactive plan for supportive supervision, patient safety could not be assured.

Quality health care requires constant dialogue and monitoring to address the challenges, which cannot be solved through the management of walking around the wards. Sufficient time is required to encourage and empower health professionals to enable them regain confidence in providing quality patient care. As acknowledged by participants, supervision was not systematic and there was no continuity mechanism to ensure that errors and mistakes were corrected without any delays.

One of the recommendations by the WHO (2003) guidelines on supportive supervision is "... [t]rain supervisors on how to coach, mentor, effectively communicate, and conduct performance planning. This will build their supervisory skills to better guide service providers to improve performance and solve problems at the health facility level". Due to inadequate experience in QI and QA in the MoHSS, supervisors lacked expertise and knowledge on this continuum. The best option is to provide a supportive supervision mechanism to enhance the implementation of quality health care delivery at health care facilities by following the WHO approach to train and re-train the managers at the health care facilities level.

#### **3.4.1.4 Sub-theme: Inadequately defined roles and responsibilities with regard to managing QI and QA**

Health care facilities had no specifically defined roles and responsibilities on QA and QI. Tasks and functions were cluttered and performed by individuals in different positions at health care facilities in the MoHSS. The functions of QA and QI were carried out on an ad hoc basis because the people were either busy with other functions in other divisions or sometimes with minimal or little authority that resulted from incomplete performance agreements or descriptions. The U. S. Department of Health and Human Services (2011) states that "...[f]or quality to be effectively managed, individuals and groups in an organisation should have a clear understanding of their roles and responsibilities in relation to QI". Participants reflected that "*...otherwise you are in the dark*" due to confusing roles and unclear responsibilities.

Fundamental roles and responsibilities; such as administrative (management), interactive (interrelationships), and developmental (planning) were deemed important to support day-to-day quality health care delivery. With a lack of clarity with regard to the roles and responsibilities, chances are that performance will be ineffective, supportive supervision will be weak, and outcomes of health care and services will be lousy. Often health care facilities were unsuccessful in providing solutions to certain problems, since essential posts either did not exist or core functions were performed by somebody outside the health care facilities (hospitals).

*"...the best way would have been eh... the one to identify what we need are the cleaners that we need this; we need that and not someone sitting*

*there in the office and just dreaming that we need water... who is to identify the need is the user, the end users. So, if it comes to someone at the office let us buy this; let us buy that while the users are not involved. These are the things that are affecting the situation.”*

Madigapu (2012) states that QI teams must be properly structured, with clearly defined and communicated roles and responsibilities that will enable effective performance of functions without ambiguity. Hence, uncertainty about separation of roles to perform certain functions or duties will result in disagreement, non-action, and poor performance. Inadequacies in roles and responsibilities were clearly expressed by participants.

*“...the ministry of health, you inspect and find something broken and you go to your managers and tell them, this and this must be done. The same manager is your supervisor, the power base, the authority, the... the power um... um... the power base... um... is not, is not eh... reversed, is kind of reversed. You as inspector telling your supervisor... [loud voice...] that they must fix things... laughs... it is not working, it gone [sic] not work that is why your supervisor will probably do nothing and you can't do anything yourself, you can't punish your supervisor within the same system.”*

The structure at that time was irresponsive. Since non-managers in their capacity as assessors had to report to high level management, such managers were reluctant to listen to subordinates with the inevitable result of non-action and unresolved issues.

In consideration of an increasing demand for health care services, the need to re-define the roles and responsibilities to enhance QI and QA at the health care facilities become eminent amidst the restructuring process at the MoHSS. As narrated in this chapter, activities at the health care facilities were seriously undermined by unclear roles, lack of authority, and other challenges. Thus, health care facilities were overwhelmed and often unable to respond adequately to quality issues amidst demand for quality care services. One participant explained:

“...the reason is that there are too many things, for example that are not going well that are taking up too much of your time. Just to give you an example, this week alone we came on duty on Monday; the whole of Monday I was trying to arrange transport to go and get the clinical supply stock from the Central Medical Store (CMS), it took me the whole day but I did not manage to do that.”

Un-prioritised, unplanned activities and confusing roles, such as *“too many things, things are not going well”* derailed the provision of quality health care services due to undefined or unintegrated functions and ambiguity. Various reasons were unearthed during the study, as alluded by participants that *“...sometimes we as a hospital don't have control over, when it comes to capital project that is at the level of the ministry. So, we have no direct control on ensuring that we... we are starting, initiating, and completing capital projects to comply with what is stated in the recommendations of eh... eh... QI project is one”*. Consequently, vagueness in core functions of QA, absence of methods and measures of quality improving created deficiencies and inabilities to maintain quality standards.

“...the client will not access the services the day they need it. So, [you] would have to re-adjust your programme, imagine you have a child who need to be immunised today, you have to wait [for] the day of immunisation because the clinic is not immunising on that day and that also lead to a lot of cases where some kids are lost to follow up without being immunised. It might also happen that the parents are having some family emergencies that on the day of immunisation they cannot access everyday so kind are lost like [sic] that they miss their immunisation eh... days, they miss their schedule kind of um... then we talk of low coverage of immunisation because people are travelling they cannot access. If it was like on daily basis, everyone would say okay I will go whenever I have time, I access the service, since I can't access it when I have time and the time the service is taking place I don' have time then we loss [sic] then our covering is going down.”

Some of the dimensions of the QA approach to address quality care and services issues are: “...technical performance, access to services, effectiveness of standards, interpersonal relations, efficiency of service delivery, patient safety, physical infrastructure and scientific evidence, choice of service” (USAID, 2001). As explored in this study, experiences revealed deficiencies in some of these dimensions, which required attention to improve quality health care delivery at health care facilities.

Inconsistencies in roles and responsibilities of health care providers and managers impede effective implementation of policies that seek to deliver quality health care. At the time of this study, individuals were responsible for multiple roles and responsibilities according to their expertise and positions occupied in the structure. The experience of participants indicated that *“I think that the position of Principal*

*Medical Officers must not be given to doctors because it is really giving us problems. The management, they are already having many things to do, coming to management really, they cannot really attend to our... I don't know, sometimes you want something to be signed, even one transport you have to wait for the whole days [sic] or sometimes he / she is not coming to the office but you can see that the person is really overloaded; you can't really disturb him. We must change that system".* Inappropriate allocation of administrative positions to health professionals undermines managerial responsibilities to ensure capabilities and effective performance of each individual.

Despite health personnel having job descriptions that specified roles and responsibilities, often those roles were unclearly defined with overlapping functions, as indicated by a participant who said *"I want to say eh... the job description or the document is on one side and what happen is another side or the understanding is another side; come to [the] health worker and tell him do this, for example according to the constitution is legally and everything is okay and is in his career but if he don't want to do it, he will say but this is not written in my job description. So, people don't understand what is the meaning of job description even one, two, three, four; I will do only one two three four. If he find[s] something beyond to that from his initiative, he will not do it. So, there must be on the ground understanding".*

One of the findings of an assessment by the MoHSS (2014) indicates that job descriptions are unclear. There are discrepancies between knowledge of the job that individuals were doing in relation to their training and additional or extended roles of QA and QI. These incongruities exacerbate the recognised weaknesses in patient care and service delivery at health care facilities. Obviously, taking into account the

situation as health care facilities, as narrated by the participants, neither did every health provider understand nor follow the job description. The participants accentuated that “...sometimes you not really expect activity to be... your activity to be rendered at your situation and you are just invited that there will be a meeting for a week and you have already planned something. Those are the area we are talking, some you may even plan to do a supervisory visit and you”.

### **3.4.2 Theme 2: Participants experience inadequate management of resources to facilitate QI and QA**

Some of the key areas that seem neglected in managing resources are “[i]nadequate planning and poor management practice with [a] high degree of centralisation of decision-making and control (Du Preez, 1998). In a health care facility context, managers are constantly faced with diverse challenges of health professionals who are reporting to them, patients, and physical resources, which require new competencies in quality management in order to meet the expectations of clients. It was observed that resources consisted of all components that contribute to quality health care delivery; such as human resources, materials, technology, physical buildings, equipment, and transport. Some health researchers refer to these key components as *inputs, processes, and outputs / outcomes* that contribute to strengthening the health system. The study findings revealed inadequacies and insufficient resources that included shortage of health professionals and infrastructure. Kekki (2011) adds that among the common problems surrounding the drawback in achieving health care goals are “...inequitable and insufficient resource allocation, with limited resources for promotional and preventive activities and programmes”.

Reflecting on discussions during the interviews, participants stated that resources at health care facilities were mediocre and disproportionate. Despite getting a huge chunk of the national budget (15% allocation), health care services are troubled by scarcity, inadequacy, inequitable distribution of resources, as well as variations among regions and facilities across the country. In responding to these miseries, the MoHSS has tried to reorganise its structure but the gaps and imbalances continue to persist within the health system. While the Department of Health (2006) suggests that "...fluctuations in organisational performance over time are normal", constant variations may destabilise the provision of quality health care and services.

For instance, health care restructuring and reform may impose certain uncertainties, insecurity, and dissatisfaction. This sentiment was supported by Smith, Walshe and Hunter (2001) who alluded that the government has never trusted or respected managers, it blames them for the poor state of National Health Service, for example dirty hospital wards and long waiting times in emergency departments; and doubts their competencies to deliver quality health care. The predicament of a health system is the reality that requires new methods, ways of interaction, and innovation to improve care and services. The predicament includes rigid systems and undesirable blames, failure, stagnant dogmatic ideologies, and obscure of strategies in health care. Five sub-themes emerged from this theme.

### **3.4.2.1 Sub-theme: Experiences of inadequate infrastructure to enhance QI and QA**

The health system infrastructure includes equipment, materials, and supplies to meet patient demands that are vital to contribute to an effective and efficient health system.

The CDC (2010) outlines three main areas of health system infrastructure:

In support of these views, Detmer (2003) explains that public health infrastructure includes three key components; namely a capable and qualified workforce, up-to-date data and information systems, and public health agencies capable of assessing and responding to public health needs.

Health system infrastructure includes a broad range of resources that might not only be specific to health care; such as water and electricity supply, roads and communication networks, food, transportation, construction of health care facilities (pharmaceutical industries, hospitals, laboratories, health centres and clinics), equipment, as well as medical supplies. Above all, without adequate human resources to operate the CAT scan, SG machines, and other medical technology equipment, health care and services would not be delivered to those people who deserve it. The same goes for data collection, analysis, and interpretation to provide accurate information for immediate action in treatment and care. The accounts of participants revealed inadequacies of both human and physical resources in terms of unavailability, uncleanliness, lack of space, material supplies, and medical equipment to facilitate quality health care delivery. The participants reflected that:

*“...the infrastructure need to be improved that when you are having a programme, a programme should be having its own area. You can’t have two, three programmes working from the same like we are in this office and you are having three or four staff who are attending to the clients, he is a social workers [sic], she is a social worker. So, when his clients are coming then they have to wait for these client [sic] to go out because you can’t call clients together”.*

and

*“...in general, infrastructure needs[s] to be improved, so even if you happen to give me twenty nurses today, tomorrow I will be struggling. Where will I put them? Infrastructure and other resources need to be balancing.”*

Although the MoHSS has made strides in constructing new health care facilities, inadequacies of space, as well as lack of transport (ambulance services), medical equipment, and materials supplies continue to frustrate quality health care delivery. Bhandari and Dutta (2003) cite a number of reasons; such as a lack of adequate personnel, a lack of orientation and training on quality health care delivery, and inaccessibility and unavailability of health care services. Like any other resource, space was among the challenges quoted by the health professionals that reduced quality care and service delivery.

*“...we have noted the issue of space because the space is still the same with the bed capacity of 96 which was meant for a population of maybe 20*

*thousand or 25 thousand. Now that we have closer to 50 thousand in our population catchment, we still have 96 bed capacity. That is a challenge, even our waiting areas... they are still of [sic] the same. So, upgrading probably our facilities will help because we have scenarios where the beds are full[y] occupied to the capacity and you start running around to add extra beds here and there in a room. Where you are supposed to have two beds, you find that you are adding four to five beds. So, limited space is quite a challenge and to such an extent that especially in the clinic, what is happening now that eh... people are using one room for different purposes and as a result eh... they have resorted to scheduling services in alternative days rather than rendering services every day. Let me give you an example of immunisation, so what is happening there; you find that the immunisation room is the same room for antenatal care. So, meaning that instead of giving immunisation every day, people might end up saying today in antenatal care then the next day when there is immunisation, they cannot do the antenatal care.”*

Research by Clements, Halton, Graves, Pettitt, Morton, Looke, and Whitby (2008) confirm that “...[o]vercrowding and understaffing has negative effect[s] on patient safety and quality of care, as also evidenced by the flourishing of health-care-acquired methicillin-resistant *Staphylococcus aureus* (MRSA) infections in many countries”. One participant pointed out that “...*the space, there is also no space for enough patients; the hospital is small now the ward which supposed to be occupied by 42 patients is now having 51 patients. Instead for the cleaner to clean under, there is*

*another bed even in the corridor and for the three nurses to provide quality for these patient is a challenge*". The Auditor General Assessment Report states that "...some health facilities (Oshakati and Katutura hospitals) experience overcrowding in the wards, resulting into floor cases or placing bed[s] on corridors to accommodate patients".

The consequences of overcrowded facilities are over-utilisation of ablution facilities (toilets, showers) and poor nursing care, as stated that "*...also, if we are talking about toilet facilities, shower and toilets, here also maybe the facility itself is so old, is breakdown all the time, continuous leakages, replacement which is not done regularly, things like that also*". Another participant echoed "*...overcrowded in our hospital and even if we have equipment sometimes it is very difficult to accommodate each and every one, since we don't have space. So, these are the areas we need to look at if we want really to improve our service, if we want our policies and standard operating procedures (SOP) work accordingly, we cannot make any difference if we are not going to expand our facility um...*" Another one added that "*...the situation which really makes us not to work properly is just space*".

Understandably, with overcrowded health care facilities, environmental health is highly contested owing to issues of sanitation and hygiene. A study by Tsai, Wang, Liao, Lu, Sun, Lin, and Breen (2007) indicates that cleanliness and restrooms are ranked as the most satisfactory indicator of a healthy physical environment.

Participants narrated that a lack of space at health care facilities resulted in an unhygienic environment due to overcrowded wards.

*“...there is a challenge of cleaning in some full wards. So, if the wards are too full, then the cleaner will just come and try where there is space to clean and sometimes is that like at casualty there are few toilets which is not meant to serve when the hospital was build... was not meant to hold that capacity of visitors. The use of toilets is becoming to... how can I say... there is [a] high turnover of patients and the cleaners are not enough; even if the cleaners are enough because the patients are always using it is difficult to get a chance to do the cleaning. It makes it very difficult; they can't clean properly to maintain the required hygiene. In health care facilities, cleaning is one of the critical aspect to avoid cross-infection and ensure dirt, dust, and blood stains are properly done.”*

Kaur and Hall (2001) explain that “...(c)leaning is the process of removing visible material such as dirt, grease, blood, and body fluids, as well as reducing the number of infectious micro-organisms (bacteria, viruses, fungi, and spores)”. To address the challenges of over-crowdedness and respond effectively and efficiently to quality health care delivery, most health care organisations are applying 5S and Kazan techniques to facilitate continual improvement in providing health care services, as discussed by Titu, Oprean, Grecu, and Sibiu (2010).

Participants agreed about experiences of inadequate space.

*“...storage space, so currently we have been looking for some space to construct purposely build CMS to meet the need of our space requirement because of the needs eh... currently we have about more than hundred*

*thousand antiretroviral (ARV) ART patients and that need the number of products to be procured for those patient increasing and because of the CD4, has also been, is it increased? ...at which people are eligible to get ARV. So, the more people are coming on board, so we need more space to be able to... and in general decease profile also causes like hypertension, diabetes also they are more and more people getting those diseases. We also need bigger space.”*

Apart from space, participants’ experiences indicated weaknesses in procurement and maintenance as one of the challenges in medical equipment and supplies. Kaur and Hall (2001) explain that “...[p]rocurement is only one part of managing medical supplies and equipment, and effective storage, stock control, care and maintenance are also critical if health services are to get the most out of what they buy”.

During the research interviews, the participants mentioned that health care facilities were experiencing shortages of medicine and material supplies; one participant pointed out:

*“...recent outcry about shortage of medicines, this is not a usual occurrence, it is um... something that just happened this year; we do not have issues related to medicine supply ah... but um... it happened this year and we learnt that it had do with eh... the companies that were contracted were not really delivering as per the agreement or the tender conditions. I think that really has impacted on the quality of our services.”*

Another participant emphasised:

*“...also unavailability of medicine also eh... now I can say that what we are receiving from the medical store is somewhere around, what we order and what we receive is something like, we receive like 45 per cent to 50 per cent of what we requested. So, again this is another challenge to a patient, to tell a patient there is no stock, there are some of the patient if you tell them no stock then they asks [sic] what should I do... [in lower voice...] so should my kid die you see and you see physically really that the kid is really sick.”*

Due to increasing demand, health care facilities faced the challenge of shortage of medicine supplies, and equipment.

*“...if I have a patient who comes today to me, I assess the patient, I pose a diagnoses probably the management, starting with medicine that I have to prescribe we are limited there are medicine that can only be prescribed by a specialist in Windhoek, for instance. So, you call the pharmacy; they say no this medicine is not at our level for storage that is for medicine maybe for procedures this person probably need a procedure that can only be accessed in Windhoek at an intermediate level.”*

Many reasons explain the shortage of essential equipment and material supplies; among the reasons are a lack of knowledge and skills in procurement, stock control, and maintenance: *“...you find some people, some nurses are queuing almost one hour, two hours sometimes just because of shortage of staff and why... whoa... there is a lot*

*of things to explain*". Medical equipment is vital and an essential element of quality health care. On average, health care facilities might have good equipment, but "...[s]ome medical equipment like BP (blood pressure) machines, diagnostic sets, haemoglobin meter and patella hummers are still being shared at health facilities" (MoHSS, 2006 / 2008). Critics identify inadequate equipment and lack of maintenance and repair as poor equipment asset management, which is part of Clinical Engineering Department in the MoHSS that focuses on acquisition, life-span, procurement, training, documentation, monitoring, and evaluation of equipment, as state by David and Judd, (1993); Bronzino (1995); and Kachieng'a, Boonzaier, Fataar, Boniaszczuk, and Boltman (1999).

*"...if you don't have enough equipment, you can't... delayed by one machines having 45 patients and you are only having one ATT machine or PB machine. You end up loafing or you don't have all patients' vital signs taken but if you are having enough equipment and resources then we could provide quality health care"*.

This was echoed by other participants; the lack of:

*"...important equipment and instruments; we are facing problems also with shortage of equipment like we said before and we order from the Central Medical Stores and we are told none... none continuous months but you find the same items we need in our store room broken. I came across people you are coming to fix them but only coming once a year but*

*can't we encourage or motivate because we are just sitting without some of the important equipment?"*

The MoHSS (2008) Report confirms that "...there is delay in the repair of medical equipment due to unavailability of spare parts at some hospitals and lack of manpower (engineers and engineering technicians) in the regions". Similar sentiments were revealed by participants:

*"...issue of maintenance, there I would say there is really no preventative maintenance in place ah... and the Ministry has um... we do not have [a] maintenance plan in place, you know, for this machine it has to be serviced for example at these intervals ah... that is not in place. It compromises QA in that we do not stick to manufacturer's instructions as to what should be done ah..."*

Although the MoHSS (2014) indicates it "...has annual maintenance contracts with suppliers of high tech medical equipment such as Genmed, Erongo Agencies, Bio Dynamics and Nam X-ray". Participants pointed at serious maintenance issues:

*"...you improvise and improvising is low quality. So, at times you improvise by using old equipment which is not functioning properly and sometimes patients need to be referred to centres where there are [sic] equipment which means service delivery is inadequate."*

One participant emphatically recommended that there was a need to improve the acquisition and procurement of materials.

*“...let us say for the low tech equipment, just a simple blood pressure machine. It cannot last, so there are always complaints that there are [sic] frequent breakdown of these, you procure today it takes one, two, three weeks it is broken, we need to change the situation.”*

Health care services are highly dependent on transport to ensure quality health care delivery. Although the Auditor General (AG) Assessment Report (2008) found that 50% of the ambulances at the health care facilities were in good running condition, 31% were regarded as not reliable and fit for transporting patients for long distances due to frequent break down while 19% were written off. Participant shared their resentment.

*“...of course there are times when one ambulance gets involved in an accident and once that happen[s], it really affect[s] ambulances services because you cannot replace an ambulance overnight, you will have to wait until the Ministry at head office provides, you know, a replacement and this is something that does not happen overnight because an ambulance has to be usually... it is just an ordinal [sic] vehicle bought and converted. It is a process like at the moment one of our district is only operating with one ambulance; other district hospitals have two ambulances but the one was involved in an accident and it is written of few months ago. This is now compromising our ambulance services; what is happening, we rely on private ambulance services and they are costly. You pay not less than N\$8 000.00... but even that the challenge is transport when it coming to have outreaches services.”*

Given numerous challenges, the researcher concluded that health care facilities were unable to respond adequately to the increasing number of patients. Re-scheduling of services had implications for poor coverage of immunisation, postponed diagnoses, and treatment of illness. Overcrowded hospital rooms resulted in an unhygienic environment that exacerbated cross-infection and transmission of diseases during the hospital care.

### **Concluding remarks**

Health infrastructure is one of the complex and vital components for the health system, as well as for strengthening and providing quality health care to patients. Without the proper elements of physical buildings, finance, space, time, medical equipment, and ambulance services, the quality of health care will remain poor and patient safety is compromised.

A reflection of the accounts of participants in the MoHSS pointed at limited or inadequate infrastructure due to various reasons, such as additional programmes and an increasing population. Almost all health care facilities attended to a number of patients in excess of what they could accommodate within the recommended bed capacity.

In the context of health care facilities, there were different scenarios. It was indicated that patients were often dissatisfied due to long waiting time and insufficient time allocated for consultation with a medical doctor. Those patients who were admitted did not receive proper care and attention as rooms were full. Doctors and nurses had to rush and sometimes were skipping certain procedures that were detrimental to the

condition of a patient. It was difficult to maintain hygiene, especially in the toilets, in health care facilities that were overcrowded.

The health leadership need to seriously think laterally to move away from relying heavily on government funding for capital projects with the view of seeking alternatives to mobilise additional resources to improve the situation of space in the hospitals. Attract the private sector by creating a model of semi-autonomous health care facilities that are collaboratively monitored by the private sector and the MoHSS.

#### **3.4.2.2 Sub-theme: Shortage and poor management of resources**

The shortage of human resources for health refers to the unavailability or scarcity of a skilled health workforce resulting in poor health care and service delivery. The shortage of human resources at health care facilities has resulted in inaccessibility and weak provision of health care and services, especially in essential and specialised services offered by certain categories of health professionals in the MoHSS. Human resources for health are most critical, hence the consideration of strengthening human resources management (HRM), which deals with "...[t]he policies, practices and systems that influence employees' behaviour, attitudes and performance" (Noe, Hollenbeck, Gerhart, & Wright, 2006). HRM is one of the crucial fields "...[r]egarded as a philosophy about how people should be managed, which is underpinned by a number of theories relating to the behaviour of people and organizations" (Armstrong & Taylor, 2014). HRM has important functions and roles to facilitate quality health care delivery; such as "...[s]trategic planning, organising, controlling, training and development (Ivancevich *et al.*, 1997). Given the shortages of human resources in the

MoHSS; Nel, Gerber, Van Dyk, Haasbroek, Schultz, and Sono (2004) emphasise the objectives of HRM to establish a positive culture, good interrelationships, and support to managers in executing their duties more efficiently. Mediocre service often results from an adjustment to one component in a system that causes variations in the other components. Ivancevich *et al.* (1997) elaborate further on the management approach within an open system where effective functioning of one part depends on the others and dictates how resources are transformed into inputs (human creativity and capacity, information, raw materials and financial resources) in order to produce the required outputs (product and services). In health care, human resources are among the inputs that are viewed as the backbone, which is defined "...as the different kinds of clinical and non-clinical staff responsible for public and individual health intervention" (Kabene, Orchard, Howard, Soriano, & Leduc, 2006).

The effect of human resource shortages upon health care facilities is "...overcrowded hospital wards, increased waiting times, reduced number of available beds for inpatients, diversion of emergency department patients, under / over utilisation of the available health personnel and services, substitution with persons lacking the required skills to perform critical interventions" (Kabene *et al.*, 2006). The high attrition of competent personnel from the public health sector in Namibia is caused by *transfer, promotion, death, resignation, retirement, and migration* in pursuit of greener pastures in the lucrative private health sector, due to the lack of retention strategies, and as a result of a dysfunctional performance management system. According to the Presidential Commission of Inquiry (2013) health professionals are nearly every day leaving the public health sector to private sector. Participants confirmed that

*“...because you are aware we are experiencing acute shortage of staff”*. A study by Ipinge, Hofnie, Van der Westhuizen and Pendukeni (2006) proposes that recognition of hard work and non-financial rewards could be used as incentives to attract and retain health workers to serve in the rural areas while remaining in the public health sector.

Debates addressing the unequal distribution of human resources between countries, public and private sectors, as well as urban and rural areas dominate international agendas without any success. The WHO (2013) indicates that nearly all countries face a disproportionate distribution of health workers between urban and rural or remote areas; the phenomenon stymies quality health care delivery. In Namibia, several interventions have been introduced to improve this situation; for example, informal training of health professionals in specific areas, especially in clinical care. Study loans / grants are provided to pre-service students pursuing training programmes in different health-related fields. Other interventions to alleviate the shortage of health workers in the country are the establishment of a medical school, as well as the recruitment of expatriates. Despite these initiatives, the findings of this study revealed that health professionals lacked appropriate knowledge and skills in QI and QA. Several studies in health care indicate that *“...a lack of knowledge and skills among clinicians and managers is a significant barrier to improving quality in healthcare”* (Neale, Vincent, & Darzi, 2007).

Health care facilities were not only confronted by the shortages but scarce skills or non-availability of health personnel with the right skills, such as specialists to provide care and services were mentioned by participants: *“...you need people again, right people in those positions to do that if you only have bodies for the sake of having them*

*in those facilities again still that might not add any value and I guess with eh... the improvement of condition[s] of service, this we may get the right people in those positions to help us". Without adequate training of human resources, a health care system will collapse; imagine a woman in labour and no trained person available to attend to her. Reports on specific health programmes, such as maternal and child health are worrying while countries are battling to achieve Goals 4, 5, and 6 of the Millennium Development Goals (Millennium Development Goals, 2010).*

Experiences during the interviews presented evidence about those desperate flaws.

*"...because I mean, you have the hospital with many departments but you only have few people to serve those. So, ah... that is how we intend to improve the quality of service provide [sic] to the Namibian nation?"*

Another participant added:

*"...unfortunately, it happens that you have say three or four doctors and one pharmacist... [Laughs.] Where everyone converse [sic] with the pharmacy, we hear that patients are sleeping... even overnight at the health facilities because of the number of people who cannot serve them, the number is low for the people who are served or the patients. So, by the time the people come to the pharmacy, because pharmacy also deal with inpatients, they will have to wait until 11:00 or 12:00 before they are served. So, by the time pharmacy start[s] serving, they work even up to 7 pm but they cannot finish because the number of people in the pharmacy are not sufficient for the number of patients."*

A study determining the Workload Indicators of Staffing Needs (WISNs) in the Kavango Region (McQuide, Aitken, & Forster, 2012) confirm experiences of acute “...shortage of doctors and pharmacists in every district hospital, with 196 fewer doctors than required but an excess of 148 nurses”. Although some cadres might seem more in numbers, as in the case of nurses, they are often performing activities on behalf of doctors and pharmacists, especially at health centres and clinics where there are no doctors. An interesting scenario highlighted during The WISN exercise highlighted an interesting scenario; some nurses were performing procedures that were outside their scope of practice. Such practices not only flout regulations; they also compromise the quality of health care processes. One participant echoed “...*all the pharmacies, ah... especially the district pharmacy is run by pharmacist assistants only, but the thing is now that is actually contrary to the law*”.

Again, amidst these devastating situations expressed by the participants:

*“...now we are having patients who come here since 6 o'clock in the morning. They will be attended [to] maybe tomorrow, not even today but if you were having enough human resources you think of improving your service not even to think of finishing the queue. So, but what is happening is that you think of the number of patients you have and you check on you time... knocking on the watch... So, I have to attend to them before 5 o'clock but you are not considering the quality of service you are providing; you are only considering the service that is not measured in terms of quality.”*

## **Concluding remarks**

Health care cannot function without human resources. One of the emerging storylines in this study was “*health professionals are few, patients are too many*”. Beside financial, physical, and materials resources, one of the key components in health care is human resources. Health professionals are the most critical component in the MoHSS because without adequate training in quality care, patient safety will be compromised.

The narrations indicated that the MoHSS was facing an acute shortage of health professionals owing to a high attrition rate and the lack of retention strategies. Given the increasing patient demand for services, health professionals are overwhelmed by the expanded workload. On the other hand, health professionals who are at the forefront of providing care and services to the patients are not adequately trained in QI and QA. As a result, most of them have little understanding of QI and QA concepts, thus there is a need for continual training programmes to equip staff members with the understanding that QI and QA principles form the foundation of maintaining quality care in the MoHSS.

Beside the absence of a performance management system, health professionals are not motivated to contribute to improvement and change in health care. The introduction of financial and non-financial incentives could encourage people to improve quality patient care. Considering the working environment at the health care facilities, due to an overwhelming workload, health professionals hardly have time to focus on their own private lives. Intensifying quality well-ness programmes could serve as a way to

boost morale and enable them to concentrate on patient safety instead of constantly thinking about the burdens of their high workload.

#### **3.4.2.3 Sub-theme: Unequal (inequity) allocation of resources**

Inequity or imbalance in allocation of resources is one of the challenges experienced by the health care facilities and it negatively affects quality health care delivery. Health care financing is one of the biggest challenges, mostly in developing countries and Namibia is no exception. According to the WHO (2000) "...[t]he purpose of health financing is to make funding available, as well as to set the right financial incentives for providers to ensure that all individuals have access to effective public health and personal health care". In Namibia, the public health system is fully subsidised by the government, which has even increased the total budget allocation to 15%, according to the 2001 Abuja Declaration. The MoHSS (2003) reports that "...the Namibian health system does not suffer from absolute inadequacy of financial resources but may be suffering from relative inadequacy of resources (inefficiency and inequity) in resource allocation and utilization". According to Forster (2014), an increase in health care costs is consistently outperforming average consumer price inflation and salary increases, which threatens access to health care. Those realities bothered the participants.

*"...why no stock, I think there is poor quantification at the national level, poor quantification maybe from the grassroots level to the national level that I can say, otherwise I don't see why no stock should be there while the government of Namibia is spending a lot of money eh... enough really, the*

*money which is allocated for medicine if you compare with the population of Namibia is really... [loud voice...] enough that vocabulary of no stock shouldn't be there. So, if you ask me why there is a problem of quantification, there is a problem in assessing or determining the needs of medicines in this country from the grassroots to the national level."*

The root causes of incompetency, ineffectiveness, inefficiency, and mismanagement of resources contribute to unavailability and inequitable distribution. One participant argued that *"...one especially the equipment that is catered under the national level's budget is taking time to come, it can take something like six months upward or sometimes it can take a year"*. This explains that financing health system infrastructure is not effective owing to a number of factors, such as an increasing population and expanded health care burdens that place huge strain on the limited resources.

*"...previously, the equipment budget was allocated at regional level but now it is centralised at national level. So, and we do submit our needs for equipment that we need this and that but it do takes [sic] time before we get the equipment that we have ordered."*

Another one added:

*"...what hindering quality improvement is also insufficient budget allocation, the staff members are coming up with their need to improve the quality but the budget allocation is insufficient we are not being allocated what we requested and it hinders the service because eh... for example,*

*maybe some of the equipment are [sic] outdated, the staff want modern ones but due to insufficient budget allocation.”*

Based on participants’ perceptions of financial resources, the need existed to strengthen “public and private pooling arrangements” through public private partnership to supplement the revenue allocated to health care. The WHO (2000) elaborates that “...pooling is the accumulation and management of revenues in such a way as to ensure that the risk of having to pay for health care is borne by all the members of the pool and not by each contributor individually”. The pooling system is used to allocate funds to government organisations, Ministries, and Agencies (OMAs) with the aim of maximising equitable utilisation of revenue. Smith and Witter (2004) explain that “...[p]ooling is the health system function whereby collected health revenues are transferred to purchasing organizations”. Gottret and Schieber (2006) emphasise that “...[t]he systems can be successful only if the services they fund are available and of good quality, which will support membership in the scheme and avoid a system where the wealthier populations opt for a separate, privately financed system and do not provide needed political support”. Various models to implement health system financing do exist. For the public health system, the government revenue collection is efficient because resources are put into one basket and shared according to the activities to be performed based on the budget plan. Gottret and Schieber (2006) describe some of the models for implementing these basic functions; namely national health service systems, social health insurance funds, private voluntary health insurance, community-based health insurance, and direct purchases by consumers.

#### **3.4.2.4 Sub-theme: Experiences of long waiting times**

In this study, waiting times began the moment a patient called to book an appointment and continued during the visit the health care facility for diagnosis and treatment; this process started with registration or payment, seeing a nurse, a doctor, social worker, pharmacist, and perhaps admission to a ward. Based on the investigations of patients, waiting times include referral to admission at the same facilities or at the next level of care beyond the hospital, as well as follow-up visits to outpatient clinics after discharge. According to the Health People 2020 (2011), timelines are the capacity of a health care system to respond speedily to health care needs based on the following concrete measures: "...time spent waiting in doctors' offices and emergency departments (EDs) and time between identifying a need for specific tests and treatments and actually receiving those services".

A study by Oche and Adamu (2013) indicates that "...[m]ore than half of the patients waited for more than 1 hour, with high patient load coupled with few doctors and nurses being the main causes of this long waiting time". The IoM recommends that at least 90% of patients should be seen within 30 minutes of their scheduled appointment time" (O'Malley, Fletcher, Fletcher, & Earp, 1983). On the contrary, Singh, Haqq and Mustapha (1999); and Ofilli and Ofofve (2005) indicate that in most developing countries, patients spend between two and four hours at the outpatient departments before seeing a doctor.

Based on participants' views during interviews, waiting times were aggravated by the shortage of health workers amidst an increased demand for care and services. It was

also revealed that long waiting times decreased the accessibility to care and services due to postponing or re-scheduling appointments, as stated by the participants.

*“...this patient has to come as according to their [sic] long list of waiting list. So, a patient that I would have wanted probably to know what is going on with this patient maybe in forty-eight hours, the patient will probably wait for a week or two weeks to get a response on when the patient should go to Windhoek and then when that patient go [sic] to Windhoek, Windhoek can call you to tell you that patient can come in one month or in two months. So, you see that makes this patient to for almost three months, some wait up to six months, some have been booked up to one year and they have never had access to the service. So, which kind of service am I providing to this client and this patient every time he / she comes to me with the same complaint that I have to deal with just to treat the symptomatically [sic] because I cannot reach to the bottom of the problem? Because I can't have the conclusion, you understand. So, I am not providing quality service to this patient not because I don't want [to] but because I don't have the means.”*

Long waiting times may negatively affect quality health care delivery, if not carefully managed, participants concurred that:

*“...you could tell that there was not hundred per cent satisfaction, especially in terms of um... those patients that are having chronic diseases, who have to come from time to time to get their medications either for high*

*blood pressure, those that are HIV positive. and things like that. Those that are actually forced to come to the health facilities on [a] continuous basis you could tell that here maybe the person is not factually telling me the truth, but you could also tell from what you are seeing. You see, there are hundreds of people queuing up there and probably you only have one pharmacist or two; you know they cannot really handle and give proper serve [sic] to these people.”*

Experiences of participants indicated poor interrelationships “...it also includes eh... eh... the, the way we relate to our clients and patients, eh... the, the, the time we take to get them through the system and get what they require”.

A well-known fact is that a certain amount of waiting time is acceptable but frustrations start developing when there are uncertainties, inappropriate information, as well as unclarified expectations and procedures. Norman and Schmidt (2000) expand Maister’s (1985) ideas on the psychology by focusing on ways to mitigate the effects of long waiting times.

Economist say time is wasted “...if you count health care-related activities including time traveling to a doctor, waiting to see a doctor, being examined and treated, taking medication, obtaining medical care for others, and paying bills – the average American spent 1.1 hours a week obtaining health care in 2007” (Krueger, 2009).

### **Concluding remarks**

Waiting times do not only undermine quality health care delivery but also produce negative psychological and socio-economic (cost) effects. Patients who are returned

home without diagnoses and do not understand the causes of their illness will be emotionally disturbed. Unless the treatment is successful, then patients are forced to return many times to the health care facilities, which involves cost of medicine, transport, and the time spent waiting to be attended to.

On average, public health services are not accessed timely due to several factors mentioned in the previous section; such as shortage of health professionals, transport costs, and limited bed capacity. Often, patients are forced to wait extensively before receiving medical attention and at times have to return home without having seen a doctor or being attended to. To counteract these effects, proper guidelines need to be designed to reduce the waiting time, costs, and negative emotions on patients.

The storyline in this study was especially related to waiting time involved in referrals of patients who needed specialised services; those services were not accessible at the district hospitals but mainly at the Windhoek Central Hospital. The appointments to see a specialist were too long and were sometimes postponed, resulting into prolonged illness or chronic diseases that could have been prevented had it been diagnosed earlier.

Other options could be introduced to alleviate the waiting time at different levels. In relation to referrals, participants suggested that doctors should be trained on procedures that required referral to specialists. The flow and waiting time of outpatients could be reduced by occupying the patients with certain activities, for instance information and education specific to their conditions.

#### **3.4.2.5 Sub-theme: Workload and quality health care delivery**

Workload is one of the most contentious debates at nearly all health care facilities (MoHSS) due to “...patient safety and access to quality health care” (Yassi & Hancock, 2005). Neill (2004) defines workload as “...the amount of work or number of work units assigned to a particular resource over a given period”. To expand on this notion, workload is influenced by diverse internal and external factors that might be beyond the means of the health system.

Health professionals highlighted some weaknesses in service delivery: “...you find some people, some nurses are queuing almost one hour, two hours sometimes just because of shortage of staff and why... whoa... there is a lot of things to explain... [laughing...]”. Frankel, Graydon-Baker, Neppl, Simmonds, Michael Gustafson, Tejal, and Gandhi (2003) affirms that a “...caretaker would have to leave the floor to look in other supply areas while the patient would have to wait for his or her return”. On account of participants at the health care facilities, the workload impacted health workers’ turnover, tiredness (fatigue), absenteeism, stress, and burnout that decreased patient safety.

*“...we probably needed to have a programme looking at the wellness of the service providers, civil servants because the workload is known, quite too much and hectic but we do have very little time to look after our own wellbeing, yah... you... People might be even sick you know, burn out, the pressure is still too much from them and that is... is really reducing even the morale of the staff. We need at least someone to acknowledge that*

*really people are overworked and consider that they have the right also to be well and organise some activities that will probably just to wash out a bit of the stress and things like that that [sic] one I have not seen it happening and I hope it will really help.”*

The study revealed that one of the strategy currently used to minimise the workload at the health care facilities was to allow personnel to work overtime. At the same time, it was causing tiredness and burnout that could compromise quality health care delivery. A study by Neill (2004) explains the “...[m]ental workload techniques that can be grouped into three broad measures: psychophysical, performance, and subjective”. The writer explains that “...nursing workload is affected by many different factors, some of which are more stable and easier to measure than others. For instance, the number of admissions, patient census, procedures, turnover, case mix, and average age of the clients are quantifiable variables to measure the workload”. Mental workload is a “...complex construct with multiple dimensions determined by individual’s processing capacity and the requirements of the task, which is influenced by a person’s characteristics (skill level, energy, personal behaviours and perceptions), performance circumstances (work environment and time demands), activity complexity (routine activity vs. special or emergency procedure), and indirect influences (staffing pattern, administrative support, non-direct care requirements” (Neill, 2004). A similar study by Weydt (2009) in Neill (2004) state that “...[n]ursing workload measures do not guarantee efficiency and do not adequately capture the complexity of nursing workload, especially as the measures relate to the work environment”.

*“...verbally we are too few; the patients are so many, okay. Even the motivated for additional social workers, then I said, okay fine. Is there a standard even from the national level, in terms of what are the social workers to patient ratio? What is [it] that should be done, is the set standards that we can follow, where we say this is the work the social worker does, this is the time it takes, the way the WISN exercise we run, this is the time it takes for you to do those activities. But in Katutura hospital, we are seeing so many patients and these are the activities we have to do and these are the things we do for these patients. So, based on this, we require twenty more social workers, is only now we are beginning to do that because the motivation were [sic], we are overloaded and there are only three of us. Give us more people and then motivation goes like that and then is sent back is only now we are saying using your statistics show us why the extra bodies are required using your workload that you putting on black and white.”*

The above quotation indicates that WISN is not fully utilised to assist managers to make correct decisions to determine the staffing requirements based “...on the current professional standards for performing a particular component of work” (WHO, 2003). A study to determine the workload of selected staff categories that revealed the health personnel challenges which is experienced due to the shortage of doctors, pharmacists, nurses, as well as pharmacist assistants. The purpose of determining the workload was to assess the gaps between the standard activity and the component of an activity performed by the health worker, either standard or the actual performance.

Participants indicated:

*“...because of burnout, because people (health workers) are very few, you alone on duty and you look at people that you have to handle that can be one reason why people are having negative attitude[s], and actually you hear it from time to time in the media so on and so forth. I can actually say this is the main one, they [sic] might be others”.*

### **Concluding remarks**

On a multidimensional level, workload has to be analysed in a consistent manner with the focus on other components of the health system. One would understand the pressure of acute shortages of human resources and inadequate infrastructure and the contribution these shortages have on workload at the health care facilities. Noticeably, with experiences of participants indicated the burdens of extended workloads, it remains one of the factors obstructing quality health care delivery at the health care facilities.

The current workload burdens might not be easily reduced given the shortages of health professionals and increased population in need of additional services. The only way is to provide the incentives to attract health professionals, as well as inculcate a mind-set that turn the workload issues into opportunities. The working environment could be improved by introducing recreational facilities for health professionals at the health care facilities; such as rooms equipped with certain recreational tools, tennis courts, and libraries. The provision of sufficient resources at each health care facility would enhance the speed of care and service delivery. The improvement of

infrastructure would create conducive working environment and enable systematic flow of patients / clients. Certain functions, including specialised services to the district level should be re-distributed and re-organised.

### **3.4.3 Theme 3: Participants experience inadequate interpersonal relationships in terms of QI and QA**

Interpersonal relationships are vital in the communication process to establish strong relationships and rapport between two or among more people. Quality patient care can only be achieved through a mutual relationship and active involvement in planning and decisions concerning patients' well-being. In substantiating this view, Ivancevich *et al.* (1997) suggest that "...[t]o maximize disease control, patients must participate effectively in their medical care". The authors define interpersonal communication as "...communication between two people, usually face-to-face and developed a relationship". Reflecting on the methods of verbal and non-verbal communication, often the challenges expressed at most health care facilities were language barriers, since neither all patients nor health professionals could speak a common language. The study revealed that there were no interpreters at health care facilities. As a result, nurses had to interpret in cases where the patients did not understand the language spoken by the health professional. The study also revealed that the common method of communication between patients and health professionals was the spoken word during face-to-face contact; however, no method was available to communicate with deaf patients. Non-verbal communication includes sign language and the movement of body parts (facial expression, hands, lips, shoulders, and neck). Each one of these methods had advantages and disadvantages that influenced effective communication.

McLaughlin and Kaluzny (2006) add that ineffective communication and poor coordination are among contributing factors to poor health care services. Four sub-themes emerged from this theme: Negative attitudes among staff and towards patients, lack of effective communication, lack of motivation and team work, and resistance to change (lack of a system to prepare health workers for a culture of change).

#### **3.4.3.1 Sub-theme: Negative attitudes among staff and towards patients**

Attitudes refer to a behavioural disposition that is expressed in feelings at a certain time, which changes according to the conduct of an individual in a particular the situation. Research has analysed the issue of negative attitudes towards patients and identified a variety of contributing factors. These factors that may affect the attitude and performance of individuals are the shortage of human resources, insufficient equipment and medical supplies, burden of a heavy workload, as well as inadequate knowledge and skills. Participants pointed out that “...*the main, main, main barrier, I think, um... is really lack of staff. I think that is the main one; this one can lead to negative attitudes among the staff members that are there*”.

The factors that cause negative attitudes, experiences of a heavy workload, and shortage of human resources are crippling quality health care delivery. Similarly, there seem to be little done about an organisational culture to change the mind-set towards shared values, beliefs, and patterns guiding behaviour and conduct of employees. Experiences indicate that health professionals do not have a common understanding of the values and organisational philosophy, “*the people’s culture has not changed, the work culture, the working culture has not changed to adapt [to] new ideas, to adapt*

[to] *new tools, to adapt [to] new standards or there is a limitation in terms of number*".

According to the Centre for Creative Leadership (2010), leadership has the responsibility to close the gaps and drive the quality improvement strategy to "...the lowest appropriate level, developing employees' confidence in their ability to take action".

Health professionals indicated that they were experiencing a negative attitude towards patients and clients:

*"...in some of the facilities, patients were complaining that you know eh... they are not even. They just come in, the health care workers don't [sic] introduce him or her; sometimes they just prescribe even before asking them what is wrong with them, ah... there is that customer care is not there yeah... yeah"*.

### **Concluding remarks**

Interpersonal relationships are the most vital tool to create a conducive health care environment given the constant exchange of information. It can be concluded that most of the problems at health care facilities are owing to the lack of strong interpersonal relationship, either between patients and health professionals, or among health professionals and management.

The accounts of participants reflected weaknesses in establishing interpersonal communication, which resulted in a lack of understanding the common values and negative attitudes, as well as poor work culture towards patients. Quality improvement

requires establishing guidelines for good relationships among quality health care teams and patients.

#### **3.4.3.2 Sub-theme: Poor communication among health professionals**

Some studies by Van Zanten, Boulet, McKinley, DeChamplain, and Jobe (2007); as well as Fong *et al.* (2005) have established that "...[d]octor's communication and interpersonal skills encompass the ability to gather information in order to facilitate accurate diagnosis, counsel appropriately, give therapeutic instructions, and establish caring relationships with patients". This notion is further supported by Duffy, Gordon, Whelan, Cole-Kelly, and Frankel (2004) that "...[c]onversations between patients and doctors shapes [sic] diagnosis, initiates therapy and establishes a caring relationship". However, health professionals might not have the skills to communicate effectively in all situations despite their wealth of training and experience in medicine. Lee, Back, Block and Stewart (2002) echo similar sentiments that doctors are not born with excellent communication skills but can understand the theory faster and modify their communication skills when encouraged and supported through training. Effective communication does not only result in well-coordinated activities but "...[h]elp[s] regulate patients' emotions, facilitate comprehension of medical information, and allow for better identification of patients' needs, perceptions and expectations" (Arora, 2003, and Stewart, 1995). Good communication can promote good teamwork, high satisfaction of both patients and health providers, reduction in workload and stress in the work environment, as well as adherence to treatment, since patients will be encouraged to return for follow-up visits. As much as communication is important to quality health care delivery, several barriers to communication are noted; such as a

language barrier, clear expression of ideas, and establishing good relationships. This study found that there were no professional interpreters at the health care facilities despite the majority of expatriates serving at those facilities who might not speak any local languages. Instead, nurses were called to interpret in cases where a patient was not able to communicate with a health provider.

Participants established that:

*“...most of our medical officers are expatriates and as such we really do not have an influence in their training. They are coming from different countries; of course they are assessed by the Health Professions Council of Namibia (HPCN) to test their knowledge and skills but then you just get these cases that they come here... [voice louder...] and they are not able to do everything that is expected to be done by the MO (medical officer)”.*

This is one of the grey areas, as well as a source of miscommunication and misunderstanding. A study conducted in American hospitals has found that “...when professional interpreters are not available, health care staff often rely on nurses, social workers, friends, or family members of patients, increasing the risk of interpretation errors” (Smith & Pietrzyk, 2009).

In some cases, health providers face difficulties in communicating sensitive information without negatively affecting the patients’ health condition. Several factors that impact on “...quality and safety of patient care have been identified as poor communication, poor coordination, lack of understanding the roles and shared goals for patient care between the professional groups, limited sharing of information

between team members, disagreements, and aggressions” (Wæhle, Haugen & Hjälmhult, 2012). These squabbles can be blamed on naivety and overlooking the broader communication component of non-technical or social skills in academic training of health providers.

“Effective communication occurs when the recipient of the message interprets the meaning of the message in the way it is intended by the sender” (Booyens, 1998). Communication may be complex, especially at large organisations like the MoHSS, hence certain skills might be helpful for health professionals to communicate effectively with patients, learn from one another, develop alternate perspectives, and meet the needs of patients. The Accreditation Council for Graduate Medical Education emphasises five core communication skills among those recommended for physicians to become competent health care practitioners:

Due to health providers’ rigorous academic training mostly in technical skills, research indicates that non-technical skills; such as managing own emotions and that of patients, teamwork, and leadership are often neglected. This academic approach creates a vacuum when dealing with difficult situations during the provision of quality patient care. In this research report, communication was explained as a form of transmitting messages between the sender and receiver using written text, symbols, “...verbal and non-verbal words, phrases, voice tones, facial expressions, gestures, and body language” (Anonymous).

Slickmeyer (2014) argues that most preventable errors cannot always be attributed to inadequate technical skills, training deficiencies or knowledge because it is part of

cognitive, system, or teamwork failures. He further explains that in a review of litigated surgical outcomes, communication failures have accounted for 87% of the system failures that led to compensation for damages. Technical and non-technical skills are important in effective communication; given that health care is ever changing, some issues can no longer be solely addressed through technical skills but require complementary non-technical skills to be included in the training of health workers. A need exists to learn necessary skills that will reduce errors and distress during consultations with patients and families. This writer emphasises that "...these are challenging skills for oncologists because very often doctors do not know what to say". Hence, communication has become a critical component of quality patient care and it requires new methods of assisting care givers to treat patients with confidence.

Although the effective communication skills (competencies) of MOs have not been directly examined, studies indicate concrete examples of the relationship between effective communication and quality health care. Such a study by Wong and Lee (2006) has found that "...[g]ood doctor-patient communication is important and has impacts on better health outcomes, higher compliance to therapeutic regimens in patients, higher patient and clinician satisfaction and a decrease in malpractice risk".

Participants indicated:

*"...the skills of our, especially medical doctors... I think that is another area that we perhaps eh... need to look at because and this is also related to ambulance services that I was talking about. Most of the time, our ambulances are on the road and this happens because our medical officers are not able to attend to most of those cases and I think maybe if we can*

*think of having specialists in the district hospitals, I know is something that might not be...*”

Although no skills were specified, emerging issues from these accounts can be related to several aspects that inhibit effective provision of quality health care; such as deficiency in the system, individual characteristics, lack of knowledge in quality management, and ineffective interpersonal relationship. Other barriers to effective communication at the health care facilities included the language. According to Martinez (1996), the activities of QI “...is [sic] typically coordinated through an *improvement team, also known as a quality improvement (QI) team* and the effectiveness of the process often depends on the ability of the team members to work well together”. Effective teams are not instantaneously formed but cultivated and grown over a long period of time to maximise the potential skills to create synergy and enable the achievement of quality health care delivery. Bulleit (2006) explains that effective teams work and support one another towards achieving common goals. A critic amongst the participants indicated that:

*“...in the hospital, you know the doctors are very difficult people to work with the non... okay the eh... eh... health allied and the nursing and others, those are a bit easier to work with. Now, the doctors... when you say, listen guys we have this and we need to do this by this time is like they don't have time. They are ever busy with their patients and we are trying to get there. Slowly by slowly, you give them a task to do but you really don't get it on time as you expect to get it yes... but we are trying um...”*

Nowadays, teams are required to perform more major activities that cannot be done by individual health personnel alone, such surgeries through tele- or video conferencing supervised by experts around the world. Richardson (2014) discusses a number of factors that lead to the establishment of effective teams that could be emulated in health care facilities.

Certain factors might also contribute to ineffective teams. Those elements might discourage effective teamwork. highlights similar elements that result in ineffective teams; such as poor or lack of communication; lack of problem solving skills; lack of clarity in purpose, goals, objectives, team and individual roles; uncertainty about or lack of resources and sources for help and support; poor time management; lack of leadership and management; bored team members (not challenged, not really interested); lack of skills and abilities in team members; personality conflicts; personal problems; and staff turnover. (Bulleit, 2006). *“I think there is also [a] need for people to emphasis on [sic] team work because we usually don’t work as a team here, so like us all...”*

If health care facilities fail to build effective teams, it would also be difficult for them to encourage or engage patients to establish good relationships that facilitate quality health care delivery. According to the Minnesota Department of Health, “[p]atient engagement refers to tools and actions by and for patients, their caregivers, and health care providers to promote informed decision making and behaviors to facilitate improved health outcomes”. Different tools to assess patients’ engagement are developed, such as the “Patient Activation Measure (PAM) that assesses patients’ knowledge, skill and confidence in managing their health and health care” (Arnold,

2007). In countries where PAM has been introduced, like in the United States of America (U.S.A.), suggestions about providing financial incentives to establish continuity are being debated. Finding extra finances for patients' incentives may cause strain on the already substantial health care services budget of the government. Patient engagement is building strong and cooperative relationships in terms of critical issues related to their health. Furthermore, "...patient involvement and engagement in health care has the potential to increase the speed of patient recovery, turnover and reduction in hospital occupancy rate. Patient engagement starts with giving patients the tools they need to understand what makes them sick, how to stay healthy, and what to do if their conditions get worse" (Arnold, 2007). Given different contexts and cultural differences, empowering and motivating patients may take some time but it would be worth the effort. Experiences gathered during interviews emphasised the lack of interest by community members; when invited to the meetings discussing health care issues the turnout is usually very low.

"And also, we have tried through those days in the ministry health calendar like an example of TB commemoration or awareness like we tried to hold a commemoration. We invited people; even we [sic] prepared to provide food and refreshment but what happened? Very low turnout in as much as we tried to inform the community members through radios. So, sometimes even if you want to conduct this health education sometimes... I think it was just empathy, people were informed [about] the venue, the time, the date but the turn up [sic] is just low and people are even moving around past the venue, our stadium. They know there is something going on but they don't even both to come and listen what is being talked about."

Although health care is one of the highly participative sectors, usually there is no effective communication to engage the communities in quality health care delivery.

“Yah... I am thinking that maybe we also need to engage our communities so that we have their cooperation, you know. There, you don't expect someone to die at the hospital; it becomes an issue like they are saying maybe the matron was negligent, the nurses, the doctors did not do their part but the communities should understand that in as much as the health workers are doing their best, sometimes there are situations that are out of your control because why it will come back to the staff; you know there are always. I accused even the community members; they are coming pointing figures to the health workers... in fighting aggressive tone... it in the end demoralise[s] them. Even they want to put their best efforts; they say ah... no one is appreciating my efforts. So, I think also we need to engage our communities.”

Recognising weaknesses in interpersonal relationships, participants suggested adopting customer care as a strategy to improve the relationships.

“Um... actually from most like if you go to the banking sector, you can even see the customer care services, and we are also dealing with customers; our patients are our customers but the way we handle them sometimes. It is as if we are just helping them yet they are the most important people because if they are not there, we will not be there. Ah... so, I think we can learn a lot even like customer care, you... you know, and how you interact with your client, with your patients.”

Active involvement of patients and community members will limit the dissemination of erroneous information and unwanted errors.

## **Concluding remarks**

Communication is one of the vital components to ensure quality health care delivery. Although management argued that there was teamwork, participants confirmed that teamwork was either inadequate or non-existence at the health care facilities. Effective communication was also among the components that were lacking at most health care facilities. The narration of the situation drew attention to several aspects; such as lack of skills in certain domains and language barriers that resulted into poor patient care, as well as poor time management, since everybody was busy and unable to focus on quality issues, which necessitated practical guidelines to improve the situation.

Training of health professionals in clinical domains is critical. Inadequate training in quality improvement and quality assurance compromises the effectiveness and advantages of communication, which needs to be coordinated effectively to ensure a common understanding and analysis of information.

The MoHSS is moving in the right direction of institutionalising QI and QA, however, it faces the challenge of influencing the training of medical and health care students who have trained outside the country. The participants highlighted this phenomenon as one of the grey areas it exacerbates the lack of expertise in specific domains and the inability to understand the context that compromises patient safety. This is also because the Information Communication Unit of the MoHSS had no specific guidelines to facilitate an understanding of QI and QA within the Ministry, as well as among patients and stakeholders.

### 3.4.3.3 Sub-theme: Lack of motivation and team work

Motivation is a management approach that encourages desired behaviour among quality teams to achieve common goals. Motivation is referred to “...the set of forces that initiate behaviour and determine its form, direction, intensity and duration and a reward system that encourages quality work” (Johnson & Scholes, 2002). According to Dieleman, Toonene, Tonre, and Martineau (2006), motivation is one of the critical components in human resources planning, since it has been proven that motivated and educated health workers increase morale, which contributes to quality health care delivery, noticeable effectiveness, and efficient service. Several theories and reward systems have been discussed by academicians on motivating employees to improve performance. Ivancevich *et al.* (1997) explain the two forms of rewards in behavioural psychology, i.e. intrinsic (innate) personal motives and extrinsic (external) outside stimuli that compel individuals to achieve their goals. Psychologists explain that individual characteristics and motivators of performance differ from person to person at any organisation. As stated in Section 3.4.2 of this document, several factors impact on motivation of health workers; such as inadequate equipment, insufficient materials and medical supplies, as well as a heavy workload due to shortage of health professionals.

*“I think they are no longer motivated because of the number of staff which is on the ground. The staffs are really exhausted, they are really... really overworked; even you try to implement a reward system, in house arrangement to reward those who have done well; at least those ones are motivated. There is just not even time to sit down with your people and*

*discuss because of the pressure and demand from the patients, you are so few what you are. You try to satisfy the patients' need[s]. As a result, you are left with little to take care of other things.”*

Participants indicated further that unfavourable working conditions decrease staff morale “...the other thing maybe is also the improvement of condition of service for the staff members that in my opinion can also eh... add value; people will be more motivated if they, their condition of service are improved”. Research has shown that creating environments where employees have leisure activities and are recognised for hard work contribute to improving morale and patient care. Some of the participants suggested intensifying wellness programmes to alleviate stress.

*“...we need really that wellness to be healthy, have a health mind, fresh mind to be able to read the policies and understand them. You need that time but you don't have that time most of the time is... I may say for me after my observation, every one of the health worker is overworked and is burnt out. So, I can't blame them why you didn't read what I gave to read you yesterday... the little time you have... if you are tired, the mind is tired just to sleep maybe and then wake up to go for work again tomorrow morning and deal with 200 hundred [sic] or five hundred patients and you have a family, your children's homework to attend to.”*

According to the WHO (2006) “...health system should seek to make improvements in six areas or dimensions of quality; these are: effective, efficient, accessible, acceptable, equitable and patient safety. Participants recognised that “...another

*important aspect that actually in the public service we have not really had a performance management system. I think that is really [a] key, key, key, key step”.*

*Another participant confirmed that “...for many... many years in the Ministry of Health, I don’t know about other ministries, for the Ministry of Health we send long ago people went to be trained in performance management system and then it never took off, for this year suddenly not even this year, June / July 2014 we must have everybody with performance appraisal... performance agreement (PAs) signed”.*

The recommendations of a study by the MoHSS (2010) to attract health professionals and scarce skills in the public sector and rural areas have not yet been implemented. Failure to implement incentive and retention strategies results in decreased quality health care services. Bailit Health Purchasing, LLC (2002) describes different incentive models that could be applicable to entice individual quality health care delivery, as follows: “quality bonuses; performance profiling; compensation at risk; publicising performance; performance fee schedules; technical assistance for quality improvement; quality grants; practice sanction; reimbursement for care planning; variable cost sharing for patients; reducing administrative requirements”. Some countries have either implemented or are in the process of implementing a combination of financial and non-financial incentives, depending on which model best suits their health care environment.

In Namibia, the awaited Job Evaluation and Grading (JEG) system has been met with mixed feelings, especially by those downgraded categories that are lumped together while performing different functions. Nonetheless, participants commended the Prime Minister (OPM) for:

*“...coming up with a new pay package, which in most cases in general I think has actually improved most of the staff members’ condition[s] of service; not only their basic salaries but also the allowances that goes [sic] along with the... with it. So, that to me also is an intervention that is actually meant to bring about delivery of quality service. If you have hungry staff members or less motivated staff members, you should not expect also this particular staff member to provide quality to the clients. Ah... to me, these are some of the main interventions that the Ministry or Government has taken to bring about quality service to the clients of the Ministry, ah...”*

### **Concluding remarks**

Motivation is one of the complex and vivid topics in many health care systems globally whereby debates focus on searching for strategies to retain and attract essential skills to enhance quality health care delivery.

Health leaders have realised the serious implications of working in difficult environments like health care where health professionals are also at risk of contracting diseases. Perhaps they are less interested in being compensated for their infection with diseases during care and treatment than receiving a token of appreciation and recognition.

Amidst scarcity of adequately trained health professionals and mounting stress, the choice to leave for greener pastures or the private sector becomes easier for them, since the more favourable working conditions become very attractive. The way out of this

quagmire is to develop different reward systems based on defined criteria that encourage quality patient care. If health care practitioners are really working hard, then reward them for their efforts and encourage them to carry on improving.

The accounts reflected on this component indicated frustrations raised from non-performance and the absence of strategic objectives resulting in an inability by health care facilities to extrapolate those objectives into practical activities that reflected the situation on the ground and that improved performance.

#### **3.4.3.4 Sub-theme: Resistance to change**

At the MoHSS, change is unavoidable as a result of the current developments that are taking place in the ministry; such as restructuring, introduction of new programmes, and adapting medical technology. Change is not always bad, but unsupported and unplanned change might be refuted by some level of resistance. In support of this stance, the proponents of change management advocate that “...change and innovation fail not because of new strategies or goals that are inappropriate but because organizations are unable to successfully implement them” (Paulussen, 2004; Greenhalgh, Robert, McFarlane, Bate & Kyriakidou, 2004) in (Caldwell, 2008). This is partly due to health professionals’ perception that quality improvement is an additional burden on top of their already heavy workload.

*“...I just want to say, quality improvement, quality improvement for some people that I talked to when I go to regions; they think quality improvement is something different from additional to what I am doing. Um... many*

*people do not see it that quality improvement is integral to what I am doing”.*

Experiences also indicated a lack of understanding for the goals of quality improvement and quality assurance in the MoHSS.

*“...some people really perceive it as [a] different programme altogether, it is not integral to what they are doing.”*

Health professionals need to be assisted through constant coaching, mentoring, and training to understand the principles and methods that would promote innovation and a change culture. A study by Caldwell and O'Reilly (2003) on the characteristics and beliefs that help to promote innovation by groups in their organisations has found that the prominent elements are clustered into four areas: “support for risk taking, tolerance of mistakes, teamwork, and speed of action”. Thus, understanding the context of each health care facility might be important and investigating the elements that might be likely to exert fear, pressure, or compel people to change in relation to the context of each facility.

Reasons that lead to resistance of change might vary; some may be due to, for example personality attributes and an organisational context. Inappropriate or lack of communication stifles the change that provides direction and encourage people to actively participate or join change an improvement programme. Proponents of behavioural and management sciences explain that human beings are prone to resist change, especially when change is perceived to be harmful. Tanner (2014) adds that “...[s]ometimes it is not what a leader does, but it is how s/he does it that creates

resistance to change; and undue resistance can occur because change is introduced in an insensitive manner or at an awkward time”. Participants stated:

*“... in every setting of group of people, you have [a] certain culture that evolves[s] some many years ago. If you take nurses for example, they have their own ways of trained [sic] according to Florence Nightingale some years ago with all new development you bring them in, they will resist you. They will resist, individually or a group; they will always say now we have done it this way many years ago, we didn't do... what are you telling us and then because they have done it so many times when you bringing new ideas it will take time to change the mind, and it has to be a strategic approach. If you simple [sic] issues guidelines, issue standards, there are the standards or circular whatever go and do it, not many people will change.”*

Listening to participant's arguments and given different age groups in the health system, the young ones might be excited about change but old guards might not want un-learn and learn new technology and methods to apply the medical implements. Ogrinc (2012) explains two types of change that are “...intentional and emergent: intentional is planned change and supported by a leader while emergent is change initiated within the system”. Hence the view of change management as “...[a] structured process designed to deal directly and intentionally with the human factors involved in not just planning and implementing an EMR but through behaviour change” (McCarthy & Eastman, 2010). On the other hand, Tanner (2014) classifies six broad dimensions required for managing and leading change in organisations: change,

communication, management, motivation, conflict, and leadership. Due to different types and the magnitude of change, certain strategies need to be adopted to prepare health professionals and to create conducive change environment. Green (2007) discusses four types of change that can be related to the incremental change initiatives that took place in the MoHSS at the time of this study, such as various training programmes in leadership and medical specialisation programmes in specific priority areas of the ministry, as stated by the participants:

*“...we had Stellenbosch training now in the last year I think which was very good, eh... we got leadership in health training which is going on in parallel which still need[s] more roll-out and more people to go through. I think those are programmes that deal at the same time with individual personal development aspects.”*

The challenges however are implementing and monitoring whether these training interventions make a meaningful contribution. Change requires regular monitoring to support and eliminate fear of making mistakes, as stated by Conger (1999) that “...today’s fast-changing business environment requires corporations to adapt to risk death”. These are such as Kurt Lewin’s three stages model of unfreeze, *change*, and *refreeze*, as well as Kotter’s eight steps of leading change.

### **Concluding remarks**

Since change is constant, the MoHSS is urged to keep abreast of change and to adapt to such an unpredictable environment. Develop a robust and systematic approach that facilitates change management and quality improvement at the health care facilities.

The storylines of the participants indicated that the MoHSS had a rigid system that made it difficult for leadership to change the status quo due to a lack of change management and resistance to change.

During the interviews it was indicated that there were several health training programmes for the health care leadership that increased awareness and knowledge of leadership roles to empower health care workers. However, more needs to be done with the aim of changing the culture and adopting strategies to provide quality health care.

There was little guidance and support from leadership to ensure an understanding of QI goals in the MoHSS. Besides, leadership needs to establish an urgency to facilitate an understanding of QI and QA in the ministry. There is a need to develop guidelines for communicating and promoting a quality culture change in the ministry.

#### **3.4.4 Theme 4: Participants experience an inadequate understanding of quality improvement and quality assurance**

An inadequate understanding relates to a lack of information and knowledge about a programme or subject matter, due to various reasons that might be systemic and not only limited to individuals. Two sub-themes emerged in this theme; namely inadequate knowledge and skills, and inadequate training on QI and QA policies and guidelines.

##### **3.4.4.1 Sub-theme: Lack of knowledge and skills in QI and QA**

Knowledge is regarded as wisdom of creation that has existed since time in memorial; it is accumulated through writing, painting, drawing, dancing, storytelling, information

handed down from generation to generation, academic institutions, and recently the Internet. It is referred to as the accumulated body of information and experiences that add value, facilitate problem solving, and assist decision making. Participants confessed that since they did neither understand QA and QI concepts, nor measurements present, they were uncertain about providing quality health care. One participant conferred that “...*what we found out the way people understood quality improvement is different, you know. You find this one define[s] quality differently and someone is actually doing QI activities but they don't put a name to it, they don't know is [sic] QI*”. The direct outcome of these indifferences is poor quality health care.

The gaps between QI and knowledge in medicine have not been strongly addressed until the IoM report to “Err Is Human broke the public silence about medical errors, and the report has prompted widespread promises of change” (Millenson, 2003). This notion was confirmed by the participants.

*“...in general, there are still gaps in terms eh... everybody understanding why standards are important; those gaps are still there, eh... especially people educated on quality, voice change... I am still to und... see, um... there is training taking place at the moment with QA unit, but a large number of health workers are still to be trained on quality assurance but some of them during their own academic training they are trained on quality. They know how to; they have some knowledge how to do it but I think still a gap people need to instil knowledge in the people to realise that ah... And sometimes the other gap, the other gap is that the tools are*

*there, for example the guidelines are there but is [sic] not always that they are used.”*

Inadequate knowledge in this study refers to the gaps between the health professionals' skills (competencies) and experiences in QI and QA. The MoHSS has wealth of knowledge, increasing documentation, undocumented information, and technology that require assimilation and re-learning of new concepts, such as QI and QA. Knowledge is perhaps one of the subject areas debated by scholars in behavioural and social psychology to understand how an organisation generates, disposes of and benefits from it. Often, knowledge is referred as wealth (asset), which is vital to facilitate quality health care delivery. At the same time, it is perhaps a challenge to manage and measure knowledge to maximise the wide knowledge in the ministry.

To address these gaps, organisations have been concentrating on *knowledge management* (KM) "...[a]s a discipline that seeks to improve the performance of individuals and organizations by maintaining and leveraging the present and future value of knowledge assets" (Newman, 2000). Research identifies two types of knowledge, namely *explicit* and *tacit* (implicit) (Smith, 2001). Tacit (implicit) knowledge is based on common sense and intuition, which is difficult to retrieve or read unless documented. On the other hand, explicit knowledge is organised, documented in books, films, and exist either in policies, guidelines and procedures, training manuals, or in the external environment (organisations, institutions).

Smith (2001) emphasises that "...each step in the entire knowledge- management effort will be at risk unless organizations recognise, nourish and appropriately reward

the contribution, flow and application of knowledge”. For example, an evaluation of improvement projects in England has found that managers and practitioners often lack basic skills and knowledge about assessing evidence, planning improvements, managing projects, and analysing data (The Health Foundation, 2012). The curriculum of some health professionals does not seem to contain comprehensive QA and QI components to prepare versatile individuals (Section 3.4.4.2 e). Participants expressed that:

“...the skills I would say that we only have general practitioners and most of the time we are referring these cases because they require specialised eh... skills or services ah... I think if maybe we have specialist in our district hospitals, then I think we will cut out on these referral[s] we normally send.

In addition, I think our... our... the skills of our medical officers in general although they are General Practitioners, I think it also require[s] some improvement because you find a medical officer who is not able to perform a caesarean section and is a medical officer. I think [it] is an area of concern ah... it is an area of concern because as a medical officer I think, a medical officer should be able to perform those basic surgeries, yes.”

Two issues were highlighted in these accounts; one is the shortage and the other is inadequate skills of health professionals at the health care facilities.

#### **3.4.4.2 Sub-theme: Inadequate training on QI and QA policies and guidelines**

Inadequate training refers to the existing gaps between the actual training, the skills, abilities, competencies, attitudes, and knowledge to perform certain functions. The National Institute of Healthcare (2014) defines the four attributes of knowledge as: “...[c]ompetencies [are] the combination of knowledge, skills, abilities, and behaviours that contribute to individual and organizational performance. *Skill* is the result of repeatedly applying the knowledge or ability. *Ability* is an innate potential to perform mental and physical actions or tasks. *Behaviour* is the observable reaction of an individual to a certain situation”. Similarly, COACH (2012) defines competencies as “...the knowledge, skills, attitudes, and judgments required performing safely and effectively in a broad range of environments and practicing settings”. According to the Health Foundation (2012), “...[s]urveys of medical, nursing and pharmacy students have identified gaps in formal training about quality improvement, leadership and safety”. In the UK and America specifically, “...students indicated that they do not feel well-prepared and that they would like additional training about quality improvement” (ibid.). Apart from the recommendations from the National Quality Management Assessment Report (MoHSS, 2014), there are either scanty or no studies that mention an integrated training programme of QI and QA at the training institutions in Namibia.

The participants verified that “...[o]ne thing that is lacking what I will recommend is really somewhere within the schools or training institutions there must be a course on training on quality assurance I don’t think there is any in Namibia at the moment”.

Recognising the background of the Namibian education system, QI is not part of the teaching syllabi. Experiences during the interviews at the MoHSS, QI and QA were not included in the curricula of most institutions offering training to medical and health related students. It does not even consider those health care professionals who are trained outside the country, since their training programmes are not directly linked to the ministry. Although each student is registered at the HPCN after completion of training, QI and QA are not prerequisite components for registration apart from the health professional specific training programme. The Health Foundation (2012) mentions that "...[t]raining health professionals in quality improvement has the potential to impact positively on attitudes, knowledge and behaviours". A number of inefficient and ineffective actions is the result of these gaps that originate from skills mismatches. Inadequate training is the inability of a given institution or organisation to adapt the knowledge, skills, and competencies for health professionals to work in any area of health care. Health care systems in most countries continue to search for strategies to address disparities in training of health professionals to enable them to provide excellent quality of care to the patients. The Institute of Medicine (2000) defines quality of care as "...the degree to which health services for individuals and populations increase the likelihood of desired health outcomes (quality principles), are consistent with current professional knowledge (practitioner skill), and meet the expectations of health care consumers (the marketplace)". Thus, for health care facilities to operate under these principles, dissemination of QI knowledge needs to be strengthened. A reflection on experiences of participants in the MoHSS indicated an inadequate understanding of QI and QA, especially at the operational levels. The

accounts of participants indicated that no general information existed among health professionals and general staff members.

*“...the understanding, I think, has improved because during the training we also do a pre- and post-test to assess before the training and after the training. I think it is really an eye opener to most [of] the managers because what we found out the way people understood quality improvement is different, you know. You find this one define[s] quality differently and someone is actually doing QI activities but they don't put a name to it, they don't know is QI.”*

### **Concluding remarks**

Knowledge is regarded as the foundation and formation of societies. Without adequate knowledge, skills, and abilities QI goals will not be achieved. Discussions during the interviews confirmed that although health professionals were trained in clinical skills, they lacked competencies (skills, abilities, and attitudes) in QI and QA.

Although some hospitals and regional management teams were trained in QI, no broader understanding existed for continuity and a common understanding to enhance quality provision at the health care facilities.

### **3.4.5 Theme 5: Participants experience research, the information system, monitoring, and evaluation to improve quality health care delivery**

There are two sub-themes to this theme:

Inadequate research and information to facilitate quality improvement at the health care facilities.

Lack of monitoring and evaluation of QA and QI implementation to facilitate quality health care delivery.

#### **3.4.5.1 Sub-theme: Inadequate research and information**

Research is one of the important elements to generate information for “...[e]videnced-based practice (EBP)” (Davies, Powell & Rushmer, 2007). It is, however, one of the grey area recognised by the health professionals who are not reading, let alone doing research to enrich their knowledge and add value by improving quality patient care. Although there might be doubts whether EBP is related to quality, there are positive arguments supporting that research provides evidence. EBP has been defined as the “...[c]onscientious, explicit and judicious use of current best evidence in making decisions about the care of individuals” (Sackett, William, Rosenberg, Gray, Haynes & Richardson, 1996).

Often, the 21st century is referred as the “information age” with ever increasing technological inputs adding to the need for additional competencies, especially in health care to accurately analyse, plan, monitor, and evaluate the impact of initiatives on patient care. The “...[e]ver-expanding literature base, the complexity of modern medicine and a limited amount of time and human mental capacity make clinical uncertainty a reality of medical practice” (White, 2004). Research is necessary and important to verify, confirm, or refute certain information or knowledge towards improvement and health system strengthening. Research is a source of accumulating

knowledge and information for evidence-based medicine, planning, and policy decisions. Health research has documented optimistic results in development of vaccines, methods for diagnoses, and treatment of different diseases, for instance cardiovascular diseases like asthma. However, there is little focus on QI and QA to improve patient care at the health care facilities of the MoHSS.

Participants alluded that no vigorous research was conducted to improve quality patient care and services.

*“eh... if we are not doing research ourselves, so we have to depend on research of the other people... that really shows to me, that shows that these people who are involved do not appreciate quality improvement otherwise they could talk together and agree, research on what is current and keep on updating what they are doing, because that is [the] only way you can really have your quality improvement. If you are stuck in the 1960s procedures, when people are doing the procedures of [the] 21st century, how are you improving quality? You are stagnant, you are not improving quality.”*

References of being “stuck in the 1960s when people are doing the procedures of 21st century, you are stagnant, you are not improving” signified the lack of research to generate evidence and data for planning and management to improve quality health care.

Several studies have been conducted to determine patients’ satisfaction, which have yield positive results to break the barriers of non-participation and change attitudes

toward improving health care. However, there was "...[l]ittle attention on patient satisfaction" (MoHSS, 2014) to gauge information about patients' perception of treatment and care provided by the health professionals. Similarly, "...[t]he knowledge and tools available are not always adequate to tackle existing health problems and there is a constant and never-ending need to generate new information and develop improved and more effective ways of protecting and promoting health and of reducing disease result" (Ijsselmuiden & Matlin, 2006). Furthermore, health academicians are busy with other matters and have little time and interest to engage in applied research to strengthen the health care system in the country. Given the speed at which technology develops, emerging and re-emerging diseases, and the demand to improve health care; research has become a priority to generate evidence-based information and contribute to knowledge about QI and QA. In general, different types of research are being conducted to generate knowledge and information with the purpose of developing the right medicine, as well as preventing and treating diseases. In order to improve health and social well-being, advanced research has been conducted in medicine, as well as policy priorities and policy decisions in the health system.

### **Research ethics**

Ethics are the guiding principles used in research to protect and respect the rights of participants. David and Resnik (2011) define "ethics norms for conduct that distinguish between acceptable and unacceptable behaviour". In health care, ethics are mostly "...serious matters concerning unsafe practices and patient injuries resulting even in death" (WHO, 2013). Whether research is conducted with animals or human subjects, certain protocols and standards must be followed to protect the confidentiality

of information collected. “Strict adherence to the research design, protocol and analytic plan is critical to data integrity” (Kelty, 2006).

The WHO (2006) explains that “...[a] country’s HIS is made up of all the data and records about the population’s health”. On the other hand, a human resource information system (HRIS) is used, as a “...systematic procedure for collecting, storing, maintaining, retrieving and validating certain data needed by the organisation about its human resources, personnel activities and organisations unit characteristics” (Booyens, 1998).

Booyens (1998) emphasises that HIS is especially useful to present the demographic composition and statistics about the number of births or deaths in a month and to determine the staffing numbers and bed capacity per hospital. The three key components of HIS described by the WHO (2000 / 2006) are “...inputs, processes and outputs”, which include information about different measures or indicators that explain the health system of a country. For example, input measures include data on all HIS resources (human, physical, structural, financial). The WHO (2000) further states that a strong HIS include all important elements required for a system to function effectively. These elements include human resources with the right knowledge, skills, and abilities to plan, manage, and coordinate the activities, financial resources, physical infrastructure (equipment, materials, space, storage and computer networks), and availability of required laws and policies.

In the MoHSS, HIS consists of the required elements; however, the fact remains HIS faces challenges of which some may emanate from inadequate capacity and skills of

HMIS, especially at the operational levels. Participants shared this perspective during the research interviews. Although MoHSS seems to have data collected through surveys (demographic health surveys, hospital censuses, and national censuses) and other studies conducted by different entities within the country, health professionals complain that they lack the skills to even analyse and read simple statistical tools without the assistance of external experts. This necessitates a training programme to provide relevant information skills that could enable health professionals to generate accurate information for planning and decision making purposes. The WHO (2000) emphasises that health professionals face challenges of learning new methods of data processing, e-surgery, telehealth or e-health, intranet communication to develop new ideas (innovations), better ways to acquire and procure equipment (medical technology), knowledge and talent management, as well as e-learning for continual professional development. All these new forms have changed the face of information management systems and communication media, which do no longer have age restrictions, nor boundaries and time limits. In order to keep abreast of the speed at which health information is provided and to adequately respond to health care needs, vigorous updating and training is necessary in the MoHSS. If health information systems are sluggish, it remains unlikely that QI and QA goals will be achieved.

Participants highlighted some weaknesses of the HIS, although it was one of the vital components that was providing data about the general health system in the MoHSS. Those uncertainties were expressed during the interviews.

*“I think one of the big challenges[s] in terms of PHC programmes is that we don't actually have all the data available and the data quality and data*

*accuracy... The first step in the process is a challenge, and then looking at the data, utilising them right at the facility level, we need to become much more systematic.”*

Apart from weakness in generating data, health care facilities were not even able to analyse and interpret the information to improve quality patient care. Although the MoHSS had an integrated HMIS, there was no priority to provide capacity and empower health professionals to collect, interpret, and analyse data with the aim of improving quality patient care.

*“...you know that five years ago, if we have the information, research was saying this and this. We have moved from that because the current research is saying this, we have to keep monitoring what we are doing, we have to keep monitoring what new evidence is coming...”*

Participants confirmed that research is one of the weakest components of health care and even the generated data often was not interpreted with the purpose of providing adequate information to improve quality care and services. The storylines on these components indicated:

*“...I think some of this information when it is being collected is really not eh... is not forwarded or there is no one to analyse it. I think this basically for internal, just to see how is the service being provided and where there is a shortcoming, then the people are advised to do like this, like this. So, I think is just maybe is like, is internal. We don't have external evaluator[s], even the auditing is basically internal... we don't.”*

According to the WHO (2006), in order to improve quality and day-to-day management, health professionals and health workers need adequate skills and knowledge to analyse and interpret relevant data for planning and decisions making with regard to health care issues in the country.

The MoHSS has a HIS management and research unit that deals with information and research in the ministry. However, participants mentioned that specifically in the QA unit:

*“...there is a challenge of capturing data in the unit because eh... the current system what we have is just excel sheets which is capturing mainly infection control activities in the facilities. So, with assistance of CDC we are trying to establish a comprehensive data base for quality improvement activities. So, we hope once we have that in place, then we will be able to get the data from the facilities; how they are doing with their improvement programmes and how we can help them.”*

The Nigeria HMIS faces similar problems. Abubakar (undated) indicates problems; such as shortage of staff, shortage of materials, inadequate coordination of data flow, complexity and overlap of data collection instruments, lack of feedback to peripheral levels, and a huge backlog of unprocessed data. Participants in this study acknowledged that the QA and HIS units provided a variety of data about demography, epidemiology, and inpatient and outpatient information. In addition, health care facilities have focal persons who are responsible for HIS administration but no adequate information or data capturing system for QI and QA exists. There were no

clear quality indicators, as claimed by a participant, which largely could be attributed to the absence of a policy on quality improvement.

Without adequate training on QA and QI, participants doubted whether the HIS focal persons would be capable of developing quality improvement indicators to measure performance at health care facilities across departments.

*“...each and every hospital has what we call Health Information System focal person. So, this person collect[s] data be it on [a] daily basis, weekly basis or monthly basis and eh... also what is happening is that when it comes to data use, we have some committee where the doctors and sister in charges [sic] are involved; especially when it comes to maternal and neonatal deaths. So, meaning that if we see that a baby or a mother died, we come and sit then revise what is that we omitted to do or was there anything we could have done to what... to... to prevent this death not only for neonatal and maternal but for all deaths we are supposed to... to... to pick few files from those patients who passed away. Then we sit, then we see if there were any loopholes. Then, from there it will serve as a learning point so that we don't repeat the same mistakes again.”*

#### **3.4.5.2 Sub-theme: Lack of monitoring and evaluation of QA and QI implementation**

Shapiro (2001) defines monitoring as a “...systematic collection and analysis of information as project progresses, which aims at improving efficiency and effectiveness of a project”. Evaluation, on the other hand, is “...the comparison of

actual project impacts against the agreed strategic plans, either formative (taking place during the life of a project with the intention of improving the strategy or summative (drawing learnings from a completed project that is no longer functioning”). The writer explains that monitoring and evaluation focus on efficiency (input), effectiveness (extent to which objectives are achieved), and impact (the difference achieved due to a new strategy). Zinovieff (2008) explains that evaluation consists of three elements that measure the process, outcome, and impact of a programme. The writer explains that process evaluation assesses the programme materials, activities, and extent of implementation. Outcome looks at immediate achievements and effects of the programme on participants while impact measures the results of policies, instructions, or services to identify longer-term, as well as unintended programme effects.

According to the WHO (2006), monitoring is the final process of assessing quality health care against the agreed measures or standards set for delivery of improved outcomes and targeted benefits. Nearly all public service institutions in Namibia are well-known for their good policies but at times fail to monitor and evaluate with the purpose of establishing whether any deviation or change from the standards of providing care and services exists. The “...[t]hree primary approaches to the standards-based evaluation of health care quality are: licensure, accreditation, and certification” (Rooney & Van Ostenberg, 1999). Even if standards exist, at the time of this study most health care facilities in the MoHSS could neither meet the criteria for accreditation nor certification although it was providing renowned services to the majority of communities in the country. “Certification can also include an evaluation of an organization’s ability to meet certain standards in order to qualify for government

funding” (Rooney & Van Ostenberg, 1999). In Namibia, the certification and registration of health professionals were done by the HPCN as an independent body to ensure that practitioners have knowledge and skills in domain specific areas; such as “nursing and midwifery, emergency medicine and other fields”.

McNamara (2007) in his Internet blog adds that “...too many strategic plans end up collecting dust on a shelf, one advantage of monitoring and evaluation is to ensure that the organization is following the direction established during strategic planning”. To confirm this notion, participants had diverse experiences.

*“...I must say, the programme of HIV / AIDS and treatment including PMTC there eh... eh... there is monitoring and the quality improvement is really brought in all the time. That is why we change so often the guidelines to try and deliver the quality but other programmes, the monitoring part is lacking in other programmes except HIV and TB.”*

The three programmes referred to above are under the Directorate of Special Programmes with the assistance of the CDC, specifically in disease surveillance, monitoring, and evaluation. CDC has developed a framework for programme evaluation in public health that would be adapted to describe the evaluating process of the training programme. Participants shared information about reviews.

*“Eh... for maternity, there is [a] clinical review form, neonatal review form that is about audit in maternity but in terms of other diseases, there is really nothing. You just move discussion in terms of um... we are just*

*basing [sic] on standards, international standards, there are no really locally set or standards.”*

Although M&E is one of the fundamental elements to facilitate QI and QA and “...[to] assess the quality and impact of the work against your action plans and your strategic plan” (Shapiro, 2001). Generally, only a few health care facilities were monitoring and evaluating in most cases, if not all programmes. Monitoring entails well-defined measures that are highly dependent on “...periodic collection and analysis of data on selected indicators that enable managers to determine whether key activities are being carried out as planned and effects on the target population” (Quality Assurance Project, 1999). Participants recognised the benefits of monitoring.

*“...I think that is very... very... important if we plan to achieve something, we need to monitor whether that it is actually happening and we also need to evaluate at the end of the implementation to say what is it that we did well, where did we fail and what are the reasons for the failures and how do we make sure that these pitfalls are not repeated again when we, for example, plan for the next cycle.”*

Currently, health care facilities face a challenge of monitoring the activities without clearly defined and agreed measures or indicators. Participants alluded to the absence of such measures.

*“...these indicators which are already set and you can't move them, and that is [the] biggest challenge for us. When you sit with a nurse manager [sic], and even the doctors are worsen [sic], it is very hard to say what you*

*are actually measuring and how you project. There is no formula on how you can properly realistically project what your targets are going to be from quarter one, quarter two, quarter three but if you ask those department [sic] give me your quarterly report in terms of what you are doing... what you... not in that format but in their format.”*

The Australian Children’s Education & Care Quality Authority (2011) has provided some examples of QI plans that could be a source for developing health care facility plans.

Apart from inadequate indicators to monitor quality care and services, the arguments revealed a lack of guidance to facilitate regular data collection and interpretation of activities at the health care facilities. In this regard, participants had strong opinions.

*“...we have challenge in Expanded Programme of Child Illnesses [Expanded Programme on Immunisation (EPI)] our coverage is more or less static of the last five, six, seven years and I think one of the key challenges there is because we are not data driven enough and then you have the same issues...”*

*“...monitoring and evaluation is an area of great weakness. When it comes to the hospital, we are very good at collecting statistics and the numbers for all the different indicators forward them to national level in terms of the analysis of those statistics we are collecting to use as a tool to implement particular projects and strategies that is a we [sic] have and is something we need to begin to do.”*

These views were substantiated by another participant's experience that "...there is no strong monitoring; there is no strong monitoring of contracts for implementation. I think... I think eh... that is one part". Uncertainties were further confirmed.

*"...we do things ooh... four different ways just because we do not say what is the current evidence, what is effective, what would quality mean for us and how can we keep updating it because you can only update quality eh... when eh... you have the clinical methods that you are using that are current and evidence-based. Of course quality is more, not only treatment".*

Another participant interjected.

*"...there is really no emphasis to follow through on the activities that were planned and one of the contributing factor is the way the plans are crafted um... we are following one plan in the Ministry of Health which is based on the strategic plan of the ministry and eh... these activities are like imposed to all the Directorates that you should just keep doing these one [sic] so that the... because this is the direction of the ministry, yah... but um... one would say that um... there is sort of ambiguity surrounding all that plan, yah... It also affect[s] the way we execute activities and also the way we report on those activities because one would say that um... those statements, yah... The plans are very much broad; they are not really specific and eh... one may find in a situation where you do not know what to do on that plan. I think there is also some sort of a challenge."*

Somehow, participants expressed disagreement on the important aspect of thoroughly monitoring the care and services at health care facility level. This study found that health care facilities had no standards, baselines for comparisons, or referencing points against which they could evaluate their activities to measure and compare their quality performance, as elaborated by the National Quality Framework (NQF) (2014). If it existed, health care facilities neither monitored nor had indicators for simple activities, such as waiting times for outpatient clinics. The participants echoed that observation.

*“...lack of indicators is actually a challenge because with no indicators, it actually [is] difficult to do um... quality improvement because with quality improvement is mostly looking [sic] at indicators which one you are performing lowly then try to improve on the one you are performing lowly.”*

### **Concluding remarks**

Research and information are important components of a health system in any country to ensure that the planning is aligned with accurate information that is based on scientific evidence in health care. The account of participants on this continuum reflected inadequate research, as well as poor collection, analysis, and interpretation of data to facilitate quality health care delivery.

Although data is collected on a quarterly basis and contained in monthly and annually reports for different programmes, there was no systematic focus on QI activities to facilitate planning and monitoring of quality health care. The accounts of participants during the interviews indicated insufficient knowledge on data collection, analysis,

and interpretation. That insufficient knowledge affected the accuracy and reporting of data that had dire consequences for the process.

In the absence of a quality management policy, there was no agreed quality metrics or indicators to evaluate the improvement of health care delivery. Several factors linked to the monitoring of QI and QA had surfaced during sessions with participants. Accounts on this continuum necessitated a deeper analysis to understand related issues among QI, QA, and monitoring of activities at health care facilities. Firstly, apart from structural deficiencies, there were ambiguities in strategic objectives that resulted in the lack of a common understanding and an inability to develop indicators for evaluating performance and achievement of policy objectives. Moreover, training on developing certain indicators is important to gauge opportunities and empower health providers to deliver effective and efficient health care and results.

At health care facilities, there were review meetings, major ward rounds, and a focus on “medication safety and infection control” (MoHSS, 2014). However, there was basically no monitoring conducted to assess whether health professionals were delivering quality care and services. Taking participants’ experiences with regard to factors related to performance management into account and considering issues of reliability and credibility in generating data affected patient safety. Health professionals need training on QI and QA to enable them to collect reliable data, as well as monitor and assess day-to-day quality delivery of health care and services.

The discussions of this sub-theme centred around deficiencies and weaknesses linked to general managerial issues of “*lack of leadership*”, “*lack of supportive supervision*”,

“inadequate defined roles and functions” (lack of structure), and an “inadequate understanding of QI and QA policies”. Apart from inappropriate objectives and unclear QA standards / measures, participants identified the lack of guidance to facilitate regular data collection, analysis, and interpretation with the aim of improving patient care and service delivery at the health care facilities.

### 3.5 CONCLUDING REMARKS

This chapter presents the findings of the study based on five objectives, as outlined in Chapter 1. The findings on Objectives 1 and 2 of the study are presented in Figure 3.1 in relation to a quality improvement training programme for health professionals in the Ministry of health and social services in Namibia.

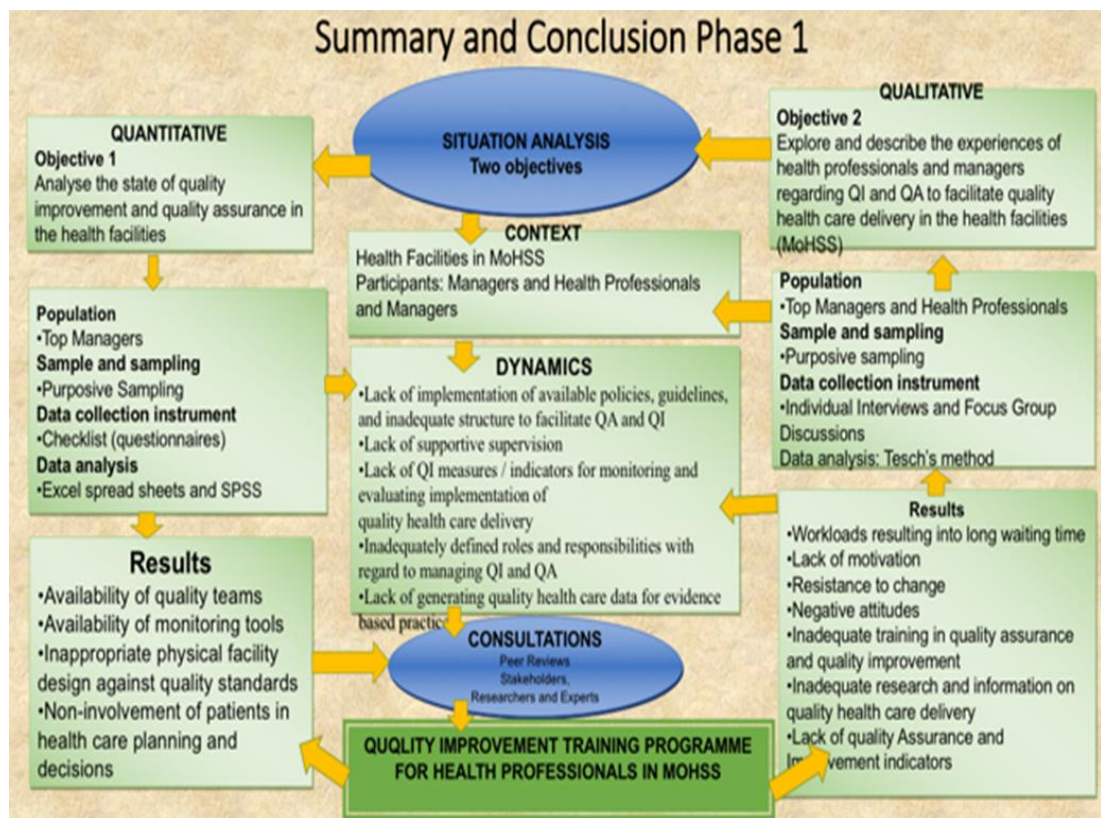


Figure 3.1: Findings of Objectives 1 and 2 of the study

Figure 3.1 presents the link between the themes and demonstrates that the objectives of the study have been met.

### **3.6 SUMMARY**

This chapter discusses the findings of the study based on Objectives 1 and 2 in relation to the experiences of health professionals and top management of quality health care delivery. It presents the themes and sub-themes that emerged from the discussions during the individual interviews and FGDs. The researcher consulted relevant literature to synthesis and reinforce the study findings with the existing knowledge from secondary data. The chapter also reflects on a descriptive analysis of a self-administered questionnaire (checklist) to cross-verify the results of the study and on Tesch's (1990) method of qualitative analysis (Chapter 2).

**CHAPTER 4**

**CONCEPTUAL FRAMEWORK FOR A QUALITY  
IMPROVEMENT TRAINING PROGRAMME AT THE  
HEALTH CARE FACILITIES BASED ON PHASE 2 OF THE  
STUDY**

**4.1 INTRODUCTION**

The previous chapter discusses the findings of this study and reviews relevant literature in relation to experiences of health professionals and managers on QI and QA to facilitate quality health care delivery at the health care facilities. A self-administered checklist was completed by 21 top managers while five FGDs consisting of eight participants and 12 individual interviews were conducted in four regions. The SPSS software program was used to analyse the checklist responses on Likert scale points. All FGDs and individual interview were voice recorded and transcribed by independent coder. The transcripts and field notes were transcribed manually and analysed using Tech's method for qualitative data analysis with the purpose of coding and developing themes. After data reduction and merging, five main themes emerged, as indicated in Chapter 3.

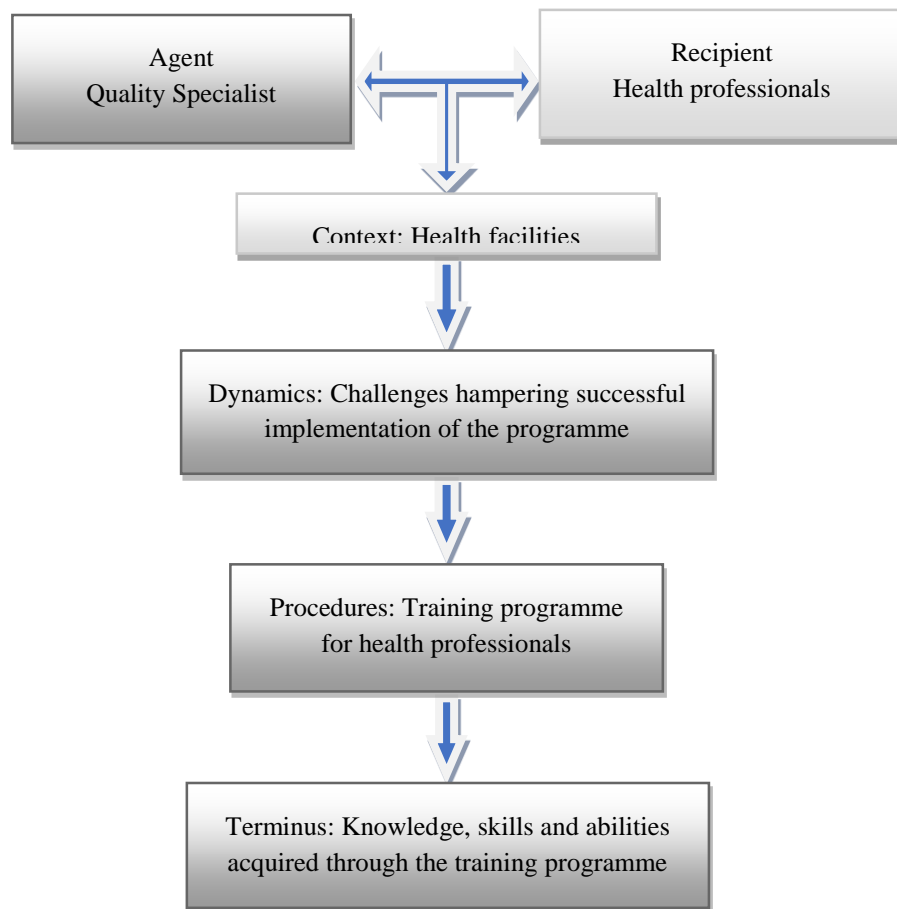
The themes generated during data analysis of individual interviews and FGDs were converted into a conceptual framework. This chapter encapsulates Phase 2 of the study that describes the conceptual framework and logical approach to developing the QI educational programme for the health care facilities in the MoHSS.

## **4.2 CONCEPTUAL FRAMEWORK AND HIERARCHICAL REASONING MAP**

Miles and Huberman (1994) in Maxwell (2004) define a conceptual framework “...[as] visual or written product, one that explains, either graphically or [in] narrative form the main things to be studied — the key factors, concepts, or variables — and the presumed relationships among them”. The conceptual framework in this study was based on identified concepts of schematics or graphics to express ideas or explain a theory and to make inferences or draw conclusions. Zimabrdo, Mcdermott, Jansz, and Metaal (1995) explain that schemas direct people’s thinking and interpretation of things around them. An educational programme is viewed necessary to stimulate and refresh cognitive thinking and an understanding of QI and QA at health care facilities. Alejandro, Humberto, and Agustin (2005) define a cognitive map (CM) as “...a structure of concepts of a specific domain that are related through cause-effect relations with the aim to simulate behavior of dynamic systems”. The writers emphasise that a CM is “...mental constructed ideas to illustrate a model or explain the reasoning of a conceptual framework through graphical mental model that externalizes as a person understands, believes and organizes a subject of analysis” (Alejandro, Humberto, & Agustin, 2007). A reasoning map by Dickhoff, James and Wiedenbach (1968) in Mothiba (2012) was adopted in developing an educational programme to facilitate quality health care delivery at the health care facilities.

In this study, the hierarchical representation of the reasoning map consisted of the following components: Agent (specialist), recipients (health professionals), context (health care facilities), dynamics, procedures, and terminus (station / position). Each

component consisted of elements that were part of the study findings, which assisted with developing a Quality Improvement Educational Programme for Health (QIEPH) to empower health professionals with knowledge, skills and abilities to facilitate quality health care delivery.

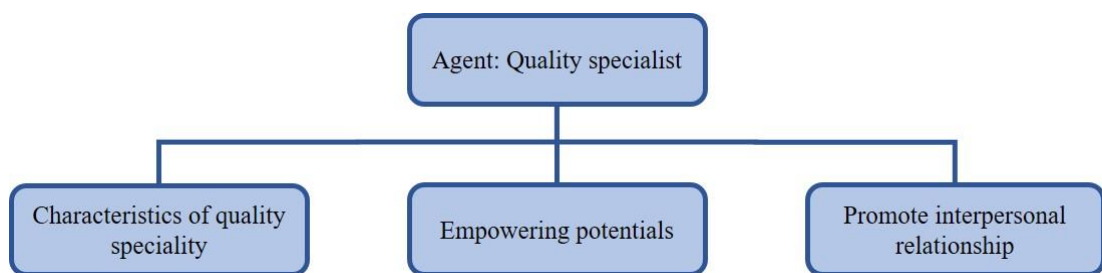


**Figure 4.1: Reasoning map**

Figure 4.1 presents the elements or activities adapted from Dickhoff's practice orientated theory (1986) to describe the conceptual framework and the process of developing a quality improvement educational programme for health professionals. Dickhoff (1986) uses the same components to develop a theory. Those components were adapted in the above reasoning map.

### 4.2.1 Agent

The agent in this study referred to the researcher who facilitated the implementation of a quality improvement training programme for health professionals at health care facilities of the MoHSS. The agent is the main focal person responsible for planning, coordinating, and developing a programme (Dickoff *et al.*, 1968).



**Figure 4.2: Agent**

Figure 4.2 indicates the characteristics and abilities of the agent to empower potential and promote roles and responsibilities while facilitating the implementation of the quality educational programme at the health facilities. The characteristics, abilities to empower, and the promotion of interpersonal are described in more detail.

### 4.2.2 Characteristics and roles of the agent

The agent should be able to design, plan, implement, monitor, and evaluate a quality improvement educational programme. The agent should be hard-working, committed, passionate about quality improvement, assertive, inventive, approachable, honest, trustworthy, self-motivated, energetic, attentive, knowledgeable, and proficient to handle the situations in relation to quality in health care. The agent has to be a good mediator and mentor

### **4.2.3 Empowering potential**

Empowerment is one of the activities the agent should perform with the view of enhancing knowledge, skills, and abilities to enable recipients to address the challenges that are hampering quality health care delivery at the health care facilities. To provide a sustainable QI and QI programme, recipients need to be empowered in order to become experts in quality management with the capacity to work independently, as well as to generate and analyse information for planning and decision making purposes at the health care facilities. Experience indicated that health professionals often felt unsupported and unprepared to respond effectively to emerging and re-emerging occurrences of illness and diseases. With insufficient support, they found themselves in situations where it was not possible for them to provide optimum results. Thus, the agent would provide clear support to assist the recipients with creating a favourable work environment for learning that focuses on patient care.

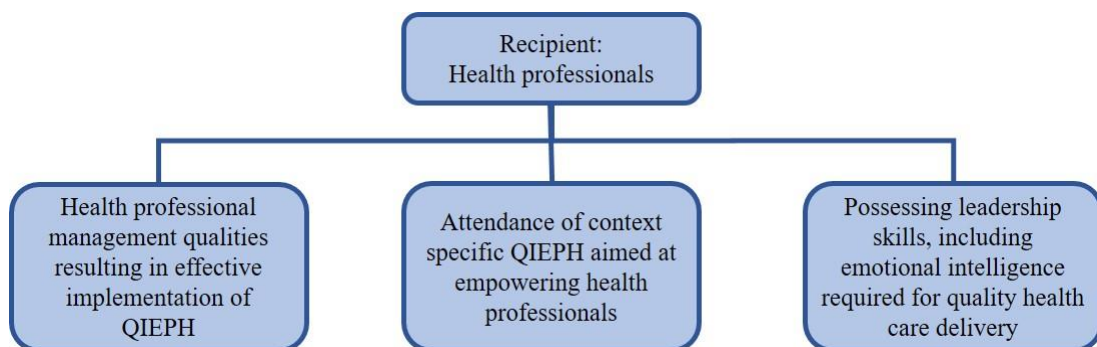
### **4.2.4 Promotion of interpersonal relationships**

Effective interpersonal relationships would facilitate the successful implementation of the programme. One of the roles of the agent is to ensure that interpersonal relationships become a tool for successful implementation of the educational programme by creating new ways of communicating and assisting the establishment of good relationships. The agent should have insight in personality characteristics to change attitudes with the view of cultivating a spirit of continual professional development and active participation in the programme. The programme requires continual engagement and exchange of information among different stakeholders

(internal and external) and interpersonal relationships to build a healthy working environment. In order to eliminate frustrations due to poor interpersonal relationships and ineffective communication, the agent should develop guidelines to establish strong interpersonal relationships.

#### 4.2.5 Recipients

The recipients in this study were health professionals who would benefit from participating in the training programme by receiving knowledge, skills, and abilities to improve quality health care delivery at the health care facilities. Dickoff *et al.* (1968) describe the second activity as the recipient. In this study, the recipients were health professionals from different categories (doctors, nurses, pharmacists, social workers, environmental health officers, and hospital managers) at the health care facilities in the MoHSS who had the responsibility to effectively and efficiently provide quality health care.



**Figure 4.3: Recipients**

Figure 4.3 illustrates the recipient as the beneficiary of the quality education programme (QIEPH). Health professionals were expected to participate in the quality improvement educational programme to improve their knowledge, skills, and abilities

(KSAs) with the view of enabling them to deliver quality patient care. In order to understand the gaps in the existing and needed KSAs, job roles would be clearly defined according to their job descriptions at the Human Resource Management Division.

#### **4.2.6 Health professional management qualities**

The challenging programme is designed to equip recipients at health care facility level with relevant knowledge, skills, abilities, and attitudes to manage QI and QA activities effectively. Specific managerial competencies could be acquired through the training programme, which is designed to empower health professionals on QI and QA at the health care facilities.

#### **4.2.7 Attendance of context specific QIEPH aimed at empowering health professionals**

Attending the QIEPH would empower recipients to change attitudes towards patient safety, create a favourable environment, and promote a positive culture that focuses on change management. The QIEPH was informed by recipients' experiences in the health care facility context. It was expected to promote ownership, effective interpersonal relationships, and motivational strategies to improve quality at the health care facilities. Attending the training programme would enhance knowledge, skills, and abilities to enable the recipients to perform a number of activities; such as gathering and evaluating clinical data from different health care facilities, analysing data to determine patterns and trends in quality health care delivery, and utilising relevant tools, e.g. performing a root cause analysis to map specific patient care trends.

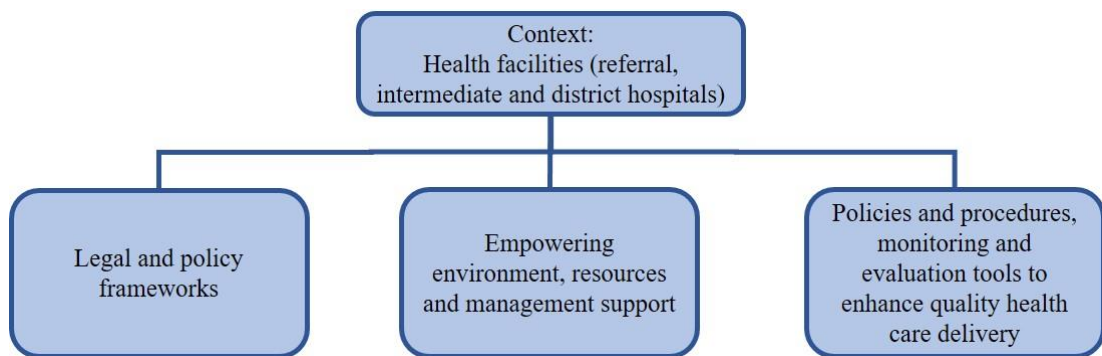
#### **4.2.8 Tenure of leadership skills**

Conger, Spreitzer and Lawler (1999) state that a successful programme of QI requires determined and committed leadership with skills and abilities to advance a theory of change and translate it into practice by following a number steps. The leadership in this programme had to influence and motivate health professionals to accept change, develop mechanisms to facilitate the implementation of the training programme, as well as provide coaching and mentorship tutorials to encourage health professionals to participate actively in the training programme. The top management should possess relevant leadership qualities to manage a QA and QI programme at the health care facilities. UNESCO (1997) describes some leadership qualities required for programme development; such as good experience, competent professional with relevant training, ability to inspire confidence, support to encourage staff, promotion of teamwork and partnerships, creating a positive and conducive working environment, vision, as well as planning and decision making skills. In short, leadership should have competencies in all management aspects; such as strategic planning, organising, research and information management to facilitate the implementation of the QI programme at the health care facilities.

#### **4.2.9 Context**

The context is the health care facilities that are providing health care and services to the patients and clients in the MoHSS. The specific context in this programme was the referral, intermediate, and district hospitals operating under the MoHSS. The third aspect of the practice orientated theory described by Dickoff *et al.* (1968), as indicated

in Mothiba (2012) is the context. The programme was designed for the health care facilities; specifically, for referral, intermediate and district hospitals under the MoHSS. Figure 4.3 illustrates the context in which the programme would be implemented.



**Figure 4.4: Context**

Figure 4.4 illustrates the context that consists of legal frameworks, an empowering environment with resources and management support, as well as policies and procedures that include the monitoring and evaluation of the QI educational programme.

It is important to understand the context of health care facilities in relation to the genealogy of the MoHSS policy framework and existing approaches of QA and QI to facilitate a quality improvement educational programme at the health care facilities. Health care facilities fall under the mandate of the MoHSS, which operates under the legal framework of the Namibian Government. In empowering health professionals, it is crucial to understand the policies that shape the day-to-day activities at the health care facilities. The link between the legal frameworks, as well as the health context

policies and procedures needs to be established with the view of supporting health professionals to improve quality health care delivery.

#### **4.2.10 Characteristics of the health care facilities**

Health care facilities consist of large hospitals that are providing specialised services, as well as medium and small establishments and structures with different abilities to provide quality health care to the clients. Health care facilities provide care and services at different levels with different inputs and resources at their disposal. In the MoHSS, health care facilities are categorised according to a specific level of care and service delivery.

The MoHSS head office (National Directorates) is responsible for planning, coordination, and administration. The Windhoek Central Hospital (WCH) is a tertiary-level hospital that offers highly specialised staff and technical equipment; such as cardiology, intensive care, and specialised imaging units. Clinical services are highly differentiated by function and it serves as a teaching hospital with a bed capacity of between 700 and 900 beds.

The intermediate hospitals at Katutura, Oshakati, and Rundu provide unique services with none or few specialties that focus mainly on internal medicine, obstetrics, gynaecology, paediatrics, general surgery, and general practice. Limited laboratory services are available for general but not for specialised pathological analysis. All specialised cases are referred to WCH for treatment.

District hospitals, primary health care facilities, and outreach services (health centres and clinics) focus on prevention, promotion, and rehabilitation.

Health care facilities face different challenges that stifle quality health care delivery; such as inadequately trained personnel, inability to provide the needed care and services, and unavailability of specialised services. To improve the accessibility of care and services, referral systems need to be simplified to meet health care needs at any level of health care. In order to address the challenges narrated in Chapter 3, certain aspects need to be adopted to assist health care facilities improve the situation of quality health care delivery.

#### **4.2.11 Effective management of resources**

Effective management of resources is one of the important elements to enhance quality health care delivery, since no health care facility would function effectively without adequate resources; such as human, material, and financial resources to procure medical equipment and pay salaries of employees. The participants indicated that health care facilities faced challenges on this continuum due to inadequate infrastructure, shortage of human resources, and unequal allocation and distribution of resources, which resulted in poor provision of health care and service delivery.

#### **4.2.12 Facilitate an understanding of policies and guidelines**

The capacity of health professionals to understand the standards and processes would facilitate effective implementation of policies and guidelines. Facilitating an understanding of policies is one of the essential elements that points at the KSAs of health professionals and management to enhance quality health care. Quality is knowledge driven; without anyone to facilitate an understanding of policies and guidelines, the implementation would be ineffective. That was evident from the health

professionals' discussion that there was a lack of common understanding and no sufficient support to facilitate the implementation of a QI and QA policy to improve quality health care delivery.

#### **4.2.13 Effective interpersonal relationships**

Effective interpersonal relationships are the outcome of good communication, "...[i]s the most important aspect of the service delivery as, communication with patients is vital to delivering service satisfaction because when hospital staff takes the time to answer questions of concern to patients, it can alleviate many feelings of uncertainty" (Dutton, Starbuck, & Krippendorff, 2002). Besides, health professionals are in constant interaction with patients, management, and professional bodies to share information about treatment and care of patients, hence these characteristics need to be enhanced.

#### **4.2.14 Facilitate research and information management**

Research and information are the core elements of QI, since it relies on constant data. For a health care facility to ensure quality assurance standards and improvement of processes of care and services, health professionals need to be empowered with the view of enabling them to generate and analyse data for quality improvement. Although there was strong agreement on the management responses that health care facilities were conducting research, opportunities still exist to improve skills and competencies on this continuum.

#### **4.2.15 Empowering environment with resources and management support**

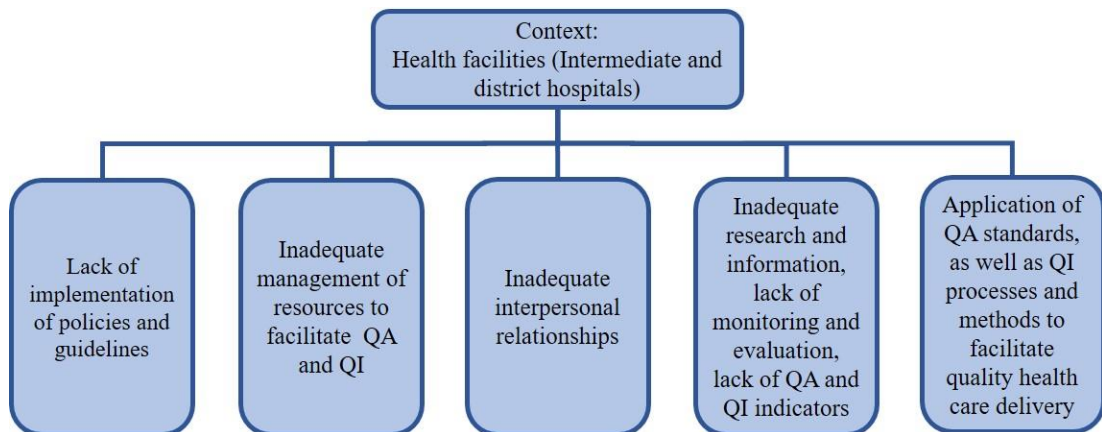
The findings of the study indicated discrepancies and weaknesses of inadequate resources and low interest from management to provide full support to empower health care facilities to enhance quality health care delivery. An empowering environment at health care facilities can be related to a “learning organisation” that supports the development of capacity, strengthens the confidence of health professionals to take initiative in quality improvement health care delivery activities. “Learning organizations are organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together” (Senge, 2001).

#### **4.2.16 Dynamics**

The dynamics in this study were the challenges that the health professionals were experiencing in terms of obstructions or interferences with the provision of health care services (Chapter 3). In order to improve quality health care delivery, there was a need to improve the skills, competencies, and attitudes of those health care workers who were providing health care and services to support the successful implementation of the programme.

Dynamics were based on the storylines shared by the health professionals as forming the source of energy. If outstanding factors as the source of energy are not managed well, it might hinder the successful implementation of quality health care delivery at

the health care facilities. The fourth aspect described by Dickoff *et al.*'s (1968) practice theory in Mothiba (2012) is the dynamics (energy source of the activity) (Figure 4.4).



**Figure 4.5: Dynamics**

Figure 4.5 illustrates the challenges experienced in providing QI and QA, the proposed strategies to cope with these challenges, as well as the involvement and requirements for successful implementation of the QIEPH. Participants indicated some factors that hindered quality health care delivery.

#### **4.2.17 Lack of implementation of available policies and guidelines**

Participants indicated the reasons for ineffective implementation that comprised certain factors: Inadequate organisational structure for QI and QA, an insufficient or lack of a common understanding of QI and QA policies and guidelines to facilitate quality adherence, as well as a lack of measurement indicators for monitoring and evaluating quality activities to facilitate quality health care delivery.

#### **4.2.18 Inadequate management of resources to facilitate QI and QA**

Experiences of inadequacies and deficiencies in management of resources was translated into poor or lack of supportive supervision, ambiguity in defining roles and responsibilities of managing quality health care, inadequate management of resources, absence of retention strategies for health professionals, a shortage in human resources, inadequate infrastructure (equipment and material resources to meet patient demands), long waiting times, unbearable workloads, as well as an unequal allocation of financial resources.

#### **4.2.19 Influence of inadequate interpersonal relationships on QI and QA**

In most cases, health professionals stated that poor communication and interpersonal relationships among health workers, supervisors (managers), and patients resulted in negative attitudes, a lack of motivation or low morale, and at times resistance to change, since goals or intentions were not properly communicated. Hence, often team were neither well-functioning nor encouraged to improve the quality of health care.

#### **4.2.20 Inadequate research and information, and lack of monitoring and evaluating QI and QA indicators**

Inadequate research and information, and lack of monitoring and evaluating QI and QA indicators were highlighted as some of the causes of poor quality health care outcomes. Despite positive responses by top management that health care facilities were conducting research, health professionals shared that they did not have sufficient skills to apply scientific methods of analysis, and to present professional data for planning and decision making purposes. At health care facilities where research was

intensively carried out, there were difficulties to actively monitor and evaluate the steps of health care delivery. The strategies and methods to manage obstructions, as well as the ethics and requirements for successful implementation of the programme had to be described.

#### **4.2.21 Application of QA and QI process standards to facilitate quality health care delivery**

Health professionals would be enabled and empowered to apply QA and QI standards and methods to improve quality health care delivery. The study described specific tools that would be essential to assist health professionals with addressing the challenges to quality health care delivery at the health care facilities. Some of the tools were identified; for example, the cause-effect analysis, fishbone, as well as qualitative and quantitative methods of research. The tools were used to gauge patient satisfaction with the health care and service delivery.

#### **4.2.22 Strategies to cope with factors that may obstruct the effectiveness of the QIEPH**

The agent (researcher) had already developed strategies through this study that would empower health professionals and facilitate a smooth process of implementing the quality improvement programme in the MoHSS. The study proposed a number of strategies to assist health professionals to deal with the challenges that obstructed quality health care delivery. Firstly, the study exposed the challenges that were hampering quality health care delivery. Secondly, the educational programme would empower health professionals to improve their knowledge, skills, and abilities to

competently handle those challenges in a more professional manner. Thirdly, health professionals were provided with two sets of guidelines to understand the implementation and evaluation process of the quality improvement programme in the MoHSS. The goals of the programme formed part of the strategies to facilitate the smooth implementation that should be adopted by all the stakeholders.

#### **4.2.23 Values clarification of everybody involved in the QIEPH management**

The values clarification in this programme sought to create a common goal and understanding of the purpose of QI and QA in the MoHSS. The values of the MoHSS and those of the QI programme needed to be clarified, since there might be a different understanding among health professionals, hospital managers (recipients), and stakeholders (patients, communities, and organisations). These values should be unambiguously clarified to avoid them from becoming stumbling blocks to the implementation of the programme. Clarification of values of people involved in the QIEPH was necessary to determine the standards that guided the process of implementing the programme. In order to minimise conflict in this process, it would be important to abide by the goals of the programme, since its development was based on the experiences at health care facilities and the principles of quality improvement and assurance in the ministry.

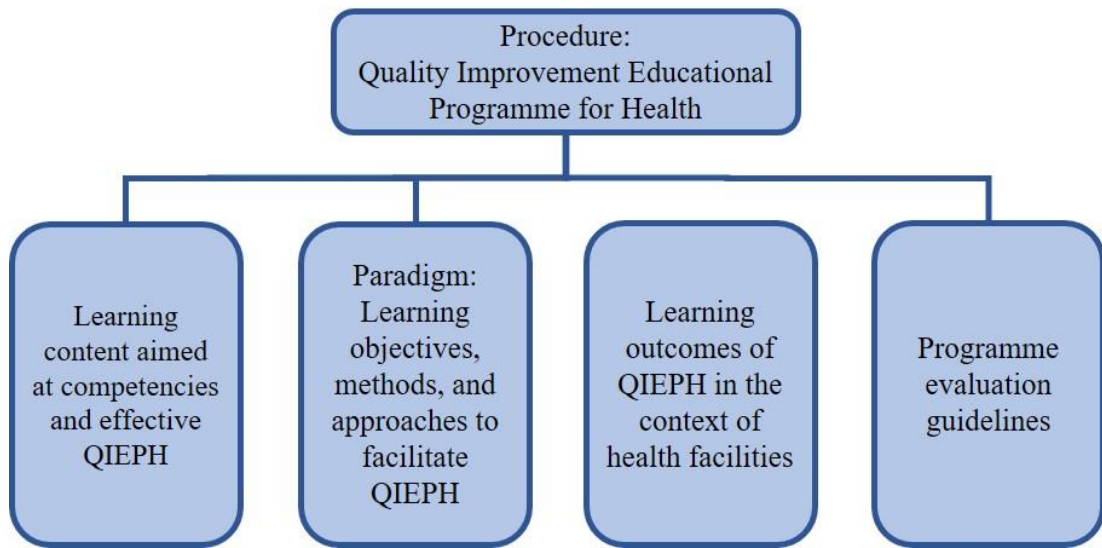
#### **4.2.24 Prerequisites for an effective QIEPH**

The requirements for health professionals to attend the training programme would be guided by the training policy of the MoHSS and the identified training needs of health professionals at a particular health care facility to address the challenges that were

hampering quality health care delivery. The prerequisite for attending the training programme would also be derived from the identified gaps in competencies, skills, and abilities by the critical problems pertaining to provision of quality health care at the health care facilities. Furthermore, the criteria for attending the training programme would be defined in accordance with the identified areas at each health care facility and in accordance with the training guidelines of the MoHSS.

#### **4.2.25 Procedure**

Procedures are referred as processes that are employed to address certain problems or guide the actions to implement a policy or programme. In this study, the procedure was the training programme that was implemented at the health care facilities to empower health professionals with knowledge, skills, and abilities to facilitate quality health care delivery. The procedure (programme) explains the development, implementation, evaluation techniques, programme content, learning objectives, and learning outcomes (Figure 4.5).



**Figure 4.6: Procedure (training programme)**

Figure 4.6 illustrates the components of the procedure (programme), which are the learning content aimed at developing competencies, the paradigm of learning methods and approaches to facilitate the programme, guidelines for the implementation of the programme a health care facility context, and the evaluation guidelines of the programme.

The content of the training programme was derived from five main themes, 17 sub-themes and the conceptual framework based on the situation analysis about challenges faced by the health care facilities. The five themes were:

- lack of implementation of policies and guidelines;
- inadequate resources;
- lack of interpersonal relationships;
- inadequate understanding of quality assurance and quality improvement; and

- inadequate research to provide evidence-based information during treatment and patient care.

The structure or programme design was based on the five thematic areas (Chapter 5). In this section, these areas are briefly discussed.

#### **4.2.26 Policies and guidelines**

The content of the programme should focus on developing competencies for successful implementation of QA and QI policies and guidelines, on enhancing the organisational structure with correctly defined roles and responsibilities and supervision mechanisms, as well as on implementing measures or indicators for QA and QI standards and processes that enhance quality health care delivery.

#### **4.2.27 Resources to facilitate quality health care delivery**

Health professionals should be empowered to develop strategies that address the challenges of shortage and poor management of human resources, inadequate infrastructure, and unequal allocation of resources, long waiting times, and unbearable workloads.

#### **4.2.28 Interpersonal relationships among health professionals**

Programme content was developed to improve attitudes among staff members and towards patients, develop effective communication, introduce strategies and mechanisms to encourage a positive culture, team work, and to assist health professionals with dealing with change at the health care facilities.

#### **4.2.29 Research and information on QA and QI**

Research is the heart of QA and QI. Given the description of new developments of information and technology in medicine, the objectives of a quality improvement training programme might not be fully achieved. The programme content should empower health professionals with research methods and tools to investigate and analyse the relationships, causes of variations, and deviations in quality health care delivery. Health professionals were, therefore, required to demonstrate the acquired competencies after participating in the programme, hence the terminus was the last activity of the conceptual framework of the programme.

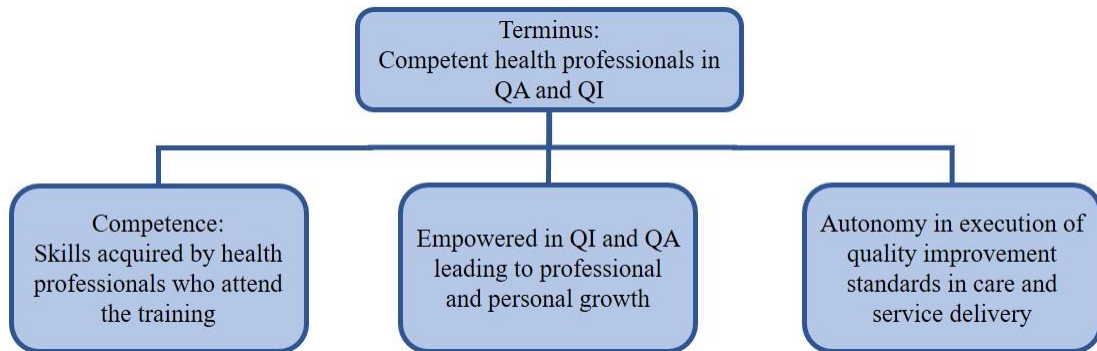
#### **4.2.30 Application of QA and QI standards and methods to facilitate quality health care delivery**

The quality training programme wishes to empower health professionals to apply the knowledge in practice based on an understanding of the concepts, standards, and methods of QA and QI. Health professionals need to be empowered to apply the most recent methods and standards of QA and QI to improve health care delivery and patient care. In addressing the challenges of an inadequate understanding of QA and QI, the content of the programme focused on the tools and methods to enhance equitable health care delivery.

#### **4.2.31 Terminus**

In this study, the word terminus referred to the endpoint of the training programme, which completed the activities in the cycle of developing the conceptual framework of

the training programme, as described by Dickoff *et al.*'s (1968) practice theory in Mothiba, (2012) that the terminus is the last or final activity of the process.



**Figure 4.7: Terminus (competent health professionals)**

Figure 4.7 illustrates the final activity of Dickoff's (1968) practice orientated theory, since the terminus completes the training programme process. This activity described how health professionals demonstrated the abilities to apply QA and QI concepts and methods during execution of their duties that resulted in improved quality health care delivery.

The training programme was developed based on several theories, such as the theories of Dickoff (1968), and Van Meyer, Kolb and Deming (Chapter 2). The guidelines of evaluating the training programme are described in Chapter 7.

#### **4.2.32 Competencies of health professionals in QA and QI**

The health professionals' experiences of quality health care delivery indicated a lack of certain competencies in relation to QA and QI, which were identified as obstacles to quality health care delivery. In order to address the challenges and gaps experienced in quality health care delivery, health professionals needed to be equipped with

technical competencies in relation to the expected changes in providing quality health care.

Among the competencies required to address deficiencies in quality health care delivery was the empowerment of management to unlock the potential of resources; including strategic planning, coordinating, mobilising, acquisition and utilisation. The study had already indicated the challenges of inadequate resources due to mismanagement and misallocation. That required developing a system with clear guidelines for administration, recording, information retrieval, implementation, monitoring and evaluation, feedback, as well as progress reporting to ensure the successful end-point activity of this process.

#### **4.2.33 QI and QA empowerment lead to professional and personal growth**

Empowerment in QA and QI would be achieved by successful participation in the phases of the implementation and evaluation of the training programme, as well as after successful completion of training in line with the objectives of the training programme. The training programme had clear expectations and deliverables (results) for attending the programme.

Involvement in the evaluation process of the guidelines for the implementation of the quality improvement training programme to determine its viability and the implementation process at the health care facilities.

Familiarisation with the training approach that was presented to the MoHSS top management and hospital managers for approval, rollout, and implementation of the programme at the health care facilities.

Actively participated in defining the change improvement processes to be used at the health care facilities, including identifying the appropriate mechanisms for implementation, approval steps followed, feedback, as well as reporting about the quality improvement and quality assurance processes.

The working group was responsible for the development of the programme modules and competencies inventory to be approved and submitted for certification in consultation by NQA and HPCNA with stakeholders to ensure the extensive implementation of the programme at the MoHSS, health care facilities, and training institutions in the country.

Involvement in developing the terms of reference for the Quality Assurance and Continual Improvement Working Group, as a representative of the MoHSS and stakeholders was identified to work on the training programme.

#### **4.2.34 Autonomy in the execution of quality improvement standards for care and service delivery**

Autonomy in this study refers to the execution of QI activities to enhance quality health care delivery at all levels of health care and to ensure that health care services are accessible and responsive to the health care needs and demands of the clients. In this view, each level of health care should have identified roles and responsibilities to ensure the successful implementation of the quality improvement training programme. Autonomy would enable health care facilities to make decisions on issues affecting their performance instead of waiting for the national level to decide on their behalf. This study revealed that the improvement of quality patient care depended on health

professionals with authority on certain levels on the basis of decentralised functions, roles, and responsibilities. The findings indicated that quality health care delivery would be optimised when certain functions, such as medical specialist positions, were transferred to the district hospitals with the view of enabling timely provision of health care services. In order for health care facilities to execute quality improvement activities to the best of their ability, they should be empowered to be self-sufficient to respond promptly to patient needs. It was revealed that health care facilities were failing not because they had inadequate skills but as a result of a lack of power and authority to make decisions on their own, since they were too reliant on the national level decisions. The agent in consultation with the top management would facilitate the process to transfer power of certain functions from the national level to enable effective and efficient implementation of the quality improvement programme.

### **Concluding remarks**

The terminus or end-point referred to the outcome of the programme that was competent health professionals who participated in the quality improvement training programme at any time during their working career at the health care facilities. The terminus in this study was the knowledge, skills, and abilities acquired by attending a quality improvement educational programme (QIPEP) for health professionals with the view of facilitating quality health care delivery. The quality improvement training programme for health professionals was instrumental in addressing inadequacies and deficiencies, i.e. gaps between knowledge and performance at the health care facilities and in the MoHSS. This educational programme originated from the need expressed

by the recipients to improve knowledge, skills, and attitudes to manage QI activities and respond effectively to the needs of patients.

### **4.3 SUMMARY**

This chapter describes the conceptual framework based on the six factors of the practice orientated theory by Dickoff that was adapted to develop a learning activity for the health professionals in the MoHSS. These factors helped to organise the concepts into understandable components, which was necessary for the development and implementation of the training programme. The six factors of the practice orientated theory by Dickoff (1968) in Mothiba (2012) discuss the roles of the agent, recipients, context, procedure, dynamics, and terminus, which were adapted to suit the health care facilities context in the MoHSS. These factors should respond to the goals and objectives to facilitate the implementation process of this programme.

**CHAPTER 5**

**DEVELOPMENT OF THE QUALITY IMPROVEMENT  
TRAINING PROGRAMME FOR HEALTH PROFESSIONALS  
IN THE MOHSS**

**5.1 INTRODUCTION**

Chapter 4 describes the conceptual framework, which was the basis for developing the quality improvement training programme for health professionals in the MoHSS. The training programme was organised and developed into five phases (Meyer and Van Niekerk, 2008); namely the preliminary, exploratory, design, development, and evaluation phases (Chapter 2). The need for this training programme originated from the results of a situation analysis of the experiences and challenges that health professionals faced in their quest to provide quality health care services at the health care facilities (MoHSS). The findings of the study were further supported by secondary research and literature control, supplemented by primary data that was presented in a narrative format.

This chapter describes the training programme based on Dickhoff's (1986) practice orientated theory (Chapter 4), in the context of data analysis, assumptions of Deming's PDSA model and the four-stage cycle of Kolb's learning model that informed the learning content (Chapter 1). The origin of this programme was the rigorous individual interviews and FGDs with health professionals and managers at the health care facilities in the MoHSS.

## **5.2 DEVELOPMENT OF THE QUALITY IMPROVEMENT TRAINING PROGRAMME FOR HEALTH PROFESSIONALS IN THE MOHSS**

In developing the quality improvement training programme for health professionals at the health care facilities, a five-phase approach was adopted (Meyer & Van Niekerk, 2008), i.e. the preliminary phase, exploratory phase, design phase, development phase, and the evaluation of the programme. The development of the programme took certain research principles into account; namely the purpose / aim; the objectives and benefits, programme structure, programme process (facilitation process), educational approaches, evaluation / assessment techniques, implementation process, and the evaluation of the programme.

### **5.2.1 Name of the programme**

The name of the programme is a quality improvement training programme for health professionals in the MoHSS.

### **5.2.2 Purpose / aim of the educational programme**

The purpose of this training programme was to empower health professionals with appropriate KSAs to improve health care and service delivery at the health care facilities. The focus of the programme was to enable health professionals to initiate and deliver exact quality improvement projects to address the identified challenges. The programme provided health professionals with learning approaches for their career and professional development to improve care and service delivery at the health care facilities. It empowered health professionals and managers to assume active roles and responsibilities in learning new principles and recent methods that were required

to facilitate quality health care delivery at health care facilities. The programme promoted a quality culture and renewed commitment to meet the expectations and health needs of patients, as well as achieving the strategic objective: “MoHSS recognised the best public provider of quality health care in the country and beyond” by meeting the required quality standards of accreditation and certification. The programme further generated practical tools and methods for teaching and assessment to guide the process of implementing quality management in the MoHSS. It provided guidance to the MoHSS (health care facilities) about implementing the quality improvement training programme for health professionals. The findings from a situation analysis at the health care facilities indicated the need for quality improvement training with the view of enhancing knowledge, skills, abilities, and attitudes in quality health care delivery.

### **5.2.3 Programme objectives**

The objectives of this training programme were to:

- gain an understanding of the legal framework and standards that impacted quality health care delivery at the health care facilities (identify factors militating against available policies and guidelines to enhance QA and QI);
- identify the gaps between the current and required KSAs of health professionals to facilitate health care delivery;
- identify the challenges resulting in poor management of resources;
- determine effective interpersonal relationships at the health care facilities; and

- conduct research to generate evidence-based information for enhancing quality improvement.

#### **5.2.4 Benefits of the programme**

The quality improvement training programme had both short-term and long-term gains by contributing to the generally improved outcomes of health care that were informed by additional knowledge and skills. The programme had two main direct benefits to the participants in the MoHSS; namely enhancing care and service delivery, as well as a high satisfaction rate and happy families after receiving the best care.

#### **5.2.5 Benefits to the participants (recipients)**

The added benefits of participating in a credit bearing training unit contributed to the improvement of "...[t]heir lifelong learning in terms of credit recognition and transfer in learning and career pathways". It also inspired participants' interests in pursuing career development in the field of Quality Management Science for future promotion opportunities in QI or QA.

#### **5.2.6 Benefit to the society**

Meeting the expectations and health needs of patients is one of the prospects that each client and the Namibian government are yearning for and interest, hence the huge budget allocation to health care. A reduction in maternal and child health mortality would be one of the improved outcomes of well-trained and competent health professionals with quality health care delivery at heart.

### **5.2.7 Profession (body of knowledge)**

The programme is the first of its kind in the MoHSS that covers the magnitude of work that has accumulated valuable and dense information through a research project that is adding value to the body of knowledge in the field of Quality Management Science and quality assurance to improve knowledge, skills, and abilities with the view of facilitating a quality health care delivery system at the health care facilities in the MoHSS.

### **5.2.8 Programme structure / design**

The structure of the programme consists of the name of the programme, unit standards, quality assurance component (national qualification standard), outcomes standard, duration and successful completion of training, programme components, and content assessment. According to the Namibian Government Policy on Accreditation Regulations that is contained in the Qualifications Authority Act, 1996 (Act No. 29 of 1996) of Namibia, this programme belongs to a sub-category of short courses with qualifications that are registered at or below NQF level 5 and 6, or registered unit standards. This programme is offered at NQF levels 5 – 7 and is recognised by the NQA for certification of qualifications.

#### **5.2.8.1 Unit standards**

“Unit standards specify learning and / or performance outcomes (what the candidate can do) and the required standard of knowledge and / or performance (how well the candidate can do it). Unit standards provide the basis for the design of assessment including audience, educators, trainers, assessors, candidates, and moderators” (New

Zealand Qualification Authority, 2010). The unit standards of this programme would be considered for recognised certificate or diploma at NQF level 5, 6, or 7. The levels and required credits would be based on the NQA Guidelines (2006) for certification of qualifications, which states that a certificate has 40 NQF credits of which a minimum must be at or above the level of certification while a diploma has 120 NQF credits of which a minimum of 72 must be at or above the level of certification. The level 6 diploma is equal to 360 credits offered at the institutions in Namibia, the SADC region, and outside the country if the international programmes are accredited or recognised by the NQA.

#### **5.2.8.2 Quality assured component (national qualification standard)**

The National Qualification Framework outlines the quality assurance components or criteria used for training programmes that are recognised, accredited, or awarding certification to participants. The quality improvement training programme contains unit standards that would be accredited for certification and recognition of qualifications. The training programme should be “[d]elivered by competent providers and assessment leading to the award of the qualifications can be trusted” (Tuch, 2007). According to the NQA (2006), there are three important elements of quality assurance; i.e. validation of qualifications and / or standards, accreditation and audit of education and training institutions, and quality assurance of assessment that leads to awarding qualifications. “...The use of unit standards in nationally recognised qualifications helps to ensure that: clear outcomes are recognised nationally and consistent standards apply to recognised outcomes; existing knowledge and skills are

recognised and credited on the candidate's Record of Achievement (New Zealand Qualification Authority, 2010).

#### **5.2.8.3 Outcomes standard**

The outcomes standard of this training programme were the learning outcomes and descriptive measures to achieve the objectives, as described in this chapter. The outcomes include knowledge, skills, behaviour, attitudes, and values.

#### **5.2.8.4 Duration of training**

The programme would be offered in line with the requirements of the Namibian Qualification Authority, per the high learning institutions. After successful completion of training, a participant would be awarded with certificates depending on the duration and credit unit standards have been achieved.

#### **5.2.8.5 Completion of successful training**

The successful completion of the training programme would depend on the required achievement of the credits for a candidate to be awarded a certificate. The participants (learners) were assessed to demonstrate the abilities to develop, implement, collect, analyse, and monitor quality activities at the health care facilities. They should be able to plan, identify, and solve problems, as well as provide feedback on quality related issues at the health care facilities. At the end of the training programme, they should also exhibit positive attitudes towards clients and colleagues, and apply procedures and methods to improve patient care and treatment.

### **5.2.9 Programme process (facilitation process)**

According to the Northwest Centre for Public Health (2012), different instructional methods are used in facilitation of learning and teaching. In this study, the following methods were used: Group work (role play, simulations, and games), individual work (self-assessments, evaluations, and writing), case scenarios, and paper / project assignments. A learner-centred and active learning approach was used to encourage and engage learners in activities that satisfied their needs. An understanding of health professionals' constant involvement in problem solving situations and case management led to the use of case scenarios that gave groups an opportunity to reflect on their experiences and to analyse situations with the purpose of finding solutions. Participants would be asked to analyse and propose solutions on a case based on the activity objectives, for example a case study of a patient who developed severe abdominal pain and diarrhoea.

#### **5.2.9.1 Educational approaches**

In this programme, the trainer or facilitator adopted an interactive style based on participants' experiences and previous knowledge. The principles of adult learning, such as Kolb's experiential learning advised the use of mixed methods in learning and assessment (Chapter 7). These methods included role play, simulation, cooperative learning, reflection, visualisation, and case scenarios. These techniques responded to the adult learning needs of the participants by making the learning activities more stimulating, as emphasised by the proponents of adult learning. Sally and Russell (2006) emphasise that one of the reasons why adults engage in learning is to bring

about meaningful change in skills, behaviour, attitudes, or knowledge level in the areas of their interests. Studies (Harris, 2007); Langer, 2002); Thorpe, 2004) argue that learning has shifted away from routine practice to a reflective professional practice, which encourages a student-centred approach in active learning that requires a good learner-educator relationship (Bergström, 2010).

**a. Kolb's experiential learning**

Kolb's research has established that people learn in four ways with the likelihood of developing an affinity for one mode of learning more than another. As shown in the 'experiential learning cycle' model in Chapter 1. Kolb believes that adult learning occurs during concrete experiences, observation and reflection, abstract conceptualisation, and active experimentation. Based on Kolb's theory, it was assumed that adult learners in this study would be analysed according to the learning styles indicated in Table 5.1.

**Table 5.1: Kolb's theory of experiential learning**

Abstract conceptualisation (theorists)	<p>Understand a wide range of information and organise it in logical format.</p> <p>They are less focused on people but interested in ideas and abstract concepts and more attracted to logically sound theories than approaches based on practical value.</p> <p>In formal learning situations, adults in assimilating (watching and thinking) style prefer readings, lectures, exploring analytical models, and having time to think things through.</p>
Reflective observation	<p>Can solve problems and will use their learning to find solutions to practical issues. They prefer technical tasks, less concerned with people and interpersonal aspects but best at finding practical uses for ideas and theories and can solve problems and make decisions by finding solutions to questions and problems. Adults with a converging learning style are more attracted to technical tasks and problems than social or interpersonal issues. They like to experiment with new ideas, to simulate and work with practical applications.</p>
Active experimentation	<p>Can use 'hands-on' experience and relies on intuition rather than logic. As an accommodating learning style, adults use other people's analysis and prefer to take a practical, experiential approach. Attracted to new challenges and experiences and carrying out plans. Commonly act on 'gut' instinct rather than logical analysis. Tend to rely on others for information than carry out their own analysis and prefer to work in teams to complete tasks. They set targets and actively work in the field trying different ways to achieve objectives.</p>

Based on Kolb's assumptions in Table 5.1, the learning outcomes of a programme should be relevant, interesting, and grounded on practical principles to meet the objectives and learners' needs within their working environment (specific health care facility context). With understanding various responsibilities and stages of human development, adult learners require activities that speak to their needs and prepare them to find solutions to address problems during patient care and treatment. Often, adults unlike young learners, are working with real issues that sometimes are life threatening and may require practical simulations rather than theory. Hence, this training programme addressed real situations in relation to quality health care at the health care facilities. For instance, issues of cleanliness and overcrowded health care facilities were pronounced as one of the challenges that resulted in health hazards and re-infection among admitted patients.

In respect of this training programme, Kolb's theory provided the ground for designing modular methods of teaching and learning, as discussed in Section 5.2.5.2 Kolb's theory emphasises that adults require concrete activities that would be applied to address quality health care challenges at the health care facilities.

Concrete experience: This style helped individuals to generate ideas and align their thinking to experienced challenges on availability of policies and guidelines at the health care facilities to solve practical problems in their work environment. The learners used their immediate or concrete experiences based on observations and reflections on real situations of quality health care delivery at the health care facilities.

Reflective observation: This style was used to help individuals reflect on observed situations and think critically about approaching problems raised due to poor quality health care delivery in their work environment. By reflecting, the learners were guided by information acquired through readings, lectures to explore and analyse issues, and to mitigate the problems. The reflection helped individuals to assimilate and translate observed information into abstract concepts to create meaning and experiences.

Abstract conceptualisation: This style helped individuals to solve problems and find solutions to practical issues observed in the work environment. Learners were able to convert abstract concepts into practical meaning, whereby they acquire new ideas through experiments and technical skills to find solutions for addressing actual problems in the work environment.

Active experimentation: This style required individuals to work in teams in order to perform practical activities based on investigations that addressed the challenges in quality health care delivery. In this style, learners based their experimentation on instinct rather than logical analysis and relied more on other people for information than on conducting their own analysis and preferred to work in teams to complete tasks. They set targets and actively worked in the field trying different ways to achieve objectives.

Kolb and Kolb (2001) say that ideally (and by inference) the process of experiential learning represents learning cycle or spiral during which a learner “touches all the bases”; for example, a cycle of experiencing, reflecting, thinking, and acting. A key phrase in experiential learning is “freedom within structure”, which means that registered nurses

should feel free to express themselves in a structured group environment. The structure, framework, and boundaries of experiential workshops should be developed to provide learners with a sense of security. It should allow them to explore and reflect on feelings, thoughts, and behaviour (Ritchie & Lewis, 2006). All participants in this study were required to commit to all phases and sessions of the programme.

**b. Knowles' theory of adult learning**

Besides Kolb's stage four theory of experiential learning, Lieb (1991) and Goodland (2005) confirm that adults prefer learning in situations that consider and incorporate the following elements:

- Practical and problem-centred: Health professionals were recognised to be involved in practical situations that required problem solving skills. Hence, they would join the learning environment with a wide range of experience that assisted them to learn more effectively. This programme provided opportunities to actively involve participants in group discussions and presentations to enhance KSAs by establishing linkages between the content and previous experience. It further assisted them to apply new ideas to situations at work based on experiences to solve problems that were identified as hindering quality health care. In this programme, the learning process was fun, since it contributed to positive outcomes. Learners assumed an active role in deciding on problems that needed to be solved in real situations while the educator simply facilitated the learning. The learning became practical because participants were involved in designing their own learning content to establish

connections between prior learning and experiences of quality health care delivery, which not only encouraged a sense of ownership; it also stimulated interests in designing projects with the aim of solving problems, creativity, and working independently or in groups to share experiences related to their work. They were allowed to take ownership of and responsibility for their learning through presentations and assuming leadership roles in teams. As discussed in Chapters 3 and 4, among the competencies that needed to be reinforced in this approach were strategic planning and problem solving.

- Promote positive self-esteem: Adults learn confidently when they perceive encouragement to learn during low risk activities and in smaller groups. They learn more effectively when they notice that the programme contributes to building their capacity and progresses self-development. They, however, need to be assisted with developing confidence and becoming effective through practical learning and a well-established predictable and unsurprising programme. Adults dislike surprises in their learning. They want to understand the goals and outcomes of their learning.
- Integrate new ideas with existing knowledge: Adults are interested in learning in situations where they can relate the learning to what they already know, since they have accumulated rich experiences that they bring to any learning experience. They are interested when the assumptions and agenda of training is communicated to them and the topics and the time of training is adjusted to suit their needs. They want to enter a learning programme that provides broad skills, knowledge, and an opportunity to take part in understanding the topics and learning content more

effectively. This programme attracted adult learners on the grounds of its flexibility to change with the view of addressing their needs from time to time. The programme was also welcomed by adult learners because it had intrinsic follow-up ideas and supported continuity mechanisms.

- Show respect for the individual learner: Adults prefer to be respected and are interested to learn when they feel accepted and equally accommodated. They are very conscious of the use of language and interpretation of actions. So, the choice of words and expressions matter when adult learners are trained. They are more motivated when they perceive that the learning component would not only improve their mental capacity but their physical needs too; for example, including elements of relaxation, leisure (comfort), snacks, and coffee during breaks. A programme should offer quality, well-organised, and standardised modules to utilise learners' efforts and time effectively and efficiently. They are interested in learning when their potential and contributions are valued, acknowledged, and feedback about their work is timely provided.
- Capitalise on their experience: Adult have accumulated a wealth of experience; an educator should maximise prior learning as a source for improving and enriching the learning experience. For learners to be interested, alternative activities and a choice of methods need to be adjusted to suit their level of experience. They would be more inspired when the activities are based on their previous experiences and knowledge. Besides, the learning would be more successful when it considers participants' needs during and even after the sessions.

- Allow choice and self-direction: Adults learn better when they are self-directed and interested in learning activities that impact their lives positively. They are more interested in training programmes that focus on their needs and support the desired behaviour. They want to be included in the goals and agenda of the programme, hence they would be happy to provide valuable input to pertinent topics.

The learning would be interesting when it provides an opportunity to include learners in the planning process with the view of balancing individual and programme goals to meet learners' needs while augmenting effective learning. McGill and Beaty (1995); Merriam and Caffarella (1991) describe different learning styles, students' characteristics, and teaching strategies (Table 5.2).

**Table 5.2: Learning and teaching styles**

Learning style	Characteristics of students	Strategies for instructors
Active	<p>"Let's try it"; more practical situations will be used to make learning proactive, as adult are not interested in sitting in long lectures that prove to be difficult and boring for their learning. Hence, learners like to work in groups and enjoy experiencing things. Teamwork was highly encouraged in this programme,</p>	<p>Discussions, problem-solving activities, learners retain information better when they are afforded an opportunity to apply what they learn.</p>
Reflective	<p>"Let's think about it"; reflect on the past lessons to understand how to improve the learning. Facilitators need to recognise that adult learners like to work alone. Lectures are difficult when not given time to 'digest' the information.</p>	<p>Provide time to think about the material to allow learners to reflect on the teaching so that they could help the educator to improve future lessons. Do not just read and memorise; write summaries, devise questions, and search for possible applications of the content.</p>
Sensing	<p>Adults like learning facts and using established methods to connect to real experiences. They do not like interruptions and need enough time to deal with complicated abstracts and theoretical material. They are good with detail, memorising facts, and hands-on work.</p>	<p>Establish connections between learning material and the real world with examples of concepts and procedures and practical applications to the work situations.</p>
Intuitive	<p>Adult are keen to discover new possibilities and relationships; develop insightful ideas, innovative, good at grasping new concepts, and work quickly.</p>	<p>Interpretations and theories that connect facts will assist with learning, provide time to read questions thoroughly, and recheck results.</p>

Learning style	Characteristics of students	Strategies for instructors
Visual	Learn best from what is seen or observed. A large percentage of the population are visual learners.	Incorporate meaningful pictures, diagrams, charts, timelines, videos, and demonstrations whenever possible. Colour-coded concept maps are good for listing key points and demonstrating relationships.
Verbal	Learn best from the use of words.	Summarise or outline content verbally to allow students to interpret the concepts in their own words. Working through ideas in groups can also be effective.
Sequential	Learn best in logical steps in a linear format.	Break material down into smaller logical chunks, and provide overviews of material before focusing on specific content.
Global	Digests material in leaps and bounds and tends to look at the big picture and tries to make connections to prior knowledge.	Provide overviews of material before moving on to the finer detail. Show how topics are related to other relevant course material or knowledge students may have from previous experiences.

Adapted from: McGill & Beaty (1995); Merriam and Caffarella (1991)

Table 5.2 describes different styles used in adult learning, which would be administered in quality improvement training programme in the MoHSS.

**c. Problem-based learning approaches**

A problem-based learning (PBL) approach would be used in this study to assist learners with gaining problem solving skills based on their experiences of providing treatment and patient care as a way of finding solutions to improve quality health care delivery. In this study, the methods were used to develop the instructional materials that encouraged the learners to participate in problem solving activities related to situations at their work environment. That boosted their thinking capacity and problem-solving skills when they realised that the learning was based on real situations on the ground to improve quality health care delivery.

According to Albanese and Mitchell (1993), PBL is an instructional method that is characterised by using real situations of patient problems to acquire knowledge, skills, and aptitudes to solve problems. To encourage learning, the approach was used to develop the methods and instruction materials based on the situation of learners. The PBL “...[a]s a teaching strategy can engage students in developing deep understanding of important concepts and principles, developing skills relevant to authentic future applications despite the difficulty and time preparation involved in designing appropriate, relevant problems” (Killen, 2009).

The method further enables learners develop critical, analytical, and reasoning skills based on their existing knowledge, as well as techniques to deal with different situations at work. Falkner, Sooriamurthi and Michalewicz (2010) confirm that "...[p]roblem solving develops critical thinking and reflecting skills as students develop strategies for evaluating the problem and the effectiveness of their thinking when considering the problem". In this programme, the PBL approach enabled learners to critically analyse cases and develop inquisitive skills to solve problems encountered in their work situations. The approach further supplemented other learning styles, such as concrete experience to solve the problems; it enabled learners to follow coherent reasoning steps in problem solving. In their model for a problem solving process, Lang, Dittrich and White (1978); White, Dittrich and Lang (1980) explain that the "...[p]roblem solving process starts with the identification of an actual problem (a gap), problem identification activities, perception, motivation to solve the problem, abilities to solve and implement the solution". They suggest steps of problem identification:

- define actual problem (gap);
- set the goals and targets for the activity to be solved;
- identify activities to address the problem;
- develop a suitable strategy based on previous problems that can produce positive results; and
- describe the measures for expected outcomes to help achieve the results.

### **5.2.10 Learning environment**

The learning environment for the training programme was the health care facilities in the MoHSS, which were required to meet the expectations of patients by providing quality health care and services. A learning environment is defined as a conducive place of work created to support learning and teaching. According to Killen (2009), the context of a study is one of the important factors that impact the quality of teaching that need to be considered when creating a supportive environment for learning. Adult learners have their own objectives to achieve in life, which are different from the objectives of an organisation, hence they need to be encouraged, otherwise effective learning will not take place.

In this study, the learning environment was important as a context that provided the results that this training programme set out to achieve. The context of the study defined the characteristics of the learners and factors surrounding quality health care that needed to be addressed during the training programme. The environment was used to implement and evaluate the training programme. To introduce the programme at the health care facilities, the researcher conducted a workshop to present the process of implementation and evaluation of the programme.

#### **5.2.10.1 Programme components / content**

The components of the training programme were derived from the five objectives of the study, which were subdivided into units and learning content (Tables 5.3 – 5.7). The

programme consisted of five modules, which incorporated the tools and techniques to assess the learning outcomes and assessment criteria. The assessment methods of all activities in this programme are explained (Hanna and Dettmer, 2004) in Tables 5.3 – 5.7 below. During the situation analysis, participants shared that one of the factors militating against QI and QA was a lack of knowledge, skills, and aptitudes in QI and QA. It included inadequate training on QI and QA policies and guidelines.

**Table 5.3: Module 1: Policies and guidelines on QA and QI to facilitate quality health care**

Objective of the module	Exit outcomes	Learning content
Understand the process and standards for the implementation of available policies and guidelines in respect of QA and QI for quality health care delivery	Recognise the institutional frameworks that guide the operations of quality health care delivery.	Unit 1: Essential components of QA and QI policy
	Determine the important issues and priority needs for the policy development process for inclusion in QI and QA policy.	Unit 2: Strategic planning
	Evaluate and critique the process of implementing QA and QI policies and guidelines to improve quality health care delivery.	Unit 3: Organisational structure
	Develop policy points to be considered for improving quality health care delivery at health care facilities.	Unit 4: Implementing a quality improvement programme
	Analyse the conceptual framework and dynamics surrounding QA and QI policies and guidelines.	
	Identify and interpret the concept of QI and QA to facilitate quality health care delivery.	
	Define the roles and responsibilities of stakeholders for implementing the Quality Management Policy to facilitate quality health care delivery at the health care facilities.	
	Describe the key elements of implementing QA and QI policies at the health care facilities.	

Objective of the module	Exit outcomes	Learning content
	Propose structures to facilitate quality health care delivery at the health care facilities.	
	Apply procedures and standards correctly to deliver quality health care at the health care facilities.	

**Table 5.4: Module 2: Management and utilisation of resources to enhance quality health care delivery**

Objective of the module	Exit outcomes	Learning content
Gain knowledge in terms of management and utilisation of available resources to enhance quality health care delivery	Describe the management theories in relation to the health care context.	Unit 2.1: Material resources
	Identify and critically discuss current human resource issues hampering quality health care delivery in a health care facility context.	Unit 2.2: Human Resources
	Describe the management theories that could be applied to enhance quality health care delivery in a health care facility context;	Unit 2.3: Workload
	Propose appropriate strategies that could be used by the health care facilities to attract and retain health professionals, and maximise adequate utilisation of human resources to improve patient care.	Unit 2.4: Time management
	Identify and critically discuss current issues and challenges in the field of human resource management obstructing quality health care delivery.	Unit 2.5: Stress management

Objective of the module	Exit outcomes	Learning content
	<p>Explain the purpose of change management.</p> <p>Identify and explain the roles and responsibilities of quality teams at health care facilities.</p> <p>Design a quality management and coordination plan for quality improvement at the health care facility.</p> <p>Describe types of organisational structures and their advantages to quality health care delivery.</p> <p>Propose an appropriate structure to facilitate quality health care delivery at the health care facilities.</p> <p>Establish a quality improvement team for adequate structure at health care facilities.</p> <p>Identify factors influencing an adequate structure at the health care facilities.</p>	

**Table 5.5: Module 3: Interpersonal relationships to facilitate quality health care delivery**

(terms, attitudes, communication, motivation, teamwork, and resistance change)

Objective of the module	Exit outcomes	Learning content
Acquire knowledge and abilities to manage and improve interpersonal relationship in terms attitudes, communication, motivation, teamwork, and resistance change	<p>Describe the process of communication.</p> <p>Discuss the role of communication in quality health care delivery.</p> <p>Compare and contrast the different types of interpersonal communication.</p> <p>Discuss the barriers to interpersonal communication and quality health care delivery.</p> <p>Propose strategies to enhance and improve communication for quality health care delivery.</p> <p>Identify factors influencing effective communication.</p> <p>Design methods for effective communication.</p> <p>Define the structure to facilitate quality health care delivery. Explain the importance of effective communication.</p> <p>Identify and explain the critical competencies required to improve communication between health care professionals and patients.</p> <p>Identify factors that would contribute to ineffective quality teams at the health care facilities.</p>	<p>Unit 3.1 Interpersonal communication</p> <p>Unit 3.2: Managing group dynamics (attitudes and teamwork)</p> <p>Unit 3.3: Quality culture</p> <p>Unit 3.4: Conflict management</p>

Objective of the module	Exit outcomes	Learning content
	<p>Design a communication plan to improve quality management and coordination of interpersonal relationships at the health care facilities.</p> <p>Identify factors influencing effective communication at the health care facility.</p> <p>Illustrate effective verbal and written communication skills.</p> <p>Based on a video recorded interaction with patients, learners should review and analyse their own behaviour. Learners assess and rate one another's performance on handling the case, as well as record and explain the reasons of the scoring.</p>	

**Table 5.6: Module 4: Significance of research and information to facilitate quality health care**

Objective of the module	Exist outcomes	Learning content
<p>Acquire knowledge and attitudes in respect of the significance of research and information about</p>	<p>Explain the purpose of conducting research to facilitate quality health care delivery. of the scoring</p> <p>Describe the research methodology and methods to be used to enhance quality health care delivery at health care facilities.</p> <p>Clarify the importance of evidence-based practice (EBP) to quality health care delivery.</p>	<p>Unit 4.1: Purpose of conducting research</p> <p>Unit 4.2: Research knowledge for evidenced-based practice</p> <p>Unit 4.3: Fundamental ethical principles of respect, beneficence,</p>

Objective of the module	Exist outcomes	Learning content
quality health care delivery	<p>Define the fundamental ethical principles of research in relation to patient safety during care and treatment.</p> <p>Develop research topics to address challenges in quality health care delivery (collect, analyse, interpret, and report information) on quality health care.</p> <p>Explain how health care facilities are adhering to quality assurance standards and the improvement process to protect the rights of patients in health care.</p> <p>Define information management and information systems to enhance quality health care delivery.</p> <p>Distinguish between health information systems (HIS), human resource information systems (HRIS), and health management information systems (HMIS).</p> <p>Describe different types of information systems and technologies used to support quality health care delivery at health care facilities.</p> <p>Explain the types of tools used to facilitate quality health care delivery at the health care facilities.</p> <p>Describe the general functions, purposes, and benefits of health information systems in various health care settings.</p> <p>Describe the health care initiatives and significant developments that have influenced the evolution and adoption of health information systems.</p>	<p>and justice in research to prevent harm to patients</p> <p>Unit 4.4: Procedures and mechanisms for protecting rights in research</p> <p>Unit 4.5: Types of information that facilitate quality health care delivery</p> <p>Unit 4.6: Quality improvement tools for monitoring and evaluating quality health care delivery</p> <p>Unit 4.7: Patient safety</p>

Objective of the module	Exist outcomes	Learning content
	Compare / contrast different types of health information systems and how these systems are helping one to meet and respond to health care needs.	
	Explain how electronic health records affect patient safety, quality care, efficiency, performance, and quality health care delivery in general (reporting, documentation, and implementation).	
	Propose strategies to minimise barriers to using electronic health records.	

**Table 5.7: Module 5: Application of QA standards and QI processes, methods to enhance quality health care delivery**

Objective of the module	Exist outcomes	Learning content
Application of QA and QI standards and processes in a health context	<p>Describe the research methodology and methods to be used in quality research.</p> <p>Clarify the relationship between evidence-based practice (EBP) with quality health care delivery.</p> <p>Propose strategies or mechanisms to improve data management (collecting, analysing, interpretation, and reporting).</p>	<p>Unit 5.1: Quality improvement tools</p> <p>Unit 5.2: Quality indicators (process, structure, and outcome measures)</p>

Objective of the module	Exist outcomes	Learning content
	Develop quality indicator (input, process, and outcome) measures for quality health care delivery.	Unit 5.3: Measurement and statistical analysis
	Design quality management monitoring and evaluation tools for health care delivery.	Unit 5.4: Measuring and assessing adverse medical events to enhance patient safety
	Demonstrate the application of methods and standards on problem solving based on practical scenarios to improve quality health care delivery.	Unit 5.5: Evidence-based practice
	Use statistical tools to collect and analyse data on quality health care delivery	
	Developing quality indicators for planning and decision making.	

### **5.2.10.2 Facilitation techniques / teaching and learning methods**

The following facilitation techniques were used to enhance the learning experience.

**Icebreakers:** Icebreakers are discussion questions or activities used to help participants relax and ease them into a group meeting or learning situation (Dover, 2004). Icebreakers allow a student to become emotionally connected with the learning process and increases motivation (Kelly, 2004). Ice breakers are referred to as powerful thinking exercises that help motivate a group of learners to move from one stage to another during group development. “Ice breaker is a facilitation exercise intended to help a group to begin the process of forming themselves into a team, which are commonly presented as a game to 'warm up' the group by helping the members to get to know each other”. According to research, ice breakers are an effective way of starting a training session or team-building event. As interactive and often fun sessions, ice breakers precede the main proceedings; they help people get to know one another and become committed to the purpose of the event. If such a session is well-designed and well-facilitated, it can really help get things off to a great start. By getting to know one another, getting to know the facilitators, and learning about the objectives of the event, people become more engaged in the proceedings and are more likely to contribute more effectively to successful outcomes. Ice breakers are used to assist a group with getting to know one another; integrate new members into a group; help young people feel comfortable in one another’s company; encourage cooperation, teamwork, and good listening skills about people’ ideas; develop

social skills; build rapport with leaders; and create a conducive atmosphere for learning and participation (Knox, 2009).

**Lectures:** A lecture is one of the longstanding methods to present information used in higher institutions of learning. It is an actively facilitated presentation of information for about a 10- to 15-minute segment with interactive experiences, such as asking stimulating questions and class or small group discussions. During a lecturing method, various teaching aids are used; for example pictures, video clips, graphic organisers, and PowerPoint slide presentations to highlight the main topics.

**Problem solving:** Problems experienced by the health professionals at the health care facilities were common to their work environment; those problems were incorporated to create different scenarios and case studies that enabled learners apply creative and critical thinking.

**Brainstorming:** This was used during group work as a technique to gather different thoughts on a topic during a group discussion. This method is used to generate various solutions to a problem by exploring different ways of approaching a situation. The method was mostly used in situations where the participants had to generate new ideas about unfamiliar topics.

**Simulations:** This technique is useful to display or assess practical ideas based on models to enable learners define concepts or acquire knowledge about observable or unobservable human or animal body parts to search for treatment regimens of certain health conditions.

Simulations are also useful for assessment purposes, especially for assessing more advanced learning and attitude change (Smith & Ragan, 1999). “The appropriate use of simulation in a professional education program [sic] allows students to hone their clinical skills without danger of harming the patient during the learning process” (Ziv, Wolpe, Small & Glick, 2003). Given the demand for attending to patient needs; Begg, Ellaway, Dewhurst and Macleod (2007) have designed online virtual patient simulation called *Labyrinth* to assist learners with analysing cases and situations, synthesising knowledge from various learning experiences, and evaluating courses of action. According to Galloway (2009), simulation uses interactive approaches and models to present cases.

Standardised patients, also known as simulated patients or actors, are live simulators that are utilised for teaching learners to conduct a physical assessment, take a patient history, communicate bad news, practice a psychiatric intervention, and even perform a pelvic or prostate examination (Doerr & Murray, 2008).

Partial task trainers are designed to replicate a part of a system or process. The learning objectives associated with partial task trainers are often task specific. Examples include intubation mannequins, IV practice arms, and machines involved in processes; such as surgery, resuscitation, and emergency scenarios. Advantages of these simulators include product sustainability, standardisation, portability, and skill specificity (Beaubien & Baker, 2004a).

Integrated simulators (human patient simulators) are whole body mannequins (adults, children, or infants) that are capable of responding to certain medications, chest

compressions, needle decompression, chest tube placement, as well as other physiological interventions and subsequent responses.

**Debriefing:** The formal, reflective stage in the simulation learning process is the debriefing process. Debriefing follows the actual simulation and serves to help learners clarify and integrate the simulation experience with previous knowledge (Sharon, Sportsman, Puetz, Decker & Billings, 2008). When debriefing is skilfully facilitated with a positive attitude and constructive criticism, learning is reinforced and the learner advances to transference, the next and final step in the simulation learning pyramid described by Doerr and Murray (2008).

**Role play:** Role play is referred demonstrating or acting a prepared performance by the learners who assume the roles of the characters in a simulated situation in order to experience different points of view or positions. Actors portray patients with various ailments in mock examining rooms. Role play is a powerful technique that involves learners intermingling with their peers during the performance of specifically assigned activities.

**Case scenarios:** Case scenarios are based on real situations about the conditions of patients that require treatment and care, which would be presented to students or participants to find solutions. Some of the skills learnt during case scenarios are problem solving, critical thinking, self-directed learning, and decision making.

**Student presentations:** Research shows peer teaching is an active learning strategy that results in significant gains in learning. Students practice professional roles and improve communication skills.

**Debating:** Debating is a structured way of exploring a range of views on an issue. It consists of a structured contest of argumentation when two opposing individuals or teams defend and attack a given proposition. In this study, the debating technique was used to:

- engage learners in a variety of activities that encouraged interaction and a deeper understanding of the learning content or curriculum;
- stimulate participants to consider not only the facts of a situation, but also the implications;
- inspire participants to think critically and strategically about both their own and their opponents' position;
- encourage engagement with and a commitment to a position, by its competitive nature;
- foster participants to develop interests and to engage in research;
- assist learners with developing good listening and oratory skills;
- helps educators to assess the quality of students' learning; and
- afford opportunities for peer reviews and to participate in evaluation.

**Group discussions:** Group discussions work usually involves groups of students formally working together on projects or assignments, though it may sometimes take place in

formal classroom settings. When setting group work tasks, it is useful to consider student time and resources availability to meet the expected outcomes.

**Plenary discussions and feedback:** The Oxford Dictionary (2009) defines plenary discussions and feedback as a group of participants in a meeting or conference. Plenary discussions and feedback methods were used to summarise the sessions, topics, or lessons discussed in a group. The participants were divided into smaller groups to discuss an area or topic for a limited time and thereafter, each group was asked to select a representative to present their findings during the collective plenary meeting. Plenary discussions and feedback “...[h]elps [sic] pupils to focus on the most important rather than the most recent points learned and the progress they have made”. Plenary discussions are useful learning techniques that assist learners and educators to:

- summarise what has been learnt by underlining the most important points;
- summarise the central themes, ideas, and vocabulary while emphasising what needs to be remembered;
- generalise from examples generated earlier in the training event;
- refocus the exercise, question learners, and rectify any remaining misunderstandings;
- make links to other work and next planned training events;
- highlight not only what learners learn but how they have learnt;
- underline the progress learners have made and remind them about their personal targets; and

- set assignments that extend or consolidate class work and prepare for future training events.

### **5.2.10.3 Evaluation / assessment techniques**

Assessment refers to "...[t]he process of gathering, interpreting, recording, and using information about learners' responses to an educational task" (Harlen, Gipps, Broadfoot, & Nuttal, 1992). The criterion or standard of a unit assessment would be based on the study outcomes generated from the data analysis on the accounts and experiences of health professionals about situations obstructing the provision of quality health care. This also means that learners were assessed on prior knowledge or learning. Heritage (2007) identifies five components of assessing learners' prior learning based on the level of knowledge in a specific content area, understanding of concepts in the content area, the level of skills specific to the content area, attitudes they are developing, and the level of language proficiency.

The assessment of unit standards was highly interactive, participative, and practical because it was based on the experiences of learners within their work environment where the focus was more on problem solving and decision making to meet the expectations of patients at the health care facilities. In this study, a self-directed learning approach based on well-defined outcomes with some increasing levels of complexity was used to assess whether learners were progressing well. Tables 5.3 to 5.7 present the specific outcomes and assessment criteria on each module of the programme, as described below.

### 5.2.11 Implementation process

In this study, certain steps were proposed to facilitate the programme implementation process in the MoHSS. The implementation process of the training programme would adopt three phases, which are orientation, working phase, and termination (Neshuku, 2015). An introductory step would be done for the orientation of the programme, the working step to introduce all the components of the programme, and the termination step enable participants to evaluate and provide feedback on the training programme. The steps of implementing the training programme at the health care facilities in the MoHSS are indicated in Figure 5.1.



**Figure 5.1:** Steps of implementing the training programme

**Table 5.8:** Steps of introducing the training programme

Phases	Programme
Introductory phase	Introduction and welcoming remarks
	Synopsis of the workshop
	Discussing the purpose and objectives of the workshop
	Setting up workshop ground rules
Working phase	Determinants to:

Phases	Programme
	<p>address the challenges and constraints experienced by health professionals in the implementation of available policies and guidelines to enhance quality health care delivery at the health care facilities.</p> <p>equip health professionals and managers with the right KSAs to understand and apply QI and QA principles and methods to improve health care delivery.</p> <p>establish effective mechanisms to improve interpersonal relationships among health professionals and between clients to enhance quality health care delivery.</p> <p>promote research that generates evidence about improving quality health care delivery.</p>
Termination phase	<p>Evaluation and feedback on the training outcomes</p> <p>Closing of the workshop</p>

### 5.2.11.1 Phase 1: Introductory phase

During this step, the researcher would provide the welcoming remarks, introduce the aim / purpose of the workshop and set ground rules for the workshop. The participants would introduce themselves and their area of work to gauge the expertise necessary to evaluate and contribute towards improving the training programme.

### **5.2.11.2 Phase 2: Working phase**

This step is considered most essential part of the workshop, since it focuses on actively engaging the participants to understand the purpose and objectives of the programme. They would execute certain actions to emulate the learners in a real learning situation with the view of enabling them to provide accurate feedback to improve the programme. A practical exercise based on a role play of an activity extracted from one of the modules would be used to demonstrate the need for the training programme in order to change the mind-set towards a quality culture and meeting the demands of the patients. The researchers provide the participants with the documents on three modules of the training programme and allow 20 minutes to browse through the training material with the intention of gaining an understanding and an overview of the goals, objectives, and focus of the programme. The researcher divides the participants into three groups of either four or five to analyse and answer the questions based on the programme content, methods of teaching, assessment, and learning outcomes of each module.

### **5.2.11.3 Phase 3: Termination phase**

This is the final step of the workshop to evaluate and provide feedback on the training programme. The participants would be provided with pre-prepared questionnaires with a rating scale to assess whether the training programme is relevant to be implemented at the health facilities.

## **5.2.12 Evaluation of the programme**

Evaluation is defined in Chapter 3, as “...the comparison of actual project impacts against the agreed strategic plans, either formative (taking place during the life of a project with the intention of improving the strategy or summative (drawing learnings from a completed project that is no longer functioning”.

### **5.2.12.1 Purpose of evaluation**

The purpose of evaluation is to establish whether the goals and objectives of the training programme address the needs of participants to improve knowledge, skills, and aptitudes on QI and QI. It also assesses whether the programme contributes to meaningful to change and improve participants’ performance after attending the training, which likely would result in improving the quality of patient care at the health care facilities.

### **5.2.12.2 Process of evaluation**

The process of evaluating the programme would adopt four phases to prepare for data collection and reporting of the findings (Chapter 7). The phases were a desk review, field work, synthesis, and dissemination of the findings.

### **5.2.12.3 Evaluation steps**

The steps for evaluating the training programme were adapted from the CDC framework for programme evaluation in public health (Chapter 7). At this point, a summary of the steps is provided.

**Engage stakeholders:** Stakeholders for the training programme have already been mentioned in Chapter 4. The beneficiaries were the health professionals (recipients) as primary health care service providers in the MoHSS) while secondary stakeholders were all those entities that had an indirect role in the programme; i.e. line ministries, institutions, organisations, and clients (patients) who benefit from the improvement of care and services.

**Describe the programme needs:** Chapter 4 discusses the expected effects, activities, resources, stage, context, as well as the conceptual framework or logic map of the training programme.

**Focus on the evaluation design:** The purpose of the programme was defined earlier in Chapter 5. The uses, questions, methods, and agreements are explained in Chapter 1, as part of the background to the study problem.

**Gather credible evidence:** The programme was based on trusted and reliable sources that have been applied in similar contexts in the health care environment. Quality indicators or measures were developed by health professionals based on the needs at each health care facility, which were shared with stakeholders to provide the evidence that would facilitate quality care and a benchmark for best practice locally and internationally.

**Present justification:** Conclusions were based on standards, analysis / synthesis, interpretation, judgment, and recommendations.

**Information sharing:** Lessons learnt were shared in respect of design, preparation, feedback, follow-up, dissemination. The evaluation criteria of the programme focused mainly on assessing the process and outcomes of the programme (Chapter 3).

### **5.3 SUMMARY**

This chapter describes the development process of the training programme objectives, purpose, components / content, implementation, and evaluation process of the training programme at the health care facilities.

**CHAPTER 6**

**GUIDELINES FOR THE IMPLEMENTATION AND  
EVALUATION OF QUALITY IMPROVEMENT TRAINING  
PROGRAMME FOR HEALTH PROFESSIONALS IN THE  
MOHSS**

**6.1 INTRODUCTION**

The previous chapter discusses the process of developing the quality improvement training programme for health professionals. This chapter describes the guidelines for implementing and evaluating the programme. According to Shekelle, Woolf, Eccles and Grimshaw (1999), the evidence informing the programme development guidelines are generated through a systematic review and discussions with the people involved at the operational level. These guidelines were informed by a situation analysis carried out at the health care facilities and the MoHSS head office to gather information about existing approaches to QI and QA. Moreover, the guidelines were enlightened by rich information from published and unpublished government documents, literature, and QI and QA information. Objective 5 of the study was to develop the guidelines for implementing the quality improvement training programme for health professionals in the MoHSS.

## **6.2 GUIDELINE FOR IMPLEMENTATION A QUALITY IMPROVEMENT TRAINING PROGRAMME FOR HEALTH PROFESSIONALS**

These guidelines have been developed to assist quality manager(s) and facilitator(s) with the implementation of the quality improvement training programme for health professionals at the health care facilities (MoHSS). The guidelines enhance consistency in steps and methods to be followed during the implementation of the programme. The guidelines were derived from the conceptual framework that was developed during the exploratory and situation analysis of quality health care delivery at the health care facilities. Two prominent theories were adapted in developing these guidelines. Firstly, Deming's PDSA model of quality improvement and secondly, Kolb's experiential learning theory. These theories were used to understand the teaching and learning styles, as discussed in Chapter 1. The formulation of the guidelines also borrowed the CDC (2011) steps and UNFPA (2013) steps for developing the guidelines for successful implementation of the training programme at the health care facilities in the MoHSS. The facilitator(s) and implementers of the training programme are advised to first understand the background and the development process of the training programme for successful implementation. This chapter presents the guidelines for implementing and evaluating the quality improvement training programme for health professionals at health care facilities (MoHSS). The guidelines for the situation analysis, facilitation, implementation, and evaluation of the programme are described in Table 6.1.

### **6.2.1 Aim of implementation guidelines**

The aim of the guidelines is to provide the facilitator with knowledge and skill on how to do the situational analysis in health facilities regarding quality health care delivery.

### **6.2.2 Guidelines for situational analysis**

A situational analysis in this study was regarded as an important starting point whereby the facilitator acquired the insight on quality health care delivery in health facilities. The activities or the items to be captured during the situational analysis, include policies and guidelines on QA and QI; key elements of QA and QI, management of the resources; interpersonal relationships and research and information.

#### **6.2.2.1 Policies and guidelines on QA and QI**

In this component it is expected that the facilitator looks at the availabilities of such policies and guidelines in the health facilities and as well as the competences of the health professionals in this regards. The aspects to be considered are, as follows:

- Institutional frameworks that guide the operations of quality health care delivery.
- Important issues and priority needs for the policy development process for inclusion in QI and QA policy.
- Process for implementing QA and QI policies and guidelines to improve quality health care delivery.
- Policy points to be considered for improving quality health care delivery

- Structures to facilitate quality health care delivery at the health care facilities at health care facilities.
- Procedures and standards to deliver quality health care at the health care facilities.

#### **6.2.2.2 Key elements of QA and QI**

According to MacLaughlin and Kaluzny (2006), among the key elements of QA and QI that the facilitator needs to analyse are:

- Research done regarding quality improvement and methods to be used in quality research.
- Clarify the relationship between evidence-based practices (EBP) with quality health care delivery.
- Strategies or mechanisms to improve data management (collecting, analysing, interpretation, and reporting).
- Quality indicators (input, process, and outcome) measures for quality health care delivery.
- Quality management monitoring and evaluation tools for health care delivery.
- Application of methods and standards on problem solving based on practical scenarios to improve quality health care delivery.
- Use statistical tools to collect and analyse data on quality health care delivery.
- Quality indicators for planning and decision making specific to quality health care delivery in the health facilities.

### **6.2.2.3 Management and utilization of the resources**

In term of this management of the resources .in this study it essential the utilization of the resources such as human, materials and building are available to strength the smooth running of quality improvement in health facilities. It is now responsibilities of the facilitator tor to re- look and on the availabilities and utilization of such resources in health facilities:

- Availabilities of material and resources
- Management of the workload
- Time management
- Stress management
- Current human resource issues hampering quality health care delivery in a health care facility context.
- Strategies that could be applied to enhance quality health care delivery in a health care facility context.
- Appropriate strategies that could be used by the health care facilities to attract and retain health professionals, and maximise adequate utilisation of human resources to improve patient care.
- Current issues and challenges in the field of human resource management obstructing quality health care delivery.
- Issues that contribute to the impediment of change management in healthcare context.

- Roles and responsibilities of quality teams at health care facilities.
- Quality management and coordination plan for quality improvement at the health care facility.
- Organisational structures and their advantages to quality health care delivery.
- Appropriate structure to facilitate quality health care delivery at the health care facilities.
- A quality improvement team for adequate structure at health care facilities
- Factors influencing an adequate structure at the health care facilities.

#### **6.2.2.4 Interpersonal relationships**

Interpersonal relationships are important to enhance the facilitators work in establishing effective communication strategies and quality teams within the health care facilities. To succeed on this continuum, the facilitators should be able to:

- Process of communication such formal and informal communication.
- Interpersonal communication and relationship among the health professionals.
- Motivational strategies to encourage health professionals take responsibilities for their learning towards health care delivery.
- Organizational culture would enable the health facilities create a niche to address those aspects to promote a conducive work environment.
- Conflict management is relevant to understand and increase awareness and mechanisms to manage conflict.

- Team building in health care facilities is an inseparable element to health care delivery that the facilitator should develop.
- Types of interpersonal communication.
- Propose strategies to enhance and improve communication for quality health care delivery.
- Factors influencing effective communication.
- Methods for effective communication.
- Structure to facilitate quality health care delivery. Explain the importance of effective communication.
- Critical competencies required to improve communication between health care professionals and patients.
- Factors that would contribute to ineffective quality teams at the health care facilities.
- Communication plan to improve quality management and coordination of interpersonal relationships at the health care facilities.
- Effective communication strategies at the health care facility.
- Verbal and written communication skills.

#### **6.2.2.5 Research and information**

Among the important components required in implementation and evaluation of QI training programme is enhancing research at the health facilities. The facilitator is advised to be acquainted with:

- Research conducted to facilitate quality health care delivery.
- Available research methodology and methods to be used for enhance quality health care delivery at health care facilities.
- Evidence-based practice (EBP) regarding quality health care delivery.
- Available strategies for the application of fundamental ethical principles of research in relation quality health care delivery.
- Available guidelines, policies for research activities and agenda in the health care environment.
- Available quality assurance standards and the improvement process to enhance quality health care delivery.
- Information management and information systems to enhance quality health care delivery.
- Health information systems (HIS), human resource information systems (HRIS), and health management information systems (HMIS).
- Different types of information systems and technologies used to support quality health care delivery at health care facilities.
- Types of tools used to facilitate quality health care delivery at the health care facilities.
- General functions, purposes, and benefits of health information systems in various health care settings.

- Health care initiatives and significant developments that have influenced the evolution and adoption of health information systems.
- Different types of health information systems and how these systems are helping one to meet and respond to health care deliveries
- Available electronic health records affect patient safety, quality care, efficiency, performance, and quality health care delivery in general (reporting, documentation, and implementation).
- Strategies to minimise barriers to using electronic health records.

### **6.2.3 Guidelines for facilitating training programme**

The purpose of facilitation guidelines is to assist the facilitator to effectively apply educational programme based on the principles of teaching and learning within the educational framework of the Namibia Qualification Authority. For successful implementation of the training programme, the facilitator needs to be acquainted with the educational approaches in order to guide the health professionals toward the understanding of quality assurance and quality improvement for quality health care delivery. The following are the guiding activities under this continuum.

#### **6.2.3.1 Educational approaches**

Two theories of adult learning adopted as guiding principles in developing the learning and teaching methods are, as follows.

Kolb's theory of experiential learning emphasises that adult learning occurs during concrete experiences, observation and reflection, abstract conceptualisation and active experimentation. Based on Kolb's theory, it was assumed that adult learners in this study would be done in accordance with learning styles and specific designed learning content. For the successful implementation approaches, the following activities for adult learners should be employed to address the quality health care delivery challenges at the health facilities:

- Concrete experience should be encouraged in order to empower health professionals to generate ideas and align their thinking to solve practical problems in their work environment regarding challenges on availability of policies and guidelines at the health care facilities.
- Reflective observation should be applied in order for health professionals to assimilate and translate observed information into abstract concepts to create meaning and experiences regarding quality health care delivery.
- Abstract conceptualisation should be applied in order for health professionals to solve problems and find practical solutions on the challenges experienced in health care facilities regarding quality health care delivery.
- Active experimentation style should be employed in order for the health professionals to work in teams in response to challenges faced by the health facilities regarding quality health care delivery.

### **Knowles' theory of adult learning (1996)**

According to Knowles theory, the application of adult learning emphasise that adult learners prefer to learn in situations whereby the following elements are considered and incorporated in the learning process, as follows:

- Practical and problem-centred should be applied in order to assist health professionals participate fully in designing their own learning content to establish connections between prior learning and experiences of quality health care delivery.
- Promote positive self-esteem for health professionals to make concrete decisions on matters related to quality assurance and quality improvement challenges.
- Integration of new ideas with existing knowledge should be encouraged for health professionals improve quality health care delivery.
- Respect for the individual health professionals should be exercised for them to feel accepted and equally accommodated to facilitate learning in matters concerning quality health care delivery.
- Experiences of health professionals should be encouraged because they are more inspired when activities related to QA and QI are based on previous experiences and knowledge.
- Self-determination and self-direction should be encouraged in order for health professionals to develop interests in the learning activities related to QA and QI.

### **6.2.3.2 Learning content of the programme**

The learning content for the training programme should focus on the following aspects, which were derived from the study findings, as follows:

- Policies and guidelines on QA and QI to facilitate quality health care delivery.
- Management and utilization of resources to enhanced quality health care delivery.
- Interpersonal relationship to facilitate quality health care delivery.
- Significance of research and information to facilitate quality health care delivery.
- Application of QA standards and QI process and methods.

### **6.2.3.3 Facilitation techniques**

For the facilitation techniques and learning methods, the facilitator should employ the following elements:

- Icebreakers are discussion questions or activities used to help participants relax and ease into group meetings or learning situations (Dover, 2004). They also allow for a student to become emotionally connected with school and increase motivation (Kelly, 2004).
- Lecture should be applied to facilitate presentations and feedback of information for about 10-15 minutes with interactive experiences, such as asking stimulating questions during class or small group discussions

- Role play should focus on real situations experienced by the health professionals in the health facilities, which are common to their work environment. These would make learning more interesting by incorporating different scenarios and case studies to enable learners apply creative and critical thinking.
- Simulation techniques should be used for clinical skills without involving human being in trialling medicines, no any harm to patients during the learning process (Ziv, Wolpe, Small & Glick, 2003). The technique is useful in assessing practical learning and facilitates defining concepts or acquires knowledge based on observable or unobservable human or animal body parts to search for treatment of certain health condition (Begg, Ellaway, Dewhurst & Macleod, 2007). According to Galloway (2009) simulation uses interactive approaches and models to present cases.
- Case scenarios are based on real situations about the conditions of patient's that require treatment and care, which should be presented to students or participants to find solutions. One of the skills to be learnt during case scenarios is problem solving, critical thinking, self-directed learning and decision making.
- Group discussion Group discussions work usually involves groups of students formally working together on projects or assignment, though it may sometimes take place in formal classroom settings. When setting group work tasks, it is useful to consider student time and resources availability to meet the expected outcomes.
- Plenary discussions and feedback should be used to summarise sessions or topics or lessons discussed in the group (Oxford Dictionary, 2009) defines plenary

discussions and feedback as group of participants in a meeting or conference. The facilitator should encourage discussions and feedback methods to gain confidence during learning process.

#### **6.2.4 Guidelines for conducting training**

The purpose of these guidelines is to support the facilitators appreciate the three components to be applied in the process of implementation, namely: orientation, working and termination. The process of implementation of the training programme has three phases that focus on orientation, working, and termination

##### **6.2.4.1 Orientation phase**

The facilitator(s) should follow certain steps to introduce the programme to the participants, stakeholders and beneficiaries in the health facilities. He / she should welcome all participants and invites them to introduce themselves. Try to summarize the objectives of the training programme and expectations of participants, as outlined below.

- Welcoming address and introduction;
- Briefly explain the purpose and objectives of the training; and
- Discuss about the expectations and ground rules of the meeting / workshop.

##### **6.2.4.2 Working phase**

A working phase enables the facilitators to elaborate on the training content of the programme. The working phase should focus on the following content, namely:

- Policies and guidelines to facilitate common understanding of QA and QI principles and standards
- Essential components of QA and QI policy
  - Strategic planning issues regarding QA and QI should be incorporated in day-to-day activities to track any problem that need to be addressed with emphasis to quality health care delivery.
  - Organisational structure should be part of strategies to enhance quality health care delivery and enable create a favourable environment whereby health professionals are willing and motivated to work towards quality health care improvement.
  - Implementing a quality improvement programme requires the facilitator's understanding of the steps involved in implementing the programme, as discussed in Chapter 5.
- Management of the resources
  - Material resources include the physical property, such as buildings, equipment, medicine, transport, infrastructure that enhance quality health care delivery. When health professionals are empowered to provide affordable, accessible and reachable health care and service delivery, it makes them proud.
  - Human Resources are among the components that enhance quality health care delivery and nurturing these resources through training and career development would contribute to quality health care delivery in the health facilities.

- Workload should be part of strategic planning to manage or control the indicators that contribute to workload and long waiting times, delayed services. The facilitators should ensure that health professionals understand how to determine their Workload Staffing indicators to reduce unnecessary workloads.
- Time management is essential aspect in quality management to enhance quality health care delivery. Hence the facilitator should ensure that time is effectively and efficiently utilised, as a resource to enable health professionals deliver timely quality health care and services when needed at the right time, right place and cost.
- Stress management in health care facilities is necessitated due to the overwhelming competing factors that contribute to stressors at the work environment. Although stress might not be completely eliminated, it can be adequately managed to improve quality health care delivery. The facilitator should propose strategies to manage stress at the health facilities context. Assist health professionals to think differently and change their work environment to address their needs positively.
- Interpersonal relationships
  - Interpersonal communication maybe referred as communication or relationships between different groups of people who share common or differing goals. These relationships need to be harmonised to facilitate quality health care delivery. The facilitator should determine the criteria to establish effective teams to facilitate quality health care delivery. Ensure that the right communication strategies,

mediums / methods are clearly defined and understood by both engaged either in formal or informal communication processes.

- Quality culture is referred as positive elements of MoHSS that holds health care facilities together, which defines the actions, attitudes and behaviours of health workers. It transmits patterns of meanings and symbols by which health workers communicate and develop their knowledge and attitudes (Ogrinc *et al.*, 2003). A culture should be carefully moulded, nurtured and strengthened to improve quality health care delivery. The facilitator therefore should ascertain those aspects that could be celebrated and form the basis for achievement of the mission, vision and common values to enhance quality health care delivery in the health facilities. The facilitator should emulate and encourage good culture that focus not only on organisation's objectives but recognises the needs and aspirations of health professionals, which would enable the achievements of quality health care goals towards improved health care services.
- Research and information management
  - Purpose of conducting research is important to keep abreast with change in medical science and technological inputs, which shape and prompt the need to learn and unlearn the method to address the changing health care environment. Research provides evidence for planning and decision making to facilitate quality health care delivery; hence the facilitator should be acquainted with research topics and agenda within the health care facilities.

- Research knowledge for evidenced-based practice: In order to generate evidence-based information, rigorous knowledge and application of information is important. The facilitator should promote research knowledge for evidence-based practice, which would enable health professionals provide the expected health care service. The facilitator should describe the components of scientific research methods to enhance quality health care delivery in the health facilities. Further, the facilitator should explain the importance of data for quality improvement and quality assurance. He / she should encourage health professionals to conduct research to generate evidence-based-information in the health facilities.
- Fundamental ethical principles of respect, beneficence, and justice in research to prevent harm to patients: These are ethics, moral values and obligation to ensure that human dignity and the rights of patients are protected at all times. Health professionals might be very clear on these aspects, as each has taken an oath to uphold the integrity, honesty and truthiness in his / her actions. However, despite this, the facilitator should assist health professionals to live to this promise and help them to change attitudes towards patients. However, the facilitator should be acquainted with relevant process models to analyse the causes and effects of events and occurrences in the health facilities.
- Procedures and mechanisms for protecting rights in research
- Types of information that facilitate quality health care delivery

- Quality improvement tools for monitoring and evaluating quality health care delivery: In clinical care setting, measurement instruments, such as flowcharts, diagrams and others are used to monitor patient activities daily. The facilitator should encourage health professionals to take active role in learning statistical process control charts to analyse and interpret data for quality health care delivery.

#### **6.2.4.3 Termination phase**

The facilitator should be able to terminate or close off, as the final phase of the programme based on two steps, as follows:

- Evaluation of the activities; and
- Suggestions for improvement

### **6.3 GUIDELINE FOR EVALUATION A QUALITY IMPROVEMENT TRAINING PROGRAMME FOR HEALTH PROFESSIONALS**

Evaluation of a training programme refers to “...[t]he process of identifying and quantifying or measuring the relationships between student [trainee] inputs and educational [training] outputs and determining the combination of mediating factors which maximizes [sic] the educational [training] outputs, given a constant financial input and controlling for the effects of external systems” (Alkin, 1968). The process of measuring whether the outcomes of the quality improvement training programme

### **6.3.1 Aim / purpose of evaluation guidelines**

The purpose of this evaluation is guide the facilitator to establish whether the goals and objectives of the training programme had addressed the needs of participants to improve knowledge, skills, and aptitudes in QI and QA. It also assessed whether the programme brought about meaningful change to improve participants' performance after attending the training; the results improved quality patient care at the health care facilities.

### **6.3.2 Guidelines on the preparation of evaluation**

The evaluation of the programme was necessary to determine the achievements and constraints of implementing the programme, as well as to compare the progress against the planned objectives. An "...[e]valuation of any training programme must inform us whether the training programme has been able to deliver the goals and objectives in terms of cost incurred and benefits achieved" (Farjad, 2012). The researcher followed a phased approach to evaluate the training programme, as discussed below. The guideline for preparation include

#### **6.3.2.1 Desk review**

The facilitator with the assistance of the evaluation team should conduct a desk review on all available documents and information to support the data and should prepare for the field work. After the desk review, the facilitator should be able to present the design of evaluation to the management for further decision to be considered.

### **6.3.2.2 Field work**

The field work would be conducted at the health care facilities through a designed methodology by the facilitators that would be approved by the management. The facilitator should advise the management on the most cost effective approach for field work to gather from various stakeholders.

### **6.3.2.3 Synthesis**

In this step, the facilitator would also serve as coordinator of the evaluation team to produce and present reports on the findings, which should include mayor conclusions and recommendations based on the responses to the evaluation questions, as well as a general assessment. The recommendations should be prioritized for inclusion to improve the training programme. The completed report should be submitted to the Permanent Secretary for policy decisions on the future of quality improvement training programme in the MoHSS.

### **6.3.2.4 Dissemination and follow-up**

The facilitator should present the findings from the evaluation report by presenting an executive summary to the MoHSS management, policy-makers, planners, stakeholders, and interested community members for discussion and recommendations to improve the programme.

**Table 6.1: Summary of guiding steps for implementing and evaluating the training programme for health professionals**

Components	Guidelines	Activities
Situational analysis	Situational analysis	Policies and guidelines
		Management of the resources
		Interpersonal relationships
		Research and information management
Facilitation	Educational approaches	Kolb
		Knowles
	Learning content of the programme	Policies and guidelines
		Management of the resources
		Interpersonal relationships
		Research and information management
	Facilitation techniques / teaching and learning methods	Icebreaker
		Lecture
		Role play
		Case scenario
Debating		
Group discussion		
Evaluation technique	Evaluation technique	Plenary discussion and feedback
		Informal technique
		Written reflection
		Polls / surveys

Components	Guidelines	Activities
Implementation	Orientation phase	Check for understanding
		Formal technique
		Quizzes
		Online learning modules
Implementation	Orientation phase	Class deliverables
		Welcoming address and introduction
		Purpose and objectives of the training
	Working phase	Expectations and ground rules
		Focuses of the module, namely:
		Policies and guidelines
		Management of the resources
		Interpersonal relationships
		Research and information management
		Termination phase
Evaluation of the programme	Evaluation techniques (Formative assessment)	Suggestions for improvement
		Checklist
	Formative evaluation	Written questions and answer formats
		Oral discussions
Evaluation of the programme	Formative evaluation	Process of evaluation
		Outcome evaluation
		Impact evaluation

Components	Guidelines	Activities
	Feedback process	Feedback and communication Types and forms of feedback Formative assessment feedback process

## 6.4 VALIDATION AND QUALITY OF THE TRAINING PROGRAMME

### SUMMARY

As indicated in Chapter 6, the training programme was validated by a team of expertise, managers, health professionals and stakeholders during a meeting to assess whether it was relevant to address the identified gaps in quality health care delivery in the health. Among the stakeholders who contributed to the programme review were Management at MoHSS head office, Health Professionals from Khomas region (WCH and Katutura Intermediate Hospital). The participants were given the opportunity to assess the programme based on the name, purpose, content, objectives proposed methods and learning approaches, as well as benefit of the training programme, as discussed below.

- The objectives and purpose of the training programme are clear and understandable.
- The learning methods, activities, and content are appropriate to meet the training needs of participants.
- The conceptual framework and learning theories are clearly explained.

- The stipulated benefits of the training programme are useful to the health care facilities and customers.
- The training programme will enable health professionals to improve efficiency and effectiveness in health care.
- Once, the training programme is implemented, there will be a significant improvement in quality health care delivery after attending training.
- Good methods had been described to enhance the training activities.
- There is a clear plan for disseminating the evaluation findings used to improve the efficiency of the training programme.

## **6.5 SUMMARY**

This chapter describes the three guidelines for implementation, facilitation and evaluation of the training programme. It outlines the steps, activities to be followed by the facilitators or implementers of the training programme at the health care facilities. Table 6.1 illustrates the steps of implantation, facilitation and evaluation of the training programme in the health care facilities in MoHSS. Chapter 7 presents the finding, findings, conclusions, recommendations, and limitations of the study.

## **CHAPTER 7**

### **FINDINGS, CONCLUSIONS, RECOMMENDATIONS, AND LIMITATIONS OF THE STUDY**

#### **7.1 INTRODUCTION**

The previous chapter discussed the purpose, objectives, and steps of evaluating the quality improvement training programme for health professionals to improve quality health care delivery. Process of developing the guidelines for implementing quality improvement training programme for health professionals, as part of Phase 4 of this study. This chapter presents the findings, conclusions, limitations, and recommendations that resulted from the situation analysis of the study. The concluding remarks of the study are based on five objectives that were achieved through a conceptual framework which facilitated the development of the training programme (Chapter 5). This chapter presents a synopsis of the main findings.

#### **7.2 RATIONALE OF THE STUDY**

The rationale behind quality improvement is embedded in health care goals and inspired by the critical challenges that are frustrating quality health care delivery. These challenges include inadequate skills and competencies, insufficient understanding resulting in poor implementation of policies, ineffective interpersonal relationships, poor management of resources, insufficient research to generate accurate data, and a lack of monitoring and evaluation. These and many more challenges had prompted the need for developing the

quality improvement training programme to empower health professionals with KSAs to enhance health (clinical) outcomes, improve efficiency of managerial and clinical processes, reduce cost and wastage due to mistakes and errors, and change the mind set by encouraging a culture of improvement that is committed to quality in the MoHSS.

Quality is linked to the systems or approaches in delivering care and services at the health care facilities. In order to make substantial improvement, health care facilities need to adopt a common understanding of principles, methods, and processes of quality health care delivery. Although health professionals are qualified in their respective domains and conscientious about providing quality care, their inability to develop quality measures and tools to make informed decisions stifles prompt quality care and service delivery. For instance, some of the methods like process mapping (Inputs, Processes, and Outputs / Outcomes) that organisations to improve quality are scanty in health care practices and systems. Health care facilities need to capture and monitor data about health indicators, such as maternal and child health and others, and should follow recognised quality measures or indicators.

Chapters 1 and 3 describe the background information to help understand what was being done (what type of care was provided), and how it was done (when, where, and by whom care was delivered). Health care facilities seem to focus their attention on answering some components while neglecting others; all issues ought to be addressed to make a difference. Moreover, to achieve the aims of quality health care improvement stated by IoM (2001) and respond to health care demands, health professionals need to be equipped with the

right knowledge, skills, and aptitudes to address the challenge of quality health care. Health care organisations, including the MoHSS, face challenges emanating from processes and structures that witness poor health results. An improvement training programme is sought to mitigate some of the factors militating against quality health care delivery due to processes and structural aspects that could be improved through training and capacity development.

### **7.3 CONCLUSIONS**

The conclusions of the study comprise the phases and objectives of the study that facilitated the generation of themes, conceptual framework, and development of the quality improvement training programme for health professionals in the MoHSS. This study was structured according to a sequence of five phases, which facilitated the development of the training programme, as a concept to facilitate quality health care delivery at the health care facilities in the MoHSS. Chapter 3 explores and discusses in detail the main results while the phases that facilitated the execution of the study objectives are described in the next section of this chapter.

#### **7.3.1 Aim and objectives of the study**

The aim of this study was to develop a quality improvement training programme for health professionals to facilitate quality health care delivery at the health care facilities. The training programme seeks to empower health professionals with KSAs that enable them

to provide quality health care services to the clients (patients). Achieving this aim depends on five clearly formulated objectives (Chapter 1). The adopted structure is:

- Phase 1 (Objectives 1 and 2): Situation analysis
- Objective 1: Analysing the situation of quality health care / service delivery; and
- Objective 2: Exploring and describing the experiences of health professionals in terms of quality health care delivery at the health facilities.
- The findings of the two objectives are presented in Chapter 3.
- Phase 2 (Objective 3): Developing a conceptual framework based on Dickoff's practice orientated theory (1968) (Chapter 4);
- Phase 3 (Objective 4): Developing the training programme based on Meyer and Van Niekerk (2008) (Chapter 5);
- Phase 4 (Objective 4): Guidelines for implementing the programme (Chapter 6); and
- Phase 5 (Objective 5): Evaluating the training programme (Chapter 7).
- Phases were based on objectives of the study.

The study comprised five phases to achieve the objectives of the study.

### **7.3.2 Phase 1 (Objectives 1 and 2): Situation analysis consisted of parts A and B**

The objectives were subdivided into two parts (A and B) to confirm the findings from qualitative research that strengthened the study before informed decisions were made about quality improvement training programme.

**Part A:** Objective 1 – Analyse the present situation of quality health care / service delivery in health care facilities

This objective was achieved by conducting 12 structured interviews with a prepared checklist that was administered to 21 top management members in the MoHSS, hospitals, and regional health directorates to understand the circumstances of QI and QA that facilitated quality health care delivery at the health care facilities at that time. The data analysis was descriptive statistics, as explained in Chapter 3. The findings revealed significant evidence-based variables about the state of quality health care and services at health care facilities.

**Policy and guidelines:** A mean score ranging between 3 and 4.14 was sufficient to justify that there were very few incentives and strategies to encourage active participation in quality improvement initiatives.

**Patient safety:** Participants pointed out that patients were not always involved in order to appreciate quality health care delivery and challenges faced in quality health care planning based on a mean score of 2.90.

**Health system infrastructure:** The physical facility planning and maintenance were not significantly seen as part of a quality improvement policy to facilitate quality health care delivery. Participants indicated that there were no adequately trained health professionals to facilitate quality health care delivery at all health care facility levels, demonstrated by a mean score of 2.81. The researcher recorded neither an equitable distribution, nor

optimum utilisation of resources (human, material, infrastructure, finance) to facilitate quality health care, as supported by a mean value of 3.14. Similarly, participants perceived that the design and setting of health care facilities did not significantly meet agreed quality improvement standards to address patients' health needs, which was indicated by a mean value of 3.19.

**Indicators (measures) of quality improvement:** The data analysis indicated that the checklists, indicators, and inventory plans for all supplies were not well defined. That implied that health care facilities did not seem to have satisfactory operational feedback plan to respond to patient concerns and to facilitate good interpersonal relationships and effective communication.

**Leadership:** The researcher found an agreement among participants' responses about the existence of visionary leadership, however, they indicated that supervisory support was poor because it did not promote health professionals' commitment to and confidence in process analysis and quality improvement initiatives; indicated by a mean value of 3.48 that supervisory support was not significantly implemented.

**Research and information:** This component was neither viewed as significant, nor was regular sharing of information with clients / stakeholders to improve care and service delivery, as indicated by mean value of 3.29. Participants indicated that although hospitals did collect data on a wide range of issues, a mean value of 3.5 on this continuum revealed that there was no proper dissemination of information to improve patient care and services.

**Part B:** Objective 2 – Explore and describe experiences of health professionals in terms of quality health care / service delivery at health care facilities

Part B (Objective 2) was achieved by conducting FGDs with health professionals and hospital managers at the health care facilities in four regions. The results of this objective were obtained by using Tech's method of qualitative analysis to identify five main themes as part of a data reduction and simplification process (Chapter 2). The results of health professionals' experiences are discussed in Chapter 3, while this chapter presents a snapshot of the results based on the main themes and subthemes. The summary comprises the findings from the FGDs with participants in terms of their experiences about QI and QA to enhance quality health care delivery at the health care facilities.

The main theme of this objective was the lack of implementation of available policies and guidelines to facilitate QA and QI. The participants expressed that although policies and guidelines were available, often those documents were neither understood nor correctly interpreted or followed to support the provision of quality health care. Several issues were pointed out that contributed to the challenges and constraints that health professionals were experiencing in their quest to implement policies and guidelines towards quality health care delivery at the health care facilities. These issues were a lack of supportive supervision to facilitate QA and QI, inadequate organisational structure at all the health care facility levels, a lack of QI measures / indicators for monitoring and evaluation the implementation of quality health care delivery, as well as inadequately defined roles and responsibilities of managing QI and QA.

### **7.3.2.1 Inadequate management of resources to facilitate QA and QI**

Some of the challenges and constraints that the participants expressed as hampering the provision of quality health care and resulting in an inability to address the needs of patients were to the result of shortage and poor management of resources. Those issues were regarded as the main causes of the burden of heavy workloads and long waiting times at the health care facilities. The participants viewed the inadequate infrastructure of the health care facilities as another constraint to facilitating quality health care delivery; management held a similar view (findings of Part A). The participants pointed at an unequal (inequity) allocation of resources as a challenges that stifled quality health care delivery with poor health care and services results. The sub-themes of this theme were:

- Inadequate infrastructure to enhance QI and QA;
- Inadequate space and time to facilitate quality health care delivery;
- Environmental health issues to facilitate quality health care delivery;
- Inadequate medical equipment and material supplies;
- Inadequate transport to facilitate quality health care delivery;
- Shortage and poor management of resources;
- Unequal (inequity) allocation of resources;
- Long waiting times;
- Impact of workload on quality health care delivery (too many patients); and
- Emotion, inaccessibility and patients' satisfaction about care and treatment of illness.

### **7.3.2.2 Inadequate interpersonal relationships at the health care facilities**

Participants acknowledged inadequate and poor interpersonal relationship among health professionals and patients, which often derailed the provision of quality health care and services to the clients / patients. Experiences on this continuum indicated that due to poor interpersonal relationships, there was a lack of communication, poor coordination of activities, and demotivated personnel. These issues were obstacles to quality health care delivery.

Numerous issues expressed by participants in relation to this component were viewed as stumbling blocks to quality health care delivery and included negative attitudes among staff members and towards patients as a result of burnout due to a burdensome workload. Participants expressed that many of the poor quality health care and services problems originated from a lack of communication and poor coordination of activities among health professionals, at national level, and with patients. The participants concurred with the management on the lack of motivational strategies and team work. They pointed out that due to the absence of systems and a poor communication culture, there was resistance to change towards improving the ways things were done. Four sub-themes in terms of prominent of poor quality health care delivery issues emerged; namely negative attitudes among staff members and towards patients (burnout and workload, ineffective communication (among health professionals, at national level, and with patients), a lack of motivation and team work, resistance to change (lack of a system to prepare health workers for a culture of change).

Participants' views were very strong on this topic, which pointed at inadequacies and deficiencies that contributed to the challenges that the health care facilities were facing in an attempt to provide quality health care. They indicated that the main contributing factors to poor quality health care to a certain extent were inadequate knowledge and competencies in QI and QA. There were common views that inadequate training on QI and QA policies and guidelines resulted in ineffective and lousy health care results at all levels of the health care facilities.

### **7.3.2.3 Inadequate research to generate evidence-based information to facilitate quality health care and service delivery**

The findings of this study revealed that there were inadequacies and a lack of research to generate evidence for quality health care and service delivery. This means that health professionals are not involved in tangible research activities to generate evidence for planning and decision making. The participants echoed that there were inadequate research and information systems to facilitate quality improvement at the health care facilities. Furthermore, the findings pointed at a lack of monitoring and evaluating QA and QI activities to facilitate quality health care delivery. However, management regarded those points of view as insignificant, since they disagreed that health care facilities were not involved in research to support quality improvement. The data analysis identified the sub-themes as inadequate research and information to facilitate quality improvement at the health care facilities. research ethics, a health information system (HIS) to facilitate

quality health care delivery, and a lack of monitoring and quality evaluation measures (M&E) of QA and QI.

**7.3.3 Phase 2 (Objective 3): Describe the conceptual framework for the development of a training programme for health professionals to facilitate quality health care / service delivery at the health care facilities**

This study developed a conceptual framework based on Dickoff's practice orientated theory (1968), which was used to map the process of developing the programme based on different components of the theory. Based on Dickoff's practice orientated theory, the the training programme made provision for:

- The researcher (agent) who facilitated the implementation of the training programme at the health care facilities.
- The recipients were the health professionals who attended the training programme with the view of being empowered with knowledge, skills, and abilities in QA and QI.
- The context was the health care facilities in the MoHSS where the researcher implemented the programme.
- The dynamics were the challenges and constraints that the health professionals encountered, which hampered quality health care delivery.

- The procedure was the design of the training programme, which comprised different components that the researcher used to conduct the training at the health care facilities.
- The terminus was the goals achievement, i.e. the competencies that the participants acquired by attending the training programme.
- Dickoff's practice orientated theory (1968) assisted the researcher to map the study processes, which culminated in the development of the training programme (Phase 3).

**7.3.4 Phase 3 (Objective 4): Develop a training programme for health professionals to facilitate quality health care / service delivery at health care facilities**

To develop the training programme, the researcher adapted a model by Meyer and Van Niekerk (2008) to understand the condition of quality health care delivery at the health care facilities in the MoHSS on the basis of five phases; namely a preliminary, exploratory, design, developmental, and an evaluation phase of the programme (Chapter 5).

Phase 4 (Objective 5): Describe the guidelines for the implementation and evaluation of the programme to facilitate quality health care / service delivery at the health care facilities

The guidelines for implementing the training programme, were informed by the UNFPA (2013) steps and the CDC (2001) Framework for Programme Evaluation in Public Health (Chapters 6 and 7).

#### **7.4 CONTRIBUTION TO THE EXISTING KNOWLEDGE**

This study produced valuable material and documents, which captured the real challenges faced by health professionals in pursuit of providing quality health care and services to the clients (patients). The study developed a conceptual framework on which the quality improvement training programme was based. A quality improvement training programme was the primary objective of this study and main contribution to the field of quality management and improvement in health care. The study formulated the guidelines for implementation and evaluation of the training programme. The training programme contributes to the body of knowledge by seeking to facilitate the successful implementation of the training programme at the health care facilities in the MoHSS. An evaluation tool was developed to evaluate the process of the training programme with the view of determining whether the components identified as critical for successful implementation of the programme were appropriate and relevant to address the challenges and constraints that obstructed quality health care delivery at the health care facilities.

The main purpose of the study was to develop a training programme with enhanced KSAs for health professionals to address the gaps between the current state of health care and the anticipated quality of health care and service delivery. The objectives were, therefore, discussed according to the five phases of the study. The phases of the study refer to the steps followed in coherent and organised format, which assisted with presenting the data in an understandable manner to achieve the objectives. The methodological approach pursued to achieve these objectives is detailed in Chapter 2.

#### **7.4.1 Challenges experienced by the health professionals**

The study documented challenges and constraints that were hampering quality health care delivery at the health care facilities. The data was generated by means of a situation analysis, which highlighted the findings based on two objectives, namely to analyse the present situation of quality health care / service delivery at health care facilities and to explore and describe experiences of health professionals in terms of quality health care / service delivery at health care facilities.

#### **7.4.2 Conceptual framework for quality improvement in the MoHSS**

The achievement of Objective 2 is documented in Chapter 4, which describes the conceptual frame for the development of the training programme for health professionals to facilitate quality health care delivery at health care facilities. Phase 2 described the conceptual framework based on the practice oriented theory by Dickhoff (1968). The activities or components of the practice orientated theory were adapted to construct and define the concepts in developing the structure of the training programme. This objective was, therefore, achieved by using credible and recognised theories. Hence the findings are based on reliable and trustworthy theories that have been applied in similar health care contexts.

#### **7.4.3 Quality improvement educational programme for health professionals**

Objective 3 of the study was achieved by developing the quality improvement training programme for health professionals to facilitate quality health care / service delivery at

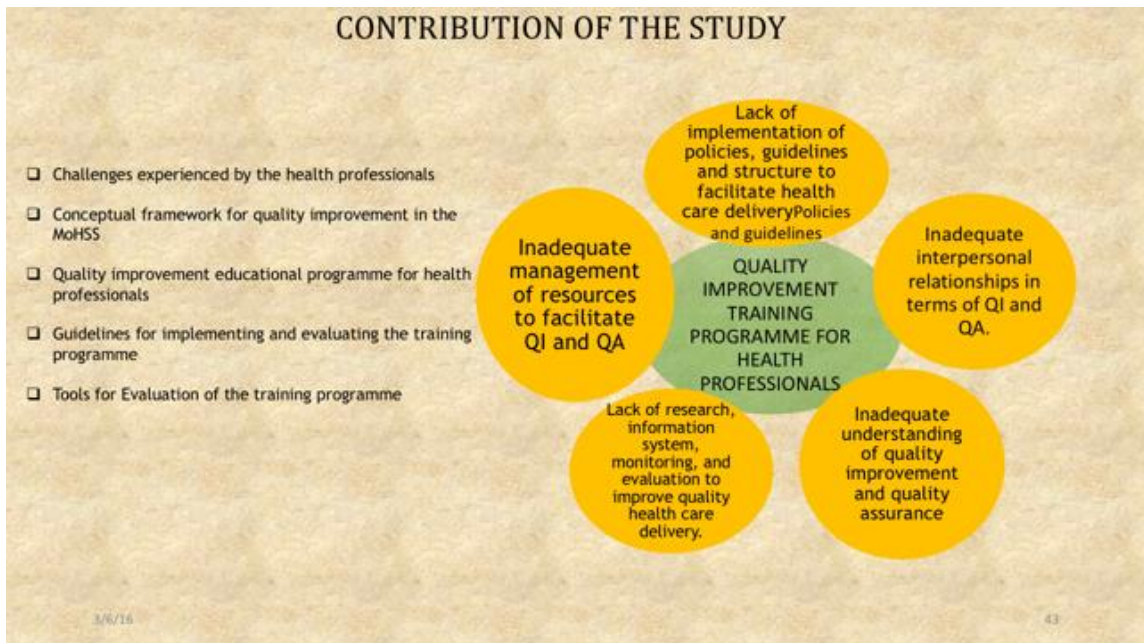
health care facilities. The researcher had analysed and adapted adult learning theories before the training programme was developed. These theories included, among others, Kolb's experiential learning theory and Knowles' theory that were used for designing teaching and learning methods, activities, and style to achieve the outcomes of the programme. A model by Meyer and Van Niekerk (2008) guided the process of developing the training programme (Chapter 2). During the development of the programme, the researcher transformed the main themes and subthemes into the content and activities of the programme (Chapters 3 and 6).

#### **7.4.4 Guidelines for implementing and evaluating the training programme**

The guidelines for the implementation of quality health care / services delivery by the health professionals at health care facilities were developed (Chapter 6). When developing the guidelines, the researcher adapted Deming's model of quality improvement and Kolb's experiential learning theory (Chapter 6). The purpose of developing the guidelines was to guide and promote effective implementation of the training programme. The guidelines outline the approaches, activities, assessment criteria, and learning activities required to implement the programme (Chapter 6). The purpose of the guidelines is to assist the implementers and beneficiaries with steps to follow when implementing the training the programme.

### 7.4.5 Tools for evaluation of the training programme

The tools for evaluation of the training programme were developed and the process is detailed in Chapter 7. The purpose of evaluating the training programme was to assess whether the intended objectives were met. The evaluation of the training programme assessed whether the teaching and learning methods, content, and materials were relevant for enabling a conducive environment for learning. Chapter 7 provides a detailed description of the steps of evaluating the training programme based on the six steps of the CDC Framework for Evaluation of Programmes in the Public Health. The evaluation of the training programme assesses whether the programme is relevant for enhancing the KSAs of health professionals with the purpose of improving quality health care delivery.



**Figure 7.1:** Core themes of the quality improvement training programme in MoHSS

## **7.5 LIMITATION OF THE STUDY**

This study had few limitations that might have influenced the results of the study. The study focused mainly on the public health care facilities to the exclusion of the private health care facilities. Their inclusion might have identified quality practices that could have benefitted the quality improvement of actions in the public health sector. Due to financial constraints and time, the views of community members (patients / families) could not be captured, hence quality was not analysed from the perspective of patients. Using the English language to communicate might have contributed to barriers for people to express their opinions freely. This was a cross-sectional study that was limited to six regions due to the vastness of the country and study time frame. It focused mainly on six health care facilities in six regions of Namibia. There might be some exclusion of quality aspects in other health care environments; these quality aspects could be useful for comparing similarities and differences among different settings. Any change in methods, processes, and structures might also influence data omissions. The magnitude of the study required more people to assist with data collection but due to limited funds and time, it was not possible to recruit and train research assistants. Due to time and costs, it was neither viable, nor possible to extend the coverage to other contexts.

## **7.6 RECOMMENDATIONS**

A number of recommendations are raised based on the results of the study with an emphasis on empowering health professionals to enhance quality health care delivery at the health care facilities.

### **7.6.1 Recommendations for top management in the MoHSS**

According to Deming, management has the final responsibility of addressing the common causes of variations and ensuring that quality improvement and management are supported and maintained to respond to patients' needs. In order to address the critical challenges and constraints hampering quality health care delivery, the management should establish mechanisms to streamline the policies and guidelines. Therefore, the researcher recommends that policies and guidelines should form part of the quality improvement training programme in order to understand the principles and standards that are meant to enhance quality health care delivery at the health care facilities. In order to ensure active participation in the training programme, management should execute the following activities to focus their responsibilities on:

- Communicate the purpose of the institutional change strategy clearly and how it affects all departments, including health care facilities.
- Describe measurable objectives for implementing the change strategy and vision at the health care facilities.
- Establish systematic structures to strengthen supervision that facilitates the implementation of the quality improvement programme at the health care facilities.
- Provide support to health professionals to develop quality improvement measures and standardised instruments or tools with well-defined data elements, data collection, and data analyses methods to ensure that information is understood and applicable in the same way regardless of who refers or applies it.

- Re-define and re-align job descriptions to match the roles and responsibilities of health professionals in order to enhance quality improvement and quality assurance at the health care facilities.
- Conduct surveys to distinguish between factors that motivate and the ones that dissatisfy the health professionals to bid the public health care facilities farewell.
- Design practical motivational strategies according to specific categories that would ameliorate the situation.
- Identify the most affected health categories that are mostly leaving and try to investigate the most pertinent reasons for leaving.
- Recognise and reward progress in implementing change at health care facilities.
- Provide proactive leadership to effectively guide and respond to resistance to change at the MoHSS health care facilities.
- Define the criteria for allocation and distribution of resources to ensure equity and accessibility of materials and equipment at the health care facilities.
- Determine the reporting format, frequency, and responsibilities of the respective officials to receive reports for immediate feedback and required action thereof.
- Constitute an independent team for monitoring and evaluating QI / QA activities at the health care facilities.
- Develop the terms of reference for the QI and QA Monitoring and Evaluation Committee.

## **7.6.2 Recommendation for health professionals at the health care facilities (MoHSS)**

Health professionals, as the recipients of the training programme, are required to assume an active role to participate in the training programme. To address the array of challenges, a need exists to empower health professionals to be confident when applying quality improvement tools, as well as to understand and eliminate unnecessary causes of process variations in health care and service provision. Only when they are adequately trained, health professionals would be able to:

- Describe the attributes of a good supportive supervision relationship of empathy, warmth, understanding, affirmation, acceptance, and respect.
- Describe the dimensions of QI and QA as evidenced at their health care facilities.
- Identify the indicators to be reviewed per unit, criteria to be used and the duration of data collection.
- Define the types of indicators used in the health care system: Structure, process, and outcomes.
- Identify case scenarios at their health care facilities and describe how they should apply the three measures during care and treatment.
- Identify examples of indicators related to structure, process, and outcomes at their health care facilities.
- Determine how these indicators or measures would help them to gauge quality improvement per unit.

- Define the purpose of assessment, the metrics to be used, and elements to be measured.
- Develop a standardised measuring instrument / questionnaire to help identify the data elements to be collected.
- Describe how to use the information management and information system (technology) to support the improvement of quality health care delivery at the health care facilities.
- Distinguish between a health information system (HIS), a human resource information system (HRIS), and a health management information system (HMIS).
- Compare / contrast different types of health information systems and how these systems are helping them to meet and respond to health care needs.
- Describe different types of information systems and types of technologies that support health care information systems at their facilities.
- Explain how the types of technology are used at their health care facilities to enhance quality health care delivery.
- Describe the general functions, purposes, and benefits of health information systems in various health care settings.
- Describe the health care initiatives and significant developments that have influenced the evolution and adoption of health information systems.
- Explain how electronic health records affect patient safety, quality care, efficiency, performance, and reporting / documentation implements / means.

- Propose strategies to minimise barriers to using electronic health records at the health care facilities.
- Define the type of research methods used for data collection and analysis at the health care facilities.
- Assess the strength and weaknesses of data collection instruments to analysis and interpret policy issues to enhance quality health care delivery.
- Formulate relevant research questions that would address the situation faced at the health care facilities to enhance quality health care delivery.
- Describe the dissimilarity between qualitative and quantitative methods used at their health care facilities.
- Demonstrate the dissimilarity with practical examples based on selected scenarios using both qualitative and quantitative methods for data collection and analysis.
- Distinguish between research methods and functions to facilitate quality health care delivery.
- Design research instruments for collecting data and reporting errors and mistakes.
- Explain how the principles of health care data exchange and health care data standards relate to patient care, productivity, and data analysis.
- Explain how they would use a root cause analysis of problems that interfere with the ability to do their work effectively.
- Develop a research manual that would serve as a guide for conducting simple research at their health care facilities.

- Investigate those factors / elements that are likely to exert fear, pressure, or compel people to change with the aim of mitigating them.
- Health professionals should be as honest as possible when describing those factors that they think should be prioritised to assist management with designing incentive or reward strategies for specific areas in the MoHSS.
- Recommendations for education in quality improvement
- As illustrated in Chapters 5 and 6 with regard to the proposed content of the programme and guidelines for implementing the programme in the area of education quality improvement, the researcher recommended that these modules should be offered at NQF levels 5 and 7 as part of the curriculum for public health. An inclusion of quality improvement in the curriculum at university level would open opportunities and career avenues to inspire health professionals to pursue careers in Quality Management Science. Unlock the potential and enlighten them with new knowledge, skills, and aptitudes to understand processes and operating systems that enhance quality health care delivery. Health care has become complex and challenging due to cumbersome processes, increasing demands, and expectations of the clients. These factors hasten the need for continual professional development to learn and unlearn new behaviour. Education and training is the only key to surface through the torrential waves of technology, such as and introduction of an electronic medical record (EMR) system to a health care facility would require new skills to operate the system with the view of improving the quality of medication documentation (*outcomes*).

In order to gauge the levels of patient satisfaction and addressing their health needs promptly, health professional should conduct research to determine and design appropriate services that would meet the needs and expectations of patients and their communities. Furthermore, quality improvement relies heavily on data generated through qualitative and quantitative methods for evidence-based information, Explore and describes what is working, where, when, and how the system or measures would be interpreted to draw comparisons in performance, establish baseline data, or monitor change improvement. These training interventions should be available only to those health professionals who have an interest in acquiring new skills and abilities. Education has a lot to offer in the areas of quality improvement and management at the health care facilities in MoHSS.

### **7.6.3 Recommendations for practice of quality improvement in health care**

In terms of the practice of quality improvement, this study has generated valuable information in abundance that would contribute to the methods and approaches in the field of quality management in health care. The study has expanded the conceptual framework and theories to be applied in developing the quality improvement training programme, approaches in training and learning methods, as well as guidelines for implementing and evaluating the training programme that would be applied at the health care facilities and even institutions of high learning.

#### **7.6.4 Recommendations for research in quality improvement**

- Research in quality improvement would never end for as long as humanity exists.  
Research is important to:
- verify, confirm, or refute certain information or knowledge towards improvement and health system strengthening;
- collect information for evidence-based practice, planning, and policy decisions in QI and QA;
- analyse and document results in development QI and QA in health related aspects;
- explore and describe the need of patient regarding QI and QA;
- determine patients' satisfaction to yield positive results, to break down the barriers of non-participation, and to change attitudes toward improving health care.

In order to complete the loop of quality health care delivery and improve the health care services, an enquiry into the perceptions of patients' satisfaction should be conducted to compare the findings and generate data for adequate planning and decision-making about patient safety. There is currently a vacuum of data on this continuum, which has been a limitation of this study to understand quality health care delivery from the perspective of the patients.

### **7.7 SUMMARY**

This chapter describes the general aim of the study and results based on five objectives. It further discusses the conclusions, limitations and recommendations to facilitate quality

health care delivery through empowering the health professionals at the health care facilities of MoHSS. The contribution of the study to the body of knowledge, the practice of quality improvement, education, research, management, and health professionals are described based on the findings of the study.

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**ANNEXURE A: PERMISSION TO CONDUCT RESEARCH FROM THE  
UNIVERSITY OF NAMIBIA**

(+264 61) 206 3111  
Website: [www.unam.na](http://www.unam.na)



340 Mandume Ndemuloyo Avenue  
Private bag 13301  
Windhoek  
NAMIBIA

Inspiring minds & shaping the future

November 2012

Dear Ms J.P Nangombe

**SUBJECT: PHD RESEARCH STUDENT J.P NANGOMBE STUDENT NUMBER 9711392**

You are hereby informed that your research topic *an explorative study into total quality management and improvement in public hospitals in Namibia: A three stepwise approach: 5S-Keizen - TQM* has been approved by the post graduate committee date November 14/2012.

With reference to this, you can proceed with the research methodology; you are therefore regarded to submit your introductory and literature review chapters by end December 2012 accordingly.

Yours truly,

Prof N.E Schutte  
Head of Department (Faculty of Economics and Management Science)  
+264 61 206 4609, [nschutte@unam.na](mailto:nschutte@unam.na)

**ANNEXURE B: PERMISSION TO CONDUCT RESEARCH FROM THE  
MINISTRY OF HEALTH AND SOCIAL SERVICES,  
REPUBLIC OF NAMIBIA**

9 - 0/0001



**REPUBLIC OF NAMIBIA**

*Ministry of Health and Social Services*

Private Bag 13198  
Windhoek  
Namibia

Ministerial Building  
Harvey Street  
Windhoek

Tel: (061) 2032125  
Fax: (061)272286  
E-mail: [msimasiku@mhss.gov.na](mailto:msimasiku@mhss.gov.na)  
Date: 12 March 2013

Enquiries: Mr.M.Simasiku Ref.: 17/3/3

**OFFICE OF THE PERMANENT SECRETARY**


Ms. Julia. P. Nangombe  
P. O. Box 25955  
Windhoek  
Namibia

Dear Ms. Nangombe

**Re: An explorative study into Total Quality Management and Improvement in Public Hospital in Namibia: A Three Stepwise Approach: 5S- Kaizen -TQM.**

1. Reference is made to your application to conduct the above-mentioned study.
2. The request has been evaluated and found to have merit.
3. **Kindly be informed that permission to conduct the study has been granted under the following conditions:**
  - 3.1 The data collected must only be used for purpose stated in the proposal and the permission requesting letter;
  - 3.2 No other data should be collected other than the data stated in the proposal;
  - 3.3 A quarterly report to be submitted to the Ministry's Research Unit;
  - 3.4 Preliminary findings to be submitted upon completion of study;
  - 3.5 Final report to be submitted upon completion of the study;
  - 3.6 Separate permission to be sought from the Ministry for the Publication of the findings.

Yours sincerely,

  
MR. ANDREW NDISHISHI  
PERMANENT SECRETARY  
MINISTRY OF HEALTH AND SOCIAL SERVICES

## **ANNEXURE C: PROPOSAL TO CONDUCT RESEARCH**

Mr A. Ndishishi  
Permanent Secretary  
Ministry of Health and Social Services

P O Box 25955  
Windhoek, Namibia  
Tel: 203 2515  
Cell: 081 124 4948

**Attention:** Ms. H Nangombe  
Head: Management Information and Research  
Directorate: PP & HRD

4<sup>th</sup> February 2013

### **PROPOSAL TO CONDUCT RESEARCH IN THE MINISTRY OF HEALTH AND SOCIAL SERVICES, 2013**

I am a staff member of this Ministry, working as a Chief Health Programme Administrator in the Directorate Policy Planning and HRD.

I am currently pursuing part-time studies towards Doctorate degree in Management Science at the University of Namibia, Department of Economics and Management Science. According to UNAM requirements, I have to conduct vigorous research towards the fulfillment of the said degree. The research focuses on total quality management (TQM) and improvement to understand the conceptual frameworks and how these could be applied to improve quality care, support policy and strategic decision-making in MoHSS.

The study is An explorative Study into Total Quality Management and Improvement in Public Hospitals in Namibia: A Three Stepwise Approach: 5S-Kaizen-TQM. The aim is to explore and describe the conceptual framework towards developing Quality Improvement (QI) model for the public hospitals in Namibia. It will also try to introduce the 5S-TQM-Kaizen, Japan approach towards continuous quality improvement applied in most health care contexts.

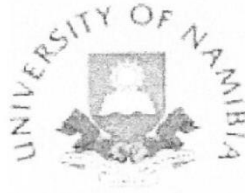
Intensive consultations with top management, hospital managers and employees will form part of qualitative and mixed methods (structured, unstructured questionnaires, interviews, and focus group discussions) to understand quality improvement work, processes, systems and outcome in the public hospitals.

Attached please find the research proposal, letter of approval by the University and other relevant documents for your consideration.

Yours sincerely,

Julia P. Nangombe  
CHPA: PP & HRD

**ANNEXURE D: CONSENT TO PARTICIPATE IN A RESEARCH  
PROJECT – DR S. SHALONGO**



**DEPARTMENT OF MANAGEMENT SCIENCES**

P.O. Box 25955  
Windhoek

**22 August 2014**

Dr S. Shalongo  
Senior Medical Superintendent  
Windhoek Central Hospital

Dear Dr Shalongo

**RE: CONSENT TO PARTICIPATE IN A RESEARCH PROJECT**

I am currently pursuing a Doctoral degree in Management Science at the University of Namibia under the Supervision of Professor F. Adewumi and Dr Hans J. Amukugo, University of Namibia.

I hereby wish to request your permission to conduct focus group discussions with health professionals from different departments at WCH and KIH for the research study to meet the requirements for the above-mentioned degree.

**The title of the study:** an explorative study of quality improvement: a programme for health professionals to facilitate quality health care delivery in the public hospitals in Namibia.

The following health professionals are kindly required to participate in the focus group discussions: **2x Doctors, 2x Nurses, 2x Pharmacist, 2x Environmental Health, 2x Social Workers.**

The purpose of the study is to develop, describe and implement a programme that will facilitate quality health care delivery in the public hospitals. It will also analyse whether public hospitals embrace quality improvement principles and methods for health professionals to provide quality health care and service delivery.

The objectives are expressed in five phases:

**PHASE 1:** Analyse the current state of quality improvement (QI) approaches in the three Directorates of MoHSS (PHC, THC & CSS and DSP) to facilitate quality health care delivery in the health facilities

**PHASE 2:** Describe the conceptual frame for the development of QI programme for health professionals to facilitate quality health care delivery in health facilities.

**PHASE 3:** Develop a QI programme for health professionals to facilitate quality health care delivery in health facilities.

**PHASE 4:** Describe the guidelines for the implementation of the QI programme quality health care deliver by the health professionals in health facilities

**PHASE 5:** Evaluate the QI programme for health professionals to facilitate quality services delivery in health facilities.

**Participants:** (1) Top managers at the national level (2) health professionals (3) patients, community members and stakeholders

**Health facilities:** Hospitals, Health centres and clinics

**Method of Data collection:** Individual interviews and focus group discussions.

Confidentiality will be maintained, no name or addresses will be required from the subjects. Questionnaire will be numbered for anonymity and control measure. Participation is voluntary and if one wishes to withdraw, they are likely to do so.

**Benefit of research:** The research will be used as basis to bridge the gaps in approaches used in quality improvement by introducing a programme that could be used by health professionals to facility quality health care delivery in the hospitals.

This research is officially approved by the Ministry of Health and Social Services and the University of Namibia, as per attached approval letters.

Your assistance in this study would be highly appreciated

I thank you.



Julia P. Nangombe (Ms)  
RESEARCHER

**ANNEXURE E: CONSENT TO PARTICIPATE IN A RESEARCH  
PROJECT – DR N. AMAGULU**



**DEPARTMENT OF MANAGEMENT SCIENCES**

P.O. Box 25955  
Windhoek

**22 August 2014**

Dr N. Amagulu  
Senior Medical Superintendent  
Windhoek Central Hospital

Dear Dr Amagulu,

**RE: CONSENT TO PARTICIPATE IN A RESEARCH PROJECT**

I am currently pursuing a Doctoral degree in Management Science at the University of Namibia under the Supervision of Professor F. Adewumi and Dr Hans J. Amukugo, University of Namibia.

I hereby wish to request your permission to conduct focus group discussions with health professionals from different departments at WCH and KIH for the research study to meet the requirements for the above-mentioned degree.

**The title of the study:** an explorative study of quality improvement: a programme for health professionals to facilitate quality health care delivery in the public hospitals in Namibia.

The following health professionals are kindly required to participate in the focus group discussions: **2x Doctors, 2x Nurses, 2x Pharmacist, 2x Environmental Health, 2x Social Workers.**

The purpose of the study is to develop, describe and implement a programme that will facilitate quality health care delivery in the public hospitals. It will also analyse whether public hospitals embrace quality improvement principles and methods for health professionals to provide quality health care and service delivery.

The objectives are expressed in five phases:

**PHASE 1:** Analyse the current state of quality improvement approaches in the three Directorates of MoHSS (PHC, THC & CSS and DSP) to facilitate quality health care delivery in the health facilities

**PHASE 2:** Describe the conceptual frame for the development of framework/model/guidelines for health professionals to facilitate quality health care delivery in health facilities.

**PHASE 3:** Develop the programme for health professionals to facilitate quality health care delivery in health facilities.

**PHASE 4:** Describe the guidelines for the implementation of the programme quality health care delivery by the health professionals in health facilities

**PHASE 5:** Evaluate the programme for health professionals to facilitate quality services delivery in health facilities.

**Participants:** (1) Top managers at the national level (2) health professionals (3) patients, community members and stakeholders

**Health facilities:** Hospitals, Health centres and clinics

**Method of Data collection:** Individual interviews and focus group discussions.

Confidentiality will be maintained, no name or addresses will be required from the subjects. Questionnaire will be numbered for anonymity and control measure. Participation is voluntary and if one wishes to withdraw, they are likely to do so.

**Benefit of research:** The research will be used as basis to bridge the gaps in approaches used in quality improvement by introducing a programme that could be used by health professionals to facilitate quality health care delivery in the hospitals.

This research is officially approved by the Ministry of Health and Social Services and the University of Namibia, as per attached approval letters.

Your assistance in this study would be highly appreciated

I thank you.



Julia P. Nangombe (Ms)  
RESEARCHER

**ANNEXURE E: REGISTRATION OF THE RESEARCH PROJECT AT THE  
MINISTRY OF HEALTH AND SOCIAL SERVICES,  
REPUBLIC OF NAMIBIA**



**Republic of Namibia**

**Ministry of Health and Social Services**

**REGISTRATION OF A RESEARCH PROJECT**

- 1 Title of the research proposal:  
An explorative Study into Total Quality Management and Improvement in Public Hospitals in Namibia: A Three Stepwise Approach: 5S – KAIZEN – TQM
- 2 Personal details regarding researcher ( CV to be attached):  
Name of the Principle investigator: Julia P. Nangombe  
Address: Box 25955 Windhoek  
Institution: Ministry of Health and Social Services  
Official title: Chief Health Programme Administrator  
  
Academic / Professional qualifications: PhD  
Address for correspondence (if not as above): As above
- 3 Is the research to be carried out as part of an academic fulfillment?  
√Yes/No
- 4 Are you a MoHSS employee?YES/NO.....Yes  
If yes which Directorate/Region: Policy Planning and HRD
- 5 Personal details regarding official supervising the proposal:  
Name: ....Professor Nico Schutte  
Address: University of Namibia

Official title: Head of Department, Economics and Management Science

Present course followed: Doctor of Philosophy in Management Science

Details regarding research proposal:

6.1 Research proposal and data collection tools attached  
YES/NO .....Yes.....

6.2 Estimated period for research:

Four to five years

6.3 Commencing date: .....2012.....

6.4 Completion date: .....2016.....

6.5 Facilities required (specify) N/A.....

6.6 MoHSS staff required (specify):

Staff members from WCH, KSH and one district hospital from 13 regions will be selected randomly to participate in the survey, focus groups and interviews.

6.7 Patient/Subjects required (Specify):

Patients will be approached to participate in the interview and survey

6.8 Laboratory investigation required (specify): N/A

6.9 Specimen required (specify): N/A

6.10 Records required (Specify):

Data on quality care, management and improvement, policies and documents for literature review

Additional information for research concerning clinical tests with medications (trials):

7.1 Name and address of firm executing the test/evaluation:

None

- 7.2 Pharmaceutical products or equipment which will be used/tested:
- 7.2.1 Pharmaceutical products:
- None
- 7.3. Is the pharmaceutical products registered with the Medicine Control Council?
- YES/NO .....No.....
- If YES give registration number
- .....
- 7.4 Proof of registration (letter attached):
- YES/NO .....Yes.....
8. Is publication envisaged (specify what form, when)
- Yes, thesis and journals

I, .....agree to undertake the above project in accordance with the requirements mentioned in this registration.

I agree to carry out the project without incurring any expenses not budgeted for by the Ministry, and to bear the full responsibility for the project as approved. Should it be necessary to deviate from any procedure of the project as approved, I shall notify the Permanent Secretary of the Ministry of Health and Social Services to obtain his/her consent.

I undertake to obtain full consent from patients who are legally in a position to or to do so or obtain consent from their legal guardians.

I agree to submit preliminary results of the project to the Permanent Secretary of the Ministry of Health and Social Services, within a period of 3 months after completion of said project.

I agree to submit all results of the project to the Permanent Secretary of the Ministry of Health and Social Services.

I understand that the Ministry, in granting permission for the execution of the project, places itself under no obligation and will not necessarily grant permission for publication.

I agree to submit a copy of the work (paper, report) I intend to publish to the Ministry to obtain the necessary permission before publication.

\_\_\_\_\_  
SIGNATURE OF RESEARCHER

\_\_\_\_\_  
DATE

WITNESSES:

1. \_\_\_\_\_  
SIGNATURE                      NAME AND ADDRESS                      DATE

2. \_\_\_\_\_  
SIGNATURE                      NAME AND ADDRESS                      DATE

**FOR OFFICIAL USE ONLY**

**REFERENCE NUMBER: -----**

**1. RESEARCH MANAGEMENT COMMITTEE:**

RECOMMENDED/NOT RECOMMENDED

COMMENTS .....

.....

.....

**SIGNATURE:**

.....  
**CHAIRPERSON: RESEARCH MANAGEMENT COMMITTEE**      **DATE:**

**2. OFFICE OF THE PERMANENT SECRETARY:**

APPROVED/NOT APPROVED

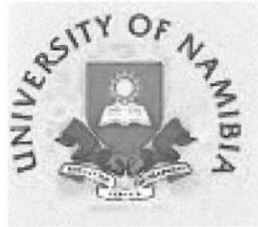
COMMENTS:.....

.....

**SIGNATURE:**

.....  
**PERMANENT SECRETARY**      **DATE:**

## ANNEXURE F: INFORMED CONSENT



DEPARTMENT OF MANAGEMENT SCIENCES

### INFORMED CONSENT: “Improving public health care delivery in Namibia”

**Researcher:** My name is Julia Paul Nangombe, a student at the University of Namibia, currently conducting research on the state of health care in Namibia for study purposes.

**Purpose:** The purpose of this study is to gain insight into the state of public health care in Namibia. The study findings will be able to assist in determining appropriate strategies to improve service delivery in the public sector.

**Procedure:** You are required to **complete the questionnaire** or participate in an interview or focus group discussions. The time required to complete the questionnaire is about 45 minutes while interviews and focus group discussions may take about one-hour

**Possible risks or benefits:** This study has no risk or harm; it only requires your precious time to respond to the questions. Although the study has no direct benefit to you, the results could be used to derive strategies for health care improvement and responding effectively to patient’s health needs.

**Withdrawal or refusal to participate:** You are free to withdraw from the study any time you wish. The participation is voluntary and no incentive/payment will be made.

**Confidentiality and anonymity:** This study is **anonymous**, no names will be revealed to anybody. All information provided will be kept highly confidential and no one will have access to the data except the main researcher.

I agree  do not agree  to participate in the study

Signature of interviewee..... Signature of interviewer: .....

**ANNEXURE G: CONSENT TO PARTICIPATE IN A RESEARCH PROJECT**



**DEPARTMENT OF MANAGEMENT SCIENCES**

**IN ENGLISH**

P.O. Box 25955  
Windhoek  
4 July 2014

Dear Sir/Madam,

**RE: CONSENT TO PARTICIPATE IN A RESEARCH PROJECT**

I am currently pursuing a Doctoral degree in Management Sciences at the University of Namibia under the Supervision of Professor F. Adewumi and Dr Hans J. Amukugo. I hereby wish to request your permission to participate in the research study to enable me to meet the requirements for the above-mentioned degree. This is an explorative study to develop a model/programme to facilitate quality improvement in the public hospitals in Namibia.


The purpose of this interview is to understand your experiences and views on QI and QA in the Ministry in relation to the approaches currently used in the three Directorates (PHC, THC & CSS and DSP). Your ideas are important to understand and analyse the present state on quality improvement in the Ministry.

This interview will take about 20 to 35 minutes of your time. I will be taking notes and recording the discussion because I don't want to miss any point of your comments, as they are very valuable for future references and understanding of emerging themes.

You are welcome to express your opinions freely, as all the responses will be kept highly confidential and no name will be attached to the interpretation of the findings. The responses will only be used for academic purposes; no information will be used to identify the respondent by no means.

Are there any questions about what I have just said?

Are you willing to participate in this interview?

Interviewee Signature 

Date: 4/8/2014

Interviewer Signature 

Date: 04/08/2014

**ANNEXURE H: TRANSCRIPTS OF MANAGEMENT CADRES AT  
NATIONAL LEVEL-MOHSS**

**TRANSCRIPTS OF MANAGEMENT CADERS AT NATIONAL LEVEL-MOHSS**

**Transcription date:** 16/7/2014  
**Language for interview:** English  
**Place:** Windhoek (MoHSS Head Office)  
**Region:** Khomas  
**Time:** 14H30 – 15H00  
**Participants:** Male  
**Age:** R<sub>1</sub> = 50 and above  
**Parity:** R?

**R:** Mm...I am doing a research on quality improvement in the public hospitals in Namibia; the aim of this interview is Mm..... it is really to.... to find out your experiences and your views on... what are the approaches are being implemented to facilitate quality improvement and quality assurances, especially ... specifically in the main directorate, three directorates: that is now, Primary Healthcare; Tertiary Health Care and Clinical Support Services and DSP-Directorate Special Programs, which are the approaches they are using currently in place facilitating the quality healthcare delivery within the public eeh... eeh...health facilities, so... is basically to discuss your experiences and your views.

**M5:** Okay, so you want to hear from me now, eeh... I think the, well let us pick area, one of the important one obviously we start at the operational level is that we need to have the **human resources** and that is one aspect we have been working on for the last few years. Eeh... uum If we look at the QI aspects relate to Special Programmes then a lot of not only QI but new programs were brought in as part of the PEPFAR and Global Fund support and the first thing really we had to make sure that we are on the ground and that we are available on the facilities were we need to be available that was the first part of the roll out and that was more quantitative. Eeh... uum...but already at that stage obviously that was eeh...a lot of guidance documentation, **policies and guidelines**, eeh...and a lot of **training** so that was I think the key really to get the human resources to a certain extent until certain level. What we have done in that programme in that few years, we introduced with ITEC support **clinical mentors**, so they engage with each site

can check who is on what type of medication, who needs to move on, who needs to possible switch to another type of medication, what side effect are there, is really, really scientific, and I think is probably one of the best model we have in the ministry. Uum... then we started moving in terms of looking some of the basic ingredients on that programme, when it comes to you know updating, so we have got updated guidelines, updated training course etc, so over the last ten years there has been lot of changes specifically in the HIV/AIDS field that we have continuously updating, so there is...we are now in the third eeh...version or edition of our treatment manuals and we have in line of treatment guidelines and manuals then obviously also updated all the training we are offering, I think that is an important aspect. Other one in terms of the more recent years, is that since the donors are now not support us directly any more in terms of recurrent cost so much anymore, they starting to withdraw, we have to obviously make provision for that, so we are looking at daily things of structure, staff establishment making sure that we have got within staff establishment the capacity to handle those increasing cases that we see, so I think that is one important aspect. The other one that I think we are falling sort a little bit at this stage, is more programmatic supervision, so we have got the clinical mentors, they look ta specifically clinical aspects, they go into audit etc, but in terms of the larger programme say on HIV/AIDS, supervising the various components, specifically within say the district settings, and having somebody within the districts who can go out to each of the health centres and clinics etc that still is a bit of the challenge and again we are trying to address it now with the restructuring that we actually for the first time make provision for strong programme presence in the districts eeh... then that goes down now if you go step up, region, regional directorates have to visit the district, have to do supervision, the supervision that is taking place currently is a challenge, I think eeh... is not well structured, is not well documented, there is not sufficient follow through and follow up, so if you look at what is happening you know it is more adhoc but there is no systematic supportive supervision really well done at this stage maybe not to say no...none at all but is the weakest area and I think that cuts across. The regional directorates need to have

very properly planned supervisory schedule that they go comprehensively to each of the district, they look at the facilities, they look at the set up in terms of patient care and they provide feedback right away they have a session where they can pick up with the local team what need to be done immediately, what can we do maybe over medium term etc. and there need to be clarity when will be the regional directorates team come back again so there is follow through, so everybody knows okay, we have three months, we have six months or so, that is the key area that is weak at this stage. In terms of PHC programmes is similar, I think one of the big challenges in terms of PHC programmes is that we don't actually have all the data available and the data quality and data accuracy, the first step in the process is a challenge, and then looking at the data, utilising them right at the facility level, we have a little bit of that in EPI, some facilities are still doing it you know, where they graph every month how much...how many children have been immunised in the various vaccines and what is the percentage of those out of catchment population etc. that we need to become much more systematic and if we look at the latest DHS data have not been officially published yet, but eeh... at least the draft data are there then it is clear that we have **challenge in EPI our coverage is more or less static of the last five, six, seven years and I think one of the key challenges there is because we are not data driven enough and then you have the same issues...**

R: Why do you think so?

M: I think one of the challenges is that it should be one of the priorities programmes within the district within the region, but if you **do not have the data regularly** and you look at it may be at least on quarterly basis and you say what is the coverage now, are we improving, are we not improving, if you then see we are not improving then you can start analysing, what are the issues is the certain clinics or health centres more affected then others then you can start prioritising your interventions and your support from the district and similarly from the region, I think we need to prioritise in that area

R: What is the cause of this situation?

**M5:** I think the data is the basis of it, okay once you know alright we have got problems in a b c clinics related to coverage then we can go into those and we can look now there might be issues of staffing, we definitely have issues of staffing in Khomas we now that our facilities are overwhelm...overrun, and so mothers will not bring their children for vaccination if they realise they might have to wait **(waiting time) for two three hours before they get that service, you know they also don't have the time.** So, those are some of the things, so we need to also look at that but that where we then if we were to start with the data driven model of quality improvement, say okay we look at coverage for each of the facilities, there is a problem in this particular facility, then we can start looking is it human resources, is it access, what is it, is it availability of vaccines etc. so we have to you know become more data driven, I think that is a fundamental aspect of quality improvement wherever you do it, you have to measure, you have to know where you are now and you have to know where you are get to and see how you are developing. Uum... and that I think cuts across, one of the weakness currently is the **health information system**, we are now upgrading that but we also **don't have sufficient staffing and structures again in the districts and in the regions**, so that you know they would be staff who could extract the data, who could check it, who could verify at every clinic at the end of the month, submit all their reports, have we check those reports, do they look fine are there may be some contradictions etc. so then the data accuracy is also improved and those then could go and submit on say on a monthly basis or quarterly basis to the district or DCC or in a regional directorates to the regional management teams and say okay this is how we are developing, that aspect we need to look at, so they are various reasons. In terms of eeh...the other aspect I think the...we have to look at QI issues as, which is part of **organisational culture** and I think **organisational culture** at this stage is a challenge we do eeh... quality measuring looking at data also even you know holding ourselves accountable and saying okay we have a problem here or there and then working on that so we need to look at organisational culture. I think to a certain extent we have **made some progress in that area, we had Stellenbosch training now in the last year I think which was very good, eeh... we got leadership in health training** which is going on in parallel which still need more roll-out and more people to go through I think those are programmes that deal at the same time with individual personal development aspects but also with **organisational development** and then importantly also with **organisational culture and how can we improve that culture**, so I think that is important area that we need to look across.

In terms of quality improvement per say, okay say we got a small unit, **QA unit here at the national level, so far it has been a difficult situation we only got about two or three people there, so they focusing again on specific programmes one of them is infection control and the other one is looking at the whole sort of infection control chain waste management chain** and they driving that very well but **strictly speaking you know they don't get the time to promote quality improvement measures and quality improvement programmes with particular other programmes, so again there is an area that we need to strengthen.** Uum...they also have introduced a very good training course and I have said that course together with Leadership and health and Stellenbosch I would like to see everybody management cadres, middle managers and further down get exposure to that because that really deals with basic concepts of quality improvement, it deals with again issues of team approaches, it deals with you know innovation, creativity those aspects which eeh...again to some extent **it is inherent in the culture, people are afraid of doings thing wrongly, and therefore they don't want to innovate or be creative they rather say this is the rule and we stick to that** and we have to move a little bit away from that and I think this is a course that you know can really start moving the culture as well in line be more innovative, having **team approaches** you know even though there are some risks sometimes related to making improvement and innovating, if you **have team who work with you and back you up so isn't a thing that you as an individual are exposing yourself too much but is a general team decision then you can move that forward** as well, so we... we are underway but there is a lot, there is a lot to be done.

**R:** Are there any other barriers that you foresee in this process, shortage of skill? Do you think there are other barriers or challenges?

**M5:** Yes, there are some organisational challenges, for instance you cannot...**you cannot improve quality if you don't also have beside the human resources the... the necessary infrastructure, the necessary equipment, health care technology all those aspects** and there we have a challenge in that as you know a lot of those processes are actually outside of the control of the Ministry, in fact infrastructure, eeh... premises, issue like that you know fall under a different ministry there are challenges there to really pick eeh...up on those. I think...I think environment is very...very important, the **physical environment within which on the one hand**

the patient has to be cared for and on the other within which our own staff has to work and have to remain motivated, if you go in the ward you see the toilets are broken or the taps and there is no running water in the... the toilets or things like that and you speak to the staff they will tell you yes we have reported it two times, three times, four times but nothing happens and somewhere along the way we have stopped now reporting because we think you know nothing is happening there so again it is that is a serious one um...and it has constraint on the one hand we can say alright want to obtain the service from the department of works but we need to also have the possibility if they cannot provide the service that we then say okay we need to maybe bring in smaller contractor or somebody to do that and for that we need to have the funding, we need to have the processes, we need to have the go ahead that we can do that so I see that as one of the challenges. The other one is generally **the procurement processes, I think we have a big challenge there and that affect availability of medical equipment, it affect the maintaining and the servicing and the repair of medical equipment, it affect all our medicines, medical supplies,** it eeh...really revolve around procurement that is the key issue there and we have severe challenges, some of them we have to submit to Government policy, government policy say you have to procure in a b c d manner. Eeh...we have had previously actually specifically with medical supply Cabinet decision but that has been sort of little bit taken by the events and we are looking into that currently again, but that Cabinet decision saying for certain procurement in the health sector which deals with lifesaving eeh...**issues you cannot go through that long, long process, you can still go through tender but then you have to look just how you have to do it and you can streamline it** etc., I think that is really that remains a big and important area that we can still look at it, I think those are probably the big ones in terms of **physical infrastructure, human resources, finance** okay, I mean finance they are say we will always say there is not enough of it, I don't think so necessarily, I think yes, you know to put in place certain additional programmes, like what I said now, we want to improve infrastructure, we want to improve medical equipment etc., eeh...information systems, it will not be able, eeh...be possible to do that without **additional human resource**, but you can also look at efficiency improvement and we are doing that currently so eeh...we have been looking at some facilities, there is quite a nice little study that was done, which we implemented last year in a couple of clinics and health centres and clinics in some facilities, which shows you that with some reorganisation of the work, you know we can

aspects that we must just get going and one of the key interventions is the performance agreement although it will not be perfect at the first year but we must just get started with those and as we then work through the annual cycles we will be able to improve that, that is one key area, the other key area I think is information systems, accountability, making sure that we utilising our data that we become more evidenced because we are not evidenced based enough. Eeh... and then I think aspects of organisational culture that goes hand in hand with these two things, performance management, you know it cannot be a punitive culture, it has to be a supportive culture, it has to be based on constructive engagement between supervisor and supervisee and that needs an environment where you really need to move on that. Eeh...I think hand in hand the training that I have mentioned, those three courses I think still are very...very important: Senior management development, middle management development we are doing with Stellenbosch, the Leadership in Health with ITEC, and I would say the Quality Improvement per say that people will start understanding you know these things have to go on cycles and you do your plan, do check, and assess, correct and you move forward so that we get more systematic approach and all of that aah...will have to be **supported by structure, staff establishment, supportive staffing** and obviously the financing for it. **Financing** I think may be just one point on that, we have the great good news from last year where Cabinet said okay the health sector get 15% out of the total Government budget so that is a Cabinet decision and we must work on that. Eeh...but that is gives us something to... when we go to Public Service, when we go to finance and we say look here you expect us to improve yes we will improve but we need the resourcing at the same time we will not waste the resources we will work on efficiency at the same time, all these aspects of quality improvement also deal with efficiency and then on that basis give us more support.

**R:** We have come to an end of the interview. Thank you very much for your time.

**M5:** You are welcome and it is my pleasure to talk to you. Please keep me informed of any progress.

**ANNEXURE I: TRANSCRIPTS OF FOCUS GROUP DISCUSSIONS AT  
REFERRAL HOSPITAL-MOHSS**

**TRANSCRIPTS FOCUS GROUP DISCUSSIONS REFERRAL HOSPITAL-MOHSS**

**Transcription date:** 28/7/2014  
**Language for interview:** English  
**Place:** Focus Group Interview (WCH)  
**Region:** Khomas  
**Time:** 10H30 – 11H200  
**Participants:** Female 3, Male 4  
**Age:** R<sub>1</sub> = 35 - 50 and above

**R:** Mm...I am doing a research on quality improvement in the public hospitals in Namibia; the aim of this interview is Mm..... it is really to.... to find out your experiences and your views on... what are the approaches are being implemented to facilitate quality improvement and quality assurances, especially ... specifically in the main directorate, three directorates: that is now, Primary Healthcare; Tertiary Health Care and Clinical Support Services and DSP- Directorate Special Programs, which are the approaches they are using currently in place facilitating the quality healthcare delivery within the public eeh... eeh...health facilities, so... is basically to discuss your experiences and your views.

**P1:** Okay thank you very much, uum, uum, let me start with my concern is that in relation with the Directorates mentioned, but what I would like to put in record is that it is **unfortunately that the Ministry we don't have a national quality improvement or quality assurance policy in place so what seem to be there is a draft which is not yet an approved programme** however having said that coming back to our responsibility as a hospital eeh...I think we have eeh...**recognised quality improvement and quality assurance is new concept in the health sector in Namibia.** I am talking that **a new concept in terms of understanding how the people understand these two concepts sometimes they can be used interchangeably which is quantitatively different.** Eeh...in a hospital level eeh...we came up with our policy improvement plan eeh...how we want to benchmark what we are providing to our clients and that is in form of combination eeh...eeh...because the idea of quality improvement is known as non-punitive while quality assurance is a punitive approach meaning that if you are not

complying with the plan what there must be a forcibility and our quality improvement plan it contained in both ways to address the predicament so how do we do it normally is that we have done a survey to determine where we are and we have that information available and then we what we do we develop plan to address that particular problem, eeh...they are focusing on two issues; one eeh... quality eeh...the performance we implement in terms of **performance system audit and then eeh... patient care audit** those are the main two approaches we are using as a hospital. So yes is going very well

**R:** I don't know whether I understood you correctly?

**P1:** The performance system audit is normally an approach of quality improvement which is normally concerned with protocols in place and because it is expected that staff can only able to perform eeh...the moment there are instruments, guiding instruments, supporting documents must be there, if those documents are not there then obviously the staff cannot perform as expected.

**R:** What are those guiding documents in place?

**P1:** Like the procedure manual, eeh... how you will conduct certain manuals, those are the one I am referring to as system audit, job descriptions for example eeh...you cannot perform if you don't have job description in place those things must be in place those are the one we are talking about as system audit. So where now we are talking patient care audit is a known fact that eeh...eeh...the care which we are rendering to the patient we are doing patient audit which is but also as hospital because you know when we are doing the user audit we must also have a benchmark, what are you measuring, and how do you ...where do you want to be, so our current benchmark now on patient audit is 90% that each department should at least provide to the patient, at least 90% of the total care we are regarded as we are providing quality to our citizen

**R:** Uum... this audit that you are doing that a kind like monitoring, how is that information being analysed currently?

P1: The analytical information is a new.....

R: Maybe I can allow other colleagues to go in how do they perceive what number one has just spoken, eeh... eeh...at this ...how is this audits that are currently done helping the hospital and being understood and applied to facilitate quality care and service delivery?

R: Uum...any, anybody to come in...

P7: I thing all of us we are trying our best to... to provide quality to our client, what I know is eeh...**quality assurance and quality control is beginning with documentation**, I think most of us **when it comes to documentation we are always late up with documentation eeh...** but likely the maybe the initiative of inter leadership not to, not to decrease this is what maybe equilibrium with a bit late of documentation what I know here is a bit late of documentation but the take us up a bit.

**R: what do you mean a bit late?**

P7: A bit late, **if it say we have to report something within one month, we usually come by the end, even by the end of this month or one month later by the end of this month, but this can affect the service** but I am saying the initiative of the leadership I see is still able to cope with this gap, but I cannot get this eeh... a reason we still go in the same direction because now we have competent directorate tomorrow someone I am not saying is not competent but he is just less efficient than what we have this gap can destroy his work so the ....

R: What is the main cause of late documentation or late reporting?

P7: Let me say some; let me say there is eeh..., not all of us have the same initiative with work to be truly speaking some of us they just do their work late on time, **they are used to do this late as long as there is no eeh...action will be taken against them, let us the disciplinary action**, that is maybe is from my point of view others have their views for now I can give the ground for others well.

P3: You know when it comes to the QI and QA I think we are having many things to say, number one: yes we are having a division in our set up called quality improvement, we also having a division at head office called quality assurance. Let me start with quality assurance, this division they are really trying to assist the hospitals, the regions and other health sector to perform their service as it is expected, they are trying to do the SOP, the guidelines for the hospitals, clinics and health centre, like now they have already developed the referral policy, they are now busy doing the guideline for CUSD, theatre and other things the idea is to improve quality service and also to assist quality improvement who in a hospital set up also to do his level best but we also some hindrances, things like accommodation you now, even we want to do quality or to...to render quality services we don't have space sometimes you find our patients are lying on the floor, is not what we want is only that we don't have any another alternative in order to accommodate each and every one on a bed. We also talking about shortage of staff even we want really to do whatever you said audit or whatever, since we don't have enough staff we cannot really make it work because sometimes only one person who will do a b c d she might not really do the proper record keeping or she might not do proper nursing care let me talk my professions. So these are the areas we need really to look at, if we want you know people are overcrowded in our hospital and you remember that even if we have equipment sometimes it is very difficult to accommodate each and every one since we don't have space so these are the areas we need to look at if we want really to improve our service, if we want our policies and SOP work according we cannot make any difference if we are not going to expand our facility uum...

**R:** If you are now given all resources, infrastructure, human resources, what else would you change or improve put in place to provide quality care and services?

**P3:** The moment we get enough resources, in terms of materials and...and staff we will now...the ratio will be good so that we can serve our patients properly, everything will be available and we can render quality services, we are having everything is only that the situation which really make us not to work properly is just space number and human resource the moment these two being improved, I think we are really trying to do our level best. We are trying on our side as management, we are trying to push so that the staff can do what it is expected and they will come

back and say how can I do it if I am having ten patients eeh...I need to care off or perhaps the patient who is need to be cared for is lying on the bed.

R: What is that the leadership is trying to do to help so that the small numbers that you have are performing?

P3: For now we are still discussing with them and we are trying to tell them that they should really try to implement the guidelines as it was set although it not easy for them on the other had we are trying to improve like we are now trying to propose a better restructuring so that we can get more staff. We also trying to talk to the head office so that they can really expand our...our facility in order to have enough accommodation that is the only area we are putting in our strategy and we also supervising them just to monitor what they are doing.

R: How is supervision done, remember we are linking with the national level because the hospital is part of the ministry, how is the national level supervising the hospital currently?

P3: What I am referring for now I am not talking outside, I am talking within the hospital set up just to elaborate what I have started, since we have supervisors at unit levels they are the one trying to monitor what is going on in the wards, they can make rounds, that is what I can say they have to pull one of the records to see whether the people are really doing or sometimes they observe that people are not really doing the right thing and they have to discuss it with the staff and they have to rectify the... the...the problem. From the...at our side we are also making rounds at wards round to see what is going on the wards, if we pick something we have to discuss it with our staff so that we can rectify but **this comprehensive eeh...supervisory visit perhaps is also a problem**, a problem is not only from other people outside the hospital even between ourselves we are occupied with many activities being coming from head office, we call it as unplanned activities so....

R: Which are those unplanned activities?

P3: Sometimes you are not really expect activity to be ...your activity to be rendered at your situation and you are just invited that there will be a meeting for a week and you have already planned something those are the area we are talking, some you may even plan to do a supervisory visit and you

R: How is it the information generated through audits and reports analysed to facilitate quality health care delivery?

P1: Uum...first I before I go to that one I want to talk about the link, I think the spade should be called a spade as it is.

R: What do you mean by that?

P1: I think the fact should be tabled as they are appear to be, so what I am trying to say is that, the link between, I understand we have a quality assurance at head office but the link between probably they doing eeh....eeh...in reference to the hospital now, eeh...I would say our link is very poor because we don't really have a link, a good link that we are having that link every time with the head office.

R: Why do you think so?

P1: Why I am thinking so is that, you know, I think you are aware that we, the ministry signed an agreement with eeh... USA eeh...for this hospital to be accredited as a facility as providing quality improvement to the citizen and the information now we are the implementer for example but **we are in dark voice loud**....how this should be, I mean the parties to the agreement how we should report to one another, if we do here for example information from the hospital, how do we report to the head office that link is not there and from them again on the other side is not really saying they are giving support on that side probably yes they might be saying there is a workshop somewhere but there uum...uum...I mean as a head they link what I trying to emphasise is a communication link that really is not really of what one can one described to enhance improvement from the head office what we are having is our own. So coming now to the, I think

you are interested on the data how is the data normally being done; we are having the management tools that we collect data on the ground so we are having a tools that we are following as yard stick and those data the moment we get those data we table them to the management level and they suggest what we could be done, so that the department, as I told you our quality improvement benchmark is 90% if a department is not reaching 90% we are able to quantify indicate what are the shortcomings on that plan, we indicate this was the plan, I mean tool and this are the information

R: What are the shortcomings coming out of the data?

P1: The shortcoming eeh...which is to be honest, eeh...as you see we set ourselves high that we want to obtain 90% of the total service given per individual, so we are still on the road to reach that some, so some ought to reach that and some are not.

R: What do you mean you are on the road?

P1: On the road, I mean we are having eeh...I think 11 departments the clinical department, so far only one department reached 90% of the total quality given.

R: What is the problem of departments not reaching the benchmark?

P1: The problem which is, as alluded to the veteran there, one of the critical problems why the people are not reaching is the shortage of staff because what happen is the tool that we have is to provide from admission to dischargefication, this form collecting form what care was given to a patient when entered the hospital until person is discharged, now follow up now after a patient is admitted now there is gap information between there, some standards we do not know what are the ....I mean information is not there but the problem of staff not able to...to...to complete all the words as expected because you only find one registered nurse alone in the ward. Some of the critical aspects we are looking at is the eligibility of signatures, we are looking at the care plan, we are looking at the prescription, so you will find that eeh...some of information, which is cutting out you that some information indicating that the prescription that for example prescribed

you may find that does not qualify what treatment was given to a specific individual. The reason is because you know you find only one nurse in the ward that you find only one registered nurse and suppose to carry this unfortunately because of the time she happen to not pay attention to certain instruction, thus why I said the overall not enough to individualise care

P7: Actually I feel that all big words must be simplified, which means that most of us don't understand what is eeh...what is the terms of the quality control or quality assurance. So I think if some plan must be applied must be explanation first about the terms, second why we our putting this plan. Number two understanding from other point that we have job description; this is what I want to say eeh...the job description or the document is on one side or what happen is another side or the understanding is another side, come to health worker and tell him do this for example according to the constitution is legally and everything is okay and is in his career but if he don't want to do it he will say but this is not written in my job description, those situation we have been treating them I have been in the American eeh... University in our place, so once happen the instructor told us don't forget that I am the one who put up the job description. So people don't understand what is the meaning of job description even 1 2 3 4, I will do only 1 2 3 4, if he find something beyond to that from his initiative he will not do it, so this must be on the ground understanding. Another thing understanding is, most of the people thinking, when I am giving report, the difference between giving report and reporting someone. I am giving report about my department and about myself, I should tell then the reality, this is the situation so anything happen report is protecting me like I give you the report and I didn't not get any instruction you know. People most of the time they are taking it as I am reporting, and you will say how is your reporting and people think that you are reporting if you are giving report about yourself, no it is not like this, because my report also will include some documents some clarification of other departments, about other not internal department even external of the ministry of health meaning that I give report every quarter to the ministry of health, once there is a problem concerning what I am reporting for. I find most people media or whatever calling wanting to get information while we have quarterly report you got my idea.

R: When you mean people, who are these people?

P: Not from the hospital, as I said the hospital management is doing their best and not because they are here, they are with us in this so they are in the kitchen.

R: Why do you think this like that? How is the information shared between here at the hospital level, you collect, analyse, evaluated what is the link

P5: I think some of this information when it is being collected is really not eeh...is not forwarded or there is no one to analyse it, I think this basically for internal, just to see how is the service being provided and where there is a shortcoming then the people are advised to do like this like this, so I think is just maybe is like, is internal. We don't have external evaluator, even the auditing is basically internal we don't.

R: How do you ensure that what you are analysing strengthens your system to improve quality, if you are the one collecting and analysing the data?

P5: The other ensure, I know the quality improvement has a format of which the department are having their activity plan of which the department have put up something that they need to do as understand these people they supposed to report is it on weekly basis? to see what is that they have done and if they have not that it may be the reason is give why they have not done that, in most cases you find the reason is like, we don't have enough staff to do the work, that is most the challenging that hinder that most of the work is not done simply because there is not enough people to do the work. Now by reporting the quality improvement is to find out why is not done and how to assist people to do better I know

R: These is a point which was mentioned earlier that these are big words quality improvement and quality assurance, the understanding is not there, what are you saying on that point?

P4: No mine is just ooh...ooh... on the, what also hindering quality improvement one of them is insufficient budget allocation, the staff members are coming up with their need to improve the quality but the budget allocation is insufficient we are not being allocated what we requested and it hinders the service because eeh...for example maybe some of the equipment are outdated, the

staff want modern ones but due to insufficient budget allocation we cannot get ones and also for sending staff members for training ignorance of guidelines, so there are guidelines ...

R: Training in what area specifically?

P5: Training is done per identified needs.

R: What do you mean ignorance?

P4: Staff members, I don't know whether we are lazy to read we are not following the guidelines, guidelines are in existence but we are not being using of them, it also hinders the provision of quality.

P5: Aah...and sometimes, when the, especially the guidelines are very... very important now when things is good when guidelines are there is to guide us how the work should be done, now is like if you don't read to find out what is expected from you might not do the right work what is expected to do, as a result there is this negativity attitude among staff so one, simply because you are either lazy to read what is the guidelines telling you to do or a policy then is like I don't have time I am always busy but that doesn't not prevent you to do the right thing as in the policy.

R: Currently do all staff member understand, is there common understanding, equal understanding of quality improvement and quality assurance?

All: Uum...no, no, all nodding their heads and *laughing*

R: There is nodding of the heads, there is no this side, no there and laughing.

P2: Eeh...I don't have much to contribute because eeh...I was just called unexpected for this meeting but in terms of quality improvement what I have evaluate myself I think eeh...there is eeh...eeh...lack of ...of... the communication is there but still communication is not reaching until to...to...let me say to the lower level of...of... staff members most of the time what I have

realised in terms of these quality improvement guidelines, they always end up at supervisory level, it means in my thinking it need to go more deep in terms of individual communication down to...to the level up to the cleaners, either cleaners or wherever at the lower eeh...levels so that they can understand what is actually needed from them in terms of...of quality improvement. So quality improvement I think it comes from both side from top up to the, if eeh...other channels of staffing are not contributing to the guidelines or to the policies that are in place I think there in the middle somewhere in the middle things will not go right, if 70% of the people are not contributing and 30% are trying their best so at the end of the day the end results will not be as what is expected I think communication should be more wide open to all... all... all...levels of staffing within the hospital and that will at the end of the day will bring positive results.

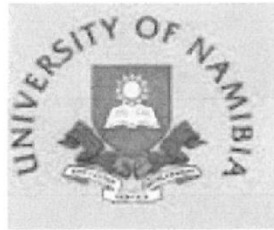
P3: Thank you, I fully support the previous speaker, aah I would also like to say something about the report which was mentioned by the previous speaker, yes, aah...we are really producing reports and we are sending it even up with the purpose of analysing and even getting something from it but in eeh...**as he say communication is also a gap and it is really a gap is not only within the institution, it is also from top to bottom we don't communicate, as he say there is no good communication between them, between quality assurance and quality improvement I think it is everywhere we are having eeh...that gap of communication** and we really need to improve if want really our things work smoothly, we need to improve communication, whatever we are putting, sending we need to get feedback so that we can also improve what we did not do well and also for planning purpose the moment they get a problem they need really to give us feedback and put up a plan of action in order to improve.

P1: The recommendation there obvious is obvious thing, as I said the thing that **if you don't have a framework as a ministry that is a problem on its own** you cannot expect, because the problem there we are employed to act within under the rules and regulations and the accountability when it comes in, if really there is accountability on me to do certain things, thus why I said the link between the ministry and the hospital is not there

R: We have come to an end of the interview. Thank you very much for your time.

Group: You are welcome and it is my pleasure to talk to you. Please keep me informed of any progress.

**ANNEXURE J: CHECKLIST TO ANALYSE THE STATE OF QUALITY  
CARE DELIVERY AT HEALTH CARE FACILITIES IN  
NAMIBIA**



**DEPARTMENT OF MANAGEMENT SCIENCES**

**CHECKLIST TO ANALYSE THE STATE OF QUALITY HEALTH CARE  
DELIVERY IN HEALTH FACILITIES IN NAMIBIA**

**INSTRUCTIONS**

1. This checklist attempts to understand the views and perceptions of health professionals, especially those responsible and have overview of all activities towards quality improvement in the public hospitals. Their views and perspectives is vital to understand the present situation of quality health care and service delivery in the hospitals.
2. The term “Health Professionals” refers to qualified personnel who are accredited to provide care and implementing quality policies and guidelines at the operational/hospital level. The focus is on the physicians, nurses, pharmacists, radiographers, social workers and environmental officers working in the public hospitals. The management are staff members holding position of power and decision making, as well as responsible for health care planning while stakeholders are those having interests in provision of quality health care and service delivery: community members, politicians, training institutions, ministries, health professional bodies and agencies.
3. I would like to request you to answer all statements in this questionnaire. Your participation in this study is free, no cost attached or obligation. You have the right to withdraw at any time of the study. If a statement is neither clear nor applicable, you can ask to interviewer for clarification.
4. The information provided in this study will be treated confidential and used for academic purpose only, unless permission is granted from the Ministry of Health and Social Services. The benefit of the study is to assist health professionals, managers and patients facilitate quality health care and service delivery in the health facilities.

Health Facility \_\_\_\_\_ HP No.: \_\_\_\_\_

**PREPARED BY:** Julia P. Nangombe and Dr Hans J. Amukugo, Faculty of Nursing

Name of data collector:

**SECTION 1: DEMOGRAPHIC DATA**

1. Gender:

1 Male	
2 Female	

2. Age group:

25 – 35	
35 – 45	
45 – 55	
55 and above	

3. Education Attained:

Primary	
Secondary	
Tertiary	
Other	

4. Years in current position:

2 – 5	
5 – 10	
10 – 20	
20 and above	

5. Which of the following areas are you primarily involved in? (circle only one box)

1 Hospital Administration	
2 Intensive Care Unit	
3 Medical staff member	
4 Medical/Surgical floor nurse	
5 Operating Room nurse	
Other (specify):	

6. What is your current Occupation?

Permanent Secretary	
Deputy Permanent Secretary	
Under Secretary	
Director	
Deputy Director	
Medical Superintendent	
Chief Medical Officer	
Matron	
Other	

## SECTION 2: Statements on quality health care delivery

This checklist focuses on policies and guidelines, leadership, resources, information, research, patient safety, monitoring and evaluation to understand the present state quality health care delivery in the health facilities. A Likert scale of 1 to 6 points of strongly agree; disagree to strongly agree or don't know, as well as yes and no items are used to indicate the level of agreement or disagreement, availability or absence.

### To what extent do you agree with the following statements?

- 1 = Strongly disagree
- 2 = Disagree
- 3 = Neither disagree nor agree
- 4 = Agree
- 5 = Strongly agree
- 6 = Don't know

Areas/dimensions of quality health care delivery	Statements/items	1	2	3	4	5	6
Policies and Guidelines to facilitate quality health care delivery	1. There is a quality improvement policy and guidelines aligned to organisations strategic objectives to prioritise, identify and address gaps in quality health care delivery						
	2. There are standards documents that guide health professionals and ethic/steering committees to ensure appropriate conducts and compliance to quality health care measures						
	3. A written description of a formal agreed quality policy and plans at both operational (health facility) or national level is in place						
	4. There are health committees that encourage and support all stakeholders active participation in quality improvement process						
	5. There are clear guidelines on organisational levels of quality health care delivery that is understood by all health care providers (operational-facilities; intermediate-planners, policy/decision makers; strategic-management)						
	6. There are incentive strategies (moral, materials, or monetary) to encourage participation in quality improvement programmes						
	7. The physical facility planning and maintenance is part of quality improvement policy to facilitate quality health care delivery						
	8. There is well-defined Quality Improvement Checklists for indicators and Quality Inventory Plan for all essential supplies						
	9. Health facilities have operational feedback plan to respond to patient concerns to facilitate good communication						
Leadership to facilitate quality health care delivery	10. There is visionary and strong leadership to ensure active involvement of health professionals and stakeholders in setting priorities for planning of quality health care improvement						
	11. Leadership provide guidance and coaching to staff members for strategic planning and testing the process of quality improvement						
	12. Leadership support employees to build commitment and confidence in process analysis and quality improvement initiatives						

	13. Leadership encourages health professionals to design interventions to improve quality care and service delivery								
Human, physical, material and financial resources to facilitate quality health care delivery	14. There are adequately trained health professionals to facilitate quality health care delivery at all health facility levels								
	15. The resources (human, material, infrastructure, finance) are equitably distributed and utilised to facilitate quality health care delivery								
	16. There is internal budget to ensure successful implementation of quality improvement programmes								
	17. The design and setting of health facility infrastructures do meet agreed quality improvement standards to address patients' health needs								
	18. There are quality teams consisting of health professionals, management, patient and stakeholders that analyses, evaluate and compare quality health care results								
	19. There continuous professional development training programme to improve quality health care delivery								
Patient safety	20. Patients safety is well considered and assured by all health professionals (care givers)								
	21. Patient are always involved to appreciate quality care delivery and challenges faced in quality health care planning								
	22. Patient's needs are regularly assessed and integrated into strategic planning to improve quality health care delivery and ensure that their expectations are included in quality planning								
	23. Patients complaints are studied by the health professionals to identify patterns and prevent problems reoccurring								
Information to facilitate quality health care delivery	24. The hospitals collect a wide range of data and information on quality of care and services								
	25. The hospital uses wide range of data and information on quality of care and services for reporting incidences, feedback and planning for improvement								
	26. There is active involvement of health professionals in determining what data and information is collected for the purpose of improving quality health care and services delivery								
	27. The information on quality health care is regularly shared with the client/stakeholders to improve care and service delivery								
Monitoring and Evaluation to facilitate quality health care delivery	28. There is continuous monitoring and evaluation to ensure that quality improvement programmes are effectively and efficiently implemented in line with the policy documents								
	29. There are quality indicators to measure processes, outputs and outcome of hospital care services								
	30. The hospital services are regularly and systematically monitored to track any deviations or change and take corrective measures and prevention of errors during treatment and care								
	31. The outcome on quality improvement in health facilities is reported annually to facilitate quality planning								
	32. The health facilities have tools for collecting data and measurements strategies (surveys, self-assessment, audits, supervisory visits)								
	33. The hospital services and programmes are audited and accredited by recognised professional body								
	34. The equipment and supplies in health facilities are regularly checked to make sure they comply with quality requirements								

To what extent do you agree with the following statement on relevance of research and indicators to facilitate quality health care delivery?

- 1 = Yes
- 2 = No
- 3 = Don't Know

		1	2	3
Research ethics to facilitate quality health care delivery	35 Is the national research act regulating human participants in biomedical research to ensure patient safety?			
	36 Are there clear research guidelines on fundamental ethical principles and ethical issues for health professionals and patients?			
	37 Does the hospital conduct patient safety research to detect and reduce harmful medical practices?			
	38 Is patient's consent prioritised to safeguard privacy on medical records or specimens used for research purposes?			
	39 Does the hospital use scientific designed methods to review medical records, observations, surveys or interviews (data and statistics) to understand the magnitude and causes of unsafe patient care and lousy service delivery?			
	40 Are potential risks involved in patient safety research submitted to research committee for analysis and review before approval?			
	41 Do the hospitals conduct surveys to determine patient's satisfaction to improve care and service delivery?			
Utilisation of data to evaluate and adjust processes for quality health care delivery	42 Do the hospitals use the following data to facilitate change in quality improvement processes and patient care?			
	• clinical indicators to facilitate quality assessment			
	• number of patients treated			
	• complication registrations			
	• incidence reporting system			
	• Interviews/surveys with/among patients			
	• Assessment of guidelines compliance			
• Results of internal audit				

Do you have any comments on the above-mentioned statements?

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You have reached the end of the questionnaire, thank you for your participation.