

**GUIDELINES TO ENHANCE COMMUNICATION SKILLS OF
NURSES CARING FOR PATIENTS DIAGNOSED WITH
TUBERCULOSIS AT PUBLIC HEALTH FACILITIES IN THE
KHOMAS REGION OF NAMIBIA**

**A DISSERTATION SUBMITTED IN FULFILMENT OF THE
REQUIREMENTS FOR THE DEGREE OF
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ABSTRACT

The overarching purpose of this study was to explore and describe how nurses communicate with patients diagnosed with tuberculosis (TB) at public health facilities in the Khomas Region of Namibia, and to develop guidelines for communication that would enhance the communication skills of nurses.

To address the purpose of the study, a research project was conducted, which was quantitative, exploratory, descriptive, and contextual in nature. The study was conducted in four phases, starting with an exploration and description of communication process between nurses and patients diagnosed with tuberculosis in Phase 1, followed by the development of a conceptual framework for effective communication in phase two. Phase 3 involved the process of developing guidelines, and Phase 4 focused on the implementation and evaluation of these guidelines. The population and the sample of the study were the same (thirty nurses and thirty patients diagnosed with TB from all the public health facilities in the Khomas Region). The data collection method employed was observation using a checklist, followed by individual semi-structured face-to-face interviews with nurses, and also with the patients diagnosed with tuberculosis. The quality of research and research instrument were determined by its validity and reliability. Data obtained were analysed by using the Epi InfoTM software package, and content analysis.

The main findings established that nurses who were caring for patients diagnosed with tuberculosis exhibited inadequate communication skills in the following areas:

creating a conducive environment for communication, assessing and understanding the patients' mood and level of understanding, listening, questioning, constructive feedback, understanding of non-verbal communication, respect, and empathy for patients. The study results also revealed that patients diagnosed with tuberculosis had inadequate knowledge about TB. The majority of patients diagnosed with TB did not know the type of TB they had and they perceived alcohol and smoking as the causes of TB.

From the findings, the researcher developed guidelines for communication that were reviewed and validated by the guidelines development group. The nurses were trained to apply guidelines on communication during their daily interaction with patients diagnosed with tuberculosis. Three months after training, evaluation results indicated a significant improvement in reducing the aforementioned communication limitations of the nurses, while the patients' knowledge of TB was also improving. All patient participants knew that TB was caused by the bacteria/germs, and all of them knew the type of TB they had.

The researcher recommends that the TB policymakers integrate these communication guidelines into TB policies, guidelines, and manuals.

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ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
ARV	Antiretroviral (medicine)
CDC	Centres for Disease Control and Prevention
DR-TB	Drug-resistant Tuberculosis
DOT	Directly-Observed Treatment
DOTS	Directly Observed Treatment Short-Course
EPTB	Extra pulmonary Tuberculosis
HIV	Human Immunodeficiency Virus
LHL	The Norwegian Heart and Lung Patient Organisation
MDR-TB	Multi-Drug-resistant Tuberculosis
MoHSS	Ministry of Health and Social Services
ND	No Date
PTB	Pulmonary Tuberculosis
TB	Tuberculosis
TBCTA	Tuberculosis Coalition for Technical Assistance
TB IPT	Tuberculosis Isoniazid Preventive Therapy
UNAM	University of Namibia
USAID	United States Agency International Development

WHO	World Health Organisation
WSO	World Stroke Organisation
XDR-TB	Extensively Drug-Resistant Tuberculosis

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“Ngame itandi itanga kutya onda adha nale esindano, nenge onda adha nale ethikilo... / I do not claim that I have already succeeded or have already become perfect...” Phillip 3:12.

“Aawe/No”

DEDICATION

In loving memory, I dedicate this research study to my parents, the late David Angwena and Mirjam Abiatal. Their love, guidance, wisdom and inspiration made it possible for me to continue achieving my goals. They laid the foundation for my academic work by constantly supporting me morally and financially and encouraging me to continue against all odds. May their souls rest in eternal peace!

DECLARATIONS

I, Esther Kamenye, declare hereby that this study is a true reflection of my own research, and that this work, or part thereof has not been submitted for any degree from any other institution of higher education.

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Date: 30 November 2013

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Place: Windhoek

CHAPTER 1

OVERVIEW OF THE STUDY

1.1 INTRODUCTION AND BACKGROUND TO THE STUDY

Tuberculosis (TB) has been a significantly major public health threat worldwide. Two billion people are infected with *Mycobacterium tuberculosis*, nine million new cases are reported every year, and two million die every year from the disease (World Health Organization [WHO], 2003b). The incidence of tuberculosis has increased since the mid-1980s and continues to grow by one per cent each year, despite the fact that tuberculosis is a preventable, treatable, and curable disease (WHO, 2006). In 2000, Sub-Saharan Africa had the highest incidence of 290 per 100 000 population per year (WHO, 2004a, p. 25). In 2004, Namibia reported a tuberculosis case notification rate of 822 persons per 100 000 population, and it was the highest incidence ever reported in the world (Ministry of Health and Social Services [MoHSS], 2006, p.1).

The Government of the Republic of Namibia has pursued vigorous TB programmes which aim at eliminating TB. Commitment in this regard has been shown by the following efforts: purchasing of all anti-TB medicine, paying for all sputum examinations, and providing the infrastructure and human resources for TB treatment. International and non-governmental organisations are also supporting the efforts of the government. Despite all these strategies, problems are still existing, for instance the tuberculosis case notification rate in Namibia has steadily increased

from 656 per 100 000 in 1997 to 722 per 100 000 in 2007 (MoHSS, 2007/2008, p. 9). Another problem arises is the emergence of drug-resistant TB of 268, which has been reported in Namibia by the end of 2007 (MoHSS, 2007/2008, p. 16). Moreover, the country is failing to attain the global target of 85% treatment success rate, and defaulter rate of less than 5% (MoHSS, 2006, p. 3; WHO, 2004a, p. 11). The Khomas Region is attaining only a 70% treatment success rate for retreatment cases, and has had a 9% defaulter rate in 2008 (MoHSS, 2009/2010c, p. 34). This statistical information indicates that there are problems in the management of tuberculosis in the country, particularly in the Khomas Region.

According to Clark (2008), many problems that occur in any organisation in respect of management are the direct results of people who are failing to communicate properly. Ineffective communication causes problems, and leads to misunderstanding, confusion, and failure of excellent plans. In most caring professions, effective communication has been widely regarded as the key factor to better quality of care that ensures patients satisfaction, compliance to treatment, and speedy recovery (Chant, Jenkinson, Randle, & Russel, 2002; Taylor, 2009). Therefore, good communication behaviour of the nurses who are caring for patients with tuberculosis are very important in the management of tuberculosis.

According to Kruijver, Kerkstra, Franke, Bensing, and Van der Wiel (2009), there are two important types of communication behaviour a nurse needs to employ in order to meet the communication needs of the patients. First, instrumental behaviour is significantly important in informing the patients about the disease and the

treatment, and second, affective behaviour that includes assessing the patients' concerns, showing respect, empathy, and providing comfort and trust.

The traditional model for communicating with patients about their treatment starts with the doctor or nurse who decides about the best treatment and the patient has to follow the instructions with limited access to information about treatment. About half of all medicine are not taken as prescribed and the consequence is mostly non-compliance, which is most likely the result of conscious choices that are made by the patients rather than the result of their forgetfulness. Moreover, evidence from the 1960s to the present day has also suggested that communication problems are the key concern for patients (Chant et al., 2002; Chetley, Hardon, Hodgkin, Haaland, & Fresle, 2007; Shaw, 2005).

Communication issues can be resolved when nurses apply good communication skills. The literature has shown that there are some inconsistencies with regard to the term communication skills. Some evidence discusses single sensory output or input behaviour as communication skills, while most texts identify clusters of different behavioural traits and sensory inputs/outputs as communication skills. From these inconsistencies, several distinctions have been drawn to demonstrate the meaning of communication skills (Chant et al., 2002).

Four levels of communicative behaviour are emphasised; namely the primary level which is related to the communication process itself, the second level is the mode of communication, the third level is the communication skills that is formed and based

on the process and the mode of communication, and the forth level is the communication strategies/guidelines (Chant et al., 2002). Chant et al. further explain that the ability to communicate effectively with other people is at the heart of all patients care. Therefore, good communication skills are crucial in caring of all the patients.

It is evident in some studies conducted globally that the health care workers/health care providers that are caring for patients with tuberculosis have not acquired good communication skills. A study conducted in a rural health district of Cameroon, has examined the interactive relationship between health care providers and patients. Several patients outcomes reveal that the main obstacles in the management of patients are misunderstanding of diagnosis, treatment as well as poor discussion of patients' concepts of illness. Patients do not follow the treatment recommendations because they do not understand their diagnosis. Initiation of communication skills training programmes for health care providers is recommended (Labhardt, Schiess, Manga, & Langerwitz, 2009).

Poor communication skills among health care workers result in management problems; such as non-adherence to treatment or defaulting treatment, and a higher rate of drug-resistant TB (Clark, 2008; Dick, Lewin, Rose, Zwarenstein, & Walt, 2004). For instance; a study conducted by Mishra, Hansen, Sabroe, and Kafle (2006) investigates the quality of communication between dispensers and patients with tuberculosis in the western district of Nepal. It reveals that the dispensers are

displaying communication of a poor quality that is associated with non-adherence to tuberculosis treatment.

Another study conducted in Tashkent City, Uzbekistan, investigates the reasons for defaulting. It also reveals that poor communication between health care workers and patients with tuberculosis is the main cause of default identified. Patients are lacking proper information about TB and the treatment. There is a widespread perception that tuberculosis is not a curable disease. They recommend that there is a need for addressing this problem of poor communication between the health care personnel and the patients with tuberculosis (Hasker, Khodjikhonov, Sayfiddinsa, Rasulova, Yuldashova, Usakova, et al., 2010).

However, little is known about the communication skills of the nurses who are caring for patients with tuberculosis, particularly in Namibia. Most studies conducted globally are focusing on the communication skills of the health care providers/health care workers in general. Those studies reveal that the health care workers or health care providers demonstrate poor communication skills that are resulting in medicine non-adherence of patients with tuberculosis. The nomenclature health care providers/health care worker is very broad. It covers a very variety of skills in many possible settings. The Global Health Council (2000-2011) refers to health care workers as anyone whose focus or activity is to improve health. A health care provider can be defined as a person who assists with identifying, preventing, or treating illness or disability; for example the nurses, pharmacist, medical assistant, birth control counsellor, bone setter, and electrologist (Thesaurus, 2003-2008).

According to the mentioned definitions, health care providers also include all health care workers who are not licensed professionals. The researcher is aware of the fact that all health care providers/health care workers have one goal in mind and that is to ensure that the patients receive the highest level of quality care. However, in this study, the researcher focuses only on the communication skills of the nurses who are in direct contact with patients diagnosed with tuberculosis on a daily basis, because without any doubt the communication skills of the nurses can also influence the medicine adherence of patients diagnosed with tuberculosis, since they are the primary group who are in direct daily contact with the patients.

In addition, two studies conducted in Namibia, in the Khomas Region (the site of this study) focus on tuberculosis only, but do not address communication problems at all. One of the studies has been conducted by Kamenye (2008), who explores and describes the knowledge, beliefs, and practices of patients who are diagnosed with tuberculosis in the Khomas Region. The study reveals that the patients diagnosed with tuberculosis have inadequate knowledge about tuberculosis. Most patients diagnosed with tuberculosis do not know the causes of tuberculosis; they do not know their own diagnosis, as well as the duration of taking tuberculosis treatment.

The other study has been conducted by Mainga (2008) who investigates the reasons why patients diagnosed with tuberculosis are defaulting their anti-TB treatment in the Khomas Region. The study also reveals that the patients diagnosed with tuberculosis do not have adequate knowledge about the disease. Twenty four per cent (24%) believe that touching a patient diagnosed with tuberculosis could spread the disease,

and 30% believe that using the same utensils as a patient diagnosed with tuberculosis spread the TB disease (Mainga, 2008, p. 57).

The two studies show clearly that the patients diagnosed with tuberculosis in the Khomas Region have inadequate knowledge about tuberculosis, although they are in direct daily contact with their nurses. It is assumed that the patients are being provided with all the necessary information during the treatment process. Based on this background, it seems that the nurses who are caring for the patients diagnosed with tuberculosis in the Khomas Region have not acquired good communication skills. It could be the reason why patients diagnosed with tuberculosis are lacking adequate knowledge of tuberculosis. Therefore, the researcher is convinced that little is known about the communication skills of the nurses who are caring for the patients diagnosed with tuberculosis, particularly in the Khomas Region of Namibia.

Furthermore, during her long term interaction with the tuberculosis programme, the researcher has noticed that, despite the government efforts (Section 1.1, second paragraph), statistics show that significant problems in the management of tuberculosis are still occurring.

1.2 STATEMENT OF THE PROBLEM

The problem in the Khomas Region is that the region has the highest TB case notification rate of 751 per 100 000 population in Namibia, and the second highest rate of drug-resistant TB with 38 cases following the Kavango Region with 46 cases. The Khomas Region has also the lowest proportion of patients with known HIV status (59%) in 2009, which is below the country target of more than 95%. Moreover, the region fails to achieve the global target of 85% treatment success rate by obtaining only 70%, and it has a higher defaulter rate of 9% for re-treatment cases by the end of 2008 (MoHSS, 2007/2008, p.16; MoHSS, 2009/2010c, pp.17, 34; WHO, 2003b, p.18) as mentioned on page 2.

The above mentioned statistics could imply that some of the contributing factors are probably being overlooked or neglected in the management of TB in the region. A possible problem could be a lack of good communication skills among the nurses who are caring for the patients diagnosed with tuberculosis. Lacking such skills, in turn, may result into poor knowledge of the tuberculosis disease among tuberculosis patients themselves which might lead to treatment non-adherence, deaths, and the emergence of drug-resistant tuberculosis. The nurses might not be good listeners, might not be aware of the effect of non-verbal communication on patients, might mostly asking closed-ended questions; use medical or difficult terms, they are not giving constructive feedback to the patients, or they are not showing respect and empathy towards the patients diagnosed with tuberculosis. Ineffective communication causes problems for example failure of good plans (Clark, 2008).

The gap in the knowledge is that little is known about the communication skills of the nurses who are specifically caring for patients diagnosed with tuberculosis in Namibia. The researcher has not found any studies conducted in Namibia that are exploring the communication skills of nurses who are caring for patients diagnosed with tuberculosis.

Furthermore, in Namibia, there are no guidelines on communication to enhance the communication skills of the nurses who are caring for patients diagnosed with tuberculosis. The National Guidelines for the Management of Tuberculosis emphasises the important aspects that need to be provided to each patient diagnosed with tuberculosis on every visit (MoHSS, 2006). However, it is the researcher's view that even though the nurses know what substantive messages to convey to their patients, they may not possess good communication skills to exactly communicate TB health information most effectively, especially when there are no guidelines on communication implemented for reference purposes.

Moreover, the nurses caring for patients diagnosed with tuberculosis have different training backgrounds; some are registered nurses, while some of them are enrolled nurses (MoHSS, 2009/2010b). It may lead to different levels of communication, especially when there are no standardised communication guidelines to enhance their communication skills to the same level.

According to this background, the question to be asked was: **How do the nurses communicate with their patients who are diagnosed with tuberculosis?**

1.3 PURPOSE AND OBJECTIVES OF THE STUDY

1.3.1 Main Purpose

The main purpose of this study is to explore and describe how the nurses communicate with their patients diagnosed with TB at public health facilities in the Khomas Region in Namibia. Secondly, the study seeks to develop guidelines for effective communication to enhance the communication skills of the nurses.

1.3.2 Specific objectives

The objectives of this study were to:

- Explore and describe the communication process between the nurses caring for patients diagnosed with tuberculosis and the patients diagnosed with tuberculosis at the public health facilities in the Khomas Region;
- Develop a conceptual framework for effective communication guidelines;
- Develop guidelines for communication, specifically for nurses who are caring for patients diagnosed with tuberculosis at public health facilities in the Khomas Region; and
- Implement and evaluate the guidelines for communication for nurses who are caring for patients diagnosed with tuberculosis at public health facilities in the Khomas Region.

1.4 SIGNIFICANCE OF THE STUDY

This study contributes positively to the intervention of TB management in the following ways:

Significance for the MoHSS: The guidelines for communication that have been developed in this study will assist the TB policymakers with achieving the strategic plan as stipulated in the second medium term strategic plan for TB and leprosy. The aim of the plan is to empower people with TB and the community by means of effective advocacy and communication (MoHSS, 2010/2015). The developed guidelines for communication will be available to TB policymakers for integration of TB policies and TB manuals during planning to improve the health status of the patients diagnosed with TB, their families, and the community in general.

Significance for the nurses: Once the guidelines for communication are developed, implemented, and available, the communication skills of nurses who are caring for the patients diagnosed with tuberculosis might be enhanced, since they have standardised principles of communication that are guiding them to communicate TB health information effectively. Moreover, the developed guidelines for communication will provide a framework of references for these nurses. Communicating effectively with patients diagnosed with TB will undoubtedly mitigate most of the problems that are occurring in the management of tuberculosis in the Khomas Region. Furthermore, guidelines on communication will also be a valuable resource for all other nurses involved in health care of non-TB patients.

Significance for the patients: When nurses are communicating effectively with patients diagnosed with TB, it results in improved knowledge of patients diagnosed with tuberculosis about the tuberculosis disease, since they are receiving adequate TB health information from the nurses. Since they have adequate knowledge of TB, it is most likely that the patients will adhere to the taking of TB medicine and will practice healthy lifestyle.

1.5 DESCRIPTION OF THE STUDY AREA

The study was conducted in the Khomas Region, which is one of the 13 administrative regions in Namibia. Namibia gained its independence 21 years ago, and is located south of the equator, and is in both the eastern and southern hemisphere. Namibia is an Atlantic coast country, positioned in Southern Africa, and is bordered by the countries of Zambia, Angola, Zimbabwe, Botswana and South Africa. Namibia has a surface area of 824 295 square kilometres, making it the fifth largest country on the African continent, and it has a population of nearly 2.1 million inhabitants (CIA World Factbook, 2012, para. 1; MoHSS, 2010-2015, p. 1; National Planning Commission, 2011, p. 2; WHO, 2010).

Namibia has experienced a decline in fertility, with the fertility rate declining from 3.6 births per women in 2005-07 to 2.41 children born per women in 2011, and according to 2011 estimates the life expectancy in Namibia is anticipated to be 52.47 years for men and 51.86 years for women (CIA World Factbook, 2012, para. 1). The Namibian population is ethnically diverse with eleven major indigenous language

groups. However, English is the official language of Namibia (MoHSS, 2010-2015; MoHSS, 2008b; National Planning Commission, 2011; WHO, 2010).

Furthermore, Namibia is classified as an upper middle income countries, but it also has one of the highest income inequalities in the world with a Gini coefficient of 0.6 (MoHSS, 2010-2015, p.3). The disparities per capita income among the inhabitants are the result of lopsided development that previously has characterised the economy of Namibia. Poverty is affecting a large proportion of the population (MoHSS, 2010-2015).

According to MoHSS (2006), poverty is the main contributing factor of tuberculosis in Namibia, since it provides a fertile environment for the spread of all communicable diseases. The WHO (2010) also emphasises that tuberculosis and HIV/AIDS are the major health development challenges.

Namibia is demarcated into 13 administrative regions. Khomas Region, the site of this study, is one of the regions in Namibia that neither has a shoreline, nor does it border another country. It is bordered by the Omaheke Region to the east, the Hardap Region to the south, the Erongo Region to the west, and the Otjozondjupa Region to the north (Figure 1.1 displays the map of Namibia that shows where the Khomas Region is situated). The Khomas Region covers 872 square kilometres and has an estimated population of 340 900 as projected from the 2011 Population and Housing Census (National Planning Commission, 2011, p. 5; MoHSS, 2008b; MoHSS, 2010-2015, p.2).

1.6 PHILOSOPHICAL BASIS OF THE STUDY

This study is based on the post-positivist scientific approach because this approach represents a much freer paradigm. It allows for the development of alternative research strategies that might enable the sourcing of information in the most creative ways (Glicken, 2003). In this study, this approach provides the researcher with the freedom to use observation, as well as a short questionnaire with closed and open questions which aim at classifying some of the observations and actions of the participants. It enables the researcher to clarify aspects that are identified during the observation of the communication process between nurses and patients. The sample is small due to the intensity of observations that have been used to gather the information (Creswell, 2007).

Furthermore, the researcher seeks to be as objective as possible in her pursuit of knowledge. The researcher attempts to manage her personal beliefs and biases with the purpose of avoiding its influence on the phenomenon under investigation.

1.7 PARADIGMATIC PERSPECTIVE OF THE RESEARCH

The paradigmatic perspective can refer to a set of assumptions, concepts, values, and practices that formulate a way of seeing reality for the people who are sharing them, particularly in an intellectual discipline (The American Heritage, 2009). Polit and Beck (2004) refer to a paradigmatic perspective as a style of looking at natural phenomena that entails a set of philosophical assumptions and that guides the

researcher's approach to inquiry. According to De Vos (2000), all research paradigmatic perspectives (positivistic or interpretive) encompass a set of philosophical assumptions that guides the researcher's approach to the inquiry. As mentioned earlier, this study is based on a post-positivist scientific approach. Therefore, it also encompasses particular philosophical assumptions.

Dusick (2011) refers to assumptions as those things the researcher takes for granted in a study, or the statement by the researcher which accepts truths that are fundamental to theoretical reasoning. Polit and Hungler (2003) describe assumptions as the basic principles that are accepted as true on the basis of reasoning without proof. The assumptions are not intended to be empirically tested, but they are underlying statements that can be challenged meta-theoretically (Chinn & Kramer, 1999).

In the context of this study, the researcher has selected certain assumptions from the phenomenological perspective in response to the researcher's interaction with the phenomenon (communication skills of the nurses who are caring for the patients diagnosed with tuberculosis). The selected assumptions are: meta-theoretical assumptions, and theoretical assumptions.

1.7.1 Meta-theoretical assumptions

Botes (1995) referred to meta-theoretical assumptions as those assumptions that are not testable, deal with human beings and society, and have their roots in philosophy.

Botes argues that because the assumptions are not testable, they must at least be reconcilable with theoretical assumptions. In the context of this study, the meta-theoretical assumptions are based on the concepts of the nursing meta-paradigm, namely the person, environment, health, and nursing (George, 1990; Oerman, 2001). Furthermore, it is linked to the elements of The Shannon and Weaver Transmission Model of Communication (Lang, 2010), the model that has been chosen as a point of departure for this study (Section 1.7.2).

In this regard, these assumptions apply:

Person: The person in this study consists of the nurses (source of message) who are caring for the patients diagnosed with tuberculosis, and the patients diagnosed with TB (receivers of the message). The nurses are adult professional persons who are trained to take good care of the patients. The nurses interact daily with patients diagnosed with TB and are communicating TB health information to these patients in TB settings. The patients diagnosed with TB are the main concern of the TB care, since they are the ones who are affected by TB and the receivers of the message (TB health information) from the nurses. Their knowledge about TB depends on the communication skills of the nurses.

Environment: It refers to wards where the patients diagnosed with TB are treated, the TB outpatient department at the Katutura Intermediate Hospital, TB rooms at the clinics and at the health centre.

According to Narula (2006), the context environment in a communication model has four different important dimensions: the physical dimension which refers to the place where we are; a social dimension which refers to the types of functions we are performing; another social dimension that shows whether the environment is either friendly or hostile; and the cultural dimension which refers to a value system, i.e. the unwritten codes of acceptance or non-acceptance behaviour.

In the context of this study, the environment refers to the physical environment that includes the DOT room, TB room, and TB wards (lived world) where the nurses and the patients diagnosed with TB are meeting, and it is where guidelines for communication should be implemented reflecting the physical and social dimensions. Furthermore, it also refers to the nurses' unwritten codes of acceptance; for example attitudes, behaviour, respect, and empathy which might influence their value system, as well as their communication skills, reflecting the cultural dimension.

Health: Tuberculosis care is the nursing care that is provided by the nurses to the patients in a health setting. Guidelines for communication were developed and implemented with the purpose of enhancing the communication skills of the nurses who are caring for the patients diagnosed with tuberculosis in the Khomas Region in order to improve the health status of the patients, their families, and the community in general.

Nursing: Nursing is a calling profession; therefore, the nurses caring for the patients diagnosed with TB, make patients diagnosed with TB the priority during their daily nursing care. The guidelines for effective communication provide guidance to the nurses on how to communicate TB health information more effectively.

1.7.2 Theoretical assumptions

Botes (1995) refers to theoretical assumptions as those suppositions that are testable, offer epistemic pronouncements about the research field, and moreover, these assumptions shape to the conceptual framework of the research and the proposed model/guidelines. The theoretical framework of this study is guided by The Shannon and Weaver Transmission Model of Communication (Lang, 2010). The researcher has selected this model as a point of departure because it is a simple, straightforward model and easily to understand. Furthermore, it is widely accepted as one of the fundamental seeds from which communication studies have grown (Chandler, 2008; Fiske, 2002).

According to Lang (2010), the Shannon and Weaver Transmission Model of Communication considers communication from an information theory point of view. The model is widely accepted and it constitutes one of the main sources from which communication studies have grown. This model is used as a framework to guide the research approach of this study in all the aspects, and the framework is referred to as a structure that can support or hold a theory of a research work (Brink, Van der Walt, & Van Rensburg (2006). Basically, the Shannon and Weaver Transmission Model of

Communication has been introduced by Shannon and Weaver and it departs from five main elements; namely the information source, the transmitter, the channel, the receiver, and the destination (Barton and Beck, 2005; Lang, 2010; Reddie, 2009) (Chapter 2, Section 2.3).

Furthermore, the research findings of this study are contextualised within the relevant assumptions after data analysis has taken place. The contextualisation of this study is guided by the survey list of Dickoff, James and Wiedenbach (1968) which includes the following elements:

- The agent: The researcher who is a registered nurse;
- The context: TB public health facilities where the TB focal nurses provide TB care to the TB patients in the Khomas Region;
- The recipients: The nurses who are caring for the patients with tuberculosis, as well as the patients diagnosed with TB, their DOT supporters, and their close contacts;
- Challenges: Findings of the study;
- Procedure: Process of guideline development; and
- The purpose or terminus is an appropriate and effective communication model.

In this study, definitions of the key concepts have also been considered.

1.8 DEFINITION OF KEY CONCEPTS

For the purpose of this study, these defined concepts are used:

Guidelines: It refers to statements or other indications of procedure that determines a source of action (The American Heritage, 2009). WHO (2003d, p.2) defined guidelines as “the systematically developed evidence based statements which assist providers, recipients and other stakeholders to make informed decisions about appropriate health interventions”. In this study, guidelines for communication are developed with the main aim of enhancing the communication skills for nurses who are caring for patients diagnosed with tuberculosis.

Enhance: It is a verb that means to make something become better, to improve, or to increase in quality (Collins English Dictionary, 2009). In this study, to enhance means to improve the communication skills of the nurses who are caring for patients diagnosed with tuberculosis.

Communication: It is a process during which the sender is transmitting ideas or a message to a receiver, and moreover, effective communication occurs only when the receiver understands the exact idea that the sender intends to transmit (Clark, 2008). In this study, communication refers to the exchange of TB health information with the aim of ensuring a shared understanding between the nurse and the patient. The communication process consists of a sender, the message, a receiver, feedback, and an environment (Doyle, 2005).

Communication skills: The term refers to sets of skills, including transmission of information, modes of communication, and the communication behaviour (Clark, 2008). In this study, communication skills mean the set of communication skills that enables a nurse caring for patients diagnosed with TB to convey TB health information in such a way that it is received and understood by patients. Communication skills involve listening skills, asking questions skills, telling, and showing respect and empathy.

Nurse: A person who is educated and trained to care for the sick or disabled (Oxford Dictionary, 2004). In this study, a nurse refers to a trained person who looks after the patients diagnosed with tuberculosis and who is registered or enrolled with the Health Professions Council of Namibia (Nursing Act, 2004).

Caring: It is the practice of providing social or medical care (Collins English Dictionary, 2009). In this study, caring refers to the provision of health care to a patient diagnosed with TB; for example giving health information, providing treatment, and conducting follow-up consultations of patients with TB.

Patient diagnosed with tuberculosis: It is a person with two or more sputum smear examinations that have tested positive for acid fast bacilli (MoHSS, 2006). In this study, a patient diagnosed with tuberculosis refers to a patient who is suffering from any type of tuberculosis (pulmonary and/or extra pulmonary tuberculosis).

1.9 SUMMARY

This chapter provides the basic foundation of the report. An introduction and background to the problem of the communication skills of the nurses who are caring for patients diagnosed with tuberculosis in the Khomas Region have been discussed. It has led to the formulation of the study question, main purpose, and the objectives of the study. The significance, paradigmatic perspective, definition of key concepts of the study has also been emphasised.

Chapter 2 discusses the literature review that has been conducted for the study.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

The problem and the purpose of the study are outlined in Chapter 1. This chapter presents a review of related literature about communication skills of health care workers in relation to TB. The literature review has been guided by the objectives of the study. Several sources have been consulted; including medical textbooks, medical research journals, research documents, different articles and books, MoHSS reports and guidelines, WHO reports, and policy documents.

The purpose of a literature review is to provide the researcher with up-to-date data that discusses the research findings about a particular topic, while it is providing a point of departure for other goals, such as a justification for future research in the area (Cano, 2002; Cronin, Ryn, & Coughlan, 2008). It orientates the researcher with respect to existing knowledge about the topic under investigation. A literature review also aims at preventing unnecessary duplication of efforts.

The literature of this study is being presented in two parts. The first part briefly introduces an overview and description of tuberculosis disease, including the drug-resistant tuberculosis (DR-TB), and the second part presents communication in relation to tuberculosis. The gap detected during literature review has revealed that

little is known about communication skills of nurses who are specifically caring for the patients diagnosed with tuberculosis in Namibia.

2.2 TUBERCULOSIS

Tuberculosis is a bacterial disease that is caused in most cases by micro-organism called *Mycobacterium tuberculosis*. It presents a wide variety of clinical forms, but is most often found in the lungs (pulmonary involvement), and it is most important epidemiologically since it is primarily responsible for the transmission of infection (WHO, 2004b; Lukas & Gilles, 2003).

2.2.1 Global tuberculosis situation

Globally, tuberculosis is the main cause of human suffering and death that results from infection; despite the fact that it is a preventable, treatable, and curable disease. According to the WHO (2003b), two billion people are infected with *Mycobacterium tuberculosis*. Nine million new cases are reported every year and two million die every year from the disease. Globally, the incidence of tuberculosis has increased since the mid-1980s and continues to grow by one per cent each year (WHO, 2006). In 2006 alone, 9.2 million new cases and 1.7 million deaths from tuberculosis have been reported worldwide (MoHSS, 2009/2011, p.1; WHO, 2008a, p.1). Asia accounts for 55% of global TB cases, Africa accounts for 31%, and the other three regions account for relatively small fractions of global cases (WHO, 2008a, p. 4). Figure 2.1 shows 11 countries globally with a higher TB case notification rate in

2006 according to the 2008 Global TB Report. Namibia, where the Khomas Region (the site of this study) is situated, ranks second.

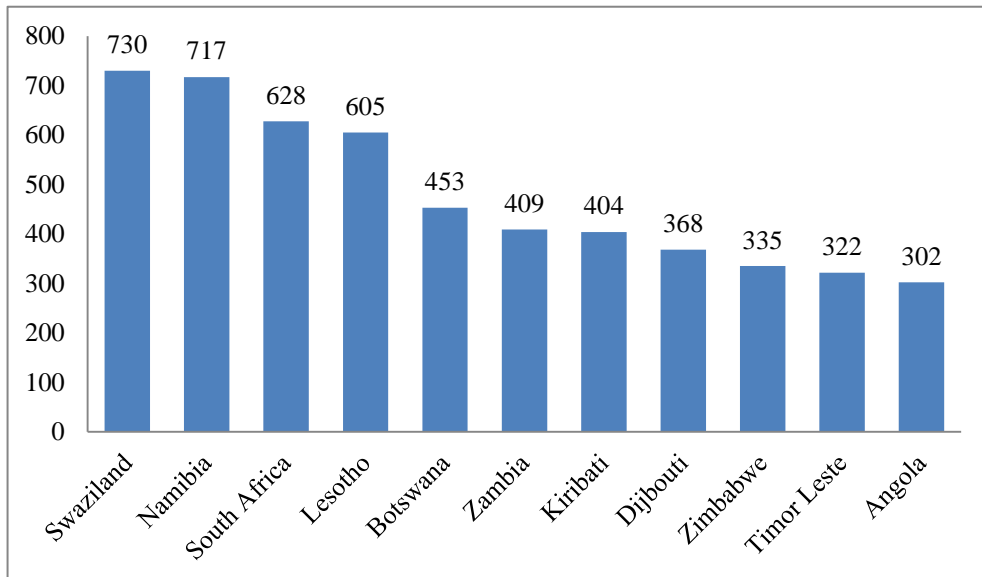


Figure 2.1: Eleven countries globally with a higher tuberculosis case notification rate in 2006

Source: (MoHSS, 2007/2008, p.8)

2.2.2 Tuberculosis in Africa

The African region has the TB incident rate of 363/100 000 population (WHO, 2008a, p. 3). It has been estimated that Africa accounts for 2.4 million new tuberculosis cases every year, of which 540 000 are fatal. In 2000, Sub-Saharan Africa had the highest incidence of 290 per 100 000 population per year. Death

caused by tuberculosis comprises 25% of all avoidable deaths in developing countries (WHO, 2004a, p. 25).

2.2.3 Tuberculosis in Namibia

Namibia reported a tuberculosis incidence of 722 cases per 100 000 population in 2007 (MoHSS, 2009, p.1). In 2006 alone, Namibia reported a case notification rate of 717 per 100 000 population and it was the second highest case notification rate after Swaziland (Figure 2.1) with a case notification rate of 730 per 100 000 population (MoHSS, 2007/2008, p.8). In 2004, Namibia reported a case notification rate of 822 per 100 000 population; it was the highest incidence ever reported in the world (MoHSS, 2006, p.1).

The growing number of patients diagnosed with tuberculosis adversely also affects the economy of the country, since the disease primarily afflicts those citizens who are of economically productive age. In Namibia, 90% of smear positive patients reported in 2004 were between the ages of 15 and 54 years (MoHSS, 2004). Two factors compound the Namibian economic burden; namely heavy government spending on tuberculosis medication, and the cost of caring for large numbers of children who are orphaned by HIV/AIDS.

Among all 13 regions in Namibia, the Khomas Region (the site of this study) is mostly (Table 2.1) reported to have the highest burden of tuberculosis in Namibia

every year. Table 2.1 displays the number of tuberculosis cases that are notified per region, indicating that the Khomas Region ranks first during 2009.

Table 2.1: Burden of tuberculosis by region in Namibia during 2009

Region	Notified cases of all forms of TB	Ranking by disease burden	%Contribution to national disease burden
Khomas	2 363	1	18
Kavango	1 462	2	11
Erongo	1 267	3	10
Ohangwena	1 204	4	9
Otjozondjupa	1 159	5	9
Oshikoto	1 126	6	8
Omusati	957	7	7
Karas	910	8	7
Oshana	846	9	6
Hardap	714	10	5
Caprivi	589	11	4
Omaheke	445	12	3
Kunene	290	13	2
Namibia	13 332		100

Source: (MoHSS, 2009/2010c, p. 25)

2.2.4 Drug-resistant tuberculosis in Namibia

The United States Agency International Development (2010) estimates that globally, deaths from active tuberculosis are expected to reach five million per year by 2050, and drug-resistant TB is one the main causes of this predicted mortality rate. The WHO (2008b, p. 2) also reports that the annual global Multi-drug-resistant Tuberculosis (MDR-TB) burden is estimated at around 490 000 cases or 5% of the global burden. MDR-TB is a dangerous form of tuberculosis, since it is resistant to isoniazid and rifampicin that are the two most powerful anti-TB drugs for the treatment of tuberculosis. Extensively Drug-resistant Tuberculosis (XDR-TB) is resistant to the first line and the second line drugs, and these patients are left with treatment options that are much less effective. Often, it also has worst treatment outcomes (Centres for Disease Control and Prevention [CDC], 2010). Treatment for DR-TB with reserve drugs requires especially lengthy, very expensive treatment, while it is more toxic than treatment with essential drugs (CDC, 2010; MoHSS, 2006). The emergency of drug-resistant tuberculosis is the evidence of failure of the global community to tackle the curable TB disease (Sigh, Upshur, & Padayatchi, 2007).

In Namibia, resistance to anti-TB medicine becomes one of the main formidable challenges in the management of TB cases due to its complex diagnostic and treatment challenges. It has been estimated that Namibia is diagnosing and treating about 300 drug-resistant tuberculosis cases every year (MoHSS, 2009-2011, p.2). In 2009 alone, a total of 372 cases of all forms of DR-TB were reported in Namibia.

Although DR-TB has been reported in almost all regions in Namibia, the majority of the cases are reported in the Kavango Region with 48 cases, followed by the Khomas Region (the site of this study) reports 38 cases (MoHSS, 2009/2010c, p.12). Figure 2.2 displays the DR-TB cases in Namibia in 2009.

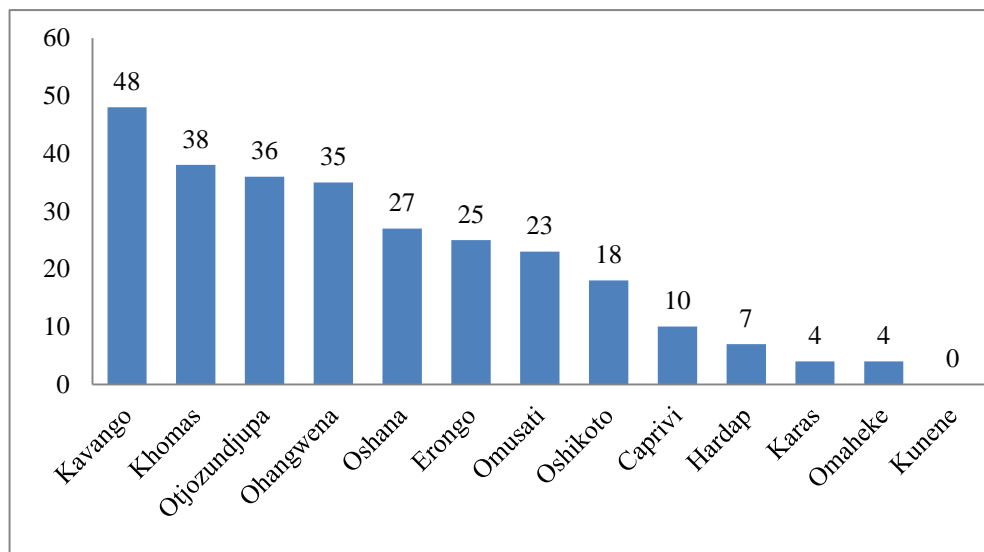


Figure 2.2: DR-TB cases in Namibia in 2009

Source: (MoHSS, 2009/2010c, p. 12)

2.2.5 Tuberculosis/Human Immunodeficiency Virus co-management in Namibia

Despite the fact that the treatment of tuberculosis is effective and widely available, tuberculosis remains one of the earliest opportunistic diseases that develop amongst people (the youth and adults of both genders) who are infected with HIV

(Ngamvithayapong, Winkvist, & Diwan, 2000). It is estimated that between 50% and 70% of patients with tuberculosis notified in Namibia are also HIV-positive (MoHSS, 2006, p.2). Moreover, HIV-infected persons have a 30 – 50 times higher risk of developing TB disease after being infected with TB bacteria (MoHSS, 2009, p.1).

Therefore, Namibia targets to achieve HIV testing rates of more than 95% among tuberculosis patients. Concerted efforts have been implemented to achieve that target. Despite all efforts, Namibia has only achieved a 74% HIV testing rate in 2009 (MoHSS, 2009/ 2010c, p.17). Among the regions in Namibia, Kunene has achieved 96%, while the Khomas Region had the lowest proportion of patients with a known HIV status of only 59% in 2009 (MoHSS, 2009/2010c, p.17). Table 2.2 displays HIV testing figures of TB patients in Namibia in 2009.

Table 2.2: HIV testing figures of TB patients in Namibia in 2009

Region	All forms of TB	TB cases with known HIV status	Percentage (%) with known status
Caprivi	589	364	62
Erongo	1 267	740	58
Hardap	714	553	77
Karas	910	703	77
Kavango	1 462	1 104	76

Region	All forms of TB	TB cases with known HIV status	Percentage (%) with known status
Khomas	2 363	1 389	59
Kunene	290	279	96
Ohangwena	1 204	991	82
Omaheke	445	272	61
Omusati	957	823	86
Oshana	846	735	87
Oshikoto	1 126	851	76
Otjozondjupa	1 159	1 045	90
Namibia	13 332	9 849	74

Source: (MoHSS, 2009/2010c, p. 17)

2.2.6 Targets for tuberculosis control

Worldwide, the increase in the occurrence of tuberculosis has prompted the WHO to set targets for global tuberculosis control; namely the detection rate of 70%, an 85% treatment success rate of the detected cases, and a defaulting rate of less than 5% (MoHSS, 2006, p. 3; WHO, 2002; WHO, 2004a, p. 11; Xu, 2006). The treatment success rate is accepted as the indicator in the health system that monitors the TB control performance of all health facilities in the world (WHO, 2007a).

The WHO also recommended the directly observed therapy, short-course (DOTS) as an international control strategy for tuberculosis. Directly observed therapy means

that an observer watches the patient swallowing the tablet, to ensure that the patient is taking the right medicine, in the right doses, and at the right intervals (Munro et al., 2007; WHO, 2003b). Like all other countries, Namibia has also adopted DOTS strategy in 1993, and it is reported to be successfully implemented throughout the country since 1996 (MoHSS, 2006, p. 1).

Since 1993, when the WHO has declared tuberculosis as a global emergency, many efforts have been implemented, mainly to control tuberculosis and to achieve the global targets. For instance, the Government of the Republic of Namibia has pursued vigorous TB programmes which aim at eliminating TB. Commitment in this regard is evident from the following efforts: purchasing all anti-TB medicine, paying for all sputum examinations, providing the infrastructure and human resources for TB treatment, and providing free treatment and admission for all patients diagnosed with TB. The multilateral and bilateral partners, as well as international and non-governmental organisations are also supporting the efforts of the government (MoHSS, 2006; MoHSS, 2007/2008).

Despite all these efforts, problems in TB management are still significant, for instance the tuberculosis case notification rate has steadily increased from 656 per 100 000 population in 1997 to 722 per 100 000 population in 2007 (MoHSS, 2007/2008, p. 9). Another challenge is the emergence of drug-resistant TB of 268, which has been reported in Namibia by the end of 2007 (MoHSS, 2007/2008, p.16). In 2009, Namibia reported DR-TB of 372, with the Khomas Region ranking number

two with 38 cases, following by the Kavango Region with 48 cases (MoHSS, 2009/2010c, p.12) as mentioned on page 29.

Moreover, the Khomas Region has failed to attain the global target of 85% by attaining only a 70% treatment success rate for retreatment cases in 2008 (MoHSS, 2009/2010c, p. 34). The Khomas Region also has a much higher defaulting rate that is ranging from 10% in new sputum smear for pulmonary tuberculosis (PTB) to 19% in other forms and smear not done for PTB adults (MoHSS, 2007/2008, p. 28). Based on such statistics, it is clear that the Khomas Region is experiencing problems with regard to management of tuberculosis.

Literature shows that most of these problems with regard to management are mostly caused by errors in communication in any organisation (Clark, 2008). Therefore, this study focuses on communication and is mainly based on a communication model that offers insights into the ways in which communication is conceived.

2.3 CONCEPTUAL BASIS/APPROACH OF THE STUDY

The study is based on The Shannon and Weaver Transmission Model of Communication (Chandler, 2008). According to Chandler, the model has been developed by Claude Shannon and Warren Weaver in 1949 as the best known example of the information approach to communication. There are of course other models of communication available; for instance Aristotle's simple linear model of communication, Laswell model of communication, and others models (Croft, 2004).

However, The Shannon and Weaver Transmission Model of Communication has been selected, since this model is widely accepted as one of the basic seeds from which communication studies have grown (Fiske, 2002). It is the most influential model of communication which reflects a common sense understanding of what communication is (Chandler, 2008). Moreover, The Shannon and Weaver Transmission Model of Communication is uncomplicated, straightforward, and easy to understand (Chandler, 2008; Fiske, 2002). The researcher is fully aware that the chosen model is quite old, but it is well recognised in the sphere of communication science (Flensburg, 2009). In this study, the elements of The Shannon and Weaver Transmission Model of communication were selected since it represents the path of TB message from the nurse caring for the patients with tuberculosis to the patients diagnosed with tuberculosis.

Despite the fact that communication is ubiquitous, it appears nonetheless difficult to define (Croft, 2004). Shannon and Weaver (1949, as cited in University of Twente, 2010, para. 3) broadly define communication as “all the procedure by which one mind affects another”. Communication occurs whenever one person in some way transmits a message and someone else picks it up and interprets it. The Shannon and Weaver Transmission Model of Communication represents the path of a message from the sender to the receiver (Shannon and Weaver 1949, as cited in Lang, 2010). The model focuses particularly on the transmission and reception of a message (Croft, 2004).

2.3.1 The elements of The Shannon and Weaver Transmission Model of Communication

According to Lang (2010), Reddie (2009), and Barton and Beck (2005), The Shannon and Weaver Transmission Model of Communication has developed from five main elements; namely information source, transmitter, channel, receiver, and destination. It has been revised and modified from time to time due to some shortfalls identified, for instance the original model of communication has not made provision for feedback or the environment as elements (Lang, 2010). According to Barton and Beck (2005), Doyle, (2005), and Reddie (2009), the following elements of The Shannon and Weaver Transmission Model of Communication are considered as crucial for effective communication to occur: source, encode, message, channel, receiver, transmit, decode, feedback, noise, and environment (Figure 2.3). The mentioned elements were adopted for this study.

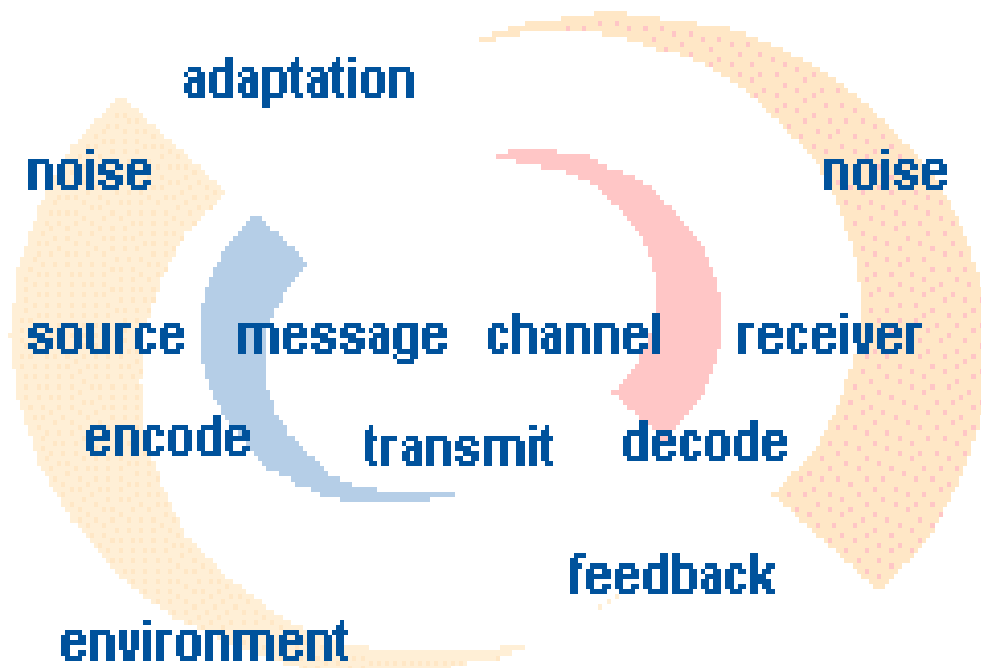


Figure 2.3: The Shannon and Weaver Transmission Model of Communication

Source: (Doyle, 2005, p. 8).

A short description follows of aforementioned elements of the Shannon and Weaver Transmission Model of Communication and how each element applies to communication between the patients diagnosed with TB and the nurses (registered nurses and enrolled nurses)

2.3.1.1 Source

According to Nordquist (2011) and Shannon and Weaver (1949, as cited in Chandler, 2008), the source is the communicator or the person who is initiating or producing a message. He or she is the person in whose head some thought exists that needs to be replicated inside another person's head (Farrand, 2005). This person who initiates the communication process takes the initiative to start the dialogue due to the fact that this individual has a specific reason for beginning the communication process.

In this study, the source refers to the registered or enrolled nurse who is registered or enrolled with the Nursing Council of Namibia. According to the MoHSS (2006), the nurses who are caring for the patients diagnosed with tuberculosis are responsible for providing the patients with all the necessary information regarding TB. Most importantly, the nurses need to be aware of the fact that patients have different cultural and educational backgrounds. Therefore, whenever they provide TB health education to the patients, they should approach patients on an individual basis (MoHSS, 2006). This point of departure requires the nurse to have good communication skills.

According to Chant et al. (2002) there are some inconsistencies with regard to the term communication skills. Some evidence discusses single sensory output or input behaviour as communication skills, such as clear and precise speech, while most texts identify clusters of different behavioural traits and sensory outputs / inputs; such as active listening, and empathy as communication skills. From these

inconsistencies, several distinctions have been drawn to demonstrate the meaning of communication skills (Chant et al., 2002).

Four levels of communicative behaviour are highlighted; namely the primary level that involves the communication process which includes the sender of the message, the message, and the receiver. The second level is the mode of communication which includes how the message is sent; for example by phone, radio, or newspapers. The third level encompasses the communication skills that are formed by and based on the process and the mode of communication. The fourth level comprises the communication strategies (Chant et al., 2002).

Clark (2008) refers to communication skills as sets of skills; including transmission of information, modes of communication, and the communication behaviour. There are two kinds of important communication behaviour that a nurse needs to employ with the purpose of meeting the communication needs of the patients. While instrumental behaviour is significant for informing the patients about the disease and the treatment, affective behaviour focuses on elements such as showing respect, and trust.

During the communication process, the patients are not only informed about the nature of their diseases and treatment, but they are also encouraged to express their anxieties and emotions. It is also a process during which an effective therapeutic relationship is established by assessing the patients concerns, showing understanding

and empathy, and providing the patients with comfort and support that are needed (Kruijver et al., 2009).

According to the MBA Knowledge Base (2012), effective communication depends on the communication skills of the communicator. Therefore, in order for the nurses to communicate effectively, good communication skills are crucially important (MoHSS, 2006). The set of required communication skills involves: non-verbal communication, verbal communication skills, feedback skills, listening skills, questioning skills, and showing respect and empathy.

Non-verbal communication

According to Windle and Warren (2009), non-verbal communication refers to the messages we send by our body language. Business Dictionary (2011) refers to non-verbal communication as the “transmission of messages by a medium other than speech or writing”. During communication, people use 70% non-verbal communication, and 30% verbal (Haaland & Molyneux, 2006, p. 34). As a result, people have to use positive non-verbal communication.

Most importantly, in this study it is important that the sender (nurse) should be aware of her/his own non-verbal communication as well as the non-verbal communication of the patients whenever she/he is providing TB health messages to patients with tuberculosis. It is important because non-verbal communication has a number of functions; for example it primarily conveys messages about emotions, and people

base their feelings and emotional responses more on what another person does and less on what another person says (Haaland & Molyneux, 2006; King, 1997). It is the single most powerful form of communication, more than voice or even more than words. Non-verbal communication has five times the effect of verbal communication on a person's understanding of messages (Kirwan, 2009).

Moreover, when verbal and non-verbal communications are contradicting, people tend to believe the non-verbal, since it is more difficult to manipulate non-verbal messages. Old folk say: "*actions speak louder than words*" (Heathfield, 2011; King, 1997, para. 4). You may be surprised to know that not only people respond to non-verbal communication but also animals, for example a dog or chicken. A dog follows direction and responds to hand and body movements more than to the accompanying words. It emphasises the importance of non-verbal communication.

People show most of their emotions non-verbally, for example by means of facial expression. The other forms of non-verbal communications are: nodding of head, eye contact, body movement and gesture, touch and space, and the tone of voice. It may also include the way people wear the clothes (Haaland & Molyneux, 2006; Segal, Smith, & Jaffe, 2010).

Facial expression and nodding of head: The human face is extremely expressive, able to express without uttering any words. The expressions communicate the attitudes of the communicator. The face is the most important conveyor of emotional information. It can either light up with enthusiasm and approval, or express

confusion and boredom. Unlike some other forms of non-verbal communication, facial expressions are universal among all cultures. For example, the facial expressions of happiness, sadness, anger, fear, and disgust are similar across all cultures. Smiling communicates friendliness and cooperation in all cultures (Segal et al., 2010; Windle & Warren, 2009). It means that the receiver of the message can rely heavily on the facial expression of the sender due to the fact that expressions are better indicators of the meaning behind the message than the words that are accompanying the non-verbal communication.

Likewise, information gleaned from facial expressions will indicate whether the listener is pleased, puzzled or annoyed by observing particularly the areas of the mouth and the eyes (Kirwan, 2009). Therefore, it is important that the verbal message should be congruent with the non-verbal facial expression.

Nodding of the head indicates that the person is listening attentively to another person (Segal et al., 2010; Windle & Warren, 2009). In Western cultures, nodding of the head illustrates agreement. People using appropriate head nodding are considered to be more empathetic, open, and warm; all desirable attributives of a caring professional (Kirwan, 2009).

Eye contact: Eye contact is the most important type of non-verbal communication, since it is a direct and powerful form of communication. It is important in maintaining the flow of discussion, due to the fact that the visual sense is dominant for most people. Looking at the person when communicating is an indicator of the

person's desire to convey interest, empathy, and warmth. The way people look at other people can communicate many things; for example interest, joy, intimidation, sadness, anger, hostility, or attraction. For example the direct stare of the sender of a message conveys candour, honesty, and openness. Eyes rolled upwards convey fatigue (Haaland & Molyneux, 2006; Pullen & Mathias, 2010; Segal et al., 2010).

Body movement and gesture: This type of non-verbal communication includes the posture, stance, and subtle movement. The body postures can either produce a feeling of warm openness, or rejection. A posture of arms crossed on the chest represents a feeling of rigidity. An action of gathering one's belongings shows a desire to end the engagement in conversation (Windle & Warren, 2009). Gestures are part of our daily communication. People are waving, pointing, and most of the time using hands when arguing or speaking with the purpose of expressing oneself with gestures, sometimes without thinking.

However, according to Segal et al. (2010), the meaning of gestures can be interpreted differently by different cultures and in different regions. Therefore, it is very important to carefully avoid misinterpretation. A good body posture radiates self-confidence, health and mental wellbeing. Neglecting this area of communication can cause messages to be conveyed less effectively. The acronym SOLER is very useful when applying posture in practice (Kirwan, 2009, p.10):

- S Sit squarely in relation to the patient;
- O Maintain an open position;
- L Lean slightly forward;
- E Maintain appropriate eye contact; and
- R Relax.

Touch and space: People are communicating a great deal with touch; for example people are sending certain messages by a firm handshake, a timid tap on the shoulder, a warm bear hug, a reassuring pat on the back, or a controlling grip on the arms. Touch does not only facilitate the sending of the message, but it also facilitates the emotional impact of the message.

Physical space can be used to communicate many different non-verbal messages; for example signals of intimacy, aggression, dominance, or affection. People feel uncomfortable during conversation because the other person is standing or sitting too close to them and invading their personal space. However, it also depends on the culture, and the type of relationship, for instance people from certain regions, such as Latin America or the Middle East, often feel comfortable when they are standing closer to one another, but people from Northern European descent tend to prefer a relatively wider distance (Blatner, 2009; Segal et al., 2010).

Voice: With tone of voice people show the attitudes and the feelings. People are communicating with voices even though they are not using words. Non-verbal

speech sounds such as tone, pitch, volume, rhythm, and rate are also important non-verbal communication elements. When people are speaking, then others are reading the voices in addition to listening to the words. These non-verbal speech sounds provide subtle, but powerful clue into what people really means. For example tone of voice can indicate sarcasm, and anger (Segal et al., 2010). Hence a warm voice conveys empathy, while too loud tone may be provoking the anxiety.

Non-verbal communication is important in human beings' daily lives, and it has a huge impact on the quality of relationships, for instance it assists people to understand other people, including emotions they are feeling and the non-verbal messages they are sending while communicating (Segal et al., 2010). Non-verbal communication can occur even though the other person cannot talk (hard of hearing or deaf); a person can communicate at a place where noise is restricted, for example near a very sick person; a person can communicate something which one does not want other people to hear (confidential message); and non-verbal communication make conversation short and brief. It is very important for people to realise that all non-verbal communication has effects on the other persons. Non-verbal communication appears to be more important with respect to building rapport with other people and for conveying empathy and support (Kruijver et al., 2006).

However, most people are sending confusing non-verbal signals without even knowing it, and when it happens, both trust and meaningful interaction are lost (Segal, Smith, and Jaffe, 2010) Another problem with non-verbal communication lies

in the fact that these conversations are usually short, without an opportunity to discuss the particulars of a message.

Verbal communication

Cutajar (2010) refers to verbal communication as the message that is transmitted by a conventional set of arbitrary signals, usually called language. Verbal communication refers to the content of the messages, the choice, and the arrangements of the words. Verbal communication serves as a vehicle for expressing ideas and concepts and it is vital to the process of learning and teaching (Media, 2011). The main reason for verbal communication is to get the message across to other people clearly, which means that people need to understand what is being said (Berger, 2005; Haaland & Molyneux, 2006).

It is important to note that when a person speaks, only 10% of the words get assimilated by other people who are listening (Meneshella, 2001, para. 2). Therefore, when we expect people to understand our messages, we should be careful with the words we choose. Some people believe that using difficult words will impress the audience; however, it can only lead to confusion and misinterpretation (Meneshella, 2001). If someone needs a dictionary to decipher the meaning of the words that are used, then there is a possibility that the meaning will be lost. Meneshella makes it clear that when conveying a message, one always needs to remember KISS (para. 7) which means to “keep it short and simple”.

Furthermore, listening to a rambling, unorganised speaker is discouraging. Too long, too complicated and disorganised speech is confusing to the listeners; and it loses its concreteness, relevance, and its impact. Effective messages are brief, free of jargon, organised, succinct, and more importantly, effective messages do not create resistance in the listener (Berger, 2005; Bradshaw, 2008; Windle & Warren, 2009).

The main disadvantage of verbal communication is miscommunication, which only occurs when the listener (receiver) hears one thing while the speaker (sender) intends conveying a different message. Despite the miscommunication, verbal communication does not require lots of repetition, and it also allows for immediate feedback, for example it affords listeners with a chance to ask questions when the meaning is not clear.

In this study, the nurses are always required to choose their language carefully in order for the patients to receive the message properly.

Constructive feedback

Feedback should be constructive and specific. While it will help another person to be amenable to constructive criticism, it will also facilitate improvement. Comment should be made about positive things first. When listeners are in a positive mood, it will assist to listen and receive constructive feedback with an open mind. For example; a patient who reports early to collect TB treatment, or a patient who takes his/her TB treatment regularly should be complimented for doing so. It will

encourage her/him to continue because her/his efforts do not go unnoticed, and thereafter feedback should also be provided about the areas that need improvement.

Direct blaming and criticism should be avoided by all means, since it implies that the one who is criticising is better than the one who is receiving the message. It causes a person to feel inferior, bad, withdrawn, passive, and not willing to take part in any activity (Haaland & Molyneux, 2006).

Listening

“We were given two ears, but only one mouth, because listening is twice [as] hard as talking” (Nadig, 1999, para. 1).

Windle and Warren (2009) refer to listening as a combination of hearing what another person says and a psychological involvement with the one who is talking, and listening requires more than merely hearing words. It requires a desire to understand another person, and it furthermore requires the attitudes of respect and acceptance. Listening also requires a higher level of concentration. True listening requires the suspending of personal judgments, evaluations, and approvals in an attempt to understand another person’s points of view. Listening skills are harder than most people think, since people assume that listening is a natural ability because it is based on what they hear. However, listening requires practice, since it is an acquired skill just like reading or writing (Traylor, 2003).

According to Screedhar (2011,) listening is often confused and interchangeably used with hearing. However, hearing is passive, while listening is active. Hearing is not listening. Listening requires focusing on the speaker. Skilful listening involves the ability to evaluate ideas, to recognise the differences between fact and opinion, and to ask questions to clarify communication. Active listening skills include paraphrasing, summarising, focusing, and asking questions.

Paraphrasing as a listening skill enables the listener to put the message into his / her own words to demonstrate that she/he has not only heard but also understands. Paraphrasing includes key facts and feelings that the speakers wish to communicate. It shows respect to the speaker and it allows the speaker the opportunity to confirm that he/she is understood. Furthermore, it slows down the conversation process, and reduces the intensity of any conflict, since issues are clarified (Traylor, 2003; Perkins & Fogarty, 2009). While paraphrasing, it is important not to add to or to distort the meaning of a message.

Summarising is a listening skill that is useful for clarifying specific information provided during a discussion or for prompting a person who gets stuck during the conversation. It involves extracting the main topics of the discussion and organising them for review or correction. Focusing skills are used to direct the person to follow the right direction of reasoning during discussion.

According to Screedhar (2011), listening can be active or non-active. Active listening or empathetic listening builds trust and respect and it is one of the essential skills of

good communication. It includes the ability to project oneself into the personality of another person in order to understand the emotion of that person better. It takes place when the speaker is given full and undivided attention. It involves someone who is trying to understand what the other person means from her / his perspective without judgment. Active listening makes a person feels good, respected and it stimulates openness and creativity (Haaland & Molyneux, 2006). Active listening is very important due to the following reasons:

- It is a good way of obtaining adequate information;
- It encourages people to be more open and creative;
- It makes people feel more valued and respected; and
- Active listening also encourages people, since it implies full attention of the listener (Haaland & Molyneux, 2006, p. 45).

Poor listening includes: inactive listening and selective listening. There is a proverb that says “*in one ear and out the other*” (Screedhar, 2011, para. 5). Inactive listening means being present when a person is talking, but not assimilating what is being said. It means the person hears the words but the mind is wandering and no communication is taking place, while selective listening refers to hearing what one prefers to hear instead of listening to what is actually being said. Wherein this instance, the listener hears only part of the message before replying immediately without waiting for the speaker to complete the message.

Poor listening also includes the following: not looking at the speaker, showing interest in something else other than conversation, rushing the speaker, and making him/her experience that he/she is wasting time (Traylor, 2003). All these actions discourage the speaker to continue talking. Shannon and Weaver (1949, as cited in Lang, 2010), state clearly that on the path of transmission, inferences may occur which may lead to the signal being received differently from the message that is being sent. Therefore, listening and giving feedback are very important during communication.

After active listening, it is also very important for a nurse to verify that the patient has fully understood the message by requesting the patient to explain the message in his / her own words.

Questioning skills

The main reason for asking questions is to obtain required information that will assist with providing the quality care to the client or to the patient. The only good way of achieving quality care is to provide an equal opportunity to the patient to ask, as well as to answer questions (Kirwan, 2009).

The questions can be classified as open-ended or descriptive questions and closed-ended questions, and a third category that consists of subgroups like probing questions, leading questions, and reflective questions. Open-ended or descriptive questions; like what, where, how, and please tell me more; assist one to obtain more

information (Haaland & Molyneux, 2006). Descriptive questions also lead to more open conversation, and establish a better understanding of another person's opinions or issues (Nordquist, 2011). The advantage of asking descriptive questions lies in the fact that the responders are encouraged to freely say whatever they like. The only drawback is that these types of questions are time consuming due to the responders taking more time to answer.

Sometimes closed-ended questions are also needed to be asked by probing to obtain required information. These questions are helping to verify the understanding of another person. While these types of questions are limiting explanations, they can elicit important and concise information.

When all the nurses are communicating effectively with the patients, and answer their questions clearly, it can increase the patients' confidence in health care in general. In order to communicate effectively, communication skills are vitally important.

It is very important for the nurse to encourage patients to ask questions with the purpose of acquiring a clear picture of what TB is. Some patients are quiet by nature, but the nurse with good communication skills should know how to encourage the patient to ask questions. Therefore, Clark, (2008) and Traylor (2003) indicate clearly that communication is an acquired skill like reading and writing and, on the other hand, it also is a behaviour.

Respect and empathy

Sihera (2007) refers to respect as a feeling of deep admiration for people because of their personal abilities, their qualities, or their achievements; and it is demonstrated by actions. Respecting someone means to take that person's feelings, needs and thoughts into considerations (Fromm, n.d.). Respect is contagious; therefore, Fromm compares respect with a boomerang in the sense that one needs to respect someone in order to be respected in return. Respecting a person includes validating their feelings, seeking understanding of their feelings, and empathising with them (Fromm, n.d.).

According to Haaland and Molyneux (2006), empathy means trying to understand another person's ideas, opinions, and needs and/or feelings from the point of view of the other person. Listening empathically can lead to good relationships (Auer, Sarol, Tannel, & Weiss, 2011; Bookbinder, 2006). Johns Hopkins University Graduate Affairs Office (2010-2011) adds that when someone is listening empathically, it means that he / she is showing the other person that he/she cares.

2.3.1.2 Encode

Wong (2003) refers to encoding as the process of expressing ideas in a format that the receiver can understand. It is the process of transferring the information the source wants to send into a format that can be sent and correctly decoded by the receiver (Mind Tools LTD, 1996-2012). It involves the formulation of a message in the communicator's mind.

The source is obliged to choose the way in which a message gets encoded with the aim of expressing his or her thoughts to someone else (Cutajar, 2010). Cutajar further explains that the meaning of the message transmitted relies on its encoding by the sender and the decoding by the receiver. Therefore, the successful transmission of a message depends on what people say or how they say it. However, failure occurs when the sender and the receiver do not interpret the message in the same way, for instance the sender may encode the message by using terms or symbols that are not understood by the receiver, and it leads to the receiver decoding the message differently from its intended meaning.

According to Mind Tools LTD (1996-2012) and Fenell (1999-2012), the key parts of successful encoding are:

Research the receiver's background: It assists the source with encoding the message effectively. It is very important for the sender to determine which code to use, for example the world language to encode the intended meaning. If the sender chooses the code known as English and the receiver (patients) do not understand English, then communication will not occur.

Choose an appropriate environment: Environment plays a crucial role in the decoding of messages by the receiver. For example, communication cannot effectively occur in a noisy environment, since the receiver cannot hear clearly in order to decode the message appropriately (Section 2.3.1.9).

Compose appearance carefully: Appearance communicates the sender's attitude to other people; for instance dress code, and hair style. Appearance presents the sender's attitude and can prevent the receiver from listening carefully, for instance if the sender (nurse) wears dirty clothes the receiver might only focus on the dirty uniform without concentrating on the message. It makes proper decoding of the message impossible.

Maintain a proper distance between the sender and the receiver: Distance when communicating depends on culture (Section 2.3.1.1).

In this study, it implies that when the nurse (encoder) and the patient with TB (decoder) share the same code (common language), meaningful communication is possible, particularly when the meaning of the message (TB health information) is shared linguistically.

2.3.1.3 Message

Message refers to the verbal/and/or non-verbal content that must be encoded by the sender and decoded by the receiver (Nordquist, 2011). A message might either be a simple word or very complex information. Most of the time during human communication, a message contains a distinct meaning.

In this study, the following are TB health information (message) a nurse (sender) should provide to the patient diagnosed with TB (receiver), and most importantly,

cultural and educational background of the individual patient should be considered (MoHSS, 2006). Furthermore, the nurse should also be confident that the TB health information he/she is providing to the patients is useful and accurate (Mind Tools LTD, 1996-2012).

Causative organisms and the contributing factors of tuberculosis

It is expected from the nurse (sender) to explain to the patient (receiver) about the causes of tuberculosis to enhance the knowledge of the patient on his/her disease, but most importantly, educational background should be considered. For example for a patient without or with primary education, a nurse can use lay language for instance a bacilli caused TB can be referred to as germs (WHO, 2003a).

However; since TB can afflict anyone, particularly people with weak immune systems (diabetes, neuroplasm, or HIV infection), it is possible to explain to well-educated persons that tuberculosis is caused by the *Mycobacterium tuberculosis* complex (MoHSS, 2006). This complex includes *Mycobacterium tuberculosis*, *Mycobacterium bovis*, *Mycobacterium macroti*, and *Mycobacterium africanum* (Caminero, 2004). *Mycobacterium tuberculosis* is the most widespread bacterium that is responsible for infection (WHO, 2004b), particularly in Namibia (MoHSS, 2012).

According to MoHSS (2006), the main factors contributing to tuberculosis in Namibia are poverty, and the HIV pandemic. HIV triggers the prevalence of TB,

since it is the major factor for the reactivation of latent TB infection into full tuberculosis disease. Poverty, with associated factors of overcrowding and poor ventilation, contributes to a higher level of transmission. Moreover, poverty promotes poor nutrition, a tendency to alcohol abuse, and smoking; these factors undermine the immunity, thereby allowing TB infection to develop into TB disease (MoHSS, 2009-2011).

Classification of tuberculosis

The main reason why the receiver should be informed about the classification of tuberculosis is the infectious nature of TB of the lungs, and if the patient is not aware thereof, he/she might be moving about freely without knowing that tuberculosis is infectious. The explanation of the classification is crucial in order for them to take precautions, by practising cough hygiene, not to infect other people (MoHSS, 2006).

Furthermore, according to MoHSS (2006), extrapulmonary tuberculosis (EPTB) is also classified as a form of severe TB (TB meningitis, spinal TB, neuro TB, abdominal TB, pericardial effusion) and non-severe TB. In the case of severe forms of EPTB, the treatment can be extended to nine months, while non-severe EPTB can be treated adequately within six months. If patients diagnosed with TB (receiver) are not aware of this difference, they might stop the treatment on their own after six months, thinking that TB treatment lasts for a period of six months only.

Tuberculosis predominantly affects the lungs, but it can also affect any organ in the human body. Tuberculosis is categorised according to the locus of infection, for instance there are pulmonary tuberculosis and extra pulmonary tuberculosis. Extra pulmonary tuberculosis is defined as tuberculosis that affects organs other than the lungs; for example the pleura, abdomen, skin, joints and bones, and meninges (MoHSS, 2006; MoHSS, 2011b).

Clinical features of tuberculosis

TB transmission can be prevented by earlier detection of TB cases, therefore, it is important for the sender (nurse) to inform the patients (receiver) about the clinical features of tuberculosis. It will help the patient to encourage other people with whom he or she is in close contact to be checked for tuberculosis disease as soon as they are presenting with the signs and symptoms.

The common signs and symptoms of pulmonary tuberculosis are: persistent cough for three weeks or more, weight loss, night sweats, loss of appetite, fever, and chest pain (MoHSS, 2006). Other symptoms occur, depending on the organ affected; for example headache, neck stiffness, and fever indicate TB meningitis; fever, dull retrosternal pain indicates TB pericarditis; swelling, occasionally with pus drainage, indicates that TB is affecting the lymph nodes; while joint pain, and swelling indicate TB of either the joints or the bone (MoHSS, 2006; MoHSS, 2011b; WHO, 2008a).

Transmission and pathophysiology of tuberculosis

The sender (nurse) should explain to the receiver (patient diagnosed with TB) how tuberculosis is transmitted in order to contain the disease transmission chain by practising cough hygiene at all times (MoHSS, 2006; WHO, 2003b).

When patients with pulmonary tuberculosis laugh, speak or sing, and particularly when they cough or sneeze, they produce a vapour of droplets from the bronchial tree. These droplets contain a number of bacilli that causes them to be infectious. When they become airborne, the droplets dry rapidly and become very light particles that are containing live bacilli which remain suspended in the air. The close proximity of this patient elevates the risk of inhaling these bacilli. Upon inhalation of the bacilli, they settle in the lungs and cause a glandular enlargement. As a result, the infected person may develop pulmonary tuberculosis. Sometimes, bacilli may spread through the blood stream to other parts of the body where they may produce extra pulmonary tuberculosis; such as TB of the spine, and TB of the abdomen (Ait-Khaled & Enarson, 2003).

Diagnosing of tuberculosis

Whenever PTB is suspected, a sputum smear must be collected. This procedure requires a patient's understanding and cooperation, therefore, the sender (nurse) is responsible for informing the patient about the proper procedure. The earlier the

diagnosis is made, the better the treatment outcome and it also helps to control the transmission of TB (MoHSS, 2006).

In most cases, according to MoHSS (2006), diagnosing tuberculosis is straight forward, since the suspected cases nearly always have chronic respiratory symptoms; such as a persistent cough, chest pain, and shortness of breath. Direct microscopy (DM) is an important investigatory procedure for the diagnosis of pulmonary tuberculosis because it is inexpensive, quick, and reasonably specific.

All adults suspected of being infected with TB are requested to provide three sputum specimens within a twenty-four hour period. A patient with at least two positive smear results is considered to have pulmonary tuberculosis. Extrapulmonary tuberculosis is diagnosed from fluids of serous effusion, cerebrospinal fluid, or biopsied fragments that are sent to laboratory for culture testing (MoHSS, 2006; Tuberculosis Coalition for Technical Assistance [TBCTA], 2006).

Treatment of tuberculosis

The nurse should explain to the patient that the purpose of tuberculosis treatment is to cure patients with tuberculosis, to prevent death or to prevent complications, to prevent TB relapses, to reduce the disease transmission chain, and to prevent the development of acquired drug resistance TB (WHO, 2003b, p. 27; WHO, 2004b). This information motivates the patient to complete the treatment regimen as

prescribed, more particularly when he/she is aware of the fact that tuberculosis is curable.

The treatment of tuberculosis has an initial phase, lasting two months (2RHZE) and a continuous phase, usually lasting for 4 to 6 months (4RH). During the initial phase, normally consisting of treatment with Isoniazid, Rifampicin, Pyrazinamide, and Ethambutol, the tubercle bacilli are killed rapidly. During the continuous phase, fewer drugs are necessary, but they need to be given for a longer time (WHO, 2003b; Enarson, Rieder, Annatoddir, & Trebucq, 2000).

The duration of treatment is primarily determined by the eminence of tuberculosis bacilli in the body that need to be killed by TB medicine, and the penetration of tuberculosis medicine in the tissue where the bacilli live. In severe forms of extra pulmonary tuberculosis, the treatment duration may be extended to nine months. Severe forms of EPTB are TB meningitis, neuro TB, pericardial effusion, abdominal TB, and bone and joint TB and usually more than one locus is involved. In the instance of non-severe TB forms, the treatment duration of six months is more than adequate (MoHSS, 2006). This information will assist the patient not to stop treatment his/her independently before time.

The anti-TB medicine has different modes of action for killing the TB bacilli. For instance, Isoniazid and Rifampicin are the most powerful bactericidal drugs active against all populations of TB bacilli. Pyrazinamide and Streptomycin are also bactericidal against certain populations of TB bacilli, while Ethambutol is used in

association with more powerful drugs to prevent the emergence of resistant bacilli (WHO, 2003b). This information will help the patient not to be selective when taking the TB treatment.

Table 2.3 displays the names of the anti-TB treatment, mode of action, and its dosage. Without treatment, seven in ten people with infectious TB will die of TB within four to five years, despite the patient's age at the time of contracting tuberculosis (WHO, 2007b).

Table 2.3: Anti-TB medicine, mode of action, and dosage

Generic name	Abbreviation	Mode of action	Dosage
Rifampicin	R	Bactericidal	10(8-12)
Isoniazid	H	Bactericidal	5(4-6)
Pyrazinamide	Z	Bactericidal	25(20-30)
Streptomycin	S	Bactericidal	15(12-18)
Ethambutol	E	Bacteriostatic	15(15-20)

Source: (MoHSS, 2006, p. 4)

Prevention of tuberculosis

According to MoHSS (2006), there are three types of prevention of tuberculosis, namely preventing TB infection (primary prevention), preventing tuberculosis disease (secondary prevention), and preventing the morbidity and mortality (tertiary prevention).

Primary prevention: It includes simple practices, such as good cough hygiene. This practice requires a person to hold a cloth or handkerchief over his or her mouth and nose when coughing. Patients with tuberculosis should also refrain from spitting on the floor or ground. Instead, they need to do so into a handkerchief or a container before the sputum is discarded in safe places like the toilet. This very simple measure greatly reduces the spread of infectious tuberculosis bacilli in the environment and, moreover, it reduces the risk of transmission (MoHSS, 2006).

Another primary preventive practice is the provision of adequate ventilation. Ventilation is the simplest and least expensive method that basically removes and dilutes the load of infectious tuberculosis bacilli in the air of confined spaces by channelling it away from other people without TB. Ventilation methods can be natural or mechanical. A natural method relies on open doors and windows to bring air from outside, while mechanical ventilation includes fans, air conditioning, and ultraviolet germicidal irradiation (MoHSS, 2009).

Yet another primary prevention measure is the prevention of overcrowded areas that are very common in poor socio-economic settings, such as prisons, police cells, slums and army barracks. The larger the distance between an infectious person and other people, the less the risk of tuberculosis infection. The provision of Isoniazid preventive therapy to an infant of a mother with a positive tuberculosis sputum smear is also another prevention measure (MoHSS, 2006).

Secondary prevention: Vaccination (Bacillus Calmette-Guérin) is one of the major preventive measures against TB disease among children. It provides children with good protection against severe forms of TB with the aim of reducing mortality and morbidity (Rieder, 2002; Pio & Chaulet, 1998). Furthermore, HIV greatly increases the risk of a person developing TB disease. Therefore, prevention of HIV infection is one of the most important measures for the prevention of tuberculosis (WHO, 2003c). It is extremely important for a patient to know his/her HIV status for the purpose of providing a patient with better treatment, including anti-retroviral (ART) and cotrimoxazole prophylaxis. To realise this objective, it is expected from the nurses to persuade all TB patients to have an HIV test conducted (MoHSS, 2006).

TB disease can also be prevented by providing tuberculosis isoniazid preventive therapy (TB IPT). TB IPT is very effective in preventing tuberculosis disease in a person who has been infected with tuberculosis bacilli (MoHSS, 2006). Good nutrition is another important factor in preventing TB disease developing from TB infection (MoHSS, 2006).

Tertiary prevention: A critical measure of preventing mortality and morbidity is the completion of TB treatment by TB infected patients. The completion of a treatment course prevents further transmission of tuberculosis, the occurrence of drug-resistant TB, and deaths (MoHSS, 2006).

Tuberculosis and nutrition

When providing information, it is very important that the nurse emphasises what foods are locally available, while explaining the nutritious importance of these foods. It will prevent a patient from buying unnecessary food from shops. Since some TB patients are not working, they do not have the financial means to buy all the food they need.

The patients diagnosed with TB should be informed that infectious diseases, such as tuberculosis, are accompanied by a variety of nutritional and metabolic responses in the body. The response to infection is associated with an increase in energy expenditure of the patient, and the degeneration of tissue to varying degrees. Complex changes occur in the metabolism of all macronutrients, especially proteins, carbohydrates and fats. The increase in protein breakdown leads to muscle-wasting in tuberculosis patients. In turn, more energy is expected for the body to fight infections (Nutrition Information Centre University of Stellenbosch, n.d.).

At the time of diagnosis, patients with active tuberculosis have depressed blood concentration of several micronutrients; including retinol, vitamin C and E, haemoglobin, zinc, and iron (USAID, 2010). Therefore, tuberculosis patients need to be on proper and well-balanced meals while being treated; because TB, in particular, thrives where the immune system is compromised (MoHSS,2006; Van Rooyen, 2004).

Tuberculosis, alcohol, and smoking

According to Van Rooyen (2004), alcohol should be avoided under all circumstances by patients with tuberculosis because it lowers the immune system. Moreover, excessive alcohol consumption by any individual might indeed increase the risk of tuberculosis. Alcohol can also increase drug side effects and toxicity, since alcohol, like TB medicine, affects the liver (MoHSS, 2006). Smoking reduces the local immunity in the lungs, therefore, it should also be avoided by patients with tuberculosis (Van Rooyen, 2004).

Tuberculosis, family planning, and pregnancy

Anti-tuberculosis medicine, such as Rifampicin, is most strongly suspected for drug interaction. Therefore, it can cause hormonal methods of family planning to be less effective which can lead to an increased pregnancy rate. Women who are treated for tuberculosis should be encouraged to use different family planning methods (Bupa's Health Information Team, 2010; Hesperian Organization, 2010; Jelovsek, 2011). According to the WHO (2003b), women who are receiving oral contraceptives may choose between two options while taking rifampicin. They can either use any other oral contraceptive pills that contain a higher dose of oestrogen, or to use other forms of contraception.

Furthermore, a pregnant woman should never take streptomycin because it may cause deafness of her baby at birth (Hesperian Organization, 2010).

A description follows of the other important elements/concepts that are addressed by The Shannon and Weaver Transmission Model of Communication (Doyle, 2005).

2.3.1.4 Channel

The channel is the medium or a vehicle that conveys the message from the source for delivery to the receiver (Nordquist, 2011). It is the part of that communication process that helps to carry a message from the sender to its desired destination. In short, it can be referred to as a route that a message is travelling.

In this study, the nurse is expected to provide the TB health information (message) to the TB patient during a face-to-face (verbal route) discussion that forms part of daily care (MoHSS, 2006). According to Farrand (2005), face-to-face communication is the most effective, since people are not communicating by means of verbal messages only. Moreover, it offers an opportunity for quick feedback and it also presents a good opportunity to observe the body language of both the sender and the receiver, for instance their facial expressions, eye contact that provides feedback whether they have understood the message, and nodding of head that indicates whether the person is listening to another person attentively. Furthermore, verbal message can be distorted by ambient noise, because it is difficult to speak and to listen in a noisy environment (Segal et al., 2010; Windle & Warren, 2009).

In this study, apart from face-to-face communication, leaflets containing TB information can be provided to the patients if available, and when possible (MoHSS,

2006). According to Mind Tools LTD (1996-2012), different communication channels have unique strengths and weaknesses. For instance, if the receiver is illiterate, then providing information by means of leaflets will not be effective. Therefore, it is emphasised that the educational background of individual TB patients needs to be taken into consideration when providing TB health information (MoHSS, 2006).

According to The Shannon and Weaver Transmission Model of Communication, television and radio are also effective channels for providing information to patients. However, these media do not allow for crucial feedback from the receivers of the information (Chandler, 2008; Doyle, 2005). These media are effectively used in the presence of TB focal nurses, since it provides them with an opportunity to answer important questions during a short discussion with patients, or to provide additional information when they detect any unclear messages while watching the footage or while listening to the topic.

Most importantly, it is the source's responsibility to select the appropriate channel of communication, since the success or failure of communication depends on the selection of the right channel (MBA Knowledge Base, 2012).

2.3.1.5 Receiver

The receiver or interpreter is the person to whom the message is directed (Nordquist, 2011). Farrand (2005) refers to the receiver as the person in whose head the thought needs to be interpreted.

In fact, the process of communication is only concluded when the message reaches the person it is intended for. For effective communication to occur, the receiver is the most important link in the communication process, because if the receiver does not have the ability to listen, he/she will not be able to receive and decode the message in the manner the communicator expects him/her to. Furthermore, communication does not occur when the source does not reach the receiver with his/her message. In this study, the receivers are the patients with tuberculosis (PTB or EPTB), and the nurses expect a positive response from this target audience.

Webb (n.d.) states clearly that effective communication relies on the skills of the message sender, as well as on the ability of the receiver to interpret what is being communicated. However, according to Shannon and Weaver (1949, as cited in Lang, 2010) interference (noise) may occur on the path of transmission that may distort the signal between the sender and the receiver (Figure 2.4). Noise is referred to as anything that disrupts or interferes with the communication process at any point and it can be associated with any element in the system (Nordquist, 2011). Cutajar (2010) refers to noise as any hindrance that complicates the communication process and garbles the message during transmission (communication barriers). According to

Cutajar (2010), communication barriers are classified as noise in the communication process.

It is crucially important for the sender to eliminate or to reduce noise as far as possible in order for effective communication to occur (MBA Knowledge Base, 2012). Lizotte, (2008, p.1) emphasises this principle by clearly stating: *“Communication seems so natural and one generally assumes that there is no need of working on it. It is so untrue”*. A skilled communicator is aware of the barriers to communication and tries to reduce the impact of these barriers by utilising good communication skills.

Barriers (noise) to communication can appear at any stage/element of the communication process (Mind Tools LTD, 1996-2012). Business Communication (2011-2012) categorises communication barriers as follows:

Language barriers: Business Communication (2011-2012) stipulates clearly that even when people are communicating in the same language, the terminology in a message may contain barriers when the message is not clearly understood by the recipient. For instance, the message that contains lots of jargon, over-complicated or medical terms (words like malaise, dyspnoea, per os), and abbreviations (like IPT for Isoniazid preventive therapy, SAT for self-administered treatment) will not be understood by the receiver if he or she is not familiar with such terminology. Moreover, when the message is too lengthy or disorganised, misunderstanding and misinterpretation might also occur (Mind Tools LTD, 1996-2012).

Psychological barriers: The psychological state of the receiver influences the message (Business Communication, 2011-2012). An example of such a barrier occurs when the receiver is experiencing personal frustration or stress that will cause him or her to receive and interpret the intended meaning of the message incorrectly because he or she may listen selectively. The same principle applies to the source.

Physical barriers: The geographical distance between the source and the receiver may influence the message (Business Communication, 2011-2012). In general, communication occurs easier over a shorter distance. However, some people feel uncomfortable during conversation because the other person is invading their space by standing or sitting too close. The fact that some people are quite comfortable with the close proximity of other people mostly depends on the type of relationship and culture. For instance, some people from Latin America and the Middle East often feel comfortable when they are standing close to each other, while people from Northern European descent tend to prefer a relatively wider distance from other people (Blatner, 2009; Segal et al., 2010).

Physiological barriers: According to the Business Communication (2011-2012), these barriers may be influenced by the physical state of the receiver, for example if the receiver has a hearing or speech problem. It amplifies the possibility that the intended message is not completely received.

Systematic barriers: This type of barriers may exist in an organisation where there the roles and responsibilities of communication are not properly understood, or

where guidelines for communication does not exist. In such an organisation, people do not understand their roles during communication and, therefore, they do not know what is expected from them with regard to communication (Business Communication, 2011-2012). In this study, systematic barriers occur when the nurses (source) do not know that it is their responsibility to provide TB patients with all the necessary TB health information.

Attitudinal barriers: According to the Business Communication (2011-2012), these barriers are types of behaviour that prevent people from communicating effectively and it results, for instance, from personal conflict, beliefs and practices, resist to change, or perhaps a lack of motivation.

In this study, it is considered to be the duty of the nurses to use their communication skills to eliminate barriers that might prevent patients diagnosed with TB from receiving all the necessary TB health information.

2.3.1.6 Transmit

Farrand (2005) explains that to transmit means to encode the thoughts by using words, gestures, signal, or anything else handy. The thought or information gets transmitted from the brain to the mouth, leaves the mouth in the format of vocal signals, and the receiver then has to decode the auditory message. In this study, the nurse is the person responsible for using his/her mouth to transmit the TB health information to reach the TB patient.

2.3.1.7 Decode

Decoding refers to the interpretation of the message by the receiver. It implies that the receiver thinks about the content of the message and searches for meaning in the message (MBA Knowledge Base, 2012). According to Mind Tools LTD (1996-2012), decoding involves taking time to read a message carefully, or listening actively to the source. In short, decoding refers to the process when the message is interpreted in search of its content. The receiver interprets the message by comparing it to prior experience. The meaning of the message transmitted relies on its encoding by the sender of the message and its decoding by the receiver (Cutajar, 2010).

In addition, decoding a message cannot be controlled by the sender, since it is a thought process of the receiver. The sender can only ensure that the message reaches the receiver as intended, for example by asking for feedback.

In this study, it is the duty of the nurse to ensure that the TB patients fully understand the TB health information by allowing the patients to respond and to seek clarity when he/she does not understand well.

2.3.1.8 Feedback

Fiske (2002) refers to feedback as the transmission of the receiver's reactions to the sender. Feedback is the final link in the chain of communication process. Therefore, meaningful communication becomes fruitful when the receiver provides feedback to

the source that is based on the receiver's interpretation of the original message (Haaland & Molyneux, 2006).

When no feedback takes place, the sender cannot confirm whether the receiver has interpreted the message correctly. Feedback can be provided verbally (asking for an explanation) or even non-verbally (fluttering of eyelids, or raising of eyebrows). Figure 2.4 displays how the message can be misunderstood by the receiver when no feedback takes place. It shows the message of a sender as a round shape, but it reaches the receiver in a triangular shape due to noise (communication barriers). Figure 2.5 displays the importance of feedback, since feedback is requested; the source verifies whether the original message of a circle has been received correctly as a circle.

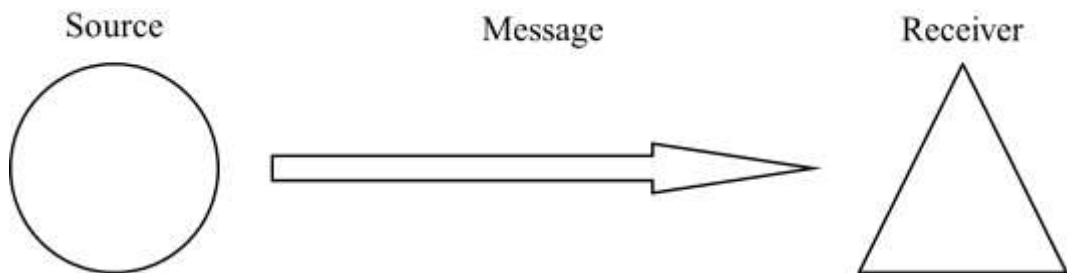


Figure 2.4: Message without feedback

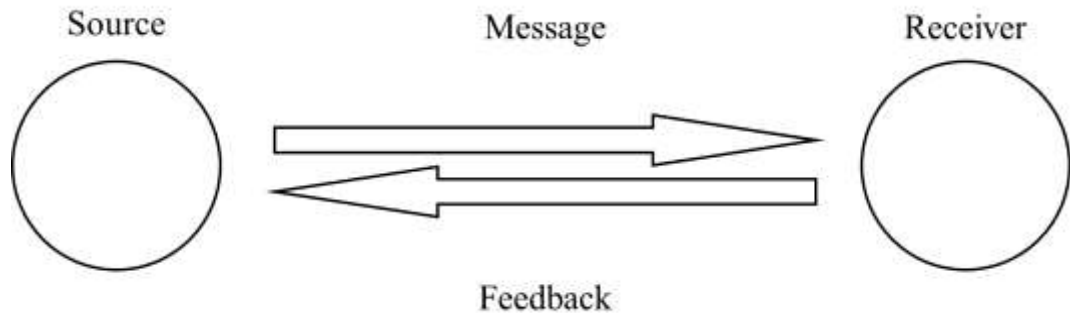


Figure 2.5: Message with feedback

(Figures 2.4 and 2.5 illustrated by the researcher)

In this study, nurses are expected to pay more attention to feedback, since it is the only way that enables them to confidently establish whether the patients understand the TB health information provided. If a nurse timely observes some misunderstanding, he/she has an appropriate opportunity to rephrase the message, and to check once more whether the information has been interpreted accurately.

2.3.1.9 Environment

Environment in a health care setting refers to a place that is conducive to healing and to the safety and wellbeing of the patients (Miracle, 2008). In a communication setting, environment has different important dimensions, for instance a physical dimension, a social dimension, and a cultural dimension (Narula, 2006).

Physical dimension referred to the place where we are (Narula, 2006). In this study, the physical dimension refers to the TB rooms, DOT rooms, TB wards where TB patients and nurses meet, and it is where TB care is provided to the TB patients.

For effective communication to occur, the TB rooms should be clean, tidy at all times, the doors and windows should be open to allow fresh air to enter the room, since it is the most effective way of controlling cross infection (MoHSS, 2009). In comparison with a stale room, it is more comfortable to communicate in a well-ventilated room. It is also important to consider the arrangement of chairs by placing them at an angle (without any chairs in between), because it is the best way to promote good communication since the patient and the nurse are not sitting directly facing each other and there are no obstacles between them. Furthermore, it is very important to communicate with a patient in a private room, since it encourages the patient to volunteer the sharing of confidential information, for instance HIV status and other condition like social problems.

Despite ensuring privacy, the environment is a major cause that interferes with message reception; for instance constant chattering of individuals outside the consulting room, soft speech, or communication in poorly lit room (MBA Knowledge Base, 2012). Moreover, it is more difficult to speak and harder to listen in a chaotic room (with noise). According to The Shannon and Weaver Transmission Model of Communication, a communication system will not necessarily be completely free from noise (Chandler, 2008), but effective communication occur when the amount of noise can be reduced. Most importantly, the level of physical

comfort, like providing a peaceful and calming environment, motivates patients to communicate.

Social dimension observes whether the environment is friendly, hostile, or indifferent (Narula, 2006). It is more comforting to communicate with a friendly nurse than communicating with an unfriendly one. According to Miracle (2008), a friendly environment is a joyful place, and the researcher believes that effective communication occurs when people are happy and comfortable.

A hostile environment discourages a patient to communicate effectively, since no-one will be comfortable to linger in such an environment.

Cultural dimension suggests a prevailing value system that indorses the codes of acceptance or non-acceptance behaviour (Narula, 2006). In the context of this study, the cultural dimension refers to the nurses' unwritten codes of acceptance, that are their attitudes, behaviour, respect, and empathy (Monteira, 2008; Narula, 2006). Clark (2008) refers to communication skills as sets of skills, including affective behaviour of the nurses, such as showing respect, empathy, and trust. All these skills might promote good communication.

In short, Miracle (2008) emphasises that a conducive environment leads to improved patients treatment outcomes and it increases nursing satisfaction.

The elements of The Shannon and Weaver Transmission Model of Communication are summarised as follows:

A message is selected from a source, and a transmitter encodes the message, and forwards the message by means of the channel to a receiver. The received signal gets decoded and directed to the recipient. On the path of transmission, interference in the environment (noise) may occur that may lead to the signal received being different from the one that has been sent (Lang, 2010) (Figure 2.4).

2.4 STUDIES ON THE IMPACT OF COMMUNICATION ON TUBERCULOSIS

In most caring professions, effective communication is widely regarded as the key factor to better quality of care that results in patient satisfaction, compliance to treatment, and speedy recovery (Chant et al., 2002; Clark, 2008; Taylor, 2009). It has long been recognised that difficulties in the effective delivery of health care can arise from communication problems between patients and health providers rather than from any failing in technical aspects of medical care. Although the WHO (2004c, p.10) defines health “as a state of physical, social, psychological and spiritual wellbeing and not the absence of disease or infirmity”, nurses’ approach tends to be more mechanical. Patients do not have full health information; therefore, they tend to forget the details of the advice given because the explanation was not clear or was poorly understood (Chetley et al., 2007).

There are some evidence to suggest that ineffective communication remains a potent barrier in health care, and it results in variations of quality and quantity with regard to nurse-patient interaction (Chetley et al., 2007; Shaw, 2005). Table 2.4 displays a synopsis of previous studies about the impact of communication on TB and it also shows some studies about TB that recommends an improvement in communication skills of health care workers.

Table 2.4: Synopsis of previous studies about the impact of communication on Tuberculosis

Authors	Title	Comments
Hasker, E., Khodjikhonov, M., Sayfiddinsa, S., Rasulova, G., Yuldashova, U., Usakova, G., Lefevre, P (2010)	Why do tuberculosis patients default in Tashkent City, Uzbekistan?	Communication between patients and health care staff is poor. Therefore, there is a need to address this problem of poor communication.
Labhardt, D. N., Schiess, K., Manga E., & Langerwitz W. (2009)	Provider-Patient interaction in Rural District of Cameroon – How it Relates to the patients understanding of diagnosis and prescribed drugs, the patients concept of illness and access to therapy	Provider-patient interaction deserves more attention, and initiation of a communication skills training programme in Cameroon is recommended.

Authors	Title	Comments
Govender, S., & Mash, R. (2009)	What are the reasons for Patients not Adhering to their anti-TB treatment in a South African District Hospital (KwaZulu-Natal)	Improvement of the relationship between the TB patients and the TB nurses by training in communication skills is recommended.
Brunello, M. E. F., Cerqueira, D. F., Pinto, I. C., Arcenio, R. A., Gonzales, R. I. A. C., Villa, T. C., & Scatena, L. C (2009)	Interaction between patients and health care professionals in the management of TB (Ribeirao Preto-Brazil)	Health care professionals need to be available for listening to patients in order for them to identify the patients' need and to search solutions.
Mishra, P., Hansen, E. H., Sabroe, S., & Kafle, K. K. (2006)	Adherence is associated with the quality of professional-patient interaction in directly observed treatment short course (Western district of Nepal)	Better communication between dispensers and patients is essential for improving treatment adherence to TB treatment, even under DOTS.
Dick. J., Lewin S., Rose E., Zwarenstein. M., & Walt. H. (2004)	Changing Professional Practice in TB Care: An educational intervention (Tygerburg - South Africa)	Communication between health care providers and patients with TB is a priority.

Authors	Title	Comments
Steyn, A., Van der Merwe, N., Dick, J., Borchers, R., & Wilding, R. J. (1997)	Communication with TB patients; A Neglected dimension of Effective Treatment (Western Cape)	Training in communication skills should be introduced at TB clinics in order to improve patients' adherence to treatment.
Kamenye, E. (2008)	Knowledge, Beliefs and Practices of Patients diagnosed with Tuberculosis in Katutura, the Khomas Region of Namibia.	Nurses to be trained in communication skills.
Mainga, D.M. (2008)	Defaulting of Tuberculosis treatment in the Khomas Region, Namibia.	Provision should be made for training of health workers and more emphasis should to be placed on health education of TB patients.

A brief description of the abovementioned studies follows.

In Tashkent City, Uzbekistan, a study that has investigated the reasons for defaulting, reveals poor communication between health care providers and patients with tuberculosis as the main cause of default identified. Patients are lacking proper information about TB and the treatment. There is a wide spread belief that tuberculosis is not a curable disease. Authors recommend that a need exists to

address this problem of poor communication (Hasker, Khodjikhonov, Sayfiddinosa, Rasulova, Yuldashova, Usakova et al., 2010).

Another study conducted in a rural health district of Cameroon examines the relationship between health providers and patients. Several patients' outcomes reveal that the main obstacles in the management of patients are the misunderstanding of diagnosis, treatment, as well as poor discussion of patients' concepts of illness (Labhardt et al., 2009). Patients do not follow treatment recommendations because they neither understand, nor are convinced of their diagnosis. This study further reveals that verbal communication on its own may not be sufficient to explain the purpose of the prescribed drugs and, furthermore, health care workers do not support patients to share their opinions. Initiation of communication skills training programmes is recommended (Labhardt et al., 2009).

The abovementioned recommendation concurs with other recommendations from a study conducted by Govender and Mash (2009) at a district hospital in KwaZulu-Natal. This study has investigated the reasons why patients with tuberculosis are not adhering to their anti-TB treatment. The authors also recommend that the health care workers need be trained in communication skills. Such training will assist them to improve the relationship between the health workers and the patients with tuberculosis. It might also increase the adherence to treatment.

Yet, another study conducted in Ribeirao Preto in Brazil investigates the interaction between patients and health care professional in the management of TB revealed. It

explains that restrictions to communication with patients contribute to impersonal relationships with no bond and make it more difficult for treatment to happen (Brunello, Cerqueira, Pinto, Arcenio, Gonzales, Villa, & Scatena, 2009). Therefore, these authors recommend that it is necessary for health professionals to be available for and to listen to the patients in order for them to seek and find solutions for the patients' problems (Brunello et al., 2009).

Mishra et al. (2006) have investigated the quality of communication between dispensers and patients with tuberculosis in the Western District of Nepal. From their study, it is evident that poor quality of communication is associated with non-adherence to treatment. However, the study has investigated the quality of communication between the dispensers and the patients with tuberculosis. It excludes the nurses who are also caring for patients with tuberculosis on a daily basis, therefore, the current study is focusing on nurses and the patients with tuberculosis, due to the fact that the communication skills of the nurses can also influence the medicine adherence of patients with tuberculosis.

Furthermore, another study conducted by Dick et al. (2004) in South Africa about changing professional practice in TB care reveals that the major problem of non-adherence of TB treatment is owing to poor rapport between the health care providers and the patients with tuberculosis. As a result, they recommend that the priority is strategies for improving communication skills. However, the structural barriers to facilitating changes are identified; namely support from management, conditions of services, and the relationship with colleagues. The current study will

develop guidelines for health communication that might effectively guides the communication of nurses with patients with tuberculosis.

Yet, another study conducted at a clinic in the Western Cape has investigated the quality of communication between the clinic nurses and the newly notified tuberculosis patients. The study reveals that the interaction is nurse centred, but not patient centred. An unequal distribution of control and poor receptiveness to the patients exist. Therefore training in communication skills of the nurses is recommended (Steyn et al., 1997). This study includes all newly and retreated TB patients, not newly notified TB patients only.

In most studies conducted globally, the findings indicated that health care workers or health care providers possess inadequate communication skills that are resulting in medicine non-adherence of patients with tuberculosis. The term health care providers/health care worker is very broad. It includes a very variety of skills in many possible settings. The Global Health Council (2000-2011) refers to health care workers as anyone who focuses or acts to improve health; for instance the doctors, nurses, midwives, technicians, and managers. Health care providers can be defined as persons who helps with identifying, preventing, or treating illness and disability; for example the nurse, pharmacist, medical assistant, birth control counsellor, bone setter, and electrologist (Thesaurus, 2003-2008).

According to the mentioned definitions, it is clear that health care providers also include the health workers who are not licensed professionals. The researcher is

aware of the fact that all health care providers/health care workers have one goal in mind, and the aim of this goal is to ensure that the patients receive the highest level of quality care. In this study, the researcher focuses only on the communication skills of the nurses who are in direct contact with patients with tuberculosis on daily basis, because without any doubt the communication skills of the nurses can also positively or negatively influence the medicine adherence of patients with tuberculosis, since they are the primary group who are in direct contact with the TB patients on a daily basis. Moreover, a patient with uncomplicated TB can be diagnosed, put on TB treatment, cared for until cured by the nurses on their own without the involvement of doctors, pharmacists, and other health care workers. Therefore, their communication skills are very important in the management of tuberculosis.

Most of the studies that have been conducted globally are recommending training of health care workers in communication (Table 2.4). This study responds to the recommendations of previous studies, since the researcher concludes the study by developing the guidelines for communication that enhance the communication skills of the nurses to communicate effectively with patients with tuberculosis. The developed guidelines also serve as references for training in communication. However, although most of the studies conducted globally recommend the training in communication skills, the researcher of this study appropriately develop the communication guidelines before training material.

Another gap detected through literature review is that the study of Steyn et al. (1997) on communication in relation with TB was conducted 15 years back in the Western

Cape Province of South Africa. Although Namibia is one of the countries with a higher TB case notification rate in the world (MoHSS, 2007/2008), the researcher has not find any studies in Namibia that are exploring the communication skills of nurses who are caring for patients diagnosed with tuberculosis. However, she has found two studies conducted in the Khomas Region (the site of this study) that focused on tuberculosis only. The study of Kamenye (2008) explores and describes the knowledge, beliefs, and practices of patients who have been diagnosed with tuberculosis in the Khomas Region. The study results reveal that the patients with tuberculosis possess inadequate knowledge about the tuberculosis disease. Most patients with tuberculosis do not know the causes of tuberculosis, and they do not even know the duration of taking tuberculosis treatment.

In a second study, Mainga (2008) investigates the reasons why patients with tuberculosis are defaulting on their anti-TB treatment in the Khomas Region. The author also reports that patients do not have adequate knowledge about the disease. Therefore, 24% believe that touching a patient with tuberculosis could spread the disease, and 30% believe that using the same utensils as TB patients spreads the disease (Mainga, 2008, p. 57).

The findings of the abovementioned studies indicate clearly that the patients with tuberculosis do not possess adequate knowledge about the disease per se, although they are in direct contact with their nurses on a daily basis. Therefore, there is a need for keeping patients with tuberculosis at the centre of all tuberculosis activities. It can only be achieved by concordance between the nurses and the patients. The patients'

perspectives, opinions, and their inputs in respect of TB should be valued and respected; and their false impressions, beliefs, and practices about TB should be corrected. It will only be achieved if the nurses who are caring for patients with tuberculosis possess good communication skills.

The National Guidelines for the Management of Tuberculosis (MoHSS, 2006, p.115) states: “education is a dialogue, not a lecture”. Although nurses know what substantive messages to give to their patients, and are instructed that education should be a dialogue, the researcher of this study is convinced that they may not possess good communication skills for exactly communicating TB health information most effectively, especially when no guidelines for communication exist for references purposes.

The researcher considers the severity of the tuberculosis disease in the Khomas Region, the significant problems in management of TB in the region, and the possibility of intervention to optimise the communication skills of the nurses who are caring for patients with tuberculosis. It is with this background that the researcher of this study has found it highly relevant to carry out this study in the Khomas Region with the main aim of exploring and describing how nurses are communicating with patients with tuberculosis with the purpose of developing guidelines for communication that will enhance the communication skills of nurses who are caring for patients with tuberculosis in the Khomas Region in Namibia.

Lewis and Newell (2009) emphasise the importance of a comprehensive health system in order to recognise that improving a person's health status requires more than just the provision of effective medical treatment. Brunello et al. (2009) also state that TB control goes beyond medicine swallowing supervision, because it includes bonding between patients and health care personnel.

2.5 SUMMARY

This chapter discusses the related literature review for the study, focusing on TB and communication, as well as the conceptual basis of the study. The Shannon and Weaver Transmission model of communication and the related studies conducted on the impact of communication on TB was fully discussed.

Chapter 3 discusses the research design and methodology.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

Chapter 2 discusses the related literature for the study. This chapter describes the research design and methods used in this study. The design and methods of the study have been conducted into four phases, starting with exploration and description of communication process between the nurses caring for the patients diagnosed with tuberculosis in phase1 and the patients diagnosed with TB. In this phase the data was collected through observation and an individual face to face interview.

Phase 2 focused on the development of a conceptual framework for effective communication. In order to accomplish this phase, the researcher has used the six elements of practice oriented theory of Dickoff, James and Wiedenbach (1968).

Phase 3 involved the process of developing the guidelines on communication whereby the researcher followed the process of guidelines development by applying the methodology of the World Stroke Organisation (2011). Phase 4 entails the implementation and evaluation of the guidelines on communication.

This process will be discussed by starting with Phase 1.

3.2 PHASE 1: SITUATIONAL ANALYSIS

Objective: To explore and describe the communication process between the nurses who are caring for patients diagnosed with tuberculosis and the patients diagnosed with tuberculosis at the public health facilities in the Khomas Region.

3.2.1 Research design and method

Polit and Beck (2008), and Polit and Hungler (1999) refer to a research design as an comprehensive plan for obtaining the answers to the research question, and implementation of the data, while Burns and Grove (2001) refer to a research design as a clearly defined structure within which the study is implemented. Furthermore, Sydenstricker-Neto (1997) refers to a research design as the strategy that is applied to integrate the different components of the research study or project in a cohesive and coherent way.

Research design provides guidance to the researcher for planning and implementing the study in a way that is most likely to achieve the goal (Burns & Grove, 2005). The research design is very important in each study because it provides the “glue” that hold the research project together (Trochim, 2006). The research design for the first phase of this study was quantitative, contextual, exploratory, and descriptive in nature.

A research method is defined as “a strategy for gathering and analysing data in a research investigation” (Polit & Hungler, 1999, p. 707). In this study, a survey was conducted using observation and interviews (section 3.2.4.2) to gather data about the study.

3.2.1.1 Quantitative design

Burns and Grove (2005) refer to quantitative research design as a formal objective and systematic process to describe and test the relationship and to examine the cause and effect of interaction among variables. The aim of quantitative design is to determine the relationship between independent variables and depended variables (Hopkins, 2000). Quantitative research is an excellent way of finalising results and proving or disproving hypotheses (Martyn, 2008; Scheepers, Goldstein, Shabalala, & Shongue, 2003), since it is confirmatory and deductive in nature (Trochim, 2006). In this study, the quantitative design has been selected in relation to the research objectives, and the nature of the study.

The researcher has looked critically at the objectives of this study and the nature of the problem, and realises that it is highly appropriate to use a quantitative approach in order to obtain the goal of the study, since it provides a more complete picture of the issues that are being addressed, the target audiences, and the effectiveness of the programme (Weinreich, 2006).

Furthermore, Metveev (2002) adds that a quantitative method ensures higher levels of reliability as far as data collection is concerned. In this study, the design is quantitative, since the researcher uses a formal instrument (communication observational checklist) to collect the data from the participants.

Trochim (2006) explains that lots of quantitative research can also be classified as exploratory in nature. Since the researcher of this study has not found any research findings about the problem under study, an exploratory approach is therefore considered to be appropriate.

3.2.1.2 Exploratory design

Explorative research design begins with some phenomenon of interest and explores the full nature of the phenomenon (Polit & Beck, 2008). The purpose of an exploratory research design is to shed light on a topic that has not yet been described in detail and it is likely to be poorly understood at all levels of a theoretical framework (Sim & Wrigh, 2000; Van de Snepscheut, 2003). In this study, the researcher employs an explorative research design to explore how the nurses are communicating with patients with tuberculosis at all public health facilities that are hospitals, health centres, and clinics in the Khomas Region of Namibia. Moreover, the literature has also been extensively explored. The aim of all explorations conducted is to gain insight into the communication skills of the nurses who are caring for patients with tuberculosis in the Khomas Region, since this type of study has not been conducted before in Namibia.

3.2.1.3 Descriptive design

Polit and Beck (2004) refer to descriptive research as the research with the main purpose of describing an accurate portrayal of the characteristics of a person or a situation. A descriptive research design involves the observation and description of the characteristics of a particular situation, or event, in order to answer the research question (Burns & Grove, 2005; Varkevisser, Pathmanathan, & Browlee, 2003). The purpose of descriptive design is to observe, describe, and to record the aspects of the situation as it occurs naturally (Polit & Beck, 2004).

A descriptive research design enables the researcher to gain more information about the study problem. In this study, the researcher uses a descriptive design to observe and describe how nurses who are caring for patients with tuberculosis are communicating with these patients at public health facilities in the Khomas Region. Furthermore, it is also essential to understand the findings of the study within a specific context.

3.2.1.4 Contextual design

Goerge (2002) refers to context as the situation in which the research takes place. In this study, the participants are observed and interviewed in their own natural settings that are their own health facilities with the purpose of making it possible for the participants to relax, and to be more comfortable during the study. The findings of

this study are understood within the context of the nurses who are caring for patients with tuberculosis at public health facilities of the Khomas Region only.

3.2.2 Reasoning strategies

Reasoning enables a researcher to use knowledge for answering questions and for describing or explaining phenomena by identifying related concepts and by understanding variables and assumptions. In order to arrive at logical assumptions in the study, the researcher uses specific reasoning strategies such as deductive reasoning, analysis and synthesis.

3.2.2.1 Deductive reasoning

Deductive reasoning was used in the study because the researcher started with the information that the researcher had collected from literature and respondents; then moved from a general premise to particular conclusions (Burns & Groove, 2005). Furthermore, deductive reasoning enabled the researcher to apply the communication guidelines for the nurses, which enabled the researcher to explain related facts and concepts on the basis of a literature review. Also, deductive reasoning was used to generate ideas that were tested in the real world, for example the way in which nurses communicate with patients diagnosed with TB.

3.2.2.2 Analysis

According to Denzin and Lincoln (2005), analysis includes both a qualitative and a quantitative component. In this study, analysis has been conducted during the statistical analysis phase.

3.2.2.3 Synthesis

Thomas and Harden (2008) describe synthesis as the interpretation of data. It is the process of grouping concepts by developing a conceptual framework that serves as the basis of developing guidelines to enhance communication between nurse and patient.

3.2.3 Study population

The population is a complete set of individuals or objects who possess common characteristics of interest to the researchers (Nieswadomy, 2002; Polit & Beck, 2008). This study consists of two study populations. The primary study population are the nurses (registered, enrolled nurses and assistant nurses) who are directly in contact with patients diagnosed with tuberculosis at the public health facilities in the Khomas Region on a daily basis.

At every public health clinic and health centre in the Khomas Region, there is only one nurse in direct daily contact with patients diagnosed with TB, and that particular nurse is working in the TB room/DOT room, while the other nurses are rotated on a

three-to six-monthly basis (MoHSS, 2009/2010b). Therefore, it is not possible to include other nurses in the study population, since the main purpose of this study is to observe a nurse who is communicating with a patient diagnosed with TB.

Furthermore, at the TB Outpatient Department of the Katutura Intermediate Hospital, there are four nurses in direct daily contact with patients diagnosed with TB, and sixteen (16) nurses are working in TB wards (MoHSS, 2009/2010a).

In general, the total number of nurses in the region consists of 567 nurses: 446 nurses are working at the Katutura Intermediate Hospital, and 121 nurses are working at the public health centre and clinics in the Khomas Region (MoHSS, 2009/2010a; MoHSS, 2009/2010b). However, for the purpose of this study, only the 30 nurses in the entire region who are directly caring for patients diagnosed with tuberculosis on a daily basis have been involved. It is not the purpose of this study to observe other nurses who are caring for general patients. Moreover, the researcher of this study uses observation as a data collection method, and since observation is very intensive, 30 observations provide the researcher with in-depth information. Therefore, the study population for this study are limited to 30 nurses only.

The Windhoek Central Hospital has been excluded in the study because their patients diagnosed with TB enjoy private care, and this study focuses only on public health facilities. The Baumgartbrunn Clinic has also been excluded because no TB cases have been treated during the data collection period (May 2011 until June 2011).

The secondary study population of the first phase are 30 patients diagnosed with tuberculosis (pulmonary and/or extrapulmonary tuberculosis, and new or retreatment cases) who are communicating with the 30 nurses during observation, and who are also receiving tuberculosis treatment at public health facilities in the Khomas Region during the data collection period (May 2011 until June 2011).

In general, a total number of 2 295 patients diagnosed with TB have been registered from the 01 June 2010 until 30 June 2011 (MoHSS, 2010a; MoHSS, 2011a).

3.2.3.1 Sampling and sample size

It is often impossible for the researcher to study the entire study population. Therefore, researchers are making use of a sampling technique to select subjects to represent the research population. Polit and Beck (2008, p.337) refer to sampling as “the process of selecting a portion of the population to represent the whole population”.

However, in this study, no sampling was conducted, since all 30 nurses who are directly caring for the patients diagnosed with tuberculosis on a daily basis at the public health facilities in the Khomas Region during the data collection period have been all included in the study. Therefore, for the purpose of this study, the study population is also the complete sample. The sample is small due to the intensity of observations that have been used to gather the information (Creswell, 2007). Table

3.1 displays the names of public health facilities and the total number of participants that has been observed and interviewed at each health facility.

To be included in this study, the participant should be willing and able to take part.

Table 3.1: Public health facilities and number of participants observed and interviewed at each health facilities

Names of the public health facility	Number of nurses interviewed	Number of patients interviewed
Katutura Health Centre	01	01
Khomasdal Clinic	01	01
Wanaheda Clinic	01	01
Otjomuise Clinic	01	01
Hakahana Clinic	01	01
Okuryangava Clinic	01	01
Donkerhoek Clinic	01	01
Robert Mugabe Clinic	01	01
Dordabis Clinic	01	01
Groot Aub Clinic	01	01
Katutura Intermediate Hospital :		
TB-Outpatient	04	04
TB wards	16	16
Total	30	30

3.2.4 Data collection

Data collection is referred to as the systematic process of collecting all information from the subjects that is relevant for the purpose of the study questions, or the study hypothesis (Burn & Grove, 2005; Stommel & Wills, 2004). In this study, data have been collected according to defined principles.

3.2.4.1 Locating the study area

The data have been collected at the following areas: DOT rooms at health centre and clinic level, while at hospital level it has taken place at DOT rooms or in TB wards. All the areas are at public health facilities of the Ministry of Health and Social Services in the Khomas Region. The public health facilities where data have been collected are: the Katutura Intermediate Hospital, the Katutura Health Centre; and ten clinics; namely Khomasdal, Wanaheda, Otjomuise, Hakahana, Okuryangava, Donkerhoek, Robert Mugabe, Dordabis, and Groot Aub (MoHSS, 2009/2010a; MoHSS, 2009/2010b). In short, this study has taken place specifically at the areas where patients with tuberculosis receive their daily TB treatment, and it is also the duty station of the nurses who are caring for them.

3.2.4.2 Data collection method

The data collection methods of observation and face to face interviews were used in this study. Marshall and Rossman (1989, as cited in Kawulich, 2005, para. 3) define

observation as “the systematic description of event, behaviours, and artefacts in the social setting chosen for study”. According to the CDC (2008), observation is a way of gathering information by means of watching behaviour, events, or noting the physical attributes of the natural setting. The main advantage of observation as a means of collecting data is found in the fact that the method allows the researcher to directly observe what people do rather than relying on what people report that they are doing.

Furthermore, observation allows the researcher also to collect data where and when the activities are occurring. Kawulich (2005) further adds that observation enables the researcher to describe the event, activity, or behaviour in a study by using five senses. Furthermore, observation can also provide the researcher with ways to check for the non-verbal expression of feelings and to grasp how participants are communicate with one another.

In short, observational method can provide first-hand evidence of how communication skills are implemented in practice (Chant et al., 2002) and that is the main purpose of this study, therefore, the researcher has chosen to use observational method.

Furthermore, according to the CDC (2008), observation can be done either overtly or covertly. The CDC further explains that overt observation occurs when everyone knows that they are being observed, while covert observation happens when no-one knows that they are being observed while the observer remains concealed. The Social

Science and Humanities Research Ethics Board (2005, p.3) states that “even in the context of participant observation, informed consent remains one of the most important ethical principles. Schatzmand and Strauss (1973, as cited in Smith, 1997) added also that a researcher with a hidden identity, raise ethical problems that are not easily resolved”. The CDC (2008) emphasises the need of the researchers to use overt observation due to the ethical considerations. In this study, observation is conducted overtly due to the ethical issues that are associated with concealed observation.

In addition, observation also can either be direct or indirect. During direct observation, the researcher is observing interaction or behaviour as it occurs. Observation is indirectly conducted when the researcher observes the results of interaction or behaviour (Kawulich, 2005). In this study, observation is directly conducted, since the researcher watches how nurses are communicating with tuberculosis patients. It also ensures the reliability of the research.

The main disadvantage of observation is the susceptibility to the Hawthorne effect. This effect means that people usually perform better when they are aware that they are being observed (CDC, 2008). In this study, the researcher has been aware of the Hawthorne effect that might occur in relation to the nurses during observation. To mitigate the issue, semi-structured individual face to face interviews with open and closed-ended questions are also employed to obtain detailed information that may need probing, and clarification. These interviews also support The Shannon and Weaver Transmission Model of Communication, since it enables the researcher to

determine whether the receiver is decoding the message appropriately (Doyle, 2005). Despite the fact that the Hawthorne effect may play part, the nurse still needs to provide a clear message.

In order to collect data, the use of data collection instrument(s) is essential.

3.2.4.3 Data collection instruments

The data collection instruments in this study are a checklist (observation), and a subsequent individual semi-structured interview with every participant (nurses and patients diagnosed with TB).

Checklist: According to the CDC (2008), there are three ways of collecting observation data namely checklist; observation guide, and field notes. The CDC further explains that a checklist is considered as the most appropriate standardised way of collecting observation data; since a form, that can be easily described in advance, is typically used for collecting data. According to the National Capital Language Resource Centre (2003-2004), a checklist is an instrument that is used for observing performance, since it is simple to construct and it aligns closely with the task. In order to construct a checklist, the researcher needs to firstly identify different parts of a communication task and any other requirements that are associated with it. On that basis, the researcher should create a list of columns with space for indicating yes and no (National Capital Language Resource Centre, 2003-2004).

In this study, the researcher has developed a communication observational checklist in such a way that it consists of three columns, since the researcher has the duty of putting a tick in the appropriate column (Yes/No/Not Applicable), depending on the observations that are made. Merriam (1998, as cited in Kawulich, 2005) suggests that the most important factor in determining what to observe is the researcher's purpose for conducting the research, and where to begin looking, depends on the research question. In this study, the researcher has developed the checklist based on the objectives of the study, as well as the existing literature.

In this study, the communication assessment tool (checklist) consists of five sections; namely A, B, C, D, and E.

Section A of the communication assessment tool (checklist) includes the biographical information of the nurse participants, while section B includes the biographical information of the patient participants; i.e. age, gender, employment status, and educational level. Section C of the checklist contains 68 items to be observed, while a nurse is communicating with the patient diagnosed with tuberculosis. Items have been selected based on the existing literature about health communication and TB, the research question, and The Shannon and Weaver Transmission Model of Communication (Doyle, 2005). Furthermore, items to be observed have been carefully planned and only the items that are important to collect data about have been included.

Section D consists of five semi-structured interview questions (open-ended questions) for the nurse participant, while section E consists of the six semi-structure interview questions (open-ended questions) for the patient participant. Questions have also been formed based on the literature that focuses on TB and communication, as well as on The Shannon and Weaver Transmission Model of Communication (Annexure G contains the checklist). Furthermore, the checklist has been coded to facilitate easy entry in the computer data base for analysis by using the Epi InfoTM software program (<http://ptf.com/epi/epi+info+ 3.5.3/>).

Semi-structured individual interview with open-ended questions: According to Keller and Conradin (2010), a semi-structured interview is an interview that is conducted with a fairly open framework which permits focused, conversational, two-way communication. Open-ended questions allow the participants the freedom to express their points of view in their own words (Froddy, 1993, as cited in Reja, Manfreda, Hlebec, & Vehovar, 2003).

In this study, five to six open-ended questions have been formulated that aim at obtaining information about the reason why activities are done as observed. Each category of participants have their own types of questions (five questions for the nurses, and six questions for the patients) These questions do not necessarily correspond. Enough space has been allowed for the researcher to write down the participants' words verbatim when they respond to the open-ended questions during the interview.

Duration of field work: The study took place between 23 May 2011 and 30 June 2011. The researcher conducted one or two interviews per day (one before noon, and one in the afternoon). The numbers of interviews conducted per day were determined by the distance between the health facilities and the availability of the patients diagnosed with tuberculosis at the health facility. Furthermore, the researcher ensured that the observation of the nurses' communication skills and the interviews of the same nurse and patient with tuberculosis took place on the same day.

Nurse participants' codes: The nurse participants were allocated codes indicated that the nurse participant with code number 01 was observed while he/she was communicating with the patient participant with the corresponding code number of 01. The corresponding coding system was applied up to code number 30 (Annexures H and I). However, every participant was interviewed privately and individually.

Furthermore, all researchers want their studies to be valid by reflecting the truth (Polit & Beck, 2004).

3.2.4.4 Validity and reliability

Polit and Beck (2004) emphasise that qualitative and quantitative researchers alike want the findings of their studies to reflect the truth. According to Parahoo (2006), validity and reliability are the two most important concepts that are used by the researchers during quantitative research to evaluate the rigor with which the research is carried out.

Validity means that the specific observations or instrument measures what it is supposed to measure (Burns and Grove, 2005), or refers to the truthfulness of the research results (Golafshani, 2003). Furthermore, validity establishes whether the results that are obtained meet all the requirements of the scientific research method (Shuttleworth, 2008).

LoBiondo-Wood and Haber (2002) refer to reliability as the extent to which the instrument yields the same results during repeated research. According to Shuttleworth (2008) and Lourence (2007), reliability enables other researchers to perform the same experiment under the same conditions while generating the same results. The main idea of reliability requires research results to be inherently repeatable. Validity requires that the means of measurement are accurate and that these tools actually measure what they are intended to measure.

In this study, the quality of research and the research instrument for both observation and interview are determined by its validity and reliability.

Validity

According to De Vos (2002) and Polit and Beck (2008), there are different types of validity, namely content validity, face validity, criterion validity, and construct validity. In this study, the data collection instrument (checklist) has been tested for content and face validity.

Content validity: Content validity refers to the degree to which the items of the research instrument adequately represent the concepts that are measured comprehensively (Cupples & Russel, 2011). Cupples and Russel further add that content validity is normally based on the opinions of other people. According to De Vos (2002), content validity can either be ensured by the researcher, or in collaboration with the experts.

In this study, the content validity of the data collection instrument (checklist) has been determined by the researcher by conducting a comprehensive literature review in the study field to form the constructing of the checklist. In addition, while the researcher has been developing the content of checklist and interview, the guidance of more experienced people such as WHO communication specialist, study supervisors, statistician, as well as other health experts have been sought. Furthermore, the checklist and interview questions have been pretested during a pilot study, and the corrections have been affected accordingly (Polit & Beck, 2008).

Face validity: Face validity involves subjective judgments by the experts about the degree to which the instrument measures the relevant validity (Cupples & Russel, 2011). In assessing the face validity, the instrument is sent to selected experts who report back on their judgment whether the research tool measures the construct adequately. In this study, the researcher has asked the experts in the field of TB and communication to review the checklist and interview questions. Therefore, the face validity of this study have been determined by a WHO communication specialist, communication and TB experts, as well as the supervisors and the co-supervisors.

All these subject matter professionals have expressed the opinion that the research instrument in this study is measuring what it purports to measure.

Reliability

LoBiondo-Wood and Haber (2002) refer to reliability as the extent to which the data collection instrument yields similar results when repeatedly applied. According to DeVos (2002), reliability is not mainly concerned with what is being measured, but with how well it is being measured. The reliability of a measuring tool can be tested in several ways. The methods known for testing the reliability of the instruments are stability, internal consistency, and equivalence (LoBiondo-Wood & Haber, 2002; Polit & Hungler, 1999).

Polit and Hungler (1999) refer to stability of a measuring tool as the extent to which similar results are obtained during repeated administration of the measuring instrument. Time difference can influence the stability of the instrument when data are collected from the people on separate occasions. In this study, the checklist is used only once.

Internal consistency: Internal consistency refers to extent to which all items of the instrument measure the same variable (Cupples & Russel, 2011). According to Shuttleworth (2008), internal validity dictates how an experimental design is structured and entails all the steps of the scientific research method. The internal consistency approach is the most widely used method among current-day researchers

to estimate the reliability of an instrument (Polit & Hungler, 1999). In this study, the research experts with no vested interest in the research outcome have assessed the checklist and interview questions before it has been used. In addition, to ensure the internal consistency, the researcher has developed and used the communication assessment tool (checklist) based on the study objectives, as well as on the literature review and communication framework.

3.2.4.5 Pilot study

Pilot study refers to “a small experiment designed to test logistics and gathering information prior to a large study in order to improve the latter’s quality and efficiency” (Altman, Burton, Cuthill, Festing, Hutton, & Playle, 2006, para. 1). Nieswadomy (2002) refers to piloting as a primary prevention. Furthermore, pretesting of a data collection instrument helps with identifying problems in the design and the sequence of procedures and it determines the reliability and validity of such procedures (LoBiondo-Wood & Haber, 2002). In short, a pilot study provides the researcher with opportunities to evaluate newly developed techniques of the instrument, more especially techniques that have not been used before in order to apply corrections timely before the instrument is used during the full-scale research project.

In this study, a WHO communication specialist, and the study supervisors at the University of Namibia (UNAM) reviewed the communication checklist and interview questions and provided the feedback to the researcher. After corrections

were made and approval was granted, the checklist and interview questions were tested to ensure whether the items measured what they intended to measure (Burns & Grove, 2005).

Piloting of this study was conducted at the Nai-Aib clinic in the Otjozondjupa Region, with the main aim of detecting the deficiencies in the developed communication checklist and the semi-structured interview questions, before time and resources were spent on the main study. However, costs prohibited the researcher from conducting a large pilot study. The population for the pilot study comprised two study populations, and they were excluded for taking part in the main study. The first study population were four nurses (one registered nurse and three enrolled nurses), and the second study population were four patients with tuberculosis.

In this study, the research instruments were found to be effective, only a few items were deleted from the checklist due to the fact that these items were non-observable. Furthermore, the semi-structured open-ended questions were all suitable for use during the main study. During piloting, the researcher gained valuable experiences in the field work and she could determine the time that would be required for completing the observation and the interviews, and moreover, it enhanced the validity and reliability of the research instrument (for observation and interviews alike) and the research in general. After data collection, data were analysed by using the Epi InfoTM software program in order to make sense of the data. Content analysis was employed to analyse the open-ended data.

3.2.4.6 Data collection procedure

Data were collected during observation by using a checklist and a face to face individual interview. The researcher first went into the field to explore and describe how the nurses communicated with the patients with tuberculosis whom they were caring for (an assessment of the communication process between the nurses and their patients).

The data collection took place from 23 May until 30 June 2011. The researcher conducted one to two observations and interviews per day depending on the distances between the health facilities, as well as the availability of the patients diagnosed with TB. A special room was not prepared for observation purposes, but it was conducted in any room in TB wards, and in the TB room/DOT room at the clinic and health centre; while the nurse was providing health education to the patient. The researcher first explained the aim of her presence to the nurse, as well as to the patient, and obtained verbal consent from the participants before the observation was conducted. Section A and B (biographical information) were completed by asking the participants (nurses and patients) questions on an individual basis.

Observation: During observation, the researcher ticked the appropriate column on the communication observational checklist, whether the issue in that item occurred (YES), did not occur (NO), or was not applicable (N/A).

Interview: Directly after observation of the nurse's communication with patients with tuberculosis, questions were asked during two separate interviews with the nurse and the patient diagnosed with tuberculosis respectively. The interview questions were mainly based, but not limited to, five open-ended questions for nurse participants (Section D of the checklist) and six open-ended questions for the patient participants (Section E of the checklist). The nurses' questions were different from the patients' questions. The reason for these interviews was to determine to what extent the patients understood the communicated message, and how the nurses understood the communication per se.

Furthermore, the researcher used the English language during the interviews with the nurses, but different mother tongue languages were used during the interviews with the patients; for example English, Afrikaans, Oshiwambo, and Otjiherero. Each and every patient was interviewed in the language of her/his choice. Not any other person was involved in the interview process for interpretation purposes, since the researcher was able to speak and understand all these four languages.

Despite the fact that observation was conducted in the wards, TB rooms, or in DOT rooms, the researcher created an atmosphere of trust, friendliness, and openness during the interview session, mainly to prevent fear and discomfort among the participants. The researcher portrayed a non-judgmental attitude and the qualities of a good listener during the data collection period with the aim of encouraging the participants to provide quality data and, moreover, to minimise undesired effects. The researcher used communicative techniques during data collection, particularly

during interview, to facilitate the smooth running of the interview, for example the participants were allowed sufficient time to complete expressing their thoughts. It made the participants feel that their contributions were acknowledged by the researcher. Furthermore, the researcher continually used simple and appropriate language when asking clarifying questions depending on the educational level of each individual. It was done to obtain accurate and valid information and to prevent misunderstanding.

3.2.4.7 Data analysis

Analysis is defined as the process of ordering and structuring research data with the purposes of revealing patterns in the data, while data are referred to as the raw information (Scheepers, Goldstein, Shabalala, & Shongue, 2003). Mosby (2009) refers to data analysis as the phase of a study that includes the classifying, coding, and the tabulating of the information that are essential for performing analysis according to the research design and appropriate to the data.

This study is quantitative in nature; therefore, the process of data analysis included statistical analysis by using the Epi InfoTM software program version 3.5.3 (<http://ptf.com/epi/epi+info+3.5.3/>), and statistical descriptive technique was employed (Brink et al 2006:11). With the assistance of a statistician, the researcher coded the items on the checklist in order to facilitate entering the data for analysis by the software program. The services of an independent co-coder were also used. The results were presented in format of frequency tables, graphs, and pie diagrams.

The data of Sections D and E of the study, namely the answers to the open-ended questions of the interview (qualitative data) were analysed by converting the qualitative data to a quantitative format (Unite for Sight Inc., 2000-2011). Unite for Sight Inc. states that the process of converting qualitative data to a quantitative format involves turning the data from words or images to numerical data. This process involves the organising of data according to groups, reading and coding, and interpreting. Simple frequencies between variables can be calculated either manually or by using qualitative software (Unite for Sight Inc., 2000-2011). In this study, it has been done manually.

Welman, Kruger, and Mitchel (2007) make it clear that content analysis can also be described as the quantitative analysis of qualitative data. The basic technique involves the counting of the frequencies in sequence of certain words and phrases of concepts. In this study, the related frequencies were arranged as follow:

- Relevant data were identified;
- Similar data were connected to one another and were classified and grouped as main themes;
- Central thoughts were identified as main themes;
- Subthemes were also identified; and
- The frequencies of these themes were presented in the format of tables and figures.

Furthermore, the level of measurement employed in this study was nominal (Crossman, 2012; Hodgson, 2003). According to Crossman, the level of measurement refers to the way in which the variable is measured. There are four levels of measurement for variables; namely nominal, ordinal, interval, and ratio. These levels are helpful, since they assist with determining which statistical procedure the researcher needs to use (Crossman, 2012). An important feature of nominal variables allows the numerical coding of categories for calculation purposes. However, the hierarchical order of the categories does not matter (Crossman, 2012; Hinz Media Inc., 2008-2012). Therefore, this level of measurement has been selected, since the checklist for collecting data has been designed to tick either the yes, or the no response (Hodgson, 2003). This study does not require the ranking of categories. During data analysis, statistical descriptive technique was employed (Brink et al 2006:11).

3.2.5 Ethical considerations

According to Orb, Eisenhauer and Wynaden (2001, p. 93), “ethical issues are present in any kind of research”. The goal of ethics in research is to ensure that no-one is harmed or suffers an adverse consequence due to the research activities. To this end, ethical measures are very important at all stages of the research process (National Human Research Protections Advisory Committee, 2002). When human beings are used as study participants, care must be taken to ensure that their rights are protected (Polit & Beck, 2008).

The main ethical principles that govern research that involves human subjects are: respect, beneficence, and justice (Callahan & Hobbs, 2010; Lund Research Limited, 2010; Rainbow, 2002). Everyone in research that involves the human subjects should understand and follow these principles (Family Health International, 2004). Therefore, the researcher of this study has been compelled to adhere to these three principles.

According to Callahan and Hobbs (2010), the principle of respect refers to the obligation of the researcher to respect each participant as a person who is capable of making decisions. Callahan & Hobbs further explain that the principle of beneficence refers to the obligation of the researcher to attempt to maximise the benefits while minimising the risk of harm to the participant. The third principle of justice demands the equitable selection of research participants. In addition, the researcher also has to consider the importance of seeking permission from the different relevant authorities to conduct the study.

3.2.5.1 Permission to conduct the study

The researcher had sent a research proposal to the University of Namibia Post Graduate Studies Committee. After careful consideration of the research proposal, the University of Namibia Post Graduate Studies Committee granted the researcher permission to conduct the study (Annexure A). At national level, permission to conduct the study was granted by the Permanent Secretary of the Ministry of Health and Social Services, and the Research Committee of the Ministry of Health and

Social Services (Annexure C). At directorate level, approval was granted by the Regional Director of the Khomas Region (Annexure D).

3.2.5.2 Informed consent

Informed consent is the ethical principle of voluntary participation and respect, and it is one of the foundations of research ethics (Lund Research Limited, 2010). Informed consent should include the title, purpose, and the procedures to be followed. The risks and benefits that are involved should be clearly spelt out (Munhall, 2001). The Social Science and Humanities Research Ethics Board (2005, p.3) explains that “even in the context of participant observation, informed consent remains one of the most important ethical principles”. Schatzmand and Strauss (in Smith, 1997) also argue that a researcher with a hidden identity raise ethical problems that are not easily resolved. Therefore, the individual has the right to decide whether to participate in the study or not without the risk of penalty (Burns & Grove, 2005).

In this study, a full explanation of the purposes of the study was provided to the participants in the consent form (Annexures E and F), and informed verbal consent was obtained from all the participants. The Social Science and Humanities Research Ethics Board (2005) explains that in many cases the researchers would find it neither feasible nor desirable to obtain written informed consent for conducting an observational study. In these instances, verbal consent is required.

The participation in this study was voluntary. All the participants who were approached were willing to participate in the study, and all of them had given their informed verbal consent before taking part in the study, since it had been clearly explained that the findings would inform the development of communication guidelines for the nurses who are caring for patients with tuberculosis in the Khomas Region to enhance their communication skills.

3.2.5.3 Privacy and confidentiality

Burns and Grove (2001) refer to confidentiality as the researcher's management of private information that is shared by the participants. Such information ought not to be shared with other people without the permission of the participants. Trochim (2006) states clearly that the information that is provided by the participants will not be made available to anyone who is not directly involved in the study.

In this study, all the participants were informed that the data from this study would be used for the expressed purposes of the research only. All the information would be treated with utmost confidentiality (Munhall, 2001). Furthermore, they were also ensured that the researcher would maintain privacy in all personal matters that were shared by the participants during observation and also during the interview, whether the information was concerning their feelings, beliefs, or perceptions. In addition, the data that were provided by the participants would only be shared with those identified professionals who were directly involved in the study, for instance the

supervisors. On the basis of the right of privacy, the privacy of all the participants was respected, by ensuring their anonymity.

3.2.5.4 Anonymity

The participant has a right to anonymity that obliges the researcher not to disclose the identity of the participant throughout the study (Callahan & Hobbs, 2010; Trochim, 2006). Anonymity cannot be completely guaranteed in a study, for instance in this study an observational method and an interview have been used to collect the data; both these instruments involve direct contact with the participants.

In this study, the researcher assured the participants that their names would not be disclosed. Although the data were collected during face-to-face observation and interviews, the names of the participants were not required and the findings of the complete study were also not be linked to any of the participant who took part in the study (Polit & Beck, 2008). This control was an additional way of ensuring the anonymity and protecting the participants.

3.2.5.5 Protection from harm and discomfort

This protection from harm and discomfort is based on the ethical principle of beneficence. According to Rainbow (2002) and Burns and Grove (2005), the principle of beneficence provides guidance for proper conduct to the researcher, and above all, for the prevention of causing harm. Since this study was not experimental,

there were no anticipated negative effects for the participants. According to Trochim (2006), harm can be either physical or psychological in nature, but in this study, there has been no harm observed.

3.2.5.6 Fair treatment

The right to fair treatment is based on the ethical principle of justice. According to Burns and Grove (2005), each participant should be treated fairly and should also receive what she or he is due or owed. Rainbow (2002) also explains that the ethical principle of justice states that ethical theories should prescribe activities that are fair to everyone involved. In this study, the reasons related to the study problem ensured that participants were selected fairly. All the nurses in the Khomas Region who had been in direct contact with TB patients on a daily basis were requested to take part in the study, and all of them agreed to take part. In this study, equitable selection of the participants was adhered to.

3.3 PHASE 2: DEVELOPMENT OF THE CONCEPTUAL FRAMEWORK

Objective: To develop a conceptual framework for effective communication guidelines.

A conceptual framework can be defined as “the abstract, logical structure of meaning that guides the development of the study and enables the researcher to link the findings to the existing body of knowledge” (Burns & Grove, 2003, p.37). In order to

accomplish that objective, the researcher of the study has used the six elements of practice orientated theory of Dickoff, James and Wiedenbach (1968), namely agent, recipient, context, dynamics, procedure, and terminus.

The results of a conceptual framework have directed the researcher during the development of the guidelines for communication of the nurses who are caring for the patients with tuberculosis at the public health facilities in the Khomas Region of Namibia. The conceptual framework is discussed in detail in Chapter 5 of this study.

3.4 PHASE 3: DEVELOPMENT OF THE GUIDELINES FOR COMMUNICATION

Objective: To develop guidelines for communication, specifically of nurses who are caring for patients with tuberculosis at public health facilities in the Khomas Region.

The guidelines for communication were developed by the researcher and were reviewed and validated by the group of experts who were consisting of representatives of all relevant groups. Guidelines should be based on available and current evidence, because such evidence-based guidelines are not void of systematic review or consensus opinions. If guidelines are entirely based on research evidence, some criteria might be viewed as scientifically less valid, and could subsequently lead to flawed conclusions (Thompson and Dowding, 2002). Therefore, in this study, the guidelines for communication have been developed in accordance with the current evidence of empirical data and literature.

Furthermore, the researcher has developed the guidelines for communication by following a series of steps as illustrated by the World Stroke Organisation (2011). The guidelines development process is fully discussed in Chapter 6 of this study.

3.5 PHASE 4: IMPLEMENTATION AND EVALUATION OF THE GUIDELINES

Objective: To implement and evaluate the guidelines for communication of the nurses who are caring for patients with tuberculosis at public health facilities in the Khomas Region.

In preparation for implementation, the researcher conducted training of the nurses who were caring for the patients with tuberculosis (users) and they were trained in the method of implementing the content of the developed guidelines for communication. A total number of seven nurses who were representing seven public health facilities in the Khomas Region were trained, and a period of three months was allocated for them to implement the content of the guidelines during daily contact with patients with TB. The researcher conducted evaluation by using the same communication checklist and semi-structured interview questions that had been used during the first phase of the study. The implementation and evaluation of the guidelines are discussed in detail in Chapter 6 of this study.

3.6 SUMMARY

This chapter discusses the research design, as well as the research methodology of this study. The chapter further describes the validity and reliability of the research in detail. The pilot study and ethical considerations of the study are also discussed.

Chapter 4 focuses on the data analysis of the study results.

CHAPTER 4

DATA ANALYSIS

4.1 INTRODUCTION

Chapter 3 discusses the research design and methodology of this study. This chapter focuses on the data analysis of the research findings. This study is quantitative in nature; therefore, the process of data analysis includes statistical analysis by using the Epi InfoTM software program version 3.5.3 (<http://ptf.com/epi/epi+info+3.5.3>) for the observation data and content analysis of the open-ended questions (interviews). Tables, columns, figures and pie charts are used to present the data with the purpose of facilitating interpretation.

4.2 CONCERNED QUESTION

The study wishes to answer to the following question: How do the nurses communicate with their patients who are diagnosed with tuberculosis? To answer this question, the researcher conducted a study in TB treatment areas at public health facilities of the Ministry of Health and Social Service in the Khomas Region. The objective was to explore and describe the communication process between the nurses who are caring for patients diagnosed with tuberculosis and the patients diagnosed with tuberculosis at the public health facilities in the Khomas Region.

4.3 POPULATION AND SAMPLE DESCRIPTION

The study consisted of two study populations. The first study population was the nurses (n = 30) who were on daily basis in direct contact with the patients diagnosed with tuberculosis at the public health facilities in the Khomas Region during the data collection period. The second study population was the patients diagnosed with tuberculosis (n = 30) with whom the TB focal nurses were communicating during an observation. In this study, no sampling was performed, since all 30 nurses who were directly caring for the patients with tuberculosis on a daily basis at the public health facilities in the Khomas Region during the data collection period were included in the study. Therefore, for the purpose of this study, the populations and the samples were the same.

4.4 OVERVIEW OF DATA COLLECTION, DATA ANALYSIS AND THE LEVEL OF MEASUREMENTS

In this study, the data were collected by means of observation and face to face individual interviews. Firstly, the researcher observed the nurse while she/he was communicating with the patient diagnosed with tuberculosis. Directly after observation, interviews were conducted individually; firstly with the nurse, and secondly with the patient diagnosed with TB. The data collection instruments used was a checklist (observation) and semi-structured interview with open-and closed-ended questions. The data were analysed electronically into numerical information

by means of statistical procedures and statistical descriptive technique (Brink et al., 2006:11).

Moreover, the data analysis of Sections D and E (open-ended questions) was conducted by converting qualitative data to a quantitative format and was subsequently presented according to themes (Unite for Sight Inc., 2000-2011).

The level of measurement employed in this study was nominal (Crossman, 2012). This level was selected, since the checklist used to collect data was designed to tick either yes or no (Hodgson, 2003). No ranking of responses was required in this study. Furthermore, the study findings were presented in frequency tables, columns, and pie diagrams.

Research findings were presented as follows:

- Firstly, the biographical information of the nurse and patient participants (Sections A and B);
- Secondly, the results of observation communication context according to the communication observation checklist (Section C);
- Thirdly, the interview (open-ended questions) results of the nurses, as well as the patients (Sections D and E); and
- Lastly, the conclusion.

4.5 SECTION A: BIOGRAPHICAL INFORMATION OF THE NURSE PARTICIPANTS (ANNEXURE H)

Section A covered the biographical information of the nurse participants (NPs) focused on the participant's gender, ages, qualifications, years of experience in nursing, months of experience in TB service. It also highlighted the health facilities (nurse' workplaces and the patients' treatment areas), and the specific duty areas where observation and interview took place (sections 4.5.6 and 4.5.7).

4.5.1 Gender of nurse participants (N = 30)

The data were collected from 30 (100.0%) nurses. Of the thirty nurse participants, 10.0% (n = 03) were male, and 90.0% (n = 27) were female. Figure 4.1 displays the gender distribution of the nurse participants.

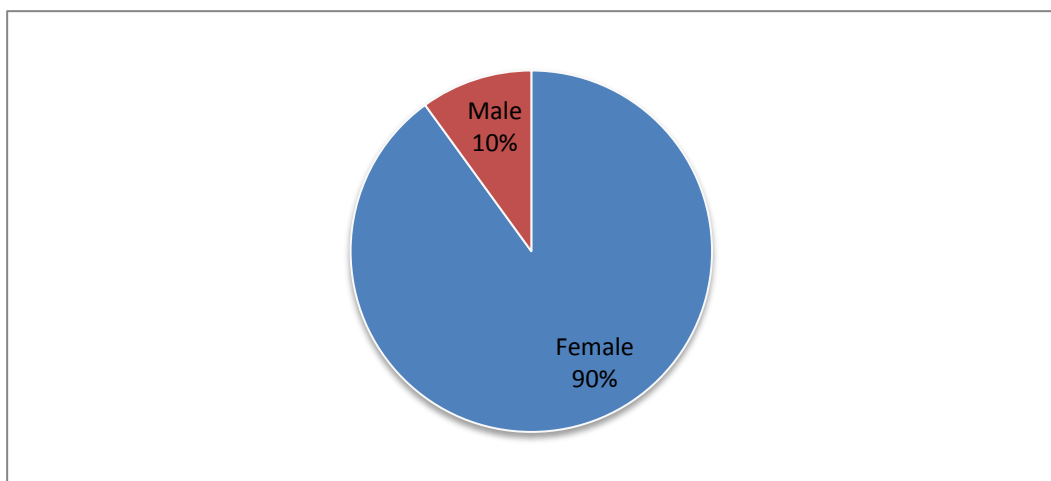


Figure 4.1: Gender distribution of the nurse participants (N = 30)

4.5.2 Nurse participants' ages (N = 30)

The nurse participants' ages ranged between 22 and 64, with the mode of 52. The total number of the nurse participants below the age of 50 were 53.3% (n = 16), while the nurse participants above the age of 50 were 46.7% (n = 14). Table 4.1 displays the age categories of the nurse participants.

Table 4.1: The age of the nurse participants (N = 30)

Ages	Frequency	Percentages
Below 50	16	53.3%
Above 50	14	46.7%
Total	30	100.0%

4.5.3 Nurse participants' qualifications (N = 30)

Of the thirty nurse participants, 66.7% (n = 20) were enrolled nurses, 33.3% (n = 10) were registered nurses and none assistant nurse. Figure 4.2 displays the qualifications of the nurse participants.

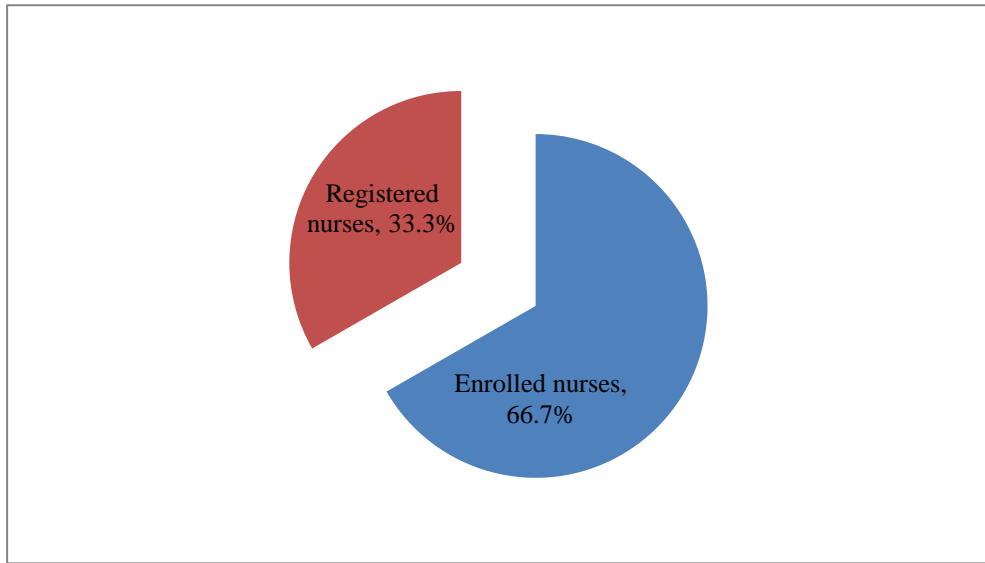


Figure 4.2 Nurse Participants' qualifications (N = 30)

4.5.4 Nurse participants' years of experience in nursing services (N = 30)

Of the thirty nurses participants 83.3% (n = 25) had more than 10 years' experience in the nursing services, while 16.7% (n = 5) had less than 10 years' experience in nursing services. Table 4.2 displays the years of nurse participants' experience in nursing services.

Table 4.2: The nurse participants' years of experience in nursing services
(N = 30)

Years of experiences	Frequency	Percentage
More than 10 years (> 10 years)	25	83.3%
Less than 10 years (< 10 years)	05	16.7%
Total	30	100.0%

4.5.5 Nurse participants' months of experience in tuberculosis services (N= 30)

The nurse participants' months of experience in TB services were as follows: 90.0% (n = 27) had more than 3 months experiences in TB services, while 10.0% (n = 3) had less than 3 months experience in TB services. Table 4.3 displays the nurse participants' months of experience in a TB department.

Table 4.3: The nurse participants' months of experience in a tuberculosis services

Months of experiences	Frequency	Percentage
More than 3months (> 3 months)	27	90.0%
Less than 3 months (< 3 months)	03	10.0%
Total	30	100.0%

4.5.6 Health facilities (nurses workplaces and the patients treatment areas)

All the nurse participants 100.0% (n = 30) were practising at public health facilities in the Khomas Region. The public health facilities in the Khomas Region are: Katutura Intermediate Hospital, Katutura Health Centre; and nine clinics; namely Khomasdal, Wanaheda, Otjomuise, Hakahana, Okuryangava, Donkerhoek, Robert Mugabe, Dordabis, and Groot Aub (MoHSS, 2009 / 2010a; MoHSS, 2009 / 2010b).

Of the thirty nurse participants, 30.0% (n = 9) were caring for patients with tuberculosis at clinic level, 3.3% (n = 1) were caring for patients with tuberculosis at health centre level, while 66.7% (n = 20) were caring for patients with tuberculosis at hospital level. Table 4.4 displays the names of the health facilities (nurses' workplaces and the patients' treatment areas) where the interviews took place.

Table 4.4: Names of the health facilities (nurses' workplaces and the patients' treatment areas)

Name of the health facility	Frequency	Percentage
Donkerhoek Clinic	1	3.3%
Dordabis Clinic	1	3.3%
Groot Aub Clinic	1	3.3%
Hakahana Clinic	1	3.3%
Katutura Health Centre	1	3.3%
Katutura Intermediate Hospital	20	66.7%

Name of the health facility	Frequency	Percentage
Khomasdal Clinic	1	3.3%
Okuryangava Clinic	1	3.3%
Otjomuise Clinic	1	3.3%
Robert Mugabe Clinic	1	3.3%
Wanaheda Clinic	1	3.3%
Total	30	100.0%

4.5.7 Tuberculosis treatment areas at the health facilities where interview took place

At clinic and health centre level, the study was conducted in the TB Rooms 33, 3% (n = 10), while at hospital level 13, 3% (n = 4) at the TB OPD, and 53, 3% (n = 16) in the TB wards.

4.6 SECTION B: BIOGRAPHICAL INFORMATION OF THE PATIENT PARTICIPANTS (ANNEXURE I)

Section B presented the biographical information of the patient participants; such as the patient participant's gender, ages, employment status, and educational level.

4.6.1 Patient participants' gender (N = 30)

The data were collected from 100.0% (n = 30) of the patient participants. Of the thirty patient participants, 50.0% (n = 15) were men, while 50.0% (n = 15) were women. Figure 4.3 displays the patient participants' gender.

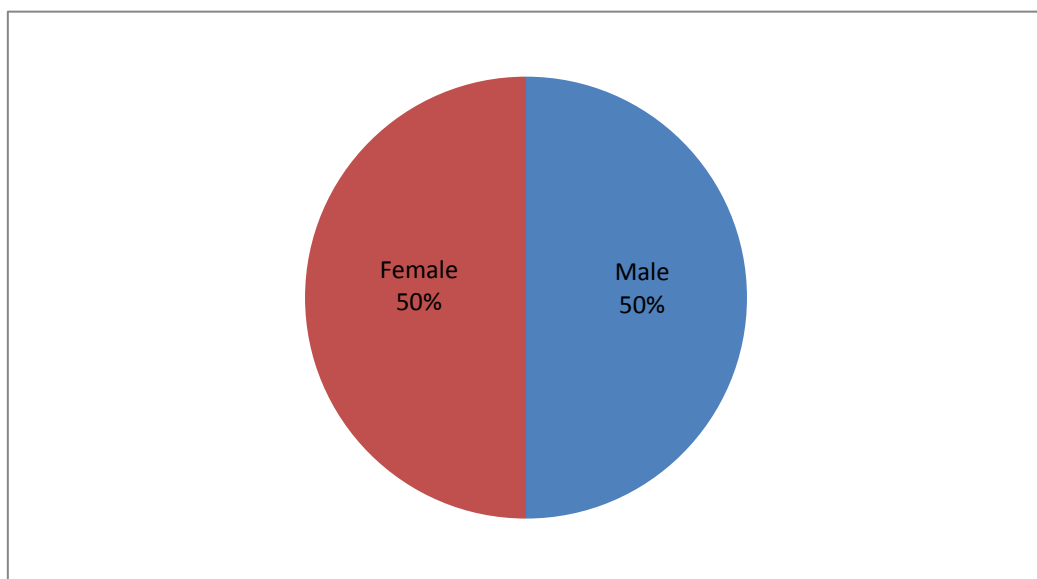


Figure 4.2: Patient participants' gender (N = 30)

4.6.2 Patient participants' ages (N = 30)

The patient participants' ages ranged between 21 and 54, with the mode of 48. Of the thirty patient participants, 13.3% (n = 4) were between the ages of 21 and 24, 23.3% (n = 7) were between the ages of 25 and 34, 33.3% (n = 10) were between the ages of 35 and 44, and 30.0% (n = 9) were between the ages of 45 and 54. Figure 4.4 presents the age groups of the patient participants clearly.

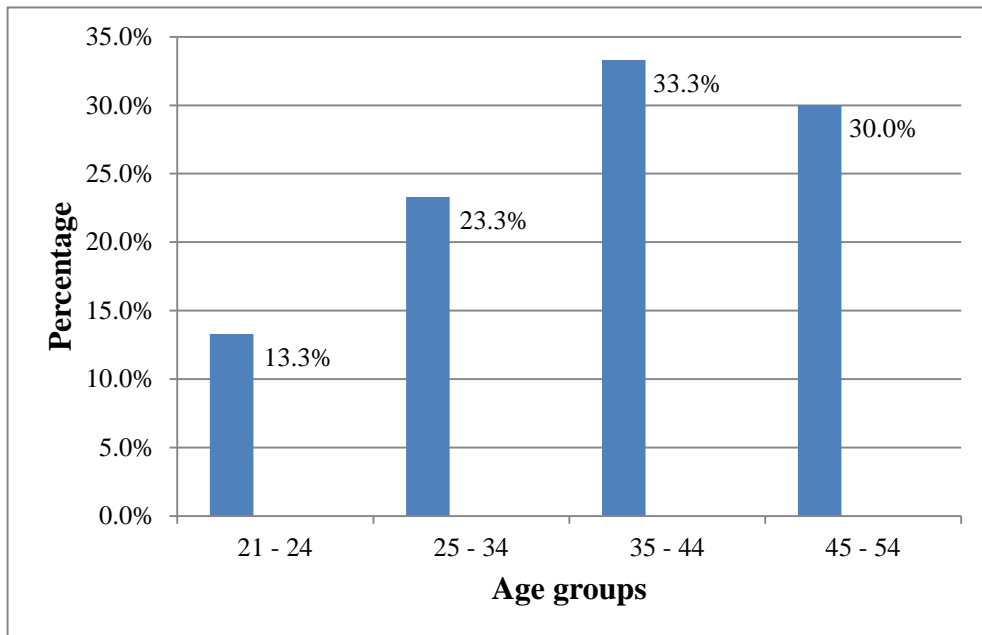


Figure 4.3: Age groups of the patient participants

4.6.3 Employment status of the patient participants (N = 30)

Of the thirty patient participants, 66.7% (n = 20) were unemployed, 13.3% (n = 4) were formally employed, and 20.0% (n = 6) were informally employed. Figure 4.5 displays the employment status of the patient participants.

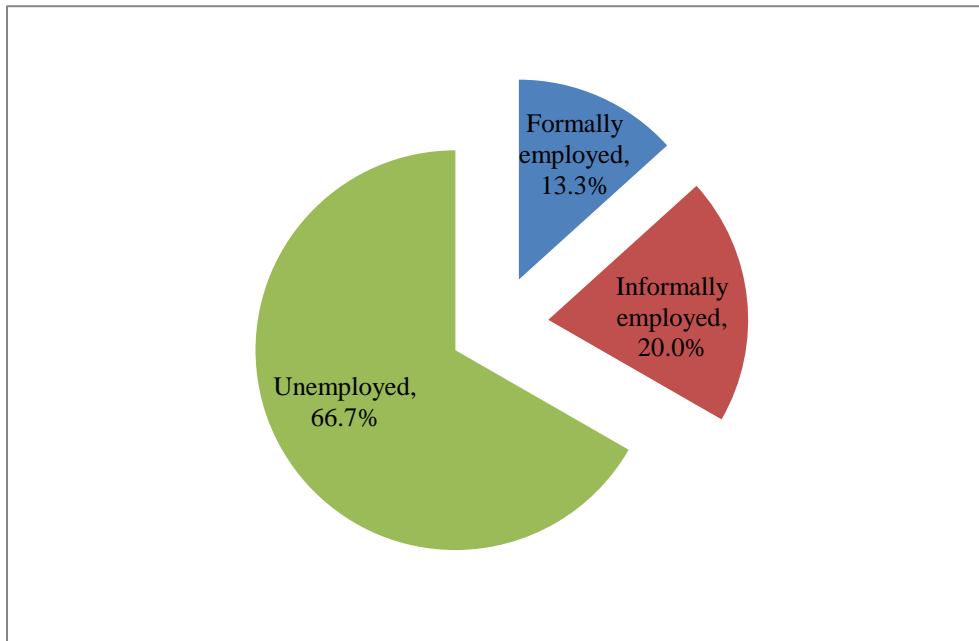


Figure 4.4: Employment status of the patient participants

4.6.4 Educational level of the patient participants (N = 30)

Of the thirty patient participants, 6.7% (n = 2) indicated that they had never attended school (other in assessment tool), 13.3% (n = 4) attended school to primary level, 70.0% (n = 21) attended school up to secondary level, and 10.0% (n = 3) attended school up to tertiary level. Figure 4.6 depicts the educational level of the patient participants.

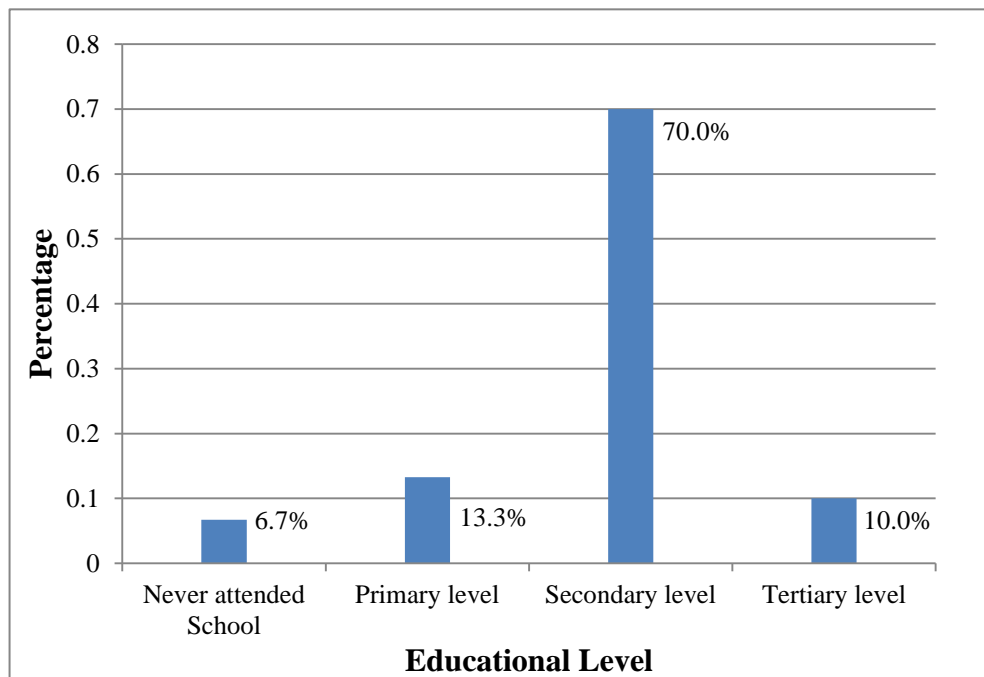


Figure 4.5: The educational level of the patient participants

4.7 SECTION C: COMMUNICATION OBSERVATION CHECKLIST RESULTS

In this section, the researcher analysed the data of the observation done while the nurses were communicating with patients at the public health facilities in the Khomas Region. The total number of 30 (100.0%) nurse participants was observed while communicating with 30 (100.0%) patient participants with tuberculosis. Each nurse participant was observed individually while she was communicating with her/his patient participant. The items observed and the analysed results are presented in the context of communication skills as indicated on the communication observation checklist (Annexure G).

4.7.1 Communication Skills

4.7.1.1 Create a conducive environment (atmosphere) for communication (N = 30)

The researcher wanted to find out whether the nurse participants were creating a conducive environment (atmosphere) that encouraged the patient participants to communicate effectively during their interaction. Table 4.5 presents the items that the researcher was observing while the nurse participants were communicating with the patient participants.

Table 4.5: Creating a conducive environment (atmosphere) for communication

Items observed	Yes	No	N/A	Total
C 1.1 Arranging the room / area in a way that facilitates good communication; for example tidy room, tidy table.	86.7% (n = 26)	13.3% (n = 4)	0% (n = 0)	100.0% (N = 30)
C1.2 Arranging seats in an appropriate way (for example chairs arranged at an angle).	63.3% (n = 19)	36.7% (n = 11)	0% (n = 0)	100.0% (N = 30)
C1.3 Windows are open for ventilation.	40.0% (n = 12)	60.0% (n = 18)	0% (n = 0)	100.0% (N = 30)
C1.4 Welcoming the patient	6.7%	50.0%	43.3%	100.0%

Items observed	Yes	No	N/A	Total
(verbally)	(n = 2)	(n = 15)	(n = 13)	(N = 30)
C1.5 Offering a chair to the patient.	7% (n = 2)	73% (n = 22)	20% (n = 6)	100% (N = 30)
C1.6 Greeting the patient.	36.7% (n = 11)	63.3% (n = 19)	0% (n = 0)	100.0% N = 30)
C1.7 Introducing self to the patient.	0% (n = 0)	40.0% (n = 12)	60.0% (n = 18)	100.0% (N = 30)
C1.8 Showing appropriate body language when talking to the patient (Does the nurse sit or stand appropriately during conversation?).	83.3% (n = 25)	16.7% (n = 5)	0% (n = 0)	100.0% (N = 30)
C1.9 Ensuring privacy (no other people in the room); it encourages a patient to be more open and to communicate freely.	30.0% (n = 9)	70.0% (n = 21)	0% (n = 0)	100.0% (N = 30)
C1.10 Ensuring a quiet environment is quiet (no noise like radio, to and fro movement of the people, no cell phone ringing); it encourages a person to concentrate on the discussion.	30.0% (n = 9)	70.0% (n = 21)	0% (n = 0)	100.0% (N = 30)
C1.11 All obstacles between the nurse and the patient during conversation are removed; for	43.3% (n = 13)	56.7% (n = 17)	0% (n = 0)	100.0% (N = 30)

Items observed	Yes	No	N/A	Total
example computers, bundles of books, or any other person- it forms a communication barriers that prevents good communication.				
C1.12 Negotiating with the patient the appropriate language to be used during conversation (especially new cases) to prevent misunderstanding.	0% (n = 0)	36.7% (n = 11)	63.3% (n = 19)	100.0% (N = 30)

Of the thirty nurse participants, 13.3% (n = 4) did not arrange the room/area in a way that facilitated good communication; for example tidy room, tidy table. However, 86.7% (n = 26) of the participant nurses did arrange the communication venue properly.

Of the thirty nurse participants, 36.7% (n = 11) did not arrange the seats in an appropriate way, for example chairs arranged at an angle; 63.3% (n = 19) arranged the seats.

The majority of the nurse participants 60.0% (n = 18) did not open the windows while communicating with patients with tuberculosis, and only 40.0% (n = 12) opened the windows.

Half of the nurse participants 50.0% (n = 15) did not welcome the patients with tuberculosis to the treatment areas, while 6.7% (n = 2) did. Welcoming patient participants did not apply to 43.3% (n = 13) of the nurse participants, since their patients had been admitted to the hospital a few times already, i.e. the nurse and the patient knew each other.

Very few of the nurse participants 6.7% (n = 2) offered the patient participants a chair, the majority of 73.3% (n = 22) did not. Few of the nurse participants 20.0% (n = 6) did not offer patients chairs, since they were all admitted and were lying in the hospital beds during observation.

More than half of the nurses participants 63.3% (n = 19) did not greet the patients at the beginning, and 36.7% (n = 11) greet the patients.

Of the thirty nurse participants, 40.0% (n = 12) did not introduce themselves to the patient participants, and 60.0% (n = 18) of the nurse participants did not need to introduce themselves, since the nurses and the patients knew each other already.

Seventeen per cent (n = 5) of the nurse participants did not demonstrate appropriate body language during conversation, while 83.3% (n = 25) demonstrated appropriate body language.

Less than a third of the nurse participants 30.0% (n = 9) ensured privacy; the majority of 70.0% (n = 21) did not ensure privacy.

The majority of the participants 70.0% (n = 21) did not ensure a quiet environment; for example no noise like radio, to and fro movement of people, no cell phone ringing; 30.0% (n = 9) ensure a quite environment.

Almost half of the nurse participants 43.3% (n = 13) were communicating without any obstacles between them and the patient participants, e.g. obstacles like bundles of books, or another person; 56.7 % (n = 17) did not.

Of the thirty nurse participants, 36.7% (n = 11) did not negotiate with the patients which language they preferred to communicate in (especially in the case of new patients) with the aim of preventing misunderstanding. For 63.3% (n = 19) of the nurse participants it was not applicable, since the nurses and the patients knew one another already.

4.7.1.2 Assess and understand the patients' mood and level of understanding of the tuberculosis situation (N = 30)

In this instance, the researcher sought to establish whether the nurse participants did assess the patients' mood and level of understanding (knowledge) of the disease, before the TB health information were provided to the patient participants. Table 4.6 depicts the items the researcher observed while the nurse participants were communicating with the patient participants.

Table 4.6: Assess and understand the patients' mood and level of understanding of the TB situation

Items observed	Yes	No	N / A	Total
C2.1 Assessing the patient's mood before information is provided, taking care of feelings first (ice breaker).	6.7% (n = 2)	93.3% (n = 28)	0% (n = 0)	100.0% (N = 30)
C2.2 Acquiring the patient's previous knowledge about the tuberculosis disease before correct or additional information is provided (Example: What causes tuberculosis, or how is tuberculosis spread?).	3.3% (n = 1)	96.7% (n = 29)	0% (n = 0)	100.0% (N = 30)
C2.3 Exploring the patient's beliefs about the disease before appropriate information is provided (beliefs like TB is caused by dust, alcohol, or smoking; TB is hereditary, TB can be cured).	3.3% (n = 1)	96.7% (n = 29)	0% (n = 0)	100.0% (N = 30)
C2.4 Exploring the patient's practices in relation to the disease before appropriate information is provided (For example; not eating some foodstuffs like eggs when on	0% (n = 0)	100.0% (n = 30)	0% (n = 0)	100.0% (N = 30)

Items observed	Yes	No	N / A	Total
TB treatment, or using traditional treatment).				

Very few of the nurse participants 6.7% (n = 2) had assessed the patient participants' mood by taking care of feelings first during an ice breaker before information was provided, while the majority 93.3% (n = 28) did not assess the patients mood.

Almost all of the nurse participants 96.7% (n = 29), except one (3.3%), did not assess the patients' previous knowledge about the tuberculosis disease before correct information was provided.

Only one of the nurse participants 3.3% (n = 1) had explored the patients' beliefs about the disease before correct information was provided, 96.7% (n = 29) did not explore the patients' beliefs. None of the nurse participants had explored the patient participants' practices in relation to the disease before correct information was provided.

4.7.1.3 Providing tuberculosis health information

- **Basic medical information with regard to tuberculosis**

The researcher sought to assess whether the nurse participants were providing all the basic medical information about tuberculosis to the patient participants. The

researcher observed the types of basic medical information that the nurse participants were providing to the patient participants during their discussions. Table 4.7 displays the basic medical information that the researcher has observed.

Table 4.7: Basic medical information with regard to tuberculosis (N = 30)

Items observed	Yes	No	N/A	Total
C3.1.1 Meaning of tuberculosis	23.3% (n = 7)	76.7% (n = 23)	0% (n = 0)	100.0% (N = 30)
C3.1.2 Diagnosis of the patient	43.3% (n = 13)	56.7% (n = 17)	0% (n = 0)	100.0% (N = 30)
C3.1.3 Cause of tuberculosis	40.0% (n = 12)	60.0% (n = 18)	0% (n = 0)	100.0% (N = 30)
C3.1.4 Contributing factors to tuberculosis	63.3% (n = 19)	36.7% (n = 11)	0% (n = 0)	100.0% (N = 30)
C3.1.5 Prevention of tuberculosis	66.7% (n = 20)	33.3% (n = 10)	0% (n = 0)	100.0% (N = 30)
C3.1.6 Treatment of tuberculosis	90.0% (n = 27)	10.0% (n = 3)	0% (n = 0)	100.0% (N = 30)
C3.1.7 Importance of knowing one's HIV status	73.3% (n = 22)	26.7% (n = 8)	0% (n = 0)	100.0% (N = 30)
C3.1.8 Dangers of non-compliance to tuberculosis treatment	30.0% (n = 9)	70.0% (n = 21)	0% (n = 0)	100.0% (N = 30)

Of the thirty nurse participants, only 23.3% (n = 7) explained the meaning of tuberculosis to the patients, while the majority 76.7% (n = 23) did not. The majority of the nurse participants 56.7% (n = 17) did not inform the patient participants about the type of tuberculosis (their diagnosis) that the patient had; only 43.3% (n = 13) did.

The majority 60.0% (n = 18) of the nurse participants explained the cause of tuberculosis to the patients, while 40.0% (n = 12) did not. Nearly two third of the nurse participants 63.3% (n = 19) informed the patients about the contributing factors to tuberculosis, and 36.7% (n = 11) did not.

The majority of the nurse participants 66.7% (n = 20) explained to the patients how someone could prevent tuberculosis, while 33.3% (n = 10) did not. Ninety per cent (n = 27) explained to the patients what type of tuberculosis treatment the patient should be given, while 10.0% (n = 3) did not.

Marginally more than a quarter of the nurse participants 26.7% (n = 8) did not inform the patient participants about the importance of knowing their HIV status, but the majority 73.3% (n = 22) did. Nearly a third of nurse participants 30.0% (n = 9) explained the dangers of non-compliance of tuberculosis treatment to the patients; the majority 70.0% (n = 21) did not.

- **Lifestyle information with regard to tuberculosis (N = 30)**

Furthermore, the researcher wanted to determine whether the nurse participants were informing the patient participants about the lifestyle information that they needed to know with regard to tuberculosis. Table 4.8 displays items about lifestyle information that the researcher has observed while the nurse participants have been providing information to the patient participants.

Table 4.8: Lifestyle information with regard to tuberculosis

Items observed	Yes	No	N / A	Total
C3.2.1 Dangers of consuming alcohol while on tuberculosis treatment	60.0% (n = 18)	40.0% (n = 12)	0% (n = 0)	100.0% (N = 30)
C3.2.2 Smoking and TB	56.7% (n = 17)	43.3% (n = 13)	0% (n = 0)	100.0% (N = 30)
C3.2.3 Type of foodstuff to be taken during treatment	0% (n = 0)	100.0% (n = 30)	0% (n = 0)	100.0% (N = 30)
C3.2.4 Family planning (if applicable)	0% (n = 0)	50.0% (n = 15)	50.0% (n = 15)	100.0% (N = 30)

Of the thirty nurse participants, 60.0% (n = 18) informed the patient participants about the dangers of consuming alcohol while on tuberculosis treatment, while 40.0% (n = 12) did not.

More than half of the nurse participants 56.7% (n = 17) explained the dangers of smoking while on tuberculosis treatment to the patients, and 43.3% (n = 13) did not.

None of the nurse participants informed the patients about the type of food they need to eat during treatment, nor did any of them informed the female patient participants about suitable family planning methods to be used while on TB treatment. Of the thirty participants 50% (n = 15) were male patients, therefore, it was not necessary to give them information about the hormonal family planning methods.

- **Social information with regard to tuberculosis**

The researcher also wanted to know whether the nurse participants provided social information about tuberculosis to the patient participants. Table 4.9 presents the items the researcher has observed while the nurse participants have been giving information to the patient participants.

Table 4.9: Social information with regard to tuberculosis

Items observed	Yes	No	N / A	Total
C3.3.1 Advantages of joining the Penduka TB organisation for craft work and support.	6.7% (n = 2)	93.3% (n = 28)	0% (n = 0)	100.0% (N = 30)
C3.3.2 Identification of support person(s).	40.0% (n = 12)	60.0% (n = 18)	0% (n = 0)	100.0% (N = 30)

Items observed	Yes	No	N / A	Total
C3.3.3 When to assume duty (applicable to workers).	10.0% (n = 3)	23.3% (n = 7)	66.7% (n = 20)	100.0% N = 30
C3.3.4 Socialisation with the family members (not to isolate self).	13.3% (n = 4)	86.7% (n = 26)	0% (n = 0)	100.0% (N = 30)
C3.4 Taking responsibility when patient does not understand; for example, by providing the correct answer to the patient in a simple way, do not give homework to the patient, or to address the patient in a confrontational manner.	63.3% (n = 19)	36.7% (n = 11)	0% (n = 0)	100.0% (N = 30)
C3.5 Summarising the main information in a simple way; for example restate the diagnosis, duration of treatment, advantages of compliance. It is important for ensuring that the patient understands the messages you are conveying.	0% (n = 0)	100.0% (n = 30)	0% (n = 0)	100.0% (N = 30)

Of the thirty nurse participants, only 6.7% (n = 2) informed the patient participants about the advantages of joining the Penduka TB organisation for craft work, daily DOT, and support, while the rest 93.3% (n = 28) did not.

Sixty per cent (n = 18) did not explain the importance of identifying a support person to the patient participants (DOT supporter), 40.0% (n = 12) did.

Nearly a quarter of the nurse participants 23.3% (n = 7) did not inform the patient participants about the appropriate day for resuming duty while on tuberculosis treatment, 10.0% (n = 3) did, and the item did not apply to 66.7% (n = 21), since these patient participants were unemployed.

Only 13.3% (n = 4) of the nurses explained the importance of socialisation with the family members, for instance not to isolate self, to the patient participants, while the majority of the nurse participants 86.7% (n = 26) did not.

Nearly two third of the nurse participants 63.3% (n = 19) assumed responsibility when patient participants did not understand the information provided, 36.7% (n = 11) did not.

None of the nurse participants had summarised the main information that emphasised the key points; for example restate the diagnosis, duration of treatment, and advantages of compliance in a simple way with the aim of ensuring that the patient received the message accurately.

4.7.1.4 Interacting with patients to influence motivation and the ability to follow advice (N = 30)

In this instance, the researcher sought to find out whether the nurse participants were interacting with the patient participants to influence motivation and the ability to follow advice. Therefore, the items in Table 4.10 were observed by the researcher while the nurse participants were communicating with the patient participants.

Table 4.10: Interacting with patients to influence motivation and the ability to follow advice

Items observed	Yes	No	N / A	Total
C4.1 Encouraging dialogue, since sharing of information and knowledge enhances understanding and addresses the need of other people.	40.0% (n = 12)	60.0% (n = 18)	0% (n = 0)	100.0% (N = 30)
C4.2 Positive reinforcement during conversation; for example any agreement, laughter, or use encouraging words like “that’s good”, or “thanks”.	36.7% (n = 11)	63.3% (n = 19)	0% (n = 0)	100.0% (N = 30)
C4.3 Being self-confident and trust your own words; for example avoid using words like: “I think...”, “Let me try...”	96.7% (n = 29)	3.3% (n = 1)	0% (n = 0)	100.0% (N = 30)

Items observed	Yes	No	N / A	Total
C4.4 Confirming date and time of the return visit by asking the patient to repeat it. It assists the patient to remember the next appointment date easily.	76.7% (n = 23)	23.3% (n = 7)	0% (n = 0)	100.0% (N = 30)
C4.5 Motivating the patient to complete the tuberculosis treatment.	50.0% (n = 15)	50.0% (n = 15)	0% (n = 0)	100.0% N = 30)

Forty per cent (n = 12) of the nurse participants encouraged dialogue (since sharing of information and knowledge enhanced understanding and addressed the need of other people), while the majority 60.0% (n = 18) did not.

The majority of the nurse participants, namely 63.3% (n = 19) did not convey any positive messages during conversation, for example agreement, laughter, or encouraging word like “that’s good”, and “thanks”; only 36.7% (n = 11) did.

The majority of the nurse participants 96.7% (n = 29) were self-confident and trusted their own words, 3.3 % (n = 1) were not.

About 23.3% (n = 7) of the nurse participants did not confirm a return visit with the patient by asking the patient to repeat the follow-up date, since the reminder would assist the patient to easily remember the next appointment date, but 76.7% (n = 23) did confirm the next appointment with the patient participants.

Half of the nurse participants 50.0% (n = 15) motivated the patient participants to complete their tuberculosis treatment, while the other half of the nurse participants 50.0% (n = 15) did not.

4.7.1.5 Listening skills (N = 30)

The researcher wanted to establish in which way the nurse participants listened while they were communicating with the patient participants. Therefore, the researcher was observing the items about listening skills (Table 4.11).

Table 4.11: Listening skills

Items observed	Yes	No	N / A	Total
C5.1 Reinforce attentive listening by using non-verbal movement; for example nodding of the head, and keeping eye contact to show interest and concern.	23.3% (n = 7)	76.7% (n = 23)	0% (n = 0)	100.0% (N = 30)
C5.2 Listening until the patient has completed expressing his/ her thoughts Refrain from completing the patient's sentences or to mention that the nurse knows it already. Allow the patient to feel that her/his inputs are valued.	30.0% (n = 9)	70.0% (n = 21)	0% (n = 0)	100.0% (N = 30)

Items observed	Yes	No	N / A	Total
C5.3 Doing nothing else except listening – encourage the patient to talk.	16.7% (n = 5)	83.3% (n = 25)	0% (n = 0)	100.0% (N = 30)

The majority of the nurse participants, namely 76.7% (n = 23) were not listening attentively by using non-verbal movement, for example nodding of the head, or keeping eye contact to show interest and concern, but 23.3% (n = 7) did.

Most of the nurse participants 70.0% (n = 21) did not listen until the patients completed expressing their thoughts, and only 30.0% (n = 9) did.

Of the thirty nurse participants, 16.7% (n = 5) did nothing else except listening, but the majority of the nurse participants, namely 83.3% (n = 25) did something else while listening to the patient participants.

4.7.1.6 Questioning skills (N = 30)

The researcher wanted to find out how the nurse participants were asking questions to the patient participants during communication. The researcher observed the items about questioning skills (Table 4.12).

Table 4.12: Questioning skills

Items observed	Yes	No	N / A	Total
C6.1 Asking descriptive questions since it solicits information that helps to define strengths, issues, and concerns.	50.0% (n = 15)	50.0% (n = 15)	0% (n = 0)	100.0% (N = 30)
C6.2 Using close-ended questions appropriately. It assists the patient to provide information that he/she might forget.	100.0% (n = 30)	0% (n = 0)	0% (n = 0)	100.0% (N = 30)
C6.3 Asking the patient's opinions. Let the patient know that his/her ideas and inputs are valued by adding to the patient's opinions.	20.0% (n = 6)	80.0% (n = 24)	0% (n = 0)	100.0% (N = 30)
C6.4 Asking questions to find the reasons for patients behaviour; for example a patient who always arrives late at the health facility, a patient who is interrupting medicine more often, or a patient who is not interested in a discussion.	13.3% (n = 4)	86.7% (n = 26)	0% (n = 0)	100.0% (N = 30)

Half of the nurse participants, namely 50.0% (n = 15) asked descriptive questions, while the other half 50.0% (n = 15) did not. All the nurse participants 100.0% (n = 30) used close-ended questions appropriately, and only a fifth of the nurse

participants 20.0% (n = 6) asked the patients to express their opinions, the majority 80.0% (n = 24) did not.

The majority of the nurse participants, 86.7% (n = 26) did not ask the patient participants questions to establish the reasons for patient participants' behaviour (for instance, patients who always arrived late at the health facility, patients who were interrupting medicine more often, or patients who were not interesting in communicating), 13.3% (n = 4) did.

4.7.1.7 Verbal and non-verbal communication (N = 30)

The researcher wanted to determine whether the nurse participants were aware of their verbal expressions and non-verbal communication behaviour by observing the items about verbal and non-verbal communication as displayed in Table 4.13.

Table 4.13: Verbal and non-verbal communication

Items observed	Yes	No	N / A	Total
C7.1 Using short, simple, and clear sentences. These sentences motivate the patient to follow, since thought are expressed in an understandable way.	90.0% (n = 27)	10.0% (n = 3)	0% (n = 0)	100.0% (N = 30)
C7.2 Using an appropriate non-verbal communication method to	60.0% (n = 18)	40.0% (n = 12)	0% (n = 0)	100.0% (N =

Items observed	Yes	No	N / A	Total
welcome the patient; for example smiles, or touch patient on shoulder or arm).				30)
C7.3 Being approachable and friendly.	66.7% (n = 20)	33.3% (n = 10)	0% (n = 0)	100.0% (N = 30)
C7.4 Speaking loudly enough for patient to hear; it prevents misunderstanding.	100.0% (n = 30)	0% (n = 0)	0% (n = 0)	100.0% (n = 30)

Ten per cent (n = 3) did not use short, simple, and clear sentences, while 90.0% (n = 27) did. The majority of the nurse participants 60.0% (n = 18) used appropriate non-verbal communication to welcome the patient participants, while 40.0% (n = 12) of them did not.

Most of the nurse participants, namely 66.7% (n = 20), were approachable and friendly, 33.3% (n = 10) were not. All the nurse participants 100.0% (n = 30) spoke loudly enough for patient to hear.

4.7.1.8 Constructive feedback skills (N = 30)

The researcher sought to establish whether the nurse participants complimented the patient participants when they did something good, and also whether they were providing constructive feedback to the patient participants. The researcher was observing the items displayed in Table 4.14.

Table 4.14: Constructive feedback skills

Items observed	Yes	No	N / A	Total
C8.1 Complementing the patient for things he/she has done well; for example thank the patient for arriving early that day, or thank the patient for promising to complete her/his treatment. Compliments make the patient realise that what he/she is doing well is noticed.	13.3% (n = 4)	86.7% (n = 26)	0% (n = 0)	100.0% (N = 30)
C8.2 Providing specific constructive feedback to the patient. Generalised feedback confuses the patient because he/she will end up not knowing where to improve, for example “all TB patients are difficult to care for”. Specific constructive feedback assists the patient to improve. Starting the sentence with “I”.	13.3% (n = 4)	86.7% (n = 26)	0% (n = 0)	100.0% (N = 30)

Only 13.3% (n = 4) of the nurse participants complimented the patients for things that he / she had done well, while the majority 86.7% (n = 26) did not. With regard to feedback to patients, only 13.3% (n = 4) gave specific constructive feedback to the patients, while most of the nurse participants 86.7% (n = 26) did not.

4.7.1.9 Respect and empathy

The researcher assessed whether the nurse participants showed respect and empathy to the patient participants while providing health information. The researcher was observing the items displayed in Table 4.15.

Table 4.15: Respect and empathy

Items observed	Yes	No	N / A	Total
C9.1 Showing empathy by understanding the effect of disease on patient that is understanding the pain and suffering of the patient.	50.0% (n = 15)	50.0% (n = 15)	0% (n = 0)	100.0% (N = 30)
C9.2 Showing respect while not diverting for the correct facts. Respecting the patient does not include ignoring the fact.	50.0% (n = 15)	50.0% (n = 15)	0% (n = 30)	100.0% (N = 30)

Half of the nurse participants 50.0% (n = 15) expressed empathy by understanding the effect of the disease on patient participants, the other half 50.0% (n = 15) did not. Half of the nurse participants 50.0% (n = 15) displayed respect to the patient participants, half of them 50.0% (n = 15) did not.

After observation, the researcher conducted interviews, by using closed- and open-ended questions, with nurses, as well as with patients with the aim of obtaining detailed information about some of the activities (Section C).

4.8 SECTIONS D AND E: INTERVIEW RESULTS (OPEN-ENDED QUESTIONS)

Sections D and E aimed at getting detailed information about why some of the activities were conducted in the way presented in Section C. These sections allowed the participants (nurses and patients) to freely provide their own answers. Several issues were raised as presented in Sections 4.8.1 and 4.8.2.

4.8.1 SECTION D: KNOWLEDGE AND OPINIONS OF THE NURSE PARTICIPANTS ABOUT TUBERCULOSIS AND COMMUNICATION

D1 Description of the conversation (personal opinion) (N = 30)

The nurse participants were asked to describe how they had experienced their conversations with the patients.

Of the thirty nurse participants, 93.3% (n = 28) reported that their conversation was good because: they understood one another (60.0%; n = 18) and patients were listening (33.3%; n = 10), while 6.7 (n = 2) experienced that their conversations were inadequate.

D2 Explanation of the description of the conversation (N = 2)

The nurse participants 6.7 % (n = 2) were asked a follow-up question to clarify why they thought (said) that their conversations with patients were inadequate. The follow-up question was only asked to those nurse participants who replied “inadequate” to the first question).

A minority of 6.7% (n = 2) the nurse participants described that their conversations with the patient participants were poor because the patient:

- was not listening, he was in hurry (3.3%; n = 1); or
- appeared not to understand (3.3%; n = 1).

D3 Checking for understanding of information (N = 30)

The nurse participants were asked how they knew whether the information they had provided to the patients was well understood.

The majority of the nurse participants 60.0% (n = 18) answered that they knew that the patients understood the information, because they were talking the same language (patients and the nurses). Of the thirty nurses participants, 10.0% (n = 3) replied that they knew that patients understood the information, therefore, they did not ask any further questions. Twenty per cent (n = 6) said that the patients understood the information because they had provided correct answers when the nurses asked questions.

Of the thirty nurse participant, 3, 3 % (n = 1) said that the patient understood, since she had just graduated from the University of Namibia, while 3, 3 % (n = 1) said that the patient understood because he spoke English fluently, and another 3, 3 % (n = 1) replied that she assumed that patient understood although he did not answer all the questions properly.

D4 Source of TB information (N = 30)

The nurse participants were asked about the source of TB information which they provided to the TB patients. Of the thirty nurse participants, 76.6% (n = 23) replied that the source of TB information was derived from their own experience, while 23.3% indicated the older and more experienced nurses as the source of TB information. Only 26.6% replied that source of TB information was the TB guidelines. The remaining nurses mentioned that the source of TB information was the doctors 3.3% (n = 1), and TB leaflets 3.3% (n = 1). Table 4.16 depicts the source(s) of TB information as mentioned by the nurse participants.

Table 4.16: Source of TB information

Responses	Frequency	Percentages
Own experience	23	76.6%
Tuberculosis guidelines	8	26.6%
Older and more experienced nurses	7	23.3%
Doctors	1	3.3%
TB leaflets	1	3.3%

D5 Nurses' suggestions with regard to their communication skills (N = 30)

The nurses' participants were asked to suggest interventions that would enable nurses to communicate TB health information more effectively. Of the thirty nurse participants, 60.0% (n = 18) suggested training in communication skills, 26.6% (n = 8) suggested that the nurses needed training in TB guidelines, another 26.6% (n = 8) of the nurse participants suggested training in stress management, while 3.3% (n = 1) suggested training in ways provide quality service to the patients.

The remaining suggestions were:

- Nurses needed to be delegated to the area of their interest, since some nurses did not prefer to care for TB patients (3.3%; n = 1); and another nurse participant 3.3% (n = 1) said that nurses intuitively knew the difference

between good and bad; therefore they should choose their own way of communication.

4.8.2 SECTION E: KNOWLEDGE, PERCEPTIONS AND OPINIONS OF PATIENT PARTICIPANTS ABOUT TUBERCULOSIS AND COMMUNICATION

E1 Description of the conversation (personal opinion) (N = 30)

The patient participants were asked to describe how they had experienced their conversations with the nurses. Of the thirty patient participants, 93.3% (n = 28) indicated that their conversations were good, because they understood one another, and 16.6% (n = 5) patient participants added that there were no quarrels observed, while 6.7% (n = 2) of the patient participants reported that their conversations were unsatisfactory.

E2 Explanation of the description of the conversation (N = 2)

The patients participants 6.7% (n = 2) were asked a follow-up question to clarify what made them think that their conversations with nurses were unsatisfactory. The follow-up question only applied to those patients participants who had replied “not good” to the first question). They responded that the nurse was:

- not listening (3.3%; n = 1); or
- in a hurry (3.3%; n = 1).

E3 Basic topics (facts) about tuberculosis

The patient participants were asked to mention all the main TB topics (facts) that they had remembered from their conversations with the nurses.

The majority of 66.6% (n = 20) of the patient participants only remembered three topics (facts), while 16.6% (n = 5) of the patient participants remembered 4 topics, and the remaining 16.6% (n = 5) remembered only 2 topics / facts. These topics were correctly remembered:

- Take TB treatment until finished / completed (63.3%; n = 19);
- Cover mouth when coughing (60.0%; n = 18);
- Stop smoking and drinking of alcohol (60.0%; n = 18);
- TB is curable (33.3%; n = 10);
- TB treatment took six months (20.0%; n = 6);
- Submit sputum when asked to do so (3.3%; n = 1);
- Get injection every day (3.3%; n = 1);
- People at home to visit a clinic for a check-up whether they had started coughing (3.3%; n = 1);
- Report side effects to the nurse when experienced(3.3%; n = 1);
- Know the colour of the tablets (3.3%; n = 1);
- Get weight fortnightly (3.3%; n = 1);
- TB is caused by bacteria (3.3%;n = 1);
- TB is contagious (3.3%; n = 1);

- TB kills (3.3%; n = 1); and
- Know your HIV status (3.3%; n = 1).

E4 Types of tuberculosis (diagnosis)

The patient participants were asked about the type of tuberculosis (their own diagnosis) they had. Of the thirty patient participants, 43.3% (n = 13) replied that they did not know the type of TB they had, while 46.6% (n = 14) knew, and they mentioned it correctly (although they used lay language): TB of the stomach 6.6% (n = 2), TB of the lungs 10.0% (n = 3), TB of the spine 3.3% (n = 1), TB of the heart 3.3% (n = 1), TB of the head 3.3% (n = 1), and MDR-TB 20.0% (n = 6).

A few 6.7% (n = 2) patient participants replied that they had general TB and not AIDS TB, and 3.3% (n = 1) mentioned that he had TB that came from the ancestors.

E5 Causes of tuberculosis

The patient participants were asked what the cause of tuberculosis was. Of the thirty patient participants, 10.0% (n = 3) mentioned that they did not know the cause of tuberculosis, while 16.6% (n = 5) of the patient participants knew that TB was caused by bacteria in the air. The other participants mentioned that tuberculosis is caused by:

- Alcohol (43.3%; n = 13);

- Smoking (30.0%; n = 9);
- Dust (13.3%; n = 4);
- Virus in the air (3.3%; n = 1);
- Natural (3.3%; n = 1);
- Heavy jobs (3.3%; n = 1);
- HIV (3.3%; n = 1);
- Taking the wrong medication (3.3%; n = 1); and
- Ancestral spirits who had died long ago sent the disease to unfortunate family members (3.3%; n = 1).

E6 Patient suggestions

The patient participants were asked to suggest what should be done to ensure that they had adequate knowledge about TB.

The majority of the patient participants 70.0% (n = 21) suggested that the nurses should tell them everything about TB without waiting for the patients to ask for information, while 20% (n = 6) suggested that the nurses should take time to tell them everything about TB, since it seemed that they were experiencing time constraints. A minority of 6.7% (n = 2) suggested that the nurses should talk the language, other than English, that a patient understood, while 3.3% (n = 1) suggested that the nurses should arrange community meetings to provide TB information to the community during a group gathering.

4.9 CONCLUSION

The findings of this study emphasise that the nurses, who are caring for patients diagnosed with tuberculosis at the public health facilities of the Ministry of Health and Social Services in the Khomas Region, possess inadequate communication skills. This phenomenon has clearly been revealed during observation, as well as during the interviews. The collective results show that the nurses lack proper communication skills.

In short, one can conclude that the nurses exhibited inadequate communication skills in the following areas:

- How to create a conducive atmosphere for communication;
- Assessing and understanding the patients' mood and TB situation;
- Listening skills;
- Questioning skills;
- Constructive feedback skills;
- Skills for understanding non-verbal communication; and
- Expressing respect and empathy for patients

The results of this study concur with other studies results conducted globally about the communication skills of the health care workers caring for the patients diagnosed with TB (chapter 2: table 2.4).

In addition, the study results also reveal that the patients diagnosed with tuberculosis possess inadequate knowledge about TB.

It is clear from this study that inadequate communication skills of the nurses can lead to poor TB knowledge among patients diagnosed with TB, and in turn, the poor TB knowledge may result in treatment non-adherence that results in defaulting TB treatment, emerging drug-resistant TB, and even death. All these issues can lead to a poor treatment success rate in the region, as indicated in the problem statement of this study (Chapter 1).

Chapter 5 describes the conceptualisation of the elements on which the communication guidelines are based.

CHAPTER 5

CONCEPTUALISATION

5.1 INTRODUCTION

In the previous chapter, data analysis of the study results for Phase 1 is described. The results reveal that the nurses, who are caring for the patients with tuberculosis at the public health facilities of the Ministry of Health and Social Services in the Khomas Region, have inadequate communication skills. The study findings form the basis of the development of the guidelines for communication.

This chapter covers Phase 2 of this study, and it describes the conceptualisation of the elements on which the guidelines for communication are based. In order to accomplish this goal, the researcher has used the six elements of practice orientated theory of Dickoff, James and Wiedenbach (1968). Therefore, the concepts of agent, recipient, context, dynamics, procedure, and terminus serve as cornerstones for the development of guidelines for communication.

5.2 CONCEPTUALISATION OF ELEMENTS

Objective: To develop a conceptual framework for the effective communication guidelines.

Conceptualisation is defined as the collection of objects, concepts and any other entities that are assumed to exist in some area of interest and the relationship that holds among them (Ostman, 2007). Kim (2000, p.17) refers to conceptualisation as “an intellectual act of delineating aspects of reality into categories in order to give them specific names”. Conceptualisation involves incorporating one’s research in the body of knowledge which is pertinent for the research problem that is being addressed. Conceptualisation aims at specifying exactly what we mean and what we do not mean by the terms we use in the research (Babbie & Mouton, 2001). According to Burns and Grove (2003), a conceptual framework enables the researcher to link the findings of the study to the body of knowledge and to conceptualise these findings in practice.

In this study, the researcher has chosen the six elements of the practice orientated theory (survey list) as outlined by Dickoff et al. (1968) as the conceptual framework that has guided the development of communication guidelines. These elements are:

- Agent (who performs the activities);
- Recipient (who is the recipient of the activities);
- Context (in what context are the activities performed);
- Dynamics (interaction, challenges, findings);
- Procedure (what is the guiding procedure or techniques of the activities); and
- Terminus (what are the outcomes of the activities).

In this study, the aforementioned elements of the practice orientated theory are linked to the elements of The Shannon and Weaver Transmission Model of Communication, namely sender (TB nurses: primary recipients), message, receiver (TB patients: secondary recipients), environment (context), and feedback (interaction) that are the elements of the model on which this study is based (Lang, 2010). Figure 5.1 displays a map of the conceptual framework based on the six elements of the practice orientated theory.

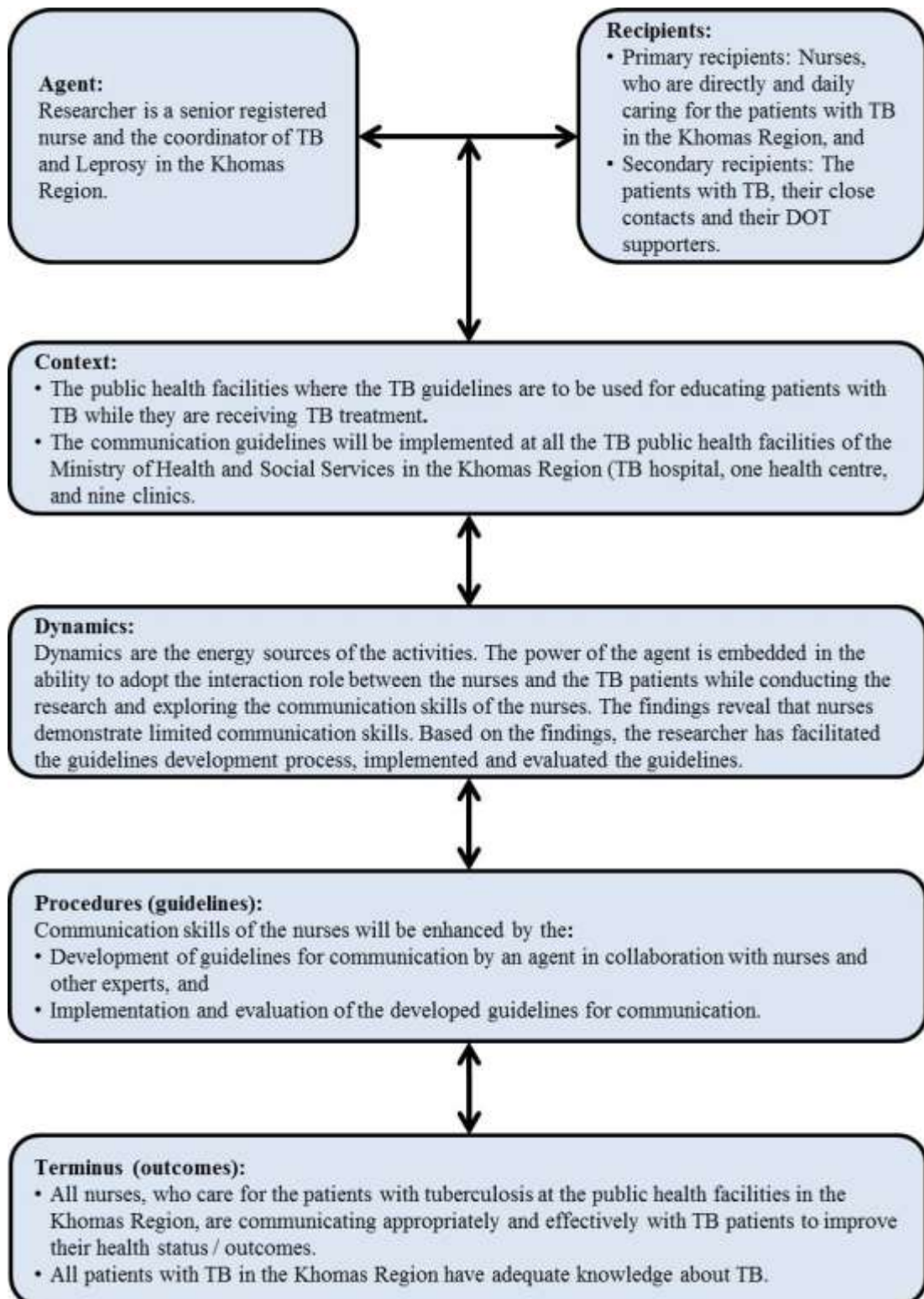


Figure 5.1: Map of the conceptual framework for effective communication

5.2.1 Agent

Thesaurus (2012) refers to agent as a person who, or a thing that, acts or has the power to act. According to George (1990), an agent is a practising nurse who serves as a propelling force that is moving the practice in the direction of the ultimate goals. Dickoff et al. (1968) elaborate that an agent can be a person who performs the actual work/activities. Smit and Morgan (1996) refer to the agent as an individual who specialises in facilitating the change process during which new values, attitudes, and behaviour are fostered. Furthermore, Stanhope and Lanster (2006) view an agent as the individual who has varying kinds of influence, or a person who acts as a precipitating cause of events.

In the context of this study, an agent is a senior registered nurse (a coordinator, and a trainer) who has defined characteristics.

As a researcher, the agent has the scientific knowledge and a research skill that enable her to conduct a study which explores the communication skills of nurses who are caring for patients diagnosed with TB and has detected challenges that hampers TB management in relation to the communication skills of TB nurses. As the agent of the study, she also has acquired the management skills (manager) and knowledge that enables her to plan and to interact with other stakeholders, including the nurses and the patients diagnosed with TB with the purpose of developing guidelines for communication to assist the nurses who are caring for the TB patients in order to enhance the effectiveness of their communication with TB patients.

As an agent, the researcher, as a good communicator and an international health communication trainer, is versed in good communication skills that enable her to train the nurses how to communicate effectively with patients diagnosed in the region. Furthermore, the agent of this study has appropriate experience, relevant knowledge, and skills about tuberculosis (TB focal nurse in the region) that enable her to train the nurses how communication can affect tuberculosis medicine adherence. She possesses the coordinating skills to assist her with coordinating activities from the commencement of the study to evaluating the communication guidelines. As the agent of this study, the researcher is duly registered at the Nursing Council of Namibia. The registration entitles her to practise as a registered nurse in Namibia.

In addition, the agent of this study is also responsible for facilitating the process of developing guidelines for communication skills, by developing the draft guidelines according to the research findings. The agent has identified the communication guidelines development group to consist of well-experienced people locally and internationally, and has facilitated the meetings of this group. Furthermore, the agent ensures that the developed guidelines for communication are endorsed by the permanent secretary of the Ministry of Health and Social Services.

Smit and Morgan (1996) refer to the agent as an individual who specialises in facilitating change. In this study, the agent has facilitated the implementation of the developed guidelines for communication by conducting the training for all the nurses who are directly caring for the patients with tuberculosis in the region. Furthermore,

she has evaluated the developed guidelines for communication to evaluate whether these guidelines are indeed bringing about the anticipated changes in the communication skills of the nurses and, moreover, some improvement in knowledge of the patients with tuberculosis. In order to accomplish this goal, the agent of this study plays a fundamental role in ensuring that the communication of the nurses who are caring for the patient with tuberculosis are appropriate, and are aligned to the developed communication guidelines. Most importantly, the agent influences the TB nurses to become future agents of communication for other nurses who will take over from them.

5.2.2 Recipient

The Collins English Dictionary (2009) refers to the recipient as a person who receives. Dickoff et al. (1968) refer to the recipient as the person or persons who are receiving activities from an agent. According to George (1990), recipients of the nursing care include all those persons who receive action from an agent; for instance families, communities, or societies. According to the researcher's understanding, a recipient can be referred to as a person who benefits from the activities that are designed by an agent.

In the context of this study, the registered and enrolled nurses who are caring daily for the patients with tuberculosis are the primary recipients of the developed guidelines for communication. The nurses as recipients of the activities of this study are all adults between the ages of 22 and 64 years (Annexure H). They are all

registered at or enrolled with the Nursing Council of Namibia. They have also been trained in general nursing care, and are responsible and accountable for their own nursing duties, particularly the registered nurses. The enrolled nurses are working under the supervision of the registered nurses. The nurses are the senders (communicators) of all relevant TB health information (message) to the TB patients, their close contact, and the community in general. Furthermore, the developed guidelines for communication could assist the nurses with developing their professional competencies and self-directed learning in communication with the guidance of the agent (Gravett, 1999).

In addition, the other beneficiaries are the patients diagnosed with tuberculosis, their close contacts, as well as their DOT supporters, since the improvement in the communication skills of the nurses translates to quality tuberculosis care because they are receiving effective TB health information. This intervention would result in increased knowledge about TB among patients diagnosed with tuberculosis. According to the MoHSS (2006), a patient diagnosed with tuberculosis is a person whose tuberculosis has been bacteriologically confirmed, or who has been diagnosed by the doctor. The other characteristics of patients diagnosed with TB are that they are vulnerable, mostly unemployed (Chapter 4, Table 4.5), and are living in poor conditions (MoHSS, 2006). Their knowledge of TB depends on the communication of TB health information to them by health care workers.

5.2.3 Context

The American Heritage Dictionary (2000) defines context as the circumstances or a setting in which an event occurs. George (1995) refers to context as the situation in which the activities take place and it comprises human, environmental, professional, and organisational facilities. According to the researcher's understanding, the framework provides the context in which the activities are conducted.

In this study, the context of the communication guidelines development is the public health facilities in the Khomas Region of the Ministry of Health and Social Services of Namibia where patients with tuberculosis are attended to daily by their nurses. The public health facilities in the region include the Katutura Intermediate Hospital, one health centre and nine clinics.

Furthermore, Dickoff et al. (1968) emphasise that despite the fact that a clinical setting provides learning opportunities, it is influenced by the external and internal context of an agent. The internal context/resources of the agent that guides her activities include the health professional skills, competence, commitment, knowledge of TB and communication, policies, and guidelines; while the external resources include those resources other than the health professional that are available for maintaining and supporting the agent's capacities and power (Dickoff et al., 1968).

5.2.4 Dynamics (interaction, challenges, findings)

Dynamics refer to energy sources of the activities inside an individual or the internal motivating factors for success (Dickoff et al., 1968). The agent of the guidelines for communication has acquired scientific knowledge and skills that enable her to conduct the research in order to explore and describe how nurses communicate with patients with tuberculosis at the public health facilities in the Khomas Region of Namibia.

Furthermore, the agent of this research project has the advantage of enjoying a sound working relationship with a WHO communication specialist, and communication consultants in Norway. The aforementioned experts are keeping the agent up-to-date about new developments related to communication by making it possible for the agent to attend communication workshops internationally.

The findings of this study indicate that the nurses who are caring for the patients diagnosed with tuberculosis exhibited inadequate communication skills in the following areas:

- How to create a conducive atmosphere for communication;
- Assessing and understanding the patients' mood and TB situation;
- Listening skills;
- Questioning skills;
- Constructive feedback skills;

- Non-verbal communication skills; and
- Expressing respect and empathy.

These communication limitations or challenges influence the communication skills of the nurses who are caring for the patients diagnosed with tuberculosis in the Khomas Region, therefore, guidelines had to be developed for harnessing the communication skills of the nurses.

The developed guidelines for communication are the source of assistance to guide the nurses how to communicate TB health information more effectively.

5.2.5 Procedure

Oxford Dictionary (2010) referred to procedure as an orderly way (steps) of doing things. Procedure is the general rule that guides activity, and it comprises of the protocol and devices that enables an agent to attain a set goal (George, 1995). Dickoff et al. (1968) refer to procedure as the way in which activities take place.

In this study, the agent followed the process of the guidelines development by using the World Stroke Organisation (2011) methodology (Chapter 6, Figure 6.1).

The researcher (agent) has adopted a facilitation role during the entire guidelines development process. The communication guidelines have been developed and described in the context of the nurses who are caring for the patients diagnosed with tuberculosis at the public health facilities in the Khomas Region. Furthermore, the

guidelines are formulated in relation to the seven communication limitations that have emerged from the data analysis, and The Shannon and Weaver Transmission Model of Communication (Lang, 2010), as outlined in Chapter 1, as well as the six elements of practice theory Dickoff et al. (1968) that serve as corner stone for the guidelines development process.

5.2.6 Terminus (purpose)

Dickoff et al. (1968) refer to terminus as the end point of the activities / process. Terminus also refers to the desired outcome an agent wishes to attain by implementing a particular procedure (George, 1995).

In this study, the first terminus of the guidelines for communication refers to the appropriate and effective communication of all the nurses who are caring for the patients with tuberculosis at the public health facilities in the Khomas Region. As indicated in Chapter 4, while conducting the individual, the nurses have expressed the need for communication training in order to enhance their communication skills. The second terminus is the improved knowledge of tuberculosis among the patients with tuberculosis.

5.3 SUMMARY

In this chapter, the conceptual framework is discussed. The six elements of the practice orientated theory of Dickoff et al. (1968) are used to guide the discussion of

the concepts that are applicable to the development of guidelines for communication of the nurses who are caring for patients diagnosed with tuberculosis at the public health facilities in the Khomas Region.

In the next chapter, the development of guidelines for communication of the nurses who are caring for patients diagnosed with tuberculosis in the Khomas Region is described based on the findings of the data collected, as well as from the literature review. The elements of the practice orientated theory and the elements of The Shannon and Weaver Transmission Model of Communication are guiding the development process. Therefore, in the following chapter the concepts of an agent, recipients, context, procedure, dynamics, and purpose (terminus) form the focal point.

CHAPTER 6

DEVELOPMENT, IMPLEMENTATION, AND EVALUATION OF THE GUIDELINES FOR COMMUNICATION OF THE NURSES CARING FOR PATIENTS WITH TUBERCULOSIS

6.1 INTRODUCTION

Chapter 5 describes the conceptualisation of elements on which the development of guidelines for communication is based.

This chapter captures Phases 3 and 4 of this study. The objective of Phase 3 has been to develop guidelines for communication, and the objective of Phase 4 has been to implement and evaluate the guidelines for communication of the nurses who care for patients diagnosed with tuberculosis in the Khomas Region of Namibia.

Guidelines are crucial in all the organisations because the staff members need to know what is expected or prohibited. In this study, the guidelines on communication for the nurses who are caring for the patients diagnosed with tuberculosis were developed based on the current evidence of empirical data and literature.

6.2 FUNCTIONS OF THE GUIDELINES

Guidelines provide boundaries that allow the workers to make decisions that benefit the customers and the organisation without having to seek the approval of the

supervisors all the time (Bill Hogg & Associates, 2010). In this study, guidelines are formulated mainly to guide the nurses who are caring for the patients diagnosed with tuberculosis on how to communicate TB health information more effectively, without consulting their supervisors every time. The guidelines stipulate all necessary communication skills that are essential for all the nurses to convey TB health information more effectively.

Guidelines serve as decision making tool that improves health care (Thompson & Dowding, 2002). The developed guidelines for communication in this study enable the nurses to make the right decisions, and moreover, when a nurse finds her/himself in a doubtful situation, for example the nurse is unsure how to provide specific information to the patient. The guidelines are consulted for clarity purposes. Since the guidelines are prescriptive, they could result in improved communication skills (terminus) of the nurses who are caring for the patients diagnosed with tuberculosis.

Guidelines assist the practitioners to practise evidence-based medical care (Veldhuijzen, Ram, Van der Weijden, Niemantsverdriet, & Van der Vleuten, 2007). In this study, the development of the guidelines for communication is based on the results of the study. The development has focused on the main findings of this study. Therefore, it will assist nurses to practice evidence-based health communication.

Guidelines serve as an educational tool for staff members (Penn Status Office of University Relations, 2010). The guidelines of this study is a tool that is available to all the nurses who are caring for patients diagnosed with tuberculosis by guiding

them how to convey TB health information more effectively to the patients with tuberculosis. The guidelines can assist all nurses with communication, since the guidelines will be available at all health facilities, and moreover, they have been developed in a user-friendly manner. Furthermore, the guidelines for communication will also indirectly assist all patients diagnosed with tuberculosis, and their close contacts to gain adequate knowledge about TB, because they are receiving TB health information from nurses who have acquired good communication skills.

Guidelines reduce inappropriate variations in clinical practice and discourage practices that do not have sufficient evidence of effectiveness (Thompson & Dowding, 2002). The developed guidelines for communication of this study provide clear guidance to all the nurses how they should communicate with their patients diagnosed with TB. The guidelines are straightforward and easy to understand by all nurses (registered or enrolled nurses). Since guidelines are standardised, the differences or variations in communication are reduced.

Guidelines lead to both improvement in process and outcomes of health care (Thompson & Dowding 2002). The developed guidelines of this study aim at improving the quality of communication by providing the nurses with recommendations that stipulate all the efficient communication skills, and by guiding the nurses to communicate the TB health information more effectively. In turn, it may result in good treatment adherence since patients will be more knowledgeable about TB, while it could also result in an improved treatment success rate, a reduced defaulter rate, and reduced DR-TB cases in the region.

6.3 GUIDING ATTRIBUTES FOR GUIDELINES DEVELOPMENT

According to Thompson and Dowding (2002), guidelines should have a certain set of quality attributes, because without guiding attributes, the guidelines developed may result in inappropriate guidelines. In this study, the guiding attributes and the clarification thereof that have been followed are displayed in Table 6.1.

Table 6.1: Guiding attributes for the development of guidelines

Attributes	Clarification
Respect for human rights and dignity	Guidelines reflect sensitivity to cultural and individual roles. The topic of respect and empathy is well presented.
Clarity	Guidelines are clear, easily understandable, succinct, user-friendly and unambiguous in their expression.
Inspirational language	Guidelines avoid using words like should and must, because they connote mandatory intent. Instead, words like encourage, recommend and strive are recommended.
Validity	Guidelines are based on the available current evidence and on the analysed data. Available evidence is correctly interpreted in order for the implementation to yield improvement.

Attributes	Clarification
Feasibility	Guidelines are feasible and relevant in terms of implementation of the TB programme in the Khomas Region.
Compatibility	The guidelines are realistic and take into account the policies of the MoHSS.
Applicability	Guidelines should be feasible for use in the current health care environment and also need to be included in routine practice in health care. Those health professionals who will use the guidelines are well stipulated and defined.
Representativeness	The guidelines ensure a comprehensive approach and all those role players who have contributed to the development of the guidelines are well identified and defined.
Flexibility	The expectations of the target users are well identified and defined. Furthermore, guidelines do not unnecessarily limit the practitioners.

Sources: American Psychological Association (2002, p. 1049); Thompson & Dowding (2002, p. 150).

6.4 THE GUIDELINES DEVELOPMENT PROCESS

The guidelines that are developed on the premise of robust research are the most scientific. By applying some criteria, guidelines that are developed by means of evidence extracted from systematic review or consensus opinions would be viewed as less scientific and could lead to flawed conclusions (Thompson and Dowding, 2002; WHO, 2003d). In this study, the researcher has developed draft guidelines that are based on the results of the study and on literature.

The researcher has followed the process of guidelines development by applying the World Stroke Organisation (2011, para. 8) methodology:

- 1 Establish a working group;
- 2 Define topic(s);
- 3 Find best evidence;
- 4 Appraise and collate evidence;
- 5 Draft recommendations;
- 6 Consultation;
- 7 Finalise recommendations and submit for approval and endorsement;
- 8 Implement guidelines; and
- 9 Augment guidelines by integrating current information.

The researcher has extensively reviewed the steps of guidelines development that the World Stroke Organisation (2011) has used to develop guidelines for stroke

treatment. The researcher has realised that there is a need to adjust some of the steps of this methodology in order to suit the steps and wording for guidelines development for communication of nurses.

The methodology that the researcher has used to develop guidelines for communication of nurses as adapted from the World Stroke Organisation (2011) is displayed in Figure 6.1.

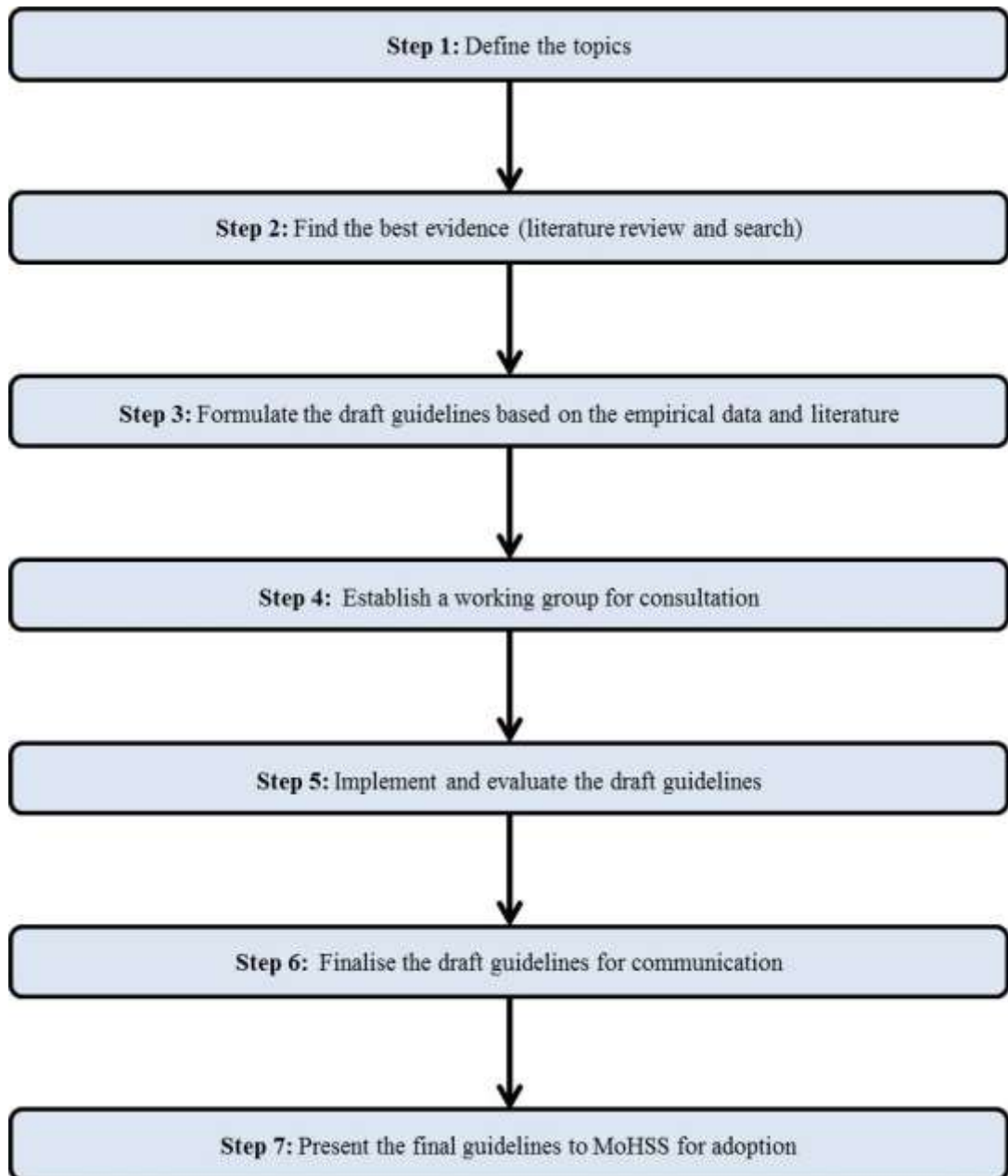


Figure 6.1: Guidelines development process as adapted from the World Stroke Organisation (2011, para. 8)

In the next section, the researcher describes each step that has been followed while developing the guidelines for communication of nurses.

6.5 STEP 1: DEFINE THE TOPICS

The purpose of defining the topics is to provide an overview of what the guidelines need to include, and also to provide a framework for conducting the guidelines development. One of the tasks of the researcher in the process of guidelines development is to define the scope of the guidelines (The Agree Collaboration, 2003). In this study, the researcher has defined all seven topics as identified from the research findings, namely:

- Creating a conducive atmosphere for communication;
- Assessing and understanding the patients' mood and the TB situation;
- Listening skills;
- Questioning skills;
- Constructive feedback skills;
- Non-verbal communication skills; and
- Expressing respect and empathy.

The researcher has identified these topics as variables that enhance communication skills of the nurses who are caring for patients diagnosed with tuberculosis.

6.6 STEP 2: FIND BEST EVIDENCE (LITERATURE REVIEW AND SEARCH)

This step involves search and review of literature in relation to the research topic areas in order to identify the scope of content. Several studies conducted in other countries show that communication skills of the health care personnel in the care of patients diagnosed with TB are of poor quality and training in communication skills is recommended (Dick et al., 2004; Govender & Mash, 2009; Hasker et al., 2010; Labardt et al., 2009; Steyn et al., 1997). The results of this study also show that nurses who are caring for patients diagnosed with TB have inadequate communication skills and the scope of content is clearly identified in this study. The literature review and search has been fully conducted and discussed comprehensively in Chapter 2.

6.7 STEP 3: FORMULATE THE DRAFT GUIDELINES BASED ON THE EMPIRICAL DATA AND LITERATURE

The researcher has developed draft guidelines for communication, based on verified empirical data. The researcher has considered the elements of The Shannon and Weaver Transmission Model of Communication (Chapter 2, Section 2.3.1), as well as the six elements of practice orientated theory (Chapter 5, Figure 5.1), since these elements form the cornerstone for the development of the draft guidelines for communication (Dickoff et al., 1968; Doyle, 2005). Although the elements appear frequently in the draft guidelines, the wording is changed mainly to suit this study.

The changes focus on replacing the original words; for instance the word “nurse” is used instead of “source/agent”, “TB health information” replaces “message”, “TB patient” replaces “receiver/recipient”, and “response” replaces “feedback” (Annexure N).

Furthermore, in the draft guidelines for communication the concept “environment” (context) is referred to as the “state of DOT room/TB room/TB wards” whether it is a conducive environment or not. It also includes the written and unwritten codes of the TB focal nurses; for example their attitudes and behaviour, respect and empathy, as well as other communication skills like listening and questioning skills.

6.8 STEP 4: ESTABLISH A WORKING GROUP FOR CONSULTATION

Guidelines should be developed by a group of people with a broad range of expertise that is relevant to the guideline topics (WHO, 2008c). In this study, a panel of experts was identified based on their involvement, experiences and knowledge of TB and communication.

The working group included any individual involved directly or indirectly in TB management and communication in the Khomas Region of Namibia and internationally. The working group consisted of:

- TB focal nurses;
- TB field promoters;

- Environmental health workers;
- Formal TB patients;
- Communication trainers;
- Communication specialists/consultants; and
- Other experienced health care workers.

The researcher has included all above mentioned categories in the working group mainly to ensure that all the aspects of the guidelines development methodology are attended to. Furthermore, it is also very important that the guidelines development group should be multidisciplinary for contribution, support, and for legal purposes (Thompson and Dowding, 2002; WHO, 2008c).

According to the National Institute for Health and Clinical Excellence (2009), the guidelines development group should be represented by all the groups that are likely to use the proposed guidelines; including the patients, as well as the technical team. In this study, the researcher has involved various people with diverse characteristics (Table 6.2). The nurses' participation ensures that the end-users are more actively involved in decision making, taking ownership, and supporting the guidelines. Furthermore, inclusion of the end-users is more likely to result in the guidelines being appropriate and it may contribute to successful implementation.

Convenience sampling was employed, since the researcher included experienced people who were easily reached, and members of the working group were selected according to these criteria:

- An individuals who was approached by the researcher and was willing and able to take part;
- These individuals needed to reside in the Khomas Region of Namibia or in any other partner country that also contributed significantly to TB research and health communication; and
- Participation depended on voluntary verbal consent to participate.

In this study context, the guidelines development group was divided into two groups (A and B). This division was based on the roles and responsibilities during the guidelines development process of the selected individuals. The sample size of group was determined by the researcher, and it was based on the WSO (2011) that stipulate that the guidelines development group should be kept to a manageable size of six to ten people. The sample size for group A was 11 people (including the researcher). Table 6.2 displays the information about the communication guidelines development group A.

Table 6.2: Information about the communication guidelines development Group A

No	Rank / Position	Employer	Workplace	Work experience	Involvement in care of patients with TB
1.	Senior registered nurse TB / ARV nurse	MoHSS	Katutura Health Centre- TB / ARV Department	30 years	Provides daily care to TB, HIV / AIDS, and general patients
2.	Registered nurse (TB focal nurse)	MoHSS	Katutura Health Centre – TB Room	22 years	Provides daily DOT to TB patients and care to general patients
3.	Enrolled nurse / midwifery (TB focal nurse)	MoHSS	Okuryangava clinic – TB Room	4 years	Provides daily TB DOT to TB patients
4.	TB Field Promoter	Penduka TB Programme	Penduka TB DOT Point	6 years	Provides DOT to TB patients / also formal TB patient

No	Rank / Position	Employer	Workplace	Work experience	Involvement in care of patients with TB
5.	TB Field Promoter	Penduka TB programme	Penduka TB DOT Point	6 years	Provides daily DOT to TB patients and supervise other TB field promoters
6.	District TB / leprosy coordinator (Registered Nurse)	MoHSS	Windhoek District Office	25 years	Coordinates all TB activities in the Khomas Region and other nursing activities
7.	Environmental health officer	MoHSS	Windhoek District – Office Environmental Health Department	5 years	Traces TB defaulters in the region
8.	Enrolled nurse / midwifery (TB focal nurse)	MoHSS	Robert Mugabe Clinic – TB Room	10 months	Provides daily DOT to TB patients
9.	Warrant officer (TB focal nurse)	Ministry of Defence	Peter Mweshihange Military Base – TB Department	7 years	Provides all TB care to TB patients on a daily basis
10.	Cleaner	MoHSS	Katutura Health Centre	11 years	Formal TB patient

No	Rank / Position	Employer	Workplace	Work experience	Involvement in care of patients with TB
11.	Enrolled nurse (TB focal nurse)	MoHSS	Donkerhoek Clinic – TB room	10 months	Provides daily DOT to TB patients

Participants in Group A were invited by means of an information letter (Annexure J). They were allowed two weeks to prepare themselves before the meetings started.

The second guidelines development team, Group B, consisted of the local experts and international experts. No sample size was determined since the information (inputs, comments, and validation) had been collected guided by WSO (2011) methodology.

The **local experts** included the following people:

- Director of the Khomas Regional Health Directorate;
- Matron in charge of the TB Unit (TB wards and TB Outpatient Department) at Katutura Intermediate Hospital;
- Matron in charge of the Katutura Health Centre;
- District TB and Leprosy Coordinator of the Khomas Region/Windhoek District;
- Media and Liaison Officer of the Khomas Region /Windhoek District;
- Health Information System Officer of the Khomas Region/Windhoek District;
- Officer in charge of Family and School Health of the Khomas Region/Windhoek District;
- TB focal nurse: TB room (DOT room) at the Outpatient Department of the Katutura Intermediate Hospital;

- Social worker responsible for patients diagnosed with TB at the Katutura Intermediate Hospital; and
- HIV/AIDS Officer of the Khomas Region/Windhoek District.

The researcher arranged individual appointments with the local experts for discussions in their offices, where the researcher briefed them about the nature of the study, its objectives, methodology, and the research findings. The researcher also informed them about their roles and responsibilities during the further development of the guidelines. All of them agreed to take part in the working group.

International experts:

- WHO Communication Specialist and a Lecturer at the University of Oslo, Norway;
- Technical Advisor and Communication Consultant (International co-operation, LHL (The Norwegian Heart and Lung Patient Organisation));
- Health Communication Programme Officer (Copperbelt Province in Zambia);
- Senior Health Promotion Officer and a Behaviour Change Communication Trainer (Ministry of Health – Zambia);
- Executive Director and an International Health Communication Trainer (Japan-Nepal Health and Tuberculosis Research Association [JANTRA], and the Research Institute of Tuberculosis/Japan Anti-Tuberculosis Association [RIT / JATA]);

- Programme Officer and a Health Communication Trainer (Nepal Telecommunication Company [NTC]); and
- Clinical Officer, District TB/Leprosy Coordinator, and an International Health Communication Trainer (Ministry of Health, Mbagala Ward in the Temeke District of Tanzania).

Like these international experts, the researcher is an international communication trainer. The researcher verbally approached her fellow communication trainers during one of their communication workshops. They all agreed to take part in the working group.

The guidelines development process was divided into three phases. Group A was actively involved during Phase 1, and Group B was only involved during Phase 2.

Phase 1: To successfully develop guidelines, it may be necessary for the guidelines development group to have at least one or two face-to-face meetings, these meetings might be supplemented with electronic meetings, and the quorum for any meeting should be 50% of the appointed members (WHO, 2008c).

In this study, the guidelines development group had face-to-face meetings twice while, a quorum of a 100% was recorded for both meetings. The researcher held the first meeting with Group A of the guidelines development team at Katutura Health Centre in the conference hall. This venue was selected, since it was situated centrally in the Khomas Region and was easily accessible to all members. During the first

meeting, the researcher first presented an overview of the nature of the study, its objectives, methodology used and the research findings. Drafted guidelines (by the researcher) on communication were presented and the discussion on the content of the guidelines was held. Comments were made after the guidelines development group discussed the drafted guidelines and adjustments were also done accordingly (Annexure K: Minutes of the meeting).

The members requested to take the drafted guidelines home for further comments and promised to call the researcher two weeks after the first round of discussions to collect the documents. All working group members went home with the drafted documents. To prevent document loss, the researcher collected the guidelines from the members (after she had received a phone call from each individual member). The researcher evaluated the comments that were received from individual group members, and adjustments were only made when an adjustment was recommended by the majority of the group.

Two weeks after the researcher had adjusted comments, the guidelines development group A met again for the second time to discuss and to confirm the accuracy and applicability of the drafted guidelines for communication before it was sent to the local and international experts for further review, inputs, comments, and for validation purposes. The meeting was again held at the Katutura Health Centre in the same conference hall. All the group members confirmed the accuracy and validity of the guidelines. Subsequently, the draft guidelines document was ready for presentation to the local and international experts.

Phase 2: The hard copies of the draft guidelines were provided to the local experts for review, inputs, and for validation purposes. They undertook to call the researcher once they had completed the review process. The Director of the Khomas Region Health Directorate provided feedback to the researcher by email while the other experts called the researcher to collect the documents.

The researcher distributed the draft guidelines on communication to the international experts during one of their group communication workshops. The researcher once again explained to them individually the main aim of the study and how she came up with the draft guidelines. The experts were requested to provide their inputs, comments, and validation of the guidelines. Individually, they had scrutinised the document within a week before providing the researcher with their feedback. The WHO communication specialist gave feedback through a phone call, and the technical advisor sent the document with comments by email.

In conclusion, the researcher presented the draft guidelines to the working groups mainly for review, comments, inputs, and validation purposes. The aim of validation of the guidelines was to determine whether the developed guidelines were suitable for their intended purposes (Kanarek, 2005). According to the WSO (2011), consultation provides face and content validity, and transparency by the review of external experts, while it is also increasing the credibility of the guidelines development process. In this study, the guidelines were validated by the guidelines development group A during meetings. In addition, the local and international experts also had reviewed, validated, and scrutinised the guidelines.

Thompson and Dowding (2002) stated that guidelines with good validity are the ones developed by most key disciplines. Therefore, the researcher of this study had consulted various knowledgeable local and international experts of TB and communication with the view of developing the guidelines for communication of the nurses.

Phase 3: After receiving inputs and comments from local and international experts, the researcher made adjustment accordingly. Adjustments were mostly made when they were recommended by more than one person from group B.

After the adjustments had been affected, the draft guidelines for communication were ready for implementation and evaluation (Annexure N: Draft guidelines).

6.9 STEP 5: IMPLEMENT AND EVALUATE THE DRAFT GUIDELINES

Objective: To implement and evaluate the draft guidelines for communication of the nurses who were caring for patients diagnosed with tuberculosis in public health facilities in the Khomas Region of Namibia.

The draft guidelines for communication were implemented and evaluated mainly to establish whether the draft guidelines enhanced the communication skills of the nurses who were caring of patients with tuberculosis.

In preparation for the implementation of the draft guidelines, the researcher conducted a two-day training workshop (19 to 20 June 2012) at the Katutura Health

Centre Conference Hall for the nurses who were caring for patients with tuberculosis at the public health facilities in the Khomas Region (Annexure M: Training report). The rationale of the workshop was to train nurses who were caring for patients with tuberculosis how to execute the draft guidelines for communication daily at any TB department in the Khomas Region. During the training, the researcher observed that the nurses understood the guidelines with quotations or with illustrations quicker than the ones without quotations or illustrations; therefore, two more quotations were inserted at the guidelines without any quotation or illustration.

Seven nurses from seven public health facilities in the Khomas Region of Namibia (Table 6.3) were trained. Five nurses participated also in phase one (1) of this study and two nurses were newly in TB services due to routinely rotation of the staff in the region.

Table 6.3: Health facilities where draft guidelines for communication were implemented

Name of the health facilities	Number of nurses trained at each health facility
Katutura Health Centre	01
Khomasdal Clinic	01
Wanaheda Clinic	01
Hakahana Clinic	01
Okuryangava Clinic	01
Robert Mugabe Clinic	01
Donkerhoek Clinic	01

The nurses were allowed three months (July, August, and September 2012) to implement the content of the draft guidelines for communication during their daily care of each patient diagnosed with tuberculosis and also of the patients' DOT supporters. During those months, the researcher monitored the implementation by conducting monthly support visits and by providing in-service training to the same nurses. The visits also afforded them an opportunity to seek clarification about the draft guidelines for communication from the researcher. Furthermore, the researcher availed herself by providing the nurses with her contact number to contact her whenever they experienced any problem in relation to either communication or tuberculosis management.

Three months after the implementation of the draft guidelines for communication, the researcher conducted an evaluation process.

The researcher had conducted the evaluation from 17 September to 21 September 2012, three months after training. The main aim of the evaluation was to establish whether the communication skills of the nurses who were caring for the patients diagnosed with tuberculosis improved after training. Furthermore, evaluation was also done to assess whether the TB knowledge of the patients diagnosed with tuberculosis had improved after receiving care from the trained nurses. In short, evaluation was conducted to establish whether the developed guidelines for communication indeed brought some change about to the TB programme.

To accomplish that, the researcher collected data by means of an observational method by using the same tool (checklist and interview with semi-structural open-ended questions) she had used during the situational analysis during the first phase of this study (Annexure G).

The results of the evaluation of the draft guidelines for communication were presented as follows:

- Section A: The biographical information of the nurses;
- Section B: The biographical information of the patients;
- Section C: The results of the observation communication checklist;
- Section D: The knowledge and opinions of the nurses; and

- Section E: The opinions, perceptions and knowledge of the patients.

The evaluation results led to some concluding remarks, particularly about Sections C, D, and E. The evaluation results are comprehensively described in Annexure O.

Section C: It was evident from the evaluation findings that the draft guidelines for communication had brought about a significant improvement in the communication skills of the nurses who were caring for the patients with tuberculosis at the public health facilities in the Khomas Region of Namibia. After training in communication, most of the items on the communication checklist were adequately covered during the interaction between the nurses and the patients with tuberculosis.

Section D: This section showed that all the nurses had provided similar and accurate TB health information to the patients with TB, since they mentioned that the sources of TB health information were the TB Guidelines and TB leaflets. Before the training in the guidelines, the nurses had indicated that they gave information to the patients that were based on different sources; some of these sources were unreliable, for example from their own experiences, and from the older, more experienced nurses (Chapter 4, Table 4.16). Furthermore, all the nurse participants suggested that all other nurses should also be exposed to the same training (training in communication) in order to communicate TB health information more effectively.

Section E: This section revealed that the patients' knowledge of TB had improved, since the majority of the patients provided appropriate answers to questions they

were asked by the nurses. They all knew the types of TB they had and the causes of TB. It implied an improvement in the patients' knowledge, since the majority of the patients suggested before training that the nurses should tell them everything and should not wait for the patients to request information.

From the evaluation findings, one could conclude that the following communication skills of the nurses enhanced after they had received training in communication:

- Creating a conducive atmosphere for communication;
- Assessing and understanding the patients' mood and TB situation;
- Listening skills;
- Questioning skills;
- Constructive feedback skills;
- Understanding non-verbal communication skills; and
- Expressing respect and empathy to patients.

In addition, the evaluation results also showed an improvement in TB knowledge of patients with tuberculosis.

It indicated that the draft guidelines for communication indeed brought about a significant improvement in the TB programme.

6.10 STEP 6: FINALISE THE DRAFT GUIDELINES FOR COMMUNICATION

The draft guidelines on communication had attained its intended aim. Therefore, there were no additional adjustments made after implementation and evaluation of the guidelines. The researcher considered the draft guidelines as the final guidelines.

In the following section, the researcher is presenting the final guidelines for communication by describing the overall aim (purpose) of the guidelines, the scope of the guidelines, formulating the guidelines with its own phrasing; including the rationale of each guideline, and the operationalisation of the guidelines.

6.11 THE AIM OF THE GUIDELINES FOR COMMUNICATION

- To enhance the communication skills of the nurses who are caring for the patients with tuberculosis, by providing them with guidance how to communicate TB health information more effectively.
- To improve the health status of the patients with tuberculosis by providing them with effective TB health information in order for them to practise a healthy lifestyle.
- To make these communication guidelines available to the TB policymakers for integration into TB policies and TB manuals when they are planning to improve the health status of the TB patients, their families, and the community in general.

6.12 THE SCOPE OF GUIDELINES FOR COMMUNICATION

The scope of practice for these guidelines includes the nurses (registered, enrolled, and assistants) who are caring for the patients with tuberculosis at public health facilities in the Khomas Region of Namibia.

The nurses are the target users (primary recipients) of the guidelines, while patients with tuberculosis, their DOT supporters, as well as their families or their close contacts are the secondary recipients of the guidelines.

Furthermore, the guidelines for communication may also be a valuable resource for all the other health care workers who are involved in health care of non-TB patients.

6.13 GUIDELINE 01:

CREATE A CONDUCTIVE ENVIRONMENT (ATMOSPHERE) FOR COMMUNICATION



Figure 6.2: An example of a conducive environment (TB room)

Illustrator: Lene Ask

6.13.1 Rationale

The International Centre for Alcohol Policies (1995-2011, para. 1) refers to the atmosphere as “the general mood and feeling of the place”. The atmosphere of the TB unit begins to affect the patients (recipients) from the moment they enter the

DOT/TB room/ward and can influence their continuing behaviour. Therefore, a conducive DOT/TB room/ward atmosphere is crucial, for instance the cleanliness of the place, the ventilation status of the place, friendliness of the nurse, and a welcoming reception of the patient by the nurse. It makes the patients feel at home and it facilitates good communication between the nurse and the patients with tuberculosis. When a patient feels good due to the conducive unit atmosphere (environment), then he/she can communicate freely, and provide all the necessary information (message) the nurse needs in order to treat the patient more effectively; it can lead to good TB treatment adherence.

6.13.2 Operationalization

Nurses who are caring for the patients with tuberculosis (recipients):

- Keep the DOT/TB room/ward clean and tidy at all times. Patients feel good to be treated in a clean, well-ventilated, and a tidy place.
- Arrange the seats in an appropriate way; for instance place chairs at an angle. It promotes good communication since the nurse and the patient are not directly facing each other. It is also the best way of preventing cross infection, since TB bacteria from the patient's or nurse's mouth (when talking) are directed away from the other person.
- Keep the windows open. It is good to communicate in a well-ventilated room rather than in a stale room. It is also the best way of controlling cross infection by allowing fresh air to enter the room.

- Welcome the patient verbally (please, come in sir / madam) and non-verbally (smile). Good reception makes the patient feel good, welcomed, and willing to communicate.
- Offer the patient a seat. It makes the patient feel respected, and valued.
- Greet the patient by name (if possible, read name from the patient card). It creates good feelings and respect.
- Introduce yourself to the patient (if the patient does not know you already). A patient feels good and comfortable to talk to a person he/she knows by name.
- Ensure privacy at all times. A patient feels free to communicate when she / he is treated privately and confidentially, rather than in the presence of other people. It will encourage the patient to participate in discussions more openly, and he/she can disclose confidential information, for example his/her HIV status, and the status of other diseases.
- Ensure a quiet environment. Noise is one of the obstacles to effective communication.
- Ensure that there are no obstacle(s) between the patient and the nurse, for example bundle of books, computers, or another person. People communicate more effectively when they see each other clearly.
- Establish which language a new patient speaks and understands well. Furthermore, communicate by using simple words; for instance difficult breathing instead of dyspnoea, body weakness instead of body malaise, body hotness instead of feverish. If the nurse cannot speak the preferred language of the patient, get an interpreter. Language problems are the main barrier to effective communication.

- Inform the patient about the opening and closing hour of the DOT/TB room. It is also very important to inform the patient about the lunch hour time (when a limited number of nurses are managing the DOT/TB room) to prevent the patient from waiting for a long time without knowing where the nurse is, or for the place to open. Put a note on the door that indicates the working hours.

6.14 GUIDELINE 02:**ASSESS AND UNDERSTAND THE PATIENTS' MOOD, LEVEL OF UNDERSTANDING, AND THE PROVISION OF TB INFORMATION**

“Firstly, listen attentively and understand the patient before you seek to be listened to attentively and understood by the patient” by Kamenye.

6.14.1 Rationale

Various beliefs, misconceptions, as well as unhealthy practices about TB are still found among the patients with tuberculosis. A study conducted by Kamenye (2008) in the Khomas Region of Namibia reveals that most patients with tuberculosis hold various beliefs about TB. Some believe that tuberculosis is caused by dust, or is a hereditary disease. An old saying announces “old habits die hard”, meaning that it is not easy for the people to change their old beliefs, or unhealthy practices. Therefore, it is crucial to first assess and explore the patient’s beliefs, practices, and level of understanding about TB before providing them with facts about TB. It can lead to a serious discussion about TB facts that might result in good understanding, and the patient’s knowledge might be enhanced by sharing information rather than just “injecting” information without knowledge of the patient’s current beliefs, practices, and his/her level of understanding of TB.

Furthermore, a patient cannot discuss issues openly when he/she is not in good mood at that particular time; therefore, it is advisable to assess the patients’ mood first.

According to Haaland and Molyneux (2006), mood is the emotional state of mind which can be changed relatively easily, once the person is aware of it. Mood is temporary and can be influenced by the activities of the day. No part of the body can express the mood better than the face. The facial expressions convey the feelings of joy, fear, surprise, shock, and anger (Segal et al., 2010; Windle & Warren, 2009). When the patient is showing signs of fear, anger, shock and sadness, then it clearly indicates that the patient will not properly follow the conversation. Patients in one of these moods tend to listen selectively and the chances are high that they are going to misunderstand the information (Haaland & Molyneux, 2006). Therefore, it is very important for the nurse to take care of the feelings first before information is provided to the patients.

6.14.2 Operationalization

Nurses who are caring for patients with tuberculosis (recipients) need to:

- Pay more attention to the patient's facial expressions when he/she enters the TB/DOT room/ward. A bad mood has a negative impact on the quality of information that gets obtained from the patient.
- Begin the conversation with an open-ended question, for example "How can I help you sir/madam?", or "How are you this morning/afternoon sir/madam?"
- Ask the patient what he/she knows/believes about the basic TB facts; for instance the causes of TB, contributing factors, treatment, prevention, and the relationship between TB and HIV. Provide correct answers to the patient and

discuss matters until agreement is reached. If agreement is not reached, provide the patient with TB leaflets/booklets that he/she can read it at home with the aim of continuing the discussion on another day.

- Avoid overburdening the patient with questions. Therefore it is good practice to ask and discuss one fact at a time.
- Ask the patient to share what he/she knows/ believes about lifestyle information in relation to TB; for instance TB and smoking/drinking alcohol, sexual relationships (only for adults), family planning (especially female because of the Rifampicin effect), and types of food to be taken during treatment. Provide appropriate answers and discuss it with the patient until consensus is reached. If consensus is not reached, provide the patient with TB leaflets/booklets to read at home with the view of continuing the discussion on another day.
- Ask the patient to share what he/she knows/believes about social information about TB; for example any NGOs/projects like the Penduka TB Organisation that work with TB and their advantages, DOT-supporters and their importance, socialisation with family members/colleagues, and sick leave (if working). Provide all the necessary information and discuss it with the patient until an agreement is reached.
- Avoid compelling the patient to change his beliefs and practices. Such an action might cause the patients to stick even more rigidly to their old ideas. Therefore, it is good to acknowledge his/her beliefs and then provide the correct facts about TB during discussion until a patient understands. If

agreement is not reached, provide the patient with TB leaflets to read at home with the aim of continuing the discussion next time.

- Avoid judging, blaming, and direct criticism when correcting misunderstanding. Acknowledge the patient for visiting the health facility and take time to educate him/her in a participatory manner. Show respect, interest, and listen attentively. It encourages the patient to listen and understand the facts that you are conveying.
- Firstly, listen attentively and understand the patient before you seek to be listened to and understood by the patient before providing TB information to the patient. ”. The patient has a reason to believe/practice what he/she is believing/practising.
- Summarise all the main information. It is important in order to ensure that the message is conveyed in such a way that the patients hears and understands accurately. Ask a patient to summarise information with the purpose of confirming that you and the patient have reached a shared understanding; for instance you can ask the patient: “What do you think is the most important issue(s) we have talked about today?”

6.15 GUIDELINE 03:**ACTIVE LISTENING**

“Listen with your whole body and soul” by Kamenye.

6.15.1 Rationale

The Government of the Republic of Namibia has pursued vigorous TB programmes which aim at eliminating TB; for example purchasing all anti-TB medicine and providing it free of charge, paying for all sputum examinations, as well as providing the infrastructure and human resources (nurses and other staff members) for TB (MoHSS, 2006). The nurses who are caring for patients with tuberculosis are the representatives of the government, since they are in direct daily contact with the patients. Despite the fact that they have the responsibility of providing DOT to the patients, and providing health information to the patients, they are also responsible for listening attentively to the patients’ views, opinions, suggestions, and contributions towards their own health. The nurses are the ears and eyes of the government; therefore, when they are not listening attentively to the patients, the government cannot hear anything in order to provide proper assistance to the patients according to their needs.

According to the MoHSS (1998), all the patients have the right to be listened to and also to be heard. One of the common mistakes a nurse can make is confusing hearing and listening. Windle and Warren (2009) refer to listening as a combination of

hearing what another person says and psychological involvement with the one who is talking, and listening requires more than hearing words. It requires a desire to understand another person, and it also requires a respectful and accepting attitude. Applying listening skills is harder than most people think. Since they can hear, people think listening is a natural ability, but it is not. Listening is an acquired skill just like reading or writing, and it requires practice (Traylor, 2003). Hearing is merely noting that someone is talking. TB affects the whole life of the patients; therefore, they need someone to listen to their problems and respond accordingly with the purpose of encouraging them to adhere to TB treatment. When patients with TB are adhering to TB treatment, the country will be able to achieve the global targets easily and, moreover, the country will have a healthy nation.

6.15.2 Operationalization

Nurses who are caring for the patients with tuberculosis (recipients) need to:

- Sit appropriately on one of the chairs that are arranged at an angle. It makes the patient feel comfortable to talk, since the patient and the nurse are not directly facing each other.
- Make sure that the patient has a comfortable chair to sit on while they are communicating.
- Resist external distractions; for example a cell phone ringing (make sure your cell phone is on silent during conversation), or another nurse/patient who is interrupting your conversation with the patient.

- Manage emotional concerns; for example when you disagree with a statement of the patient, refrain from sharing your knowledge before the patient has finished her/his thought.
- Avoid interruption when the patient is talking because it discourages the patient to continue talking. Allow the patient to continue talking until she/he has completed a statement. It makes her/him feel that her opinions or contributions are valued.
- Apologise and explain that you need clarification when you need to interrupt the conversation. Ask questions and paraphrase (restate by using different words, but do not change the meaning). It facilitates understanding and a feeling that the nurse is interested. Allow time for discussion after the patient has finished expressing her/his thoughts.
- Avoid shaking your head while the patient is talking. It indicates that you disagree with the patient's point of view, and it discourages the patient to continue talking. Instead, listen patiently until the patient finishes expressing his / her thoughts, even when you know that the point of view is inaccurate or it does not make sense.
- Refrain from looking at your watch, looking around the room, playing with pen/pencil, or writing your own notes. All these activities indicate that the nurse is not interested in what the patient is saying, or it tells the patient that the nurse does not have time.
- Refrain from engaging in a direct argument, for instance "You say TB is caused by witchcraft, prove it". Listen attentively and facilitate discussion until agreement reached.

- Avoid pretending to listen, rather “listen with your whole body and soul”. It requires you to use your eyes (eye contact), your ears (to hear), your mouth (to discuss), your face (show facial expression); your heart (have a feeling), and your brain (be mindful) to listen.
- Concentrate on what the patient is saying (content of talking), and listen for underlying ideas and feelings; do not only listen to the expression of facts.
- Maintain eye contact, because it encourages the patient to provide more information, since eye contact is interpreted as showing interest.
- Nodding of the head and any appropriate facial expressions reinforces active listening.
- Encourage conversation with opening statements like: “Tell me more...”

To listen attentively, always “listen with your whole body and soul”. Listening with your body while ignoring to listen with the soul, or listening with your soul while ignoring the body, can be compared to listening to a radio station without pulling out the antenna – just imagine!

6.16 GUIDELINE 04:**OPEN-ENDED QUESTIONS**

“Concise questions lead to concise answers and concise answers mostly results in inadequate information” by Kamenye

6.16.1 Rationale

The nurses who are caring for patients diagnosed with tuberculosis need proper information from the patients in order to plan and treat them properly. The only effective technique to obtain adequate information is the asking of open-ended questions. Haaland and Molyneux (2006) refer to open-ended questions as the ones that start with who, how, what, when, where, and why. Open-ended questions are not only user-friendly but can also assist the nurse to obtain quality and desired information. Asking open-ended questions creates a feeling of trust for the patient because her/his opinions and ideas are valued, and the patient feels fully involved in her/his own treatment.

Furthermore, open-ended questions help the nurses to quickly identify patients with particular needs, for example patients with hearing problems. Nowadays, side effects of TB treatment, for instance loss of hearing, occur more frequently, especially in patients who are on anti DR-TB treatment (MoHSS, 2006). Closed-ended questions allow patients with particular problems to remain undetected by “hiding” behind the

yes or no answers. Sometimes, close-ended questions in conjunction with probing questions are also useful in order to obtain required information.

6.16.2 Operationalization

Nurses caring for the patients with tuberculosis (recipients) need to:

- Invite patients to speak their mind. Ask open-ended questions by asking patient questions that begin with how, what, when, where, who, why, and please tell me more... The answers to these open-ended questions will assist you as a nurse to obtain quality information and a patient will feel trusted, since her/his opinions/ ideas are valued.
- Be cautious when starting a question with “why”. It may trigger a negative emotion, such as self-blame, since you are asking the patient to justify his/her action.
- Ask probing questions whenever possible to generate more in-depth or comprehensive information or to clarify certain issues.
- Use words that encourage the patient to cooperate (“What do you think...”). When possible, avoid asking questions that start with “whose “, “who among you know...”, especially to a group of patients, because it creates a feeling of inferiority among those patients who do not know how to answer the questions.
- Avoid asking leading/guiding questions. These questions compel a patient to provide an anticipated answer, rather than the true answer, for instance “You

do take your medicine every day, don't you?", "You are sure that you will visit the clinic every day, right...?" Guiding/leading questions are literally putting answers in a patient's mouth. It may very well lead to obtaining wrong information.

- Avoid asking many questions at once. Ask one question at a time.
- Refrain from answering more than one question from the patient at a time. It causes confusion and the patient will lose trust in the nurse. It also discourages patients from asking questions when they do not understand the cluster of answers. Provide answer to questions only when you know the answer. When you cannot provide a proper answer, call another person to assist you.

6.17 GUIDELINE 05:**CONSTRUCTIVE FEEDBACK**

“Annelie, I really enjoyed your health education session this morning. You engaged the group by asking open-ended questions, you spoke loudly and clearly and you managed the time very well. One suggestion I have is that next time, use visual aids like posters since they facilitate better understanding” by Kamenye.

6.17.1 Rationale

Constructive feedback refers to the method of one person providing specific information to another person in order to help him/her to learn and it motivate her him to take action (Haaland & Molyneux, 2006).

The main purpose of constructive feedback is to provide information that will improve, and create better results. It benefits the receiver because it provides encouragement, support, corrective measures, and proper direction (Wilhelm, 2006). Tuberculosis treatment lasts from 6 to 8 months, and taking the medicine for such a long time can be a challenge to many patients. As a result, the patients’ behaviour might change like becoming uncooperative. Therefore; encouragement, motivation, and support are very crucial during the treatment process. Providing constructive feedback to the patients encourages and motivates them to adhere to their treatment until they are declared cured or completed. Moreover, it helps to boost a patient’s confidence level. The nurses who are caring for the patients with tuberculosis are

responsible for regularly providing constructive feedback to the patients about their behaviour in order to afford them an opportunity to amend their behaviour accordingly.

6.17.2 Operationalization

Nurses who are caring for patients with tuberculosis (recipients) need to:

- Provide comments on positive behaviour first. By firstly pointing out what a patient is doing well before talking about the areas that need improvement, gives a patient confidence, makes the patient feeling very good, and puts him /her in a positive mood to listen to the nurse. Moreover, a patient becomes more amenable to receiving constructive criticism with an open mind and to acting on such criticism.
- Always provide constructive feedback to the patients. Ask the patient first whether he/she knows of any areas where she/he can improve, and when the patient answers affirmatively, ask how he/she intends improving in those areas. If the patient does not know how to change bad behaviour, request permission to suggest what the patient can do differently.
- Provide specific feedback while avoiding generalisation. Specific feedback gives the patient a clear indication of where the strengths and weaknesses are.
- Avoid providing blaming criticism. It implies that the patient is inferior to the nurse. It creates a feeling of despair, and subsequently causes the patient to

become passive and remain passive, unwilling to improve or to change her/his behaviour.

- Avoid using the word “but” when providing positive constructive feedback. For example, “Mr Tom, I have noticed that you are taking your TB treatment regularly. It is very good, but you are not arriving on time”. The word *but* will negate the effects of the positive statement and may destroy the positive message. It implies that the really point of the message is that Tom is not arriving on time. Unclear messages or mixed messages are confusing. Here is an appropriate example: “Tom, I have noticed that you are taking your TB treatment regularly, keep it up. I suggest that you arrive as early as possible for your treatment because... What about 8 o’clock am?”
- Allow the patient an opportunity to respond. If a patient is not responding, then use an open-ended question, for instance “What do you think about...?”
- Be honest in terms of positive feedback (praise) and also in terms of negative feedback. Provide comments to the patients that are based on the observations (what you see) and not on inference (assumptions). It is necessary, since with observations the nurse can provide the patients with factual aspects rather than inferences. As a consequence, constructive feedback becomes meaningful.
- Provide feedback to the patient personally (face-to-face), since the nature of constructive feedback requires a verbal intervention.
- Communicate about the most recent events. Feedback that is provided immediately is more helpful due to the fact that the patient reflects on the feedback of a particular event more effectively. Therefore, the patient more

likely will act on the relation between feedback an event. When constructive feedback is provided later on, it loses its value.

- Avoid overloading the patient with lots of feedback. It confuses the patient who feels at a lost where to start. Therefore, it is advisable to select one or two important points that you want to discuss with the patient at any given time.

6.18 GUIDELINE 06:**NON-VERBAL COMMUNICATION**

“People believe more in messages spoken by the body, rather than the ones spoken by the mouth” by Kamenye.



Figure 0.1: An example of expression of non-verbal communication

Illustrator: Lene Ask

6.18.1 Rationale

According to the Business Dictionary (2011), non-verbal communication is the transmission of the message by a medium other than speech or writing. It is the single most powerful form of communication, more powerful than voice or even the written word. Furthermore, it is the primary way of communicating emotions. During communication, 70% of the intent of a message is conveyed non-verbally, while verbal messages represent 30% of our communication. Therefore, people need to be mindful of the fact that there needs to be an agreement between what they say (verbal communication) and how they say it (non-verbal communication).

It is very important to note that when verbal and non-verbal communication contradict each other, people are bound to preferentially trust the non-verbal communication, because it is viewed as being more authentic than verbal communication (Segal et al., 2010). Since non-verbal communication is more powerful than verbal utterances, nurses are obliged to always keep in mind that people believe more in messages spoken by the body, rather than the ones spoken by the mouth.

The nurses who are caring for the patients with tuberculosis are mainly responsible for effectively conveying the TB health information to the patients. It is important to be mindful of the way in which TB health information is provided to the patients. Ignoring the importance of conveying information coherently may result in non-

adherence of TB treatment. Surely, non-adherence of treatment prevents the region from reaching the global targets as required by the World Health Organisation.

6.18.2 Operationalization

Nurses who are caring for the patients with tuberculosis (recipients) need to:

- Have a positive body posture when receiving a patient in the DOT room/TB room/TB ward. Smiling indicates that the patient is welcomed, and a welcoming reception creates a favourable and comfortable feeling for the patient.
- Position the nurse's chair at an angle close to the patient. It indicates that one is prepared to listen and that one respects the patient. In some cultures, for instance in Oshiwambo, talking to an older person while standing is an indication of disrespect.
- Maintain appropriate eye contact. It indicates that the nurse is interested in the discussion. Bear in mind that the culture of individual patient determines appropriate communication, for example in Oshiwambo culture, talking to an older person while looking her/him directly in the eyes is also an indication of disrespect.
- Mirror the patient according to the content of the discussion, for instance show a friendly face when the message of the patient is positive, and show an expression of empathy when the message is negative.

- Be mindful of the way in which you place your feet and hands. Fiddling with a cell phone or a pen indicates that the message of the patient is not that important.
- Relax, since it signifies self-confidence and it also indicates that the nurse is knowledgeable and sure about what she/he is saying.
- Speak calmly. Calmness is contagious; when the patient observes that the nurse is calm, it will affect the patient positively.

6.19 GUIDELINE 07:**EMPATHY AND RESPECT**

“Respect the patients today while you are healthy. Provide them with all the necessary health information, since one-day it might be you that need health information and respect” by Kamenye.

6.19.1 Rationale

Empathy and respect are concepts that deal with the person’s feelings and needs. According to Haaland and Molyneux (2006), empathy means trying to understand another person’s ideas, opinions, needs, and/or feelings from their own point of views. Listening empathically can lead to a good relationship (Bookbinder, 2006). Johns Hopkins University Graduate Affairs (2010-2011) adds that when someone is listening empathically, it means that he/she is demonstrating that he/she cares for the other person. The purpose of nurses are to care for the patients, therefore, they are allowed to show empathy to their patients, and when the patients’ ideas, opinions, needs, and feelings are understood from their point of view, empathy could lead to a good relationship between the patients and the nurse. In turn, a good relationship results in TB treatment adherence.

Respecting someone means to take that person’s feelings, needs and thoughts into consideration (Fromm, n.d.). When patients’ needs, feelings and thoughts are taken into consideration by the nurses, the patients become motivated to visit TB health

facilities as required by the nurses. Moreover, respect is contagious which implies that when the patients realise that the nurses treat them respectfully, in turn they will reciprocate by respecting the nurses. It inevitably creates good cooperation between the patients and the nurses and it motivates the patients to complete their TB treatment. Figure 6.4 displays how respect and empathy of a nurse who is caring for patients with tuberculosis can influence the health status of the whole nation.

6.19.2 Operationalization

Nurses who are caring for the patients with tuberculosis (recipients) need to:

- Acknowledge that there is a person entering the TB room/DOT room/ward by showing positive facial expression, for example a smile. Cease the activities that you are busy with (if is not an emergency). It allows the patient to feel welcomed and respected.
- Provide a seat to the patient. It allows the patient to feel respected, and that her/his pain and suffering are taken acknowledged.
- Sit down with the patient. It allows him/her to feel respected, and it indicates that you are ready and willing to listen.
- Greet the patient by name (read from his/her treatment card) and start the conversation with an open-ended question like: “Mr John, good morning/afternoon, how can I help you?” It creates the impression of being valued and motivates the patient to talk.

- Give your undivided attention by focusing on the patient, and listen to what the patient is saying and how it is being said.
- Be mindful of whatever the patient is saying and view the situation of the perspective of the patient (stepping into the patient's shoes) before provide the assistance that is required.
- During the conversation, refer to the patient by name or by title; for example Sir, Mr John, Ms, or Lettie. In the case of younger patients, it is advisable to call them by their first names. It creates the feeling of being important, respected, and valued.
- Maintain eye contact with the view of observing the non-verbal cues on the patient's face and body, and endeavour to understand the patient's feelings, needs, opinions, and views.
- Be amenable and non-judgmental. Refrain from expressing your negative reactions/judgments, criticism, and emotions.
- Relax and talk as frankly as possible.

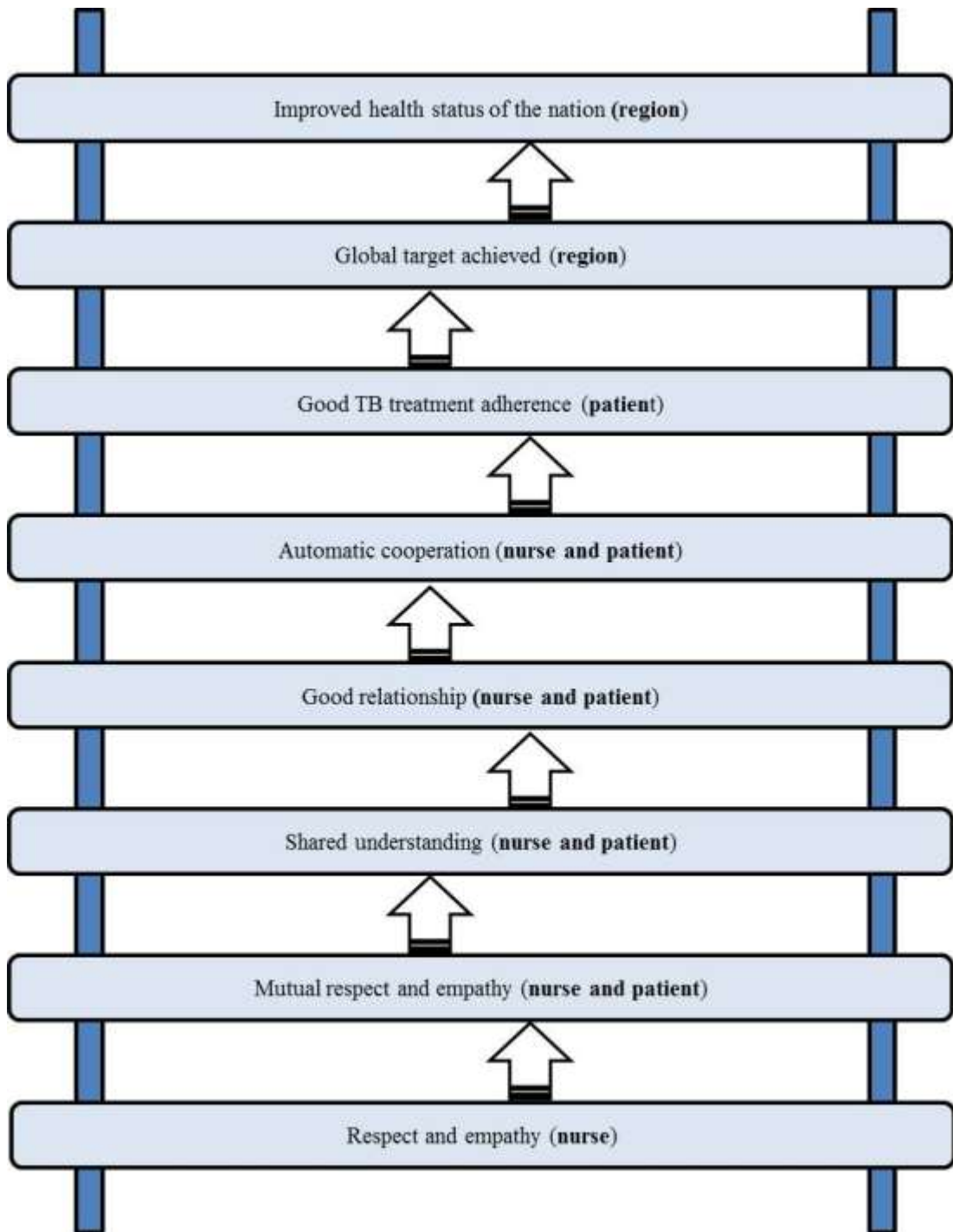


Figure 0.2: The ladder of respect and empathy of nurses (By Kamenye)

6.20 STEP7: PRESENT THE FINAL GUIDELINES FOR COMMUNICATION TO THE MOHSS FOR ADOPTION

The researcher had presented a hard copy of the final guidelines for communication for adoption purposes to the Director of the Khomas Regional Health Directorate and also to an Advocacy, Communication, and Social Mobilisation Coordinator at The Division of Special Programmes at national level. The Director of the Khomas Regional Health Directorate acknowledged the guidelines with thanks and pride and her office submitted the guidelines with her recommendations to the Directorate of Policy Planning and Human Resource Development (Annexure P).

6.21 SUMMARY

In this chapter, the draft guidelines for communication of the nurses who are caring for the patients diagnosed with tuberculosis are developed, implemented and evaluated. The results of the evaluation demonstrate that the draft guidelines are yielding a significant improvement in the communication skills of the nurses, while the knowledge of patients with tuberculosis is improving at the same time.

The next chapter focuses on the conclusions, limitations, and recommendations of this study.

CHAPTER 7

CONCLUSIONS, RECOMMENDATIONS, AND LIMITATIONS OF THE STUDY

7.1 INTRODUCTION

In Chapter 6 the guidelines for communication of the nurses who are caring for patients diagnosed with tuberculosis have been developed, implemented and evaluated at seven public health facilities in the Khomas Region of Namibia.

This chapter is the final chapter of this study and it affords the researcher an opportunity to illustrate whether the purpose and the objectives of this study have been attained. Therefore, in this chapter the researcher focuses on the conclusion, recommendations, as well as the limitations of the study. Related topics for further research and the researcher's experiences are also highlighted.

7.2 RATIONALE OF THE STUDY

The interest of the researcher for embarking upon this study has been triggered by specific health issues related to TB in the Khomas Region. This region is reported to have the highest TB case notification rate of 751 per 100 000 population in Namibia, the second highest rate of drug-resistant TB of 38 cases as opposed to the Kavango Region with 46 cases. The Khomas Region has obtained an HIV testing rate among TB patients of only 59% in 2009 which is below the country target of more than

95%. Moreover, the region is failing to achieve the global target of 85% by obtaining a treatment success rate of only 70%, and a higher defaulter rate of 9% for retreatment cases by the end of 2008 (MoHSS, 2007/2008; MoHSS, 2009/2010c, p.34) as mentioned in chapter 1 page 8.

Two studies conducted in the Khomas Region show clearly that the patients diagnosed with tuberculosis have acquired inadequate knowledge about tuberculosis (Kamenye, 2008; Mainga, 2008), although they are in direct daily contact with their nurses, supposedly being provided with all the necessary health information during the treatment process.

According to Clark (2008), many problems that occur in any organisation in relation to management are the direct result of people who are failing to communicate effectively. Ineffective communication causes problems, and leads to misunderstanding, confusion, and the failure of good plans. There has not been any study conducted in Namibia, particularly in the Khomas Region, that explores the communication skills of the nurses and, moreover, there are no guidelines for communication of the nurses who are caring for patients with tuberculosis. It is against this background that this study has been conducted in the Khomas Region, mainly to explore the communication skills of the nurses and to develop guidelines for effective communication.

The following question has directed this study:

How do the nurses communicate with their patients who are diagnosed with tuberculosis?

7.3 CONCLUSION

In this study, the conclusions are drawn from the objectives of the study, as well as from the evaluation of the research methodology and the developed guidelines.

7.3.1 Purpose and objectives of the study

The main purpose of this study seeks to explore and describe how the nurses communicate with patients diagnosed with tuberculosis at public health facilities in the Khomas Region of Namibia. The purpose of this study has been accomplished by employing a quantitative, explorative, descriptive and contextual research design. The second purpose has been to develop guidelines for communication with the purpose of enhancing the communication skills of the nurses. The developed guidelines for communication seek to provide a theoretical framework of references for the nurses who are caring for patients diagnosed with tuberculosis at the public health facilities in the Khomas Region.

In this study, the following objectives have been formulated in order to achieve the general aim of the study. A description of each objective and its attainment follows.

Objective 1: To explore and describe the communication process between the nurses who are caring for patients diagnosed with tuberculosis and the patients diagnosed with tuberculosis at the public health facilities in the Khomas Region.

In order to accomplish this objective, the researcher went into the field (All public health facilities in the Khomas Region of the Ministry of Health and Social Services) with the aim of observing how nurses who care for the patients diagnosed with tuberculosis were communicating with patients diagnosed with TB by using a checklist. Immediately after observation, a short individual face to face interview was conducted with the nurse and with the patient respectively by using semi-structured open-and closed-ended questions. In this study, observation and interviews were used as data collection methods. Findings revealed that the nurses who were caring for the patients diagnosed with tuberculosis demonstrated inadequate communication skills in the following areas:

- Creating a conducive atmosphere for communication;
- Assessing and understanding the patients' mood and TB situation;
- Listening skills;
- Questioning skills;
- Constructive feedback skills;
- Non-verbal communication skills; and
- Expressing respect and empathy.

These findings concur with the findings of Mishra et al. (2006) who have investigated the quality of communication between dispensers and patients with tuberculosis in the Western District of Nepal. Their investigation reveals that the communication between the dispensers and the patients with TB was of an inferior quality. Their study results show that the poor quality of communication is associated with patients' non-adherence to treatment. From the findings of this current study, one can also conclude that the inadequate communication skills of the nurses who are caring for the patients diagnosed with tuberculosis are associated with the patients' inadequate knowledge of TB. This observation is supported by the study results that indicate an improvement in the patients' knowledge of TB after their nurses have received training in communication.

Objective 2: To develop a conceptual framework for effective communication guidelines.

In order to develop the conceptual framework of the study, the researcher conceptualised the elements on which guidelines for communication were based. The six practice orientated theory elements Dickoff, James and Wiedenbach (1968); namely agent, recipient, context, dynamics, procedure, and terminus were selected to guide the conceptualisation process. This conceptualisation process is fully discussed in Chapter 5 of the study.

Objective 3: To develop guidelines for communication, specifically of nurses who are caring for patients diagnosed with tuberculosis at public health facilities in the Khomas Region.

This objective was achieved, since the researcher had developed seven guidelines for communication based on the evidence of empirical data and literature at the time of the study. The guidelines development process in this study followed a sequence of steps as illustrated by the World Stroke Organisation (2011) and, moreover, the guidelines were also developed by taking into account the six elements of the practice orientate theory (agent, recipients, context, procedure, dynamics, purposes / terminus). These six elements were associated with The Shannon and Weaver Transmission Model of Communication that formed the theoretical framework of this study (Dickoff, James and Wiedenbach, 1968; Lang, 2010).

The draft guidelines for communication were developed by the researcher, reviewed and validated by different local and international experts in the field of TB and communication.

The developed guidelines for communication were phrased based on the identified communication limitations of the nurses and were presented as follows: firstly the general aim, then the scope of guidelines, followed by formulated guidelines with its own phrasing, the rationale of each guideline, and lastly the operationalisation. (Chapter 6, Section 6.10).

The developed guidelines for communication could be regarded as a valuable tool for all staff members who are working with patients diagnosed with TB in the Khomas Region with the purpose of enhancing their communication skills. As a consequence, it will also improve the knowledge of TB among patients diagnosed with tuberculosis.

This study responds to the recommendations of the study conducted by Hasker, et al. (2010) in Tashkent City, Uzbekistan, who have investigated the reasons why patients diagnosed with TB are defaulting on TB treatment. Their study results reveal that since communication between health care personnel and patients has been poor, there is a need for addressing the quandary of poor communication. This study responds to this problem of poor communication by developing guidelines for communication to enhance the communication skills of nurses who are caring for patients diagnosed with tuberculosis as mentioned in chapter 1 page 5.

Objective 4: To implement and evaluate the guidelines for communication of the nurses who are caring for patients diagnosed with tuberculosis at public health facilities in the Khomas Region.

The developed guidelines for communication were implemented at seven public health facilities in the Khomas Region of Namibia. Two-day training workshops was conducted and nurses who attended the training were allowed a period of three months to implement the contents of the guidelines. After the period of three months, evaluation had been conducted, and the results revealed that the guidelines for

communication indeed brought about a significant improvement in the communication skills of the nurses while the knowledge of TB among patients diagnosed with tuberculosis also improved.

This study responds to the recommendations of the study conducted in 2009 by Govender and Marsh at a district hospital in KwaZulu-Natal that has investigated the reasons why patients diagnosed with TB are not adhering to their TB treatment. They recommend training in communication for health care workers who are caring for patients diagnosed with TB. This study, however, focuses on and initiates training in communication of nurses who are caring for patients diagnosed with TB.

7.4 LIMITATIONS OF THE STUDY

Burns and Grove (2001) refer to limitations as theoretical and methodological restrictions in a study that may decrease the generalisability of the findings. Polit and Beck (2004) also state that identification of the limitations of a study is essential for meaningful debate about the study findings. Although this study succeeds in attaining its stated objectives, the researcher also is obliged to emphasise the limitations observed.

The first limitation relates to the study population: The population in this study is limited to the nurses who are on a daily basis caring for patients with tuberculosis at the public health facilities of the Ministry of Health and Social Services in the

Khomas Region of Namibia. Therefore, the findings of this study are limited to that region.

The second limitation involves the data collection and data analysis processes of this study: Immediately after observation, the researcher has communicated in either English, Afrikaans, Oshiwambo, or Otjiherero during the interviews with the patient participants. The possibility always exists that the meaning of some original ideas gets lost during the process of translation.

Furthermore, the level of measurement used in this study is nominal and it has a property of classification only. In this regard, statistical descriptive method has been employed.

The third limitation relates to the nurse participants' communication during observation: Despite the fact that the researcher assumed that the nurse participants would communicate with their patients diagnosed during observation like they normally do, nurses may have communicate in a way that they perceive as effective. The likelihood of this possibility could have been even greater owing to the fact that the researcher is a TB and leprosy coordinator in the Khomas Region who is accustomed to paying regular supervisory support visits to all public health facilities where the study has taken place. These circumstances may have affected their (the nurses) communicative behaviour. Such an unwanted effect that skews the findings is referred to as the Hawthorne effect (CDC, 2008). However, the researcher has

sought to be as neutral as possible with the aim of avoiding contamination of the phenomenon under investigation

7.5 CONTRIBUTION TO BODY OF KNOWLEDGE

The researcher of this study considers the study as contributing to the body of nursing knowledge in a positive way. For clarification purposes, the original contribution is summarised.

No literature is available in Namibia that focuses on the communication skills of nurses who are caring for patients diagnosed with tuberculosis, neither guidelines that focus on communication. The findings of this study reveal that nurses who are caring for patients diagnosed with tuberculosis in the Khomas Region of Namibia have inadequate communication skills. This skills gap has not been identified in Namibia before. Therefore, the guidelines for communication of nurses are contributing significantly to the available body of knowledge in the region.

The guidelines for communication of this study can be regarded as a unique and valuable tool that guides nurses who are caring for patients diagnosed with tuberculosis to communicate TB health information more effectively.

The guidelines for communication provide the government and non-governmental organisations with a direction for achieving one of the elements of the stop TB

strategy of the WHO that seeks to empower people with TB and the community in general by means of effective advocacy and communication.

The study is limited to the nurses who are caring for patients diagnosed with tuberculosis in the Khomas Region of Namibia. However, the findings may greatly influence communication practice of the nurses nationally and internationally.

The conceptual framework for effective communication has been developed and applied with the aim of addressing the communication limitations of the nurses who are caring for patients diagnosed with tuberculosis at the public health facilities in the Khomas Region of Namibia. This framework can also be used in any other health communication environment, since it provides a description of the expectations all parties have who have been involved in the process. The conceptual framework is based on the original concepts as identified by Dickoff et al. (1968).

Furthermore, recommendations were also made.

7.6 RECOMMENDATIONS

In the light of the findings of this study, the researcher likes to suggest the following recommendations, specifically to TB policymakers, nursing services, nursing education, as well as future research.

7.6.1 Recommendations for tuberculosis policymakers

The researcher recommends that the TB policy and guidelines makers integrate these communication guidelines with TB policies and TB manuals when planning to improve the health status of the patients diagnosed with TB, their families, and the community in general.

The National Guidelines for the Management of Tuberculosis that is currently used highlights the important aspects/facts about TB that needs to be provided to each patient diagnosed with tuberculosis during every visit (MoHSS, 2006). However, it has become evident that the nurses have inadequate communication skills which prevent them from communicating TB health information most effectively, despite the fact that they have substantive knowledge to provide their patients with precise information. Moreover, there have not been existing guidelines for communication for references purposes. Therefore, the researcher recommends that the policymakers consider the integration of these guidelines in their planning.

7.6.2 Recommendations for the nursing services

In the light of the findings of this study, the researcher recommends that all the nurses (registered nurses and enrolled nurses) attend a training workshop in communication with the purpose of conveying TB health information to patients diagnosed with TB more effectively. Such a training workshop needs to be arranged by the nurse managers before the nurse gets assigned to work in a TB department.

This objective can also be achieved by either attending an in-service training workshop prior to staff rotation at the TB department of any health facility in the Khomas Region, or during induction of new nurses.

In addition, the researcher wishes to recommend that refresher training interventions need to be provided regularly, for instance twice a year to ensure the adherence to the guidelines for communication. Guidelines for communication should be made available at all TB departments for continual reference purposes. In order to accomplish this goal, the nurse managers need to emphasise the use of the guidelines for communication whenever they are conducting their support visits.

7.6.3 Recommendations for nursing education

Although the nurses receive basic training in communication, the findings of this study clearly indicate that the nurses who are caring for patients with TB still have limited communication skills (Chapter 4, Section 4.9). Therefore, the researcher recommends that the training module in communication needs to be strengthened by including these developed guidelines for communication in the curriculum.

7.6.4 Recommendations for future research

Future research should be conducted to:

- Explore and describe the communication skills of the field promoters and DOT supporters at the Penduka TB organisation in the Khomas Region.

The Penduka TB organisation is a non-governmental TB organisation in the Khomas Region that provides TB DOT services at different DOT sites in the Khomas Region. Since this important group plays a fundamental role in TB management in the Khomas Region, the researcher argues that a need exists to explore and describe the communication skills of these staff members who are working with TB patients in the Khomas Region. Their communication skills may also influence the medicine adherence of the patients diagnosed with tuberculosis in the Khomas Region.

7.7 THE RESEARCHER'S EXPERIENCE

Conducting this study about communication of the nurses who are caring for patients diagnosed with tuberculosis signified a huge learning opportunity for the researcher. The researcher experienced the study as a developmental venture that added much meaning to her professional journey. The study enriched the researcher's knowledge, skills, and understanding of health communication, tuberculosis, and research methodologies.

In this study, the active participation and the exceptional cooperation of all people, nationally and internationally, played a most positive part in the development of these guidelines for communication. The researcher recognised the great benefits of collaboration and cooperation while developing the guidelines for communication, and the prompt guidance of the study supervisors was extremely helpful.

7.8 CONCLUDING REMARKS

This study explores the communication skills of the nurses who are caring for patients diagnosed with tuberculosis at the public health facilities in the Khomas Region. Based on the findings of this study the guidelines for communication have been developed, implemented and evaluated.

In this chapter, the researcher describes whether the purpose and objectives of this study have been achieved with the purpose of illustrating that the study succeeds in attaining its stated purpose and objectives. Limitations of the study are identified, recommendations are proposed and the direction of future research are also emphasised. Furthermore, the researcher gladly shares her experience gained during this study.

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ANNEXURE A: PERMISSION LETTER FROM THE UNIVERSITY OF NAMIBIA

UNIVERSITY OF NAMIBIA

Private Bag 13301, 340 Mandume Ndemufayo Avenue, Pionierspark, Windhoek, Namibia



FACULTY OF MEDICAL AND HEALTH SCIENCES

**Letter of permission:
Post graduate students**

To: Post graduate students
From: Prof A van Dyk

Date: 24 Jan 2011

Dear Student: Ms E Kamenye(sn 8625743).....

The post graduate studies committee has approved your research proposal.

Guidelines to improve the communication skills of nurses caring for patients with Tuberculosis in Khomas Region Namibia

You may now proceed with your study and data collection.

It may be required that you need to apply for additional permission to utilize your target population. If so, please submit this letter to the relevant organizations involved. It is stressed that you should not proceed with data collection and fieldwork before you have received this letter and got permission from the other institutions to conduct the study. It may also be expected that these organizations may require additional information from you.

Please contact your supervisors on a regular basis.


Prof A van Dyk

ANNEXURE B: REQUEST TO CONDUCT THE STUDY

PO Box 23883

Windhoek

26 January 2011

Permanent Secretary
Ministry of Health and Social Services
(P. S.) Kahijoro Kahuure
Private Bag 13198
Windhoek

Dear Sir

Application for permission to carry out a research project for academic purposes

I am currently enrolled as a Doctor of Philosophy in Public Health student at the Faculty of Medical and Health Science of the University of Namibia. Prof S. Iipinge and Prof A. van Dyk are supervising my research project. I hereby wish to request permission to conduct the research study with the aim of meeting the requirements for the abovementioned degree.

Study title is: Development of guidelines to enhance the communication skills of nurses caring for patients with tuberculosis at public health facilities in the Khomas Region of Namibia.

The main purpose of the research study is twofold. Firstly, it aims at exploring and describing the way in which nurses communicate with patients with tuberculosis, and secondly it seeks to develop guidelines for communication that will enhance the communication skills of the nurses who are caring for patients with tuberculosis at public health facilities in the Khomas Region of Namibia.

The study will be conducted in four phases:

Phase 1: Situational analysis;

Phase 2: Development of a conceptual framework;

Phase 3: Development of guidelines for communication; and

Phase 4: Implementation and evaluation of the guidelines for communication.

The participants will be all the nurses who are currently on a daily basis in direct contact with patients with tuberculosis, as well as the tuberculosis patients in their care.

Enclosed, please find a copy of my detailed research proposal and the letter of permission from the University of Namibia.

Thank you

Esther Kamenye (0812917084)

**ANNEXURE C: APPROVAL LETTER FROM
PERMANENT SECRETARY**

9 - 0/0001



REPUBLIC OF NAMIBIA

Ministry of Health and Social Services

Private Bag 13198	Ministerial Building	Tel: (061) 2032510
Windhoek	Harvey Street	Fax: (061) 227786
Namibia	Windhoek	E-mail: eshaama@mhss.gov.na
Enquiries: E.N Shaama	Ref.: 17/3/3	Date: 09 March 2011

OFFICE OF THE PERMANENT SECRETARY

Ms. E. Kamenye
P.O. Box 23883
Windhoek

Dear Ms. Kamenye

Re: Development of guidelines to enhance communication skills of nurses caring for patients with Tuberculosis in Public Health Facilities in Khomas Region in Namibia

1. Reference is made to your application to conduct the above-mentioned study.
2. The proposal 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 to be collected must only be used for the Degree in Doctor of Philosophy;
 - 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 should be sought from the Ministry for the publication of the findings.

Yours sincerely,



MR. K. KAHURE
PERMANENT SECRETARY



**ANNEXURE D: APPROVAL LETTER FROM
OFFICE OF THE DIRECTOR**



9 - 0/0001

REPUBLIC OF NAMIBIA

Ministry of Health and Social Services

Private Bag 13322
Windhoek
Namibia

Director's Office
Khomas Region
Florence Nightingale Street

Tel: (061) 2036024
Fax: (061) 236997
International: (264 61) 236997

Enquiries: Dr FS Zam

Date: 6th April 2011

**MS ESTHER KAMENYE
REGISTERED NURSE
WINDHOEK DISTRICT OFFICE
KHOMAS REGION**

RE: PERMISSION TO CONDUCT RESEARCH FOR ACADEMIC PURPOSES

Dear Ms Kamenye

The Khomas Regional Office is pleased to learn that you have been selected to pursue your doctorate training at the University of Namibia.

We hereby would like to inform you that you are allowed to conduct your research in fulfillment of the requirements of your study programme.

We wish you success in your studies and we assure you of our support should you need any.

Yours faithfully


**DR FS ZAM
CHIEF MEDICAL OFFICER**



"Health for All"

ANNEXURE E: CONSENT FORM FOR THE NURSES

Dear participant

I am Esther Kamenye, a PhD student at the University of Namibia. As a student, it is expected of me to conduct a research project as part of fulfilling the requirements for the abovementioned degree.

I am interested in finding out more about the communication skills of the nurses at public health facilities of the Ministry of Health and Social Services in the Khomas Region. The main purpose of this study is to explore and describe how nurses are communicating with patients with tuberculosis, and thereafter, to develop guidelines for communication that will improve the communication skills of nurses who are caring for patients with tuberculosis at public health facilities in the Khomas Region. The results of this study will be released in the format of a dissertation.

I have selected the nurses who are directly caring for patients with tuberculosis due to the fact that I have not found any research studies conducted in Namibia, particularly in the Khomas Region, with regard to communication skills of nurses who are caring for tuberculosis patients. I also have not found guidelines anywhere else that specifically deal with the communication of nurses who are caring for patients with tuberculosis. I am going to observe your conversation with a patient with tuberculosis, and thereafter I will conduct an interview with you based on your conversation with the patient. The interview will only be focusing on the issues that I might not be able to observe. I will record my observation on a checklist and will make some notes during interview. After collecting all the information, I hope to learn more about communication from your conversation with the patient in order to assist me with developing guidelines for communication.

Although it is not likely, please understand that the possibility exists that you might feel uncomfortable either during observation, or with answering some of the questions. Please be open and honest when answering questions and, if possible, ignore my presence during observation. The choice to participate or not is entirely yours. However, I would really appreciate your participation. Although participation will not benefit you immediately, I believe that the information I obtain from you will assist me to develop guidelines for communication that will improve the communication skills of our nurses who are caring for tuberculosis patients, and all other nurses of general nursing services in near future.

I assure you that your name will not be associated with the research findings in any way, and no-one will be able to associate you with any answers or data that are obtained from you during observation. Only the researcher and her supervisors will have access to the anonymous information. Your personal details will not be released, since information will be provided numerically. All information will remain confidential. You need to remember that even if you agree to participate you are free to withdraw at any time without penalties and you will not be prejudiced in any way. It is estimated that the participation will not take more than an hour of your time.

If you would like additional information about the study before or after it is completed or you feel that you need to talk to me after your participation, please feel free to contact me on 081 291 7084. After completion of this study I would like to visit you again to give you feedback about my study results and my future actions.

If you have any complaint about this study, you can contact my supervisors Prof S. Ipinge and Prof A. van Dyk on 061 206 3826 at the University of Namibia.

ANNEXURE F: CONSENT FORM FOR THE PATIENTS

Dear participant,

I am Esther Kamenye, a PhD student at the University of Namibia. As a student it is expected of me to conduct a research project as part of fulfilling the requirements for the abovementioned degree.

I am interested in finding out more about the communication skills of the nurses at the public health facilities of the Ministry of Health and Social Services in the Khomas Region. The main purpose of this study is to explore and describe how nurses are communicating with TB patients, and thereafter to develop guidelines for communication that will enhance the communication skills of nurses who are caring for patients with tuberculosis at the public health facilities in the Khomas Region. The results of this study will be released in the format of a dissertation.

I have selected patients with tuberculosis to participate, since I have not come across any research conducted in Namibia, particularly in the Khomas Region with regard to the communication of nurses with TB patients, although you are in close daily contact with these nurses. I am going to observe the conversation between you and the nurse, and thereafter I will have an interview with you based on the conversation. The interview will only be focusing on the issues that I might be unable to observe. I will record my observation on a checklist and will make some notes during the interview.

Although it is not likely, please understand that there is a chance that you might feel uncomfortable with being observed or with some of the questions. Please be open and honest when answering questions, and if possible, ignore my presence during observation. The choice whether to participate or not is entirely yours. However, I would really appreciate your participation. Although participation will not benefit you immediately, I believe that the information I obtain from you will assist me to develop guidelines for communication that will improve the communication skills of the nurses who are caring for patients with tuberculosis, and all other nurses of general nursing services in near future.

I assure you that your name will not be associated with any of the research findings, and no-one will be able to associate you with the answers or data that are obtained from you during observation. Only the researcher and her supervisors will have access to the anonymous information. Your personal details will not be released only the average information. All information will remain confidential. You need to remember that even when you agree to participate you are free to withdraw at any time without penalties and you will not be prejudiced in any way. It is estimated that your participation will not take longer than an hour.

If you would like to obtain additional information about the study before or after it is completed or you feel that you need to talk to me after your participation, please feel free to contact me on 081 291 7084. If you have any complaint about this study, you can contact my supervisors Prof S. Ipinge and Prof A. van Dyk on 061 206 3826 at the University of Namibia.

ANNEXURE G: COMMUNICATION ASSESSMENT TOOL

The communication assessment tool consists of 5 sections (A, B, C, D, and E), and it is used for an exploration of the communication skills of the nurses who are caring for patients with tuberculosis at the public health facilities in the Khomas Region of Namibia.

Date of observation: _____

Name of the researcher: _____

Observation number: _____

SECTION A: BIOGRAPHICAL INFORMATION OF THE NURSES

PARTICIPANTS:

Nurse participant no: _____

A1 Which region are you coming from?

Key: Khomas = 1

Other: = 2

A1

A2 Which district are you coming from?

Key: Windhoek = 1

Other: = 2

A2

A3 At which health facility are you working?

Key: Katutura Health Center = 1

Khomasdal Clinic: = 2

Wanaheda Clinic: = 3

Hakahana Clinic: = 4

Okuryangava Clinic: = 5

Donkerhoek Clinic: = 6

Robert Mugabe Clinic: = 7

Otjomuise Clinic: = 8

Windhoek Central Hospital: = 9

Katutura Intermediate Hospital: = 10

Dordabis Clinic: = 11

Groot Aub Clinic: = 12

Baumgartbrunn Clinic: = 13

A3

A4 Which one of the following is your duty area?

Key: TB room = 1

TB ward: = 2

Outpatient TB department = 3

A4

A5 Gender of nurse participants (observation):

Key: Male = 1

Female = 2

A5

A6 Nurse Participants' ages:

Key: Below 50 = 1

Above 50 = 2

A6

A7 Nurse Participants' qualification (observation):

Key: Registered nurse = 1

Enrolled nurse = 2

Assistant nurse = 3

A7

A8 Nurse Participants' years of experience in nursing services:

Key: < 10 years = 1

> 10 years = 2

A8

A9 Nurse Participants' months of experience in tuberculosis services:

Key: < 3 months = 1

> 3months = 2

A9

SECTION B: BIOGRAPHICAL INFORMATION OF PATIENT PARTICIPANTS

Patient participant no: _____

B1 Which one is your region?

Key: Khomas = 1

Other = 2

B1

B2 Which one is your district?

Key: Khomas = 1

Other = 2

B2

B3 Name of the health facility:

Key: Katutura Health Centre = 1

Khomasdal Clinic = 2

Wanaheda Clinic = 3

Hakahana Clinic = 4

Okuryangava Clinic = 5

Donkerhoek Clinic = 6

Robert Mugabe Clinic = 7

Otjomuise Clinic = 8

Windhoek Central Hospital = 9

Katutura Intermediate Hospital = 10

Dordabis Clinic = 11

Groot Aub Clinic = 12

Baumgartbrunn Clinic = 13

B3

B4 Which one is your treatment area?

Key: TB room = 1

TB ward = 2

Outpatient TB department = 3

B4

B5 Patient participant's gender (observation):

Key: Male = 1

Female = 2

B5

B6 Patient participant's ages:

Key: 15 – 24 year = 1

25 – 34 years = 2

35 – 44 years = 3

45 – 54 years = 4

B6

B7 Employment status of the patient's participant:

Key: Formal employment = 1

Informal employment = 2

Unemployed = 3

Other, please specify = 4

B7

B8 Educational level of the patient's participant:

Key: Primary level = 1

Secondary level = 2

Tertiary level = 3

Other, please specify = 4

B8

SECTION C: COMMUNICATION OBSERVATIONAL CHECKLIST

Nurse Participant no: _____

The researcher put a right tick in either the Yes = 1, No = 2, or N / A = 3 column based on the observation (1.Yes = indicate whether the phenomenon occurs, 2.No = it does not occur, and 3.N/A = not applicable).

Items to be observed	Yes = 1	No = 2	N / A = 3
C 1. Creating a conducive atmosphere for communication:			
C1.1 Arranging the room / area in a way that facilitates good communication; for example tidy room, tidy table.			
C1.2 Arranging seats in an appropriate way; for example chairs arranged at an angle.			
C1.3 Windows are open for ventilation.			
C1.4 Welcoming the patient (verbally).			
C1.5 Offering a chair to the patient.			
C1.6 Greeting the patient.			
C1.7 Introducing self to the patient.			
C1.8 Showing appropriate body language when talking to the patient. (Does the nurse sit or stand appropriately during the conversation?)			

Items to be observed	Yes = 1	No = 2	N / A = 3
C1.9 Ensuring privacy (no other patients in the room) – it encourages a patient to be more open and to communicate more freely.			
C1.10 Ensuring a quiet environment (no noise like a radio, to and fro movement of people, no phone ringing) – it encourages a person to concentrate on the discussion.			
C1.11 All obstacles between the nurse and the patient during conversation need to be removed; for example computer, bundle of books, or any other person - it forms a communication barrier that prevents good communication.			
C1.12 Negotiating with the patient the language to be used during conversation (especially for the new cases) to prevent misunderstanding.			
C2. Assessing and understanding the patient's mood and TB situation:			
C2.1 Assessing the patient's mood before information is provided, taking care of feelings first (ice breaker).			

Items to be observed	Yes = 1	No = 2	N / A = 3
C2.2 Acquiring the patient's previous knowledge about the tuberculosis disease before any further information is provided; for example what causes tuberculosis, or how tuberculosis is spread.			
C2.3 Exploring the patient's beliefs about the disease before appropriate information is provided (beliefs like TB is caused by dust, alcohol, smoking, TB is hereditary, TB can be cured).			
C2.4 Exploring the patient's practices about the disease before appropriate information is provided; for example not eating some food like eggs when on TB treatment, or using traditional treatment.			
<p>C3. Providing information and checking for understanding.</p> <p>C3.1 Basic medical information with regard to tuberculosis:</p>			
C3.1.1 Meaning of tuberculosis.			
C3.1.2 Diagnosis of the patient.			
C3.1.3 Cause of tuberculosis.			
C3.1.4 Contributing factors of contracting tuberculosis.			

Items to be observed	Yes = 1	No = 2	N / A = 3
C3.1.5 Prevention of tuberculosis.			
C3.1.6 Treatment of tuberculosis.			
C3.1.7 Importance of knowing HIV status.			
C3.1.8 Dangers of non-compliance with tuberculosis treatment.			
C3.2 Lifestyle information with regard to tuberculosis:			
C3.2.1 Dangers of consuming alcohol while taking tuberculosis treatment.			
C3.2.2 Smoking and TB.			
C3.2.3 Type of foodstuffs to be taken during treatment.			
C3.2.4 Family planning (if applicable).			
C3.3 Social information with regard to tuberculosis:			
C3.3.1 Advantages of joining the Penduka TB organisation for craft work and support.			
C3.3.2 Identification of support person(s).			
C3.3.3 When to assume duty (applicable to workers).			
C3.3.4 Socialising with the family members (not to isolate self).			

Items to be observed	Yes = 1	No = 2	N / A = 3
C3.4 Taking responsibility when patient does not understand; for example by providing the correct answer to the patient in a simple way, not to give homework to the patient, or to address the patient in a confrontational manner.			
C3.5 Summarising the main information in a simple way; for example restate the diagnosis, duration of the treatment, and advantages of compliance. It is important for ensuring that the patient understands the messages you are conveying.			
C4. Interacting with patient to influence motivation and the ability to follow advice:			
C4.1 Encouraging dialogue, since sharing of information and knowledge enhances understanding and addresses the need of other people.			
C4.2 Positive reinforcement during conversation; for example any agreement laughter or use encouraging words like “that’s good”, or “thanks”.			

Items to be observed	Yes = 1	No = 2	N / A = 3
C4.3 Being self-confident and trust your own words; for example avoid using words like “I think...”, or “Let me try...”			
C4.4 Confirming date and time of the return visit by asking the patient to repeat it. It assists the patient to remember the next appointment date easily.			
C4.5 Motivating the patient to complete the tuberculosis treatment.			
C5. Listening Skills:			
C5.1 Reinforce attentive listening by using non-verbal movement; for example nodding of the head, or keeping eye contact to show interest and concern.			
C5.2 Listening until the patient has completed expressing his/her thoughts. Refrain from completing the patient’s sentences or from mentioning that you know it already. Allow the patient to feel that her/his inputs are valued.			
C5.3 Doing nothing else except listening – encourage the patient to talk.			
C6. Questioning skills:			

Items to be observed	Yes = 1	No = 2	N / A = 3
C6.1 Asking descriptive questions, since it solicits information that helps to define strengths, issues, and concerns.			
C6.2 Using close-ended questions appropriately. It assists the patient to provide information that he/she might forget.			
C6.3 Asking the patient's opinions. Let the patient know that his/her ideas and inputs are valued by adding to the patient's opinions.			
C6.4 Asking questions to find the reasons for patients behaviour; for example a patient who always arrives late at the health facility, a patient who is interrupting medicine more often, or a patient who is not interested in a discussion.			
C7. Non-verbal and verbal communication:			
C7.1 Using short, simple, and clear sentences. These sentences motivate the patient to follow, since thought are expressed in an understandable way.			
C7.2 Using an appropriate non-verbal communication method to welcome the patient; for example smile, or touch patient on shoulder or arm.			

Items to be observed	Yes = 1	No = 2	N / A = 3
C7.3 Being approachable and friendly.			
C7.4 Speak loudly and clearly enough for the patient to hear; it prevents misunderstanding.			
C8. Constructive Feedback Skills:			
C8.1 Complimenting the patient for what he / she has done well; for example thank the patient for arriving early that day, or thank the patient for promising to complete her/his treatment. Compliments make the patient realise that what he/she is doing well is noticed.			
C8.2 Providing specific constructive feedback to the patient. Generalised feedback confuses the patient because he/she will end up not knowing where to improve; for example all TB patients are difficult to care for. Constructive feedback assists the patient to improve. Starting the sentence with “I”.			
C9. Respect and Empathy:			
C9.1 Showing empathy by understanding the effect of disease on the patient, i.e. understanding pain and suffering of the patient.			

Items to be observed	Yes = 1	No = 2	N / A = 3
C9.2 Showing respect while not diverting for the correct facts. Respecting the patient does not include ignoring facts.			

**SECTION D: KNOWLEDGE AND OPINIONS FOR NURSE PARTICIPANTS
ABOUT COMMUNICATION**

Nurse participant no: _____

D1. How would you describe your conversation with this patient?

D2. What makes you say (think) that your conversation with this patient was good /not good?

D3. How do you know that the information you provided to this patient was well understood?

D4. Please tell me where have you obtained all the information you provided to this patient?

D5. What do you suggest that would enable you to communicate TB health information more effectively?

**SECTION E: KNOWLEDGE, PERCEPTIONS, AND OPINIONS OF
PATIENT PARTICIPANTS ABOUT TB AND
COMMUNICATION**

Patient participant no: _____

E1. How would you describe your conversation with this nurse?

E2. What makes you say (think) that your conversation with this nurse was good/
not good?

E3. Please, mention all the main facts about TB that you are remembering from
your conversation with this nurse?

E4. What type of TB do you have?

E5. What causes TB?

E6. What do you suggest should be done to enable you to have good knowledge about TB?

ANNEXURE H: BIOGRAPHICAL INFORMATION OF THE NURSES: PHASE 1

Nurse participant code	Date of interview	Gender	Age	Rank	Years of experience in nursing	Months of experience in TB	Health Facility	Area in health facility
NP 01	23 / 05 / 11	Male	26	Enrolled Nurse	< 10 years	> 3 months	Wanaheda Clinic	TB Room
NP 02	24 / 05 / 11	Female	58	Enrolled Nurse	> 10 years	> 3 months	Katutura Hospital	TB Ward
NP 03	24 / 05 / 11	Female	55	Enrolled Nurse	> 10 years	> 3 months	Katutura Hospital	TB Ward
NP 04	24 / 05 / 11	Female	54	Enrolled Nurse	> 10 years	> 3 months	Dordabis Clinic	TB Room
NP 05	26 / 05 / 11	Female	64	Registered Nurse	> 10 years	> 3 months	Katutura Health Centre	TB Room
NP 06	30 / 05 / 11	Female	44	Registered Nurse	> 10 years	> 3 months	Katutura Hospital	TB Ward
NP 07	30 / 05 / 11	Female	52	Registered Nurse	> 10 years	> 3 months	Katutura Hospital	TB Ward
NP 08	31 / 05 / 11	Male	29	Enrolled Nurse	< 10 years	< 3 months	Donkerhoek Clinic	TB Room

Nurse participant code	Date of interview	Gender	Age	Rank	Years of experience in nursing	Months of experience in TB	Health Facility	Area in health facility
NP 09	31 / 05 / 11	Female	57	Enrolled Nurse	> 10 years	> 3 months	Katutura Hospital	TB Ward
NP 10	02 / 06 / 11	Female	37	Registered Nurse	> 10 years	> 3 months	Otjomuise Clinic	TB Room
NP 11	03 / 06 / 11	Female	22	Enrolled Nurse	< 10 years	> 3 months	Hakahana Clinic	TB Room
NP 12	06 / 06 / 11	Male	46	Enrolled Nurse	> 10 years	> 3 months	Khomasdai Clinic	TB Room
NP 13	07 / 06 / 11	Female	52	Registered Nurse	> 10 years	> 3 months	Katutura Hospital	TB OPD
NP 14	07 / 06 / 11	Female	43	Registered Nurse	> 10 years	> 3 months	Katutura Hospital	TB OPD
NP 15	08 / 06 / 11	Female	45	Enrolled Nurse	> 10 years	> 3 months	Katutura Hospital	TB OPD
NP 16	09 / 06 / 11	Female	28	Enrolled Nurse	< 10 years	> 3 months	Okuryangava Clinic	TB Room
NP 17	10 / 06 / 11	Female	41	Enrolled Nurse	< 10 years	> 3 months	Katutura Hospital	TB OPD
NP 18	20 / 06 / 11	Female	49	Registered Nurse	> 10 years	> 3 months	Katutura Hospital	TB Ward
NP 19	20 / 06 / 11	Female	56	Enrolled Nurse	> 10 years	> 3 months	Katutura Hospital	TB Ward
NP 20	21 / 06 / 11	Female	42	Registered Nurse	> 10 years	> 3 months	Katutura Hospital	TB Ward

Nurse participant code	Date of interview	Gender	Age	Rank	Years of experience in nursing	Months of experience in TB	Health Facility	Area in health facility
NP 21	21 / 06 / 11	Female	54	Enrolled Nurse	> 10 years	> 3 months	Katutura Hospital	TB Ward
NP 22	22 / 06 / 11	Female	49	Registered Nurse	> 10 years	> 3 months	Groot Aub Clinic	TB Room
NP 23	23 / 06 / 11	Female	52	Enrolled Nurse	> 10 years	> 3 months	Katutura Hospital	TB Ward
NP 24	27 / 06 / 11	Female	26	Enrolled Nurse	< 10 years	< 3 months	Robert Mugabe Clinic	TB Room
NP 25	28 / 06 / 11	Female	51	Enrolled Nurse	> 10 years	> 3 months	Katutura Hospital	TB Ward
NP 26	28 / 06 / 11	Female	48	Enrolled Nurse	> 10 years	> 3 months	Katutura Hospital	TB Ward
NP 27	29 / 06 / 11	Female	58	Enrolled Nurse	> 10 years	> 3 months	Katutura Hospital	TB Ward
NP 28	29 / 06 / 11	Female	49	Enrolled Nurse	> 10 years	> 3 months	Katutura Hospital	TB Ward
NP 29	30 / 06 / 11	Female	51	Enrolled Nurse	> 10 years	> 3 months	Katutura Hospital	TB Ward
NP 30	30 / 06 / 11	Female	52	Registered Nurse	> 10 years	> 3 months	Katutura Hospital	TB Ward

NP = Nurse participant

ANNEXURE I: BIOGRAPHICAL INFORMATION OF PATIENTS: PHASE 1

Patient participant code	Date of study	Gender	Age	Employment status	Educational level	Health facility
PP. 01	23 / 05 / 11	Male	48	Unemployed	Secondary level	Wanaheda Clinic
PP. 02	24 / 05 / 11	Female	31	Unemployed	Secondary level	Katutura Hospital
PP. 03	24 / 05 / 11	Female	21	Unemployed	Secondary level	Katutura Hospital
PP. 04	26 / 05 / 11	Male	54	Unemployed	Primary Level	Dordabis Clinic
PP. 05	26 / 05 / 11	Female	42	Informally employed	Primary level	Katutura Health Centre
PP. 06	30 / 05 / 11	Male	29	Unemployed	Secondary level	Katutura Hospital
PP. 07	30 / 05 / 11	Male	45	Unemployed	Secondary level	Katutura Hospital
PP. 08	31 / 05 / 11	Female	23	Unemployed	Tertiary level	Donkerhoek Clinic
PP. 09	31 / 05 / 11	Male	48	Formally employed	Secondary level	Katutura Hospital
PP. 10	02 / 06 / 11	Male	23	Unemployed	Secondary level	Otjomuise Clinic

Patient participant code	Date of study	Gender	Age	Employment status	Educational level	Health facility
PP. 11	03 / 06 / 11	Female	35	Unemployed	Secondary level	Hakahana Clinic
PP. 12	06 / 06 / 11	Female	35	Unemployed	Tertiary level	Khomasdal Clinic
PP. 13	07 / 06 / 11	Male	48	Informally employed	Primary level	Katutura Hospital
PP. 14	07 / 06 / 11	Female	34	Unemployed	Secondary level	Katutura Hospital
PP. 15	08 / 06 / 11	Female	34	Unemployed	Tertiary level	Katutura Hospital
PP. 16	09 / 06 / 11	Male	33	Informally employed	Secondary level	Katutura Hospital
PP. 17	10 / 06 / 11	Male	45	Formally employed	Secondary level	Katutura Hospital
PP. 18	20 / 06 / 11	Male	53	Informally employed	Never attended school	Katutura Hospital
PP. 19	20 / 06 / 11	Female	39	Informally employed	Secondary level	Katutura Hospital
PP. 20	21 / 06 / 11	Female	29	Unemployed	Secondary level	Katutura Hospital
PP. 21	21 / 06 / 11	Female	44	Informally employed	Secondary level	Katutura Hospital
PP. 22	22 / 06 / 11	Male	43	Unemployed	Primary level	Groot Aub Clinic

Patient participant code	Date of study	Gender	Age	Employment status	Educational level	Health facility
PP. 23	23 / 06 / 11	Male	36	Unemployed	Secondary level	Katutura Hospital
PP. 24	27 / 06 / 11	Female	32	Formally employed	Secondary level	Robert Mugabe
PP. 25	28 / 06 / 11	Female	41	Unemployed	Secondary level	Katutura Hospital
PP. 26	28 / 06 / 11	Female	54	Unemployed	Never attended school	Katutura Hospital
PP. 27	29 / 06 / 11	Female	36	Unemployed	Secondary level	Katutura Hospital
PP. 28	29 / 06 / 11	Male	23	Unemployed	Secondary level	Katutura Hospital
PP. 29	30 / 06 / 11	Male	37	Formally employed	Primary level	Katutura Hospital
PP. 30	30 / 06 / 11	Male	48	Unemployed	Secondary level	Katutura Hospital

PP. = Patient participant

**ANNEXURE J: LETTER TO THE GUIDELINES
DEVELOPMENT GROUP MEMBER**

From: Ms E. Kamenye
P.O. Box 23883
Windhoek
Namibia

06 February 2012

To: Communication Guidelines Development Member
Windhoek District
Khomas Region

Dear Sir/Madam: _____

Re: Guidelines for communication of the nurses who are caring for patients with tuberculosis in the Khomas Region

I have pleasure in informing you that you are hereby appointed as a member of the communication guidelines development group. The group will soon convene to contribute to the development of the guidelines for communication that might enhance the communication skills of the nurses who are caring for patients with tuberculosis in the Khomas Region.

Background:

Tuberculosis has been a major significant public health threat worldwide. Nine million new cases are reported annually while two million die every year from the disease. The Government of the Republic of Namibia has vigorously pursued TB programmes that aim at eliminating TB; for instance purchasing of all anti-TB medicine, paying for all sputum examinations, providing of the infrastructure, and human resources for TB.

Despite these programmes, problems in the management of TB in the Khomas Region are still occurring; for example the region has the highest TB case notification rate of 751 per 100 000 population in Namibia, the higher rate of drug-resistant TB of 38 cases second to the Kavango Region with 46 cases. However, the Khomas Region obtained an HIV testing rate of only 59% in 2009 among TB patients which is below the country target of more than 95%. Moreover, the region failed to achieve the global target of 85% by only obtaining treatment success rate of 70%, and a higher defaulter rate of 9% for retreatment cases by the end of 2008.

Literature indicates that many problems that occur in any organisation with regard to management are the direct result of people who are failing to communicate properly. A study conducted in the Khomas Region in 2008, explored the knowledge, beliefs and practices of patients who were diagnosed with TB revealed that patients acquired inadequate knowledge about TB, despite the fact that they were in direct daily contact with their nurses.

Therefore, a research project was conducted at all public health facilities in the Khomas Region from May 2011 to June 2011. The main purpose of research was to explore and describe how the nurses communicated with patients with tuberculosis in the region. The findings led to the development of guidelines for communication to enhance the communication skills of the nurses.

These study results showed clearly that the nurses had:

- Inadequate skills for creating a conducive atmosphere for communication;
- Limited skills for assessing and understanding the patients' mood and situation;
- Inadequate listening skills;
- Inadequate questioning skills;
- Inadequate constructive feedback skills;
- Inadequate non-verbal communication skills; and
- Limited skills for expressing respect and empathy.

Therefore, you are appointed as one of the group members, who will interrogate these guidelines in order to review, to provide input and comments, and to validate the guidelines for communication.

The date and venue of the first meeting will be communicated to you soon.

Thank you for your cooperation.

Regards

Esther Kamenye

0812917084

**ANNEXURE K: AGENDA, MINUTES AND PARTICIPANTS' LIST OF
THE FIRST MEETING**

**FIRST MEETING OF THE COMMUNICATION GUIDELINES
DEVELOPMENT GROUP'S**

VENUE: KATUTURA HEALTH CENTRE CONFERENCE HALL

DATE: 24 FEBRUARY 2012

TIME: 08:00

Agenda:

1. Welcome
2. Registration of the group members
3. Introduction
4. Aim of the meeting
5. Background of the problem
6. Reading of the draft guidelines
7. Dividing the members into small groups and discussion of the draft guidelines
8. Presentation of every group
9. Discussion of the presentations
10. The way forward

MINUTES OF THE FIRST MEETING FOR THE COMMUNICATION GUIDELINES DEVELOPMENT IN THE KHOMAS REGION

1. Welcome

The chairperson welcomed all members who were present.

2. Registration of the group members

The group members were all registered on arrival.

3. Introduction

All members present introduced themselves one by one, all members were from the Khomas Region, and all of them were involved directly or indirectly in TB management.

4. Aim of the meeting

The chair-person introduced to the members the main aim of the meeting. She informed the members that the main aim of the meeting was to develop communication guidelines that will guide the nurses (who are on a daily basis directly involved with caring for the TB patients in the Khomas Region) how to communicate TB health information more effectively.

5. Background of the problem

The chairperson highlighted the problem that the Khomas Region was facing with regard to TB management. She stated that at the time of the meeting, the region had failed to attain the global targets. It was also reported that the region was experiencing a higher defaulter rate and, moreover, the region was reported as the second region after the Kavango Region with one of the highest number of DR-TB cases. Literature indicated that most of the problems that occurred in any management were mostly due to inadequate communication. She furthermore informed the meeting that two studies conducted in the Khomas Region in 2008 had revealed that the TB patients were lacking knowledge about TB, despite the fact that they were in direct daily contact with TB focal nurses. A study conducted from May 2011 to June 2011 had revealed that the TB focal nurses were lacking communication skills. All the communication skills that the TB focal nurses were lacking had been described in the study.

6. Reading of the draft guidelines

The draft guidelines were read section by section while all the members were taking individual notes.

7. Dividing the members into small groups

The members were divided into groups of two and time was allocated to them to scrutinise the guidelines with the purpose of:

- Selecting the appropriate guidelines;
- Adding new ideas; and
- Deleting any inappropriate section or sentence.

8. Presentation from each group

Each group conducted a presentation of their review and all members were satisfied with all seven guidelines. No part was deleted from the draft guidelines.

9. Discussion and the way forward

A discussion was held and corrections were made. The members requested to take the draft guidelines home with the aim of providing further input if any. The members were allowed to take the guidelines home. The member undertook to call the researcher two weeks after the meeting to arrange a date and time for the collection of the guidelines. The researcher informed the meeting that she will personally collect the documents after two weeks.

The meeting adjourned at 12:45 and the next meeting was scheduled for 23 March 2012.

Chairperson: E. Kamenye

Secretary: J. Xoagus

Date: 24 February 2012

Registration form

Development of guidelines to enhance the communication skills of the nurses who are caring for the patients with tuberculosis in Khomas region

Communication Guidelines Development Group: First meeting

Venue: Katutura Health Center

Date: 24 February 2012

Time: 08H00

Name & Surname	Rank/Position	Duty area	Involvement in TB	Years of experience	Contact number	Signature
ELIZABETH UNAJONDO	R/Nurse	TB/ARV ROOM K.H.C	Treating + diagnose TB+ARV	30 yrs	0812979003	
Helco S. Nottamel	Registered Nurse	K.H.C/ TB room	Treating Diagnosing & administering Rx.	22 yrs	0812582607 0813446648	
Rasy - D.V. ISAKS	Enrolled Nurse & midwife	Robert Mugabe Clinic TB Room	Treating + diagnose and administering Rx	10 months	0614330773	
THEKLA Tjiurutue	Enrolled Nurse / midwife	Dankshood Clinic TB room	treating diagnosing + Admin Rx	10 months	0813143172	
Mariltha Mabilifa	Enrolled Nurse / midwife	Dungangwa Clinic TB Room	Treatment diagnosis and treating TB patient	4 yrs	0813615110	
Anna Wangyji Nansimwata	CLEANER	Katutura Health Center	Former IR	11 yrs	0812719536	
Helena N Matongo	ENR WOI	PRMHC Ndf	FOCAL NURSE	7 yrs	0812830824	

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Tannycy T. Shililija	Field Promo- ter	Pendulu TB Control Program	Admini- straban & Finance assistant	byrs	0812305 803	→ 7a
Wilhelmine Amakali	Former TB Patient	Pendulu TB Control Program	Monitori- ng & Evalu- tion	byrs	0816027 814	Amakali
E N KA MENYE	TB/Lep- rosy coordi- nator	Windo hoek Distric office	Coordi- nator all TB Clin- ics in Khamas	35yrs	0813917 084	Kamenye
Jocanda Xokelus	Family- Mental HEALTH ASSISTANT	WDO	Contact Tracing	byrs	0816269007	Shangw

**ANNEXURE L: AGENDA, MINUTES AND
PARTICIPANT LIST OF THE SECOND MEETING**

**SECOND MEETING OF THE COMMUNICATION GUIDELINES
DEVELOPMENT GROUP**

VENUE: KATUTURA HEALTH CENTRE CONFERENCE HALL

DATE: 23 MARCH 2012

TIME: 08:00

Agenda:

1. Welcome
2. Registration of the group members
3. Introduction
4. Aim of the meeting
5. Reading and adoption of the previous minutes
6. Reading of the guidelines (with corrections as proposed by the members)
7. Additional corrections
8. Discussion
9. Adoption of the guidelines
10. The way forward

MINUTES OF THE SECOND MEETING FOR THE COMMUNICATION GUIDELINES DEVELOPMENT IN THE KHOMAS REGION

1. Welcome

The chairperson welcomed all members who were present.

2. Registration

All members present were registered on arrival.

3. Introduction

The members introduced themselves. All of the eleven (11) members were present.

4. Aim of the meeting

The chairperson introduced the aim of the meeting to all the members who were present. She informed the meeting that the second meeting would be the last meeting. However, she committed to informing the members of the communication guidelines development group about any significant input from other experts; for example the local and international experts.

5. Reading and adoption of the minutes of the previous meeting

The previous minutes were read, corrected and seconded by two members. There were no matters arising from the previous minutes.

6. Reading of the corrected guidelines

The guidelines were read and all the corrections that had been made were emphasised. The members agreed and confirmed all the corrections that were made and everybody expressed their satisfaction.

7. Additional corrections

By the time of the second meeting, the field promoters of the Penduka TB organisation had requested whether it would be possible to include the Penduka staff members in the scope in order for the guidelines to be used by the nurses, as well as the Penduka staff members. The chairperson responded that these guidelines were developed based on the study findings. At the time of the meeting, no study had been conducted about the communication skills of the Penduka staff members. However, the chairperson committed to addressing the issue for further consideration by the local experts.

8. Discussion and adoption of the guidelines

A discussion was held and the members adopted the guidelines and everybody expressed their eager anticipation to implement the guidelines after the experts had provided their input.

9. The way forward

The chairperson informed the meeting that she was going to send the guidelines to the various experts for their input, before implementation of the guidelines. She also informed the meeting that the final guidelines will be sent to the permanent secretary of the Ministry of Health and Social Services for endorsement purposes.

The meeting adjourned at 12:50.

Chairlady: E. Kamenye

Secretary: W. Amakali

Date: 23 March 2012

Registration form


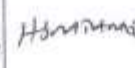




Development of guidelines to enhance the communication skills of the nurses who are caring for the patients with tuberculosis in Khomas region

Communication Guidelines Development Group: Second meeting

Venue: Katutura Health Center

Date: 23 March 2012

Time: 08H00

Name & Surname	Rank/Position	Duty area	Involvement in TB	Years of experience	Contact number	Signature
ELIZABETH UNDJONDO	Registered Nurse	KHC TB/ARV ROOM	Treating + diagnose TB+ARV	30 yrs	0812977003	
Helen S. Nataniel	Registered Nurse	KHC TB room	treating diagnosing Administering Rx.	22 yrs	0812582602 0813646664	
Rosy - D.V. ISAKS	Enrolled nurse midwife	Robert Mugabe Clinic TB Room	Treating/ Diagnosing administering treatment	10 months	0814330772	
Thekla Jimitoe	Enrolled Nurse / midwife	Dankward Clinic TB room	Treating Diagnosing Administering TB RX	10 months	0813143172	
Maritha . K. Muthifa	Enrolled Nurse / Midwife	Olujimongan Clinic TB Room	Treating, Diagnosing TB patient	4 yrs	0813611510	
Anna Wangang Nangokwala	Cleaner	Katutura Health Center	Former TB Patient	11 yrs	0812977003	

①

Tanncy T. Shikija	Field Promo- ter	Pendukung TB Control Program	Admini- strasi & Finance assistant	byrs	0812305 803	→ 7a
Wilhelmine Amakali	Former TB Patient	Pendukung TB Control Program	Monitori- ng & Evaluasi- on	byrs	0816027 814	Amakali
E N KA- MENYE	TB/Lep- rosy coordi- nator	Wind hoek Distric office	Coordi- nator TB and TB clinic in Khamas	35/10	0813917 084	Kamenye
JOLANDA XOKELIS	ENVIRON- MENTAL HEALTH ASSISTANT	WDO	Contact Tracing	byrs	0816269007	P. Xokelisi

ANNEXURE M: TRAINING REPORT**REPORT OF HEALTH COMMUNICATION TRAINING FOR THE NURSES
WHO ARE ON DAILY BASIS CARING FOR THE PATIENTS WITH TB IN
THE KHOMAS REGION****DATE: 19 – 20 JUNE 2012****VENUE: KATUTURA HEALTH CENTRE CONFERENCE HALL****1. INTRODUCTION**

A study was conducted in 2011 at all the public health facilities of Ministry of Health and Social Services in the Khomas Region, and the main aim of the study was to explore and describe how nurses were communicating with patients with tuberculosis in the region. The tools that were used to collect the data were a checklist and interviews. The results revealed that the nurses who were caring for the patients with tuberculosis had limited communication skills. Guidelines for communication were developed that contained all the required communication skills. The researcher conducted two-day training in communication workshop to implement the content of the guidelines with the aim of enhancing the nurses' communication skills.

2. ACKNOWLEDGEMENT

The researcher would like to thank the Ministry of Health and Social Services for the comprehensive support. Special thanks go to the acting primary health care supervisor for allowing the participants to attend the training. The researcher is also grateful to all the nurses in charge for granting permission to their nurses who are caring for patients with tuberculosis to attend the training. Thank you to the matron in charge of the Katutura Health Centre for providing the venue, for opening the training with prayer, and for the welcoming address. A big applause goes to the nurses for availing themselves for the training and also for their active participation.

3. AIM OF TRAINING

The training aims at enhancing the communication skills of the nurses who are caring for the patients with tuberculosis at the public health facilities of the Ministry of Health and Social Services in the Khomas Region.

3.1 Specific Objectives

- To train the nurses who are caring for patients with tuberculosis in communication skills; and
- To afford these nurses an opportunity to practise the required communication skills.

4. COURSE CONTENT

The main content of the training:

Day 1: Communication theory and skills:

- How to create a conducive atmosphere for communication;
- Assess and understand the patient's mood and the level of understanding of TB;
- Information and communication;
- Constructive feedback;
- Questioning skills;
- Listening skills;
- Verbal and non-verbal communication; and
- Expressing respect and empathy.

Day 2: Role play, demonstrations, group discussions, and questions and answers about all the day 1 topics.

Each participant gets an opportunity to exercise using all the communication skills in an integrated way. Constructive feedback gets provided to the participant by the colleagues with the guidance of the facilitator.

5. TRAINING METHODS:

- Demonstrations;
- Role-play;
- Group discussions / group participation;
- Questions and answers; and
- Visit to the TB room at the centre.

6. PARTICIPANTS

Participants were drawn from the following clinics, and each facility was represented by their TB focal nurse:

- Katutura Health Centre;
- Khomasdal Clinic;
- Wanaheda Clinic;
- Okuryangava Clinic;
- Donkerhoek Clinic;
- Robert Mugabe Clinic;
- Otjomuise Clinic; and
- Hakahana Clinic.

7. END OF THE COURSE EVALUATION

At the end of the course, the participants were allowed time to fill in an evaluation form.

7.1 Comments

The following comments were quoted from the final course evaluation as evaluated by the participating nurses:

“All the nurses should undergo this training to avoid patients from defaulting.”

“Thank a lot for helping us and correct us where we were not sure or understand. I suggest that there should be a workshop for TB every month.”

“I wish this type of training should be done after every four months.”

“The training need to be continues with other staff /health workers, not only TB focal nurses, at least everybody who involved or who cares about TB patients.”

“The facilitator presented training with good ideas and on professional manners!”

7.2 Course rate:

To what degree were your expectations for the course met? Tick on a scale of: 1 = not met, 2 = somewhat met, 3 = OK, 4 = fully met, 5 = beyond expectation.

The participants responded to the abovementioned question as follows:

- Two participants = 5 beyond expectation; and
- Six participants = 4 fully met.

None of the participants indicated either 1, 2, or 3.

8. THE WAY FORWARD

All the participants were encouraged to implement the content of the training programme during their daily practice and to contact one another for any assistance.

Furthermore, they were also informed that the facilitator would be visiting them more frequently to observe whether they are practising what they had learnt. The facilitator also provided them with her cell phone number to contact her when they were experiencing problems with regard to the communication guidelines or about TB management. The participants committed to implementing the content.

9. LIST OF THE PARTICIPANTS/FACILITATOR

Name & Surname	Rank	Workplace	Contact no
Mr David Shigwedha	E/N	Robert Mugabe Clinic	0816435416
Ms Thekla Tjiuritue	E/N	Donkerhoek Clinic	0813143172
Mr Petrus Nalupe	E/N	Khomasdal Clinic	061213556
Ms Maritha Mutilifa	E/N	Okuryangava Clinic	0813611510
Ms Mathilde Nangombe	E/N	Wanaheda Clinic	0813558266
Ms Helen Natanael	R/N	Katutura H Centre	0813446644
Ms Hilma Eelu	E/N	Otjomuise Clinic	0813562980
Ms Rautia Matheus	E/N	Hakahana Clinic	0814134500

Key: (E/N = Enrolled nurse; R/N = Registered nurse)

Facilitator: E. Kamenye

Report compiled by: Ms E. Kamenye 0812917084

ANNEXURE N: DRAFT GUIDELINES FOR COMMUNICATION

THE AIM OF THE GUIDELINES FOR COMMUNICATION

- To enhance the communication skills of the nurses who are caring for the patients with tuberculosis, by providing them with guidance how to communicate TB health information more effectively.
- To improve the health status of the patients with tuberculosis by providing them with effective TB health information enabling them to practise a healthy lifestyle.
- To make these communication guidelines available to the TB policymakers for integration into TB policies and TB manuals when planning to improve the health status of the TB patients, their families, and the community in general.

THE SCOPE OF THE GUIDELINES FOR COMMUNICATION

The scope of practice of these guidelines includes the nurses (registered, enrolled, and auxiliary) who care for patients with tuberculosis at public health facilities in the the Khomas Region of Namibia.

The nurses are the target users (primary recipients) of the guidelines, while patients with tuberculosis, their DOT supporters, as well as their families, or their close contacts are the secondary recipients of the guidelines.

Furthermore, the guidelines for communication may also be a valuable resource for all other health care workers who are involved in the health care of non-TB patients.

GUIDELINE 01**CREATE A CONDUCIVE ENVIRONMENT (ATMOSPHERE) FOR COMMUNICATION**

Figure 1: An example of a conducive environment (TB room)

Illustrator: Lene Ask

Rationale

The International Centre for Alcoholic Policies (1995-2011, para. 1) refers to the atmosphere as “the general mood and feeling of the place”. The atmosphere of the TB unit begins to affect the patients (recipients) from the moment they enter the DOT/TB room/ward and can influence their continuing behaviour. Therefore, a conducive DOT/TB room/ward atmosphere is crucial, for instance the cleanliness of

the place, the ventilation status of the place, friendliness of the nurse, and a welcoming reception of the patient by the nurse. It makes the patients feel at home and it facilitates good communication between the nurse and the patients with tuberculosis. When a patient feels good due to the conducive unit atmosphere (environment), then he/she can communicate freely, and provide all the necessary information (message) the nurse needs in order to treat the patient more effectively; it can lead to good TB treatment adherence.

Operationalisation

Nurses who are caring for the patients with tuberculosis (recipients):

- Keep the DOT/TB room/ward clean and tidy at all times. Patients feel good to be treated in a clean, well-ventilated, and a tidy place.
- Arrange the seats in an appropriate way; for instance place chairs at an angle. It promotes good communication since the nurse and the patient are not directly facing each other. It is also the best way of preventing cross infection, since TB bacteria from the patient's or nurse's mouth (when talking) are directed away from the other person.
- Keep the windows open. It is good to communicate in a well-ventilated room rather than in a stale room. It is also the best way of controlling cross infection by allowing fresh air to enter the room.

- Welcome the patient verbally (please, come in sir/madam) and non-verbally (smile). Good reception makes the patient feel good, welcomed, and willing to communicate.
- Offer the patient a seat. It makes the patient feel respected, and valued.
- Greet the patient by name (if possible, read name from the patient card). It creates good feelings and respect.
- Introduce yourself to the patient (if the patient does not know you already). A patient feels good and comfortable to talk to a person he/she knows by name.
- Ensure privacy at all times. A patient feels free to communicate when she/he is treated privately and confidentially, rather than in the presence of other people. It will encourage the patient to participate in discussions more openly, and he/she can disclose confidential information, for example his/her HIV status, and the status of other diseases.
- Ensure a quiet environment. Noise is one of the obstacles to effective communication.
- Ensure that there are no obstacle(s) between the patient and the nurse, for example bundle of books, computers, or another person. People communicate more effectively when they see each other clearly.
- Establish which language a new patient speaks and understands well. Furthermore, communicate by using simple words; for instance difficult breathing instead of dyspnoea, body weakness instead of body malaise, body hotness instead of feverish. If the nurse cannot speak the preferred language of the patient, get an interpreter. Language problems are the main barrier to effective communication.

- Inform the patient about the opening and closing hour of the DOT/TB room. It is also very important to inform the patient about the lunch hour time (when a limited number of nurses are managing the DOT/TB room) to prevent the patient from waiting for a long time without knowing where the nurse is, or for the place to open. Put a note on the door that indicates the working hours.

GUIDELINE 02**ASSESS AND UNDERSTAND THE PATIENT'S MOOD, LEVEL OF UNDERSTANDING, AND PROVISION OF TB INFORMATION**

“Firstly, listen attentively and understand the patient before you seek to be listened to attentively and understood by the patient” by Kamenye.

Rationale

Various beliefs, misconceptions, as well as unhealthy practices about TB are still found among the patients with tuberculosis. A study conducted by Kamenye (2008) in the Khomas Region of Namibia reveals that most patients with tuberculosis hold various beliefs about TB. Some believe that tuberculosis is caused by dust, or is a hereditary disease. An old saying announces “old habits die hard”, meaning that it is not easy for the people to change their old beliefs, or unhealthy practices. Therefore, it is crucial to first assess and explore the patient’s beliefs, practices, and level of understanding about TB before providing them with facts about TB. It can lead to a serious discussion about TB facts that might result in good understanding, and the patient’s knowledge might be enhanced by sharing information rather than just “injecting” information without knowledge of the patient’s current beliefs, practices, and his/her level of understanding of TB.

Furthermore, a patient cannot discuss issues openly when he/she is not in good mood at that particular time; therefore, it is advisable to assess the patients’ mood first. According to Haaland and Molyneux (2006), mood is the emotional state of mind

which can be changed relatively easily, once the person is aware of it. Mood is temporary and can be influenced by the activities of the day. No part of the body can express the mood better than the face. The facial expressions convey the feelings of joy, fear, surprise, shock, and anger (Segal et al., 2010; Windle & Warren, 2009). When the patient is showing signs of fear, anger, shock and sadness, then it clearly indicates that the patient will not properly follow the conversation. Patients in one of these moods tend to listen selectively and the chances are high that they are going to misunderstand the information (Haaland & Molyneux, 2006). Therefore, it is very important for the nurse to take care of the feelings first before information is provided to the patients.

Operationalisation

Nurses who are caring for patients with tuberculosis (recipients) need to:

- Pay more attention to the patient's facial expressions when he /she enters the TB/DOT room/ward. A bad mood has a negative impact on the quality of information that gets obtained from the patient.
- Begin the conversation with an open-ended question, for example "How can I help you sir/madam?", or "How are you this morning/afternoon sir/madam?"
- Ask the patient what he/she knows/believes about the basic TB facts; for instance the causes of TB, contributing factors, treatment, prevention, and the relationship between TB and HIV. Provide correct answers to the patient and discuss matters until agreement is reached. If agreement is not reached,

provide the patient with TB leaflets/booklets that he/she can read it at home with the aim of continuing the discussion on another day.

- Avoid overburdening the patient with questions. Therefore it is good practice to ask and discuss one fact at a time.
- Ask the patient to share what he/she knows/believes about lifestyle information in relation to TB; for instance TB and smoking/drinking alcohol, sexual relationships (only for adults), family planning (especially female because of the Rifampicin effect), and types of food to be taken during treatment. Provide appropriate answers and discuss it with the patient until consensus is reached. If consensus is not reached, provide the patient with TB leaflets/booklets to read at home with the view of continuing the discussion on another day.
- Ask the patient to share what he/she knows/believes about social information about TB; for example any NGOs projects like the Penduka TB Organisation that work with TB and their advantages, DOT-supporters and their importance, socialisation with family members/colleagues, and sick leave (if working). Provide all the necessary information and discuss it with the patient until an agreement is reached.
- Avoid compelling the patient to change his beliefs and practices. Such an action might cause the patients to stick even more rigidly to their old ideas. Therefore, it is good to acknowledge his/her beliefs and then provide the correct facts about TB during discussion until a patient understands. If agreement is not reached, provide the patient with TB leaflets to read at home with the aim of continuing the discussion next time.

- Avoid judging, blaming, and direct criticism when correcting misunderstanding. Acknowledge the patient for visiting the health facility and take time to educate him/her in a participatory manner. Show respect, interest, and listen attentively. It encourages the patient to listen and understand the facts that you are conveying.
- Firstly, listen attentively and understand the patient before you seek to be listened to and understood by the patient before providing TB information to the patient. ”. The patient has a reason to believe / practice what he/she is believing/practising.
- Summarise all the main information. It is important in order to ensure that the message is conveyed in such a way that the patients hears and understands accurately. Ask a patient to summarise information with the purpose of confirming that you and the patient have reached a shared understanding; for instance you can ask the patient: “What do you think is the most important issue(s) we have talked about today?”

GUIDELINE 03**ACTIVE LISTENING**

“Listen with your whole body and soul” by Kamenye.

Rationale

The Government of the Republic of Namibia has pursued vigorous TB programmes which aim at eliminating TB; for example purchasing all anti-TB medicine and providing it free of charge, paying for all sputum examinations, as well as providing the infrastructure and human resources (nurses and other staff members) for TB (MoHSS, 2006). The nurses who are caring for patients with tuberculosis are the representatives of the government, since they are in direct daily contact with the patients. Despite the fact that they have the responsibility of providing DOT to the patients, and providing health information to the patients, they are also responsible for listening attentively to the patients’ views, opinions, suggestions, and contributions towards their own health. The nurses are the ears and eyes of the government; therefore, when they are not listening attentively to the patients, the government cannot hear anything in order to provide proper assistance to the patients according to their needs.

According to the MoHSS (1998), all the patients have the right to be listened to and also to be heard. One of the common mistakes a nurse can make is confusing hearing and listening. Windle and Warren (2009) refer to listening as a combination of hearing what another person says and psychological involvement with the one who is

talking, and listening requires more than hearing words. It requires a desire to understand another person, and it also requires a respectful and accepting attitude. Applying listening skills is harder than most people think. Since they can hear, people think listening is a natural ability, but it is not. Listening is an acquired skill just like reading or writing, and it requires practice (Traylor, 2003). Hearing is merely noting that someone is talking. TB affects the whole life of the patients; therefore, they need someone to listen to their problems and respond accordingly with the purpose of encouraging them to adhere to TB treatment. When patients with TB are adhering to TB treatment, the country will be able to achieve the global targets easily and, moreover, the country will have a healthy nation.

Operationalisation

Nurses who are caring for the patients with tuberculosis (recipients) need to:

- Sit appropriately on one of the chairs that are arranged at an angle. It makes the patient feel comfortable to talk, since the patient and the nurse are not directly facing each other.
- Make sure that the patient has a comfortable chair to sit on while they are communicating.
- Resist external distractions; for example a cell phone ringing (make sure your cell phone is on silent during conversation), or another nurse / patient who is interrupting your conversation with the patient.

- Manage emotional concerns; for example when you disagree with a statement of the patient, refrain from sharing your knowledge before the patient has finished her/his thought.
- Avoid interruption when the patient is talking because it discourages the patient to continue talking. Allow the patient to continue talking until she/he has completed a statement. It makes her/him feel that her opinions or contributions are valued.
- Apologise and explain that you need clarification when you need to interrupt the conversation. Ask questions and paraphrase (restate by using different words, but do not change the meaning). It facilitates understanding and a feeling that the nurse is interested. Allow time for discussion after the patient has finished expressing her/his thoughts.
- Avoid shaking your head while the patient is talking. It indicates that you disagree with the patient's point of view, and it discourages the patient to continue talking. Instead, listen patiently until the patient finishes expressing his/her thoughts, even when you know that the point of view is inaccurate or it does not make sense.
- Refrain from looking at your watch, looking around the room, playing with pen/pencil, or writing your own notes. All these activities indicate that the nurse is not interested in what the patient is saying, or it tells the patient that the nurse does not have time.
- Refrain from engaging in a direct argument, for instance "You say TB is caused by witchcraft, prove it". Listen attentively and facilitate discussion until agreement reached.

- Avoid pretending to listen, rather “listen with your whole body and soul”. It requires you to use your eyes (eye contact), your ears (to hear), your mouth (to discuss), your face (show facial expression); your heart (have a feeling), and your brain (be mindful) to listen.
- Concentrate on what the patient is saying (content of talking), and listen for underlying ideas and feelings; do not only listen to the expression of facts.
- Maintain eye contact, because it encourages the patient to provide more information, since eye contact is interpreted as showing interest.
- Nodding of the head and any appropriate facial expressions reinforces active listening.
- Encourage conversation with opening statements like: “Tell me more...”

To listen attentively, always listen with your whole body and soul. Listening with your body while ignoring to listen with the soul, or listening with your soul while ignoring the body, can be compared to listening to a radio station without pulling out the antenna – just imagine!

GUIDELINE 04**OPEN-ENDED QUESTIONS**

“Concise questions lead to concise answers and concise answers mostly results in inadequate information” by Kamenye.

Rationale

The nurses who are caring for patients with tuberculosis need proper information from the patients in order to plan and treat them properly. The only effective technique to obtain adequate information is the asking of open-ended questions. Haaland and Molyneux (2006) refer to open-ended questions as the ones that start with who, how, what, when, where, and why. Open-ended questions are not only user-friendly but can also assist the nurse to obtain quality and desired information. Asking open-ended questions creates a feeling of trust for the patient because her/his opinions and ideas are valued, and the patient feels fully involved in her/his own treatment.

Furthermore, open-ended questions help the nurses to quickly identify patients with particular needs, for example patients with hearing problems. Nowadays, side effects of TB treatment, for instance loss of hearing, occur more frequently, especially in patients who are on anti DR-TB treatment (MoHSS, 2006). Closed-ended questions allow patients with particular problems to remain undetected by “hiding” behind the yes or no answers. Sometimes, close-ended questions in conjunction with probing questions are also useful in order to obtain required information.

Operationalisation

Nurses caring for the patients with tuberculosis (recipients) need to:

- Invite patients to speak their mind. Ask open-ended questions by asking patient questions that begin with how, what, when, where, who, why, and please tell me more... The answers to these open-ended questions will assist you as a nurse to obtain quality information and a patient will feel trusted, since her/his opinions/ideas are valued.
- Be cautious when starting a question with “why”. It may trigger a negative emotion, such as self-blame, since you are asking the patient to justify his/her action.
- Ask probing questions whenever possible to generate more in-depth or comprehensive information or to clarify certain issues.
- Use words that encourage the patient to cooperate (“What do you think...”). When possible, avoid asking questions that start with “whose “, “who among you know...”, especially to a group of patients, because it creates a feeling of inferiority among those patients who do not know how to answer the questions.
- Avoid asking leading/guiding questions. These questions compel a patient to provide an anticipated answer, rather than the true answer, for instance “You do take your medicine every day, don’t you?”, “You are sure that you will visit the clinic every day, right...?” Guiding/leading questions are literally

putting answers in a patient's mouth. It may very well lead to obtaining wrong information.

- Avoid asking many questions at once. Ask one question at a time.
- Refrain from answering more than one question from the patient at a time. It causes confusion and the patient will lose trust in the nurse. It also discourages patients from asking questions when they do not understand the cluster of answers. Provide answer to questions only when you know the answer. When you cannot provide a proper answer, call another person to assist you.

GUIDELINE 05**CONSTRUCTIVE FEEDBACK****Rationale**

Constructive feedback refers to the method of one person providing specific information to another person in order to help him / her to learn and it motivate her/him to take action (Haaland & Molyneux, 2006).

The main purpose of constructive feedback is to provide information that will improve, and create better results. It benefits the receiver because it provides encouragement, support, corrective measures, and proper direction (Wilhelm, 2006). Tuberculosis treatment lasts from 6 to 8 months, and taking the medicine for such a long time can be a challenge to many patients. As a result, the patients' behaviour might change like becoming uncooperative. Therefore; encouragement, motivation, and support are very crucial during the treatment process. Providing constructive feedback to the patients encourages and motivates them to adhere to their treatment until they are declared cured or completed. Moreover, it helps to boost a patient's confidence level. The nurses who are caring for the patients with tuberculosis are responsible for regularly providing constructive feedback to the patients about their behaviour in order to afford them an opportunity to amend their behaviour accordingly.

Operationalisation

Nurses who are caring for patients with tuberculosis (recipients) need to:

- Provide comments on positive behaviour first. By firstly pointing out what a patient is doing well before talking about the areas that need improvement, gives a patient confidence, makes the patient feeling very good, and puts him /her in a positive mood to listen to the nurse. Moreover, a patient becomes more amenable to receiving constructive criticism with an open mind and to acting on such criticism.
- Always provide constructive feedback to the patients. Ask the patient first whether he/she knows of any areas where she/he can improve, and when the patient answers affirmatively, ask how he/she intends improving in those areas. If the patient does not know how to change bad behaviour, request permission to suggest what the patient can do differently.
- Provide specific feedback while avoiding generalisation. Specific feedback gives the patient a clear indication of where the strengths and weaknesses are.
- Avoid providing blaming criticism. It implies that the patient is inferior to the nurse. It creates a feeling of despair, and subsequently causes the patient to become passive and remain passive, unwilling to improve or to change her/his behaviour.
- Avoid using the word “but” when providing positive constructive feedback. For example, “Mr Tom, I have noticed that you are taking your TB treatment regularly. It is very good, but you are not arriving on time”. The word *but*

will negate the effects of the positive statement and may destroy the positive message. It implies that the really point of the message is that Tom is not arriving on time. Unclear messages or mixed messages are confusing. Here is an appropriate example: “Tom, I have noticed that you are taking your TB treatment regularly, keep it up. I suggest that you arrive as early as possible for your treatment because... What about 8 o’clock am?”

- Allow the patient an opportunity to respond. If patient is not responding, then use an open-ended question, for instance “What do you think about...?”
- Be honest in terms of positive feedback (praise) and also in terms of negative feedback. Provide comments to the patients that are based on the observations (what you see) and not on inference (assumptions). It is necessary, since with observations the nurse can provide the patients with factual aspects rather than inferences. As a consequence, constructive feedback becomes meaningful.
- Provide feedback to the patient personally (face-to-face), since the nature of constructive feedback requires a verbal intervention.
- Communicate about the most recent events. Feedback that is provided immediately is more helpful due to the fact that the patient reflects on the feedback of a particular event more effectively. Therefore, the patient more likely will act on the relation between feedback and event. When constructive feedback is provided later on, it loses its value.
- Avoid overloading the patient with lots of feedback. It confuses the patient who feels at a lost where to start. Therefore, it is advisable to select one or

two important points that you want to discuss with the patient at any given time.

GUIDELINE 06**NON-VERBAL COMMUNICATION**

“People believe more in messages spoken by the body, rather than the ones spoken by the mouth” by Kamenye.



Figure 2: An example of expression of Non-verbal communication

Illustrator: Lene Ask

Rationale

According to the Business Dictionary (2011), non-verbal communication is the transmission of the message by a medium other than speech or writing. It is the single most powerful form of communication, more powerful than voice or even the written word. Furthermore, it is the primary way of communicating emotions. During communication, 70% of the intent of a message is conveyed non-verbally, while verbal messages represent 30% of our communication. Therefore, people need to be mindful of the fact that there needs to be an agreement between what they say (verbal communication) and how they say it (non-verbal communication).

It is very important to note that when verbal and non-verbal communication contradict each other, people are bound to preferentially trust the non-verbal communication, because it is viewed as being more authentic than verbal communication (Segal et al., 2010). Since non-verbal communication is more powerful than verbal utterances, nurses are obliged to always keep in mind that people believe more in messages spoken by the body, rather than the ones spoken by the mouth.

The nurses who are caring for the patients with tuberculosis are mainly responsible for effectively conveying the TB health information to the patients. It is important to be mindful of the way in which TB health information is provided to the patients. Ignoring the importance of conveying information coherently may result in non-

adherence of TB treatment. Surely, non-adherence of treatment prevents the region from reaching the global targets as required by the World Health Organisation.

Operationalisation

Nurses who are caring for the patients with tuberculosis (recipients) need to:

- Have a positive body posture when receiving a patient in the DOT room/TB room/TB ward. Smiling indicates that the patient is welcomed, and a welcoming reception creates a favourable and comfortable feeling for the patient.
- Position the nurse's chair at an angle close to the patient. It indicates that one is prepared to listen and that one respects the patient. In some cultures, for instance in Oshiwambo, talking to an older person while standing is an indication of disrespect.
- Maintain appropriate eye contact. It indicates that the nurse is interested in the discussion. Bear in mind that the culture of individual patient determines appropriate communication, for example in Oshiwambo culture, talking to an older person while looking her/him directly in the eyes is also an indication of disrespect.
- Mirror the patient according to the content of the discussion, for instance show a friendly face when the message of the patient is positive, and show an expression of empathy when the message is negative.

- Be mindful of the way in which you place your feet and hands. Fiddling with a cell phone or a pen indicates that the message of the patient is not that important.
- Relax, since it signifies self-confidence and it also indicates that the nurse is knowledgeable and sure about what she/he is saying.
- Speak calmly. Calmness is contagious; when the patient observes that the nurse is calm, it will affect the patient positively.

GUIDELINE 07**EMPATHY AND RESPECT****Rationale**

Empathy and respect are concepts that deal with the person's feelings and needs. According to Haaland and Molyneux (2006), empathy means trying to understand another person's ideas, opinions, needs, and/or feelings from their own point of views. Listening empathically can lead to a good relationship (Bookbinder, 2006). The Johns Hopkins University Graduate Affairs (2010-2011) adds that when someone is listening empathically, it means that he/she is demonstrating that he/she cares for the other person. The purpose of nurses are to care for the patients, therefore, they are allowed to show empathy to their patients, and when the patients' ideas, opinions, needs, and feelings are understood from their point of view, empathy could lead to a good relationship between the patients and the nurse. In turn, a good relationship results in TB treatment adherence.

Respecting someone means to take that person's feelings, needs and thoughts into consideration. (Fromm, n.d.). When patients' needs, feelings and thoughts are taken into consideration by the nurses, the patients become motivated to visit TB health facilities as required by the nurses. Moreover, respect is contagious which implies that when the patients realise that the nurses treat them respectfully, in turn they will reciprocate by respecting the nurses. It inevitably creates good cooperation between the patients and the nurses and it motivates the patients to complete their TB

treatment. Figure 6.4 displays how respect and empathy of a nurse who is caring for patients with tuberculosis can influence the health status of the whole nation.

Operationalisation

Nurses who are caring for the patients with tuberculosis (recipients) need to:

- Acknowledge that there is a person entering the TB room/DOT room/ward by showing positive facial expression, for example a smile. Cease the activities that you are busy with (if is not an emergency). It allows the patient to feel welcomed and respected.
- Provide a seat to the patient. It allows the patient to feel respected, and that her/his pain and suffering are taken acknowledged.
- Sit down with the patient. It allows him/her to feel respected, and it indicates that you are ready and willing to listen.
- Greet the patient by name (read from his/her treatment card) and start the conversation with an open-ended question like: “Mr John, good morning/afternoon, how can I help you?” It creates the impression of being valued and motivates the patient to talk.
- Give your undivided attention by focusing on the patient, and listen to what the patient is saying and how it is being said.
- Be mindful of whatever the patient is saying and view the situation of the perspective of the patient (stepping into the patient’s shoes) before provide the assistance that is required.

- During the conversation, refer to the patient by name or by title; for example Sir, Mr John, Ms, or Lettie. In the case of younger patients, it is advisable to call them by their first names. It creates the feeling of being important, respected, and valued.
- Maintain eye contact with the view of observing the non-verbal cues on the patient's face and body, and endeavour to understand the patient's feelings, needs, opinions, and views.
- Be amenable and non-judgmental. Refrain from expressing your negative reactions/judgments, criticism, and emotions.
- Relax and talk as frankly as possible.

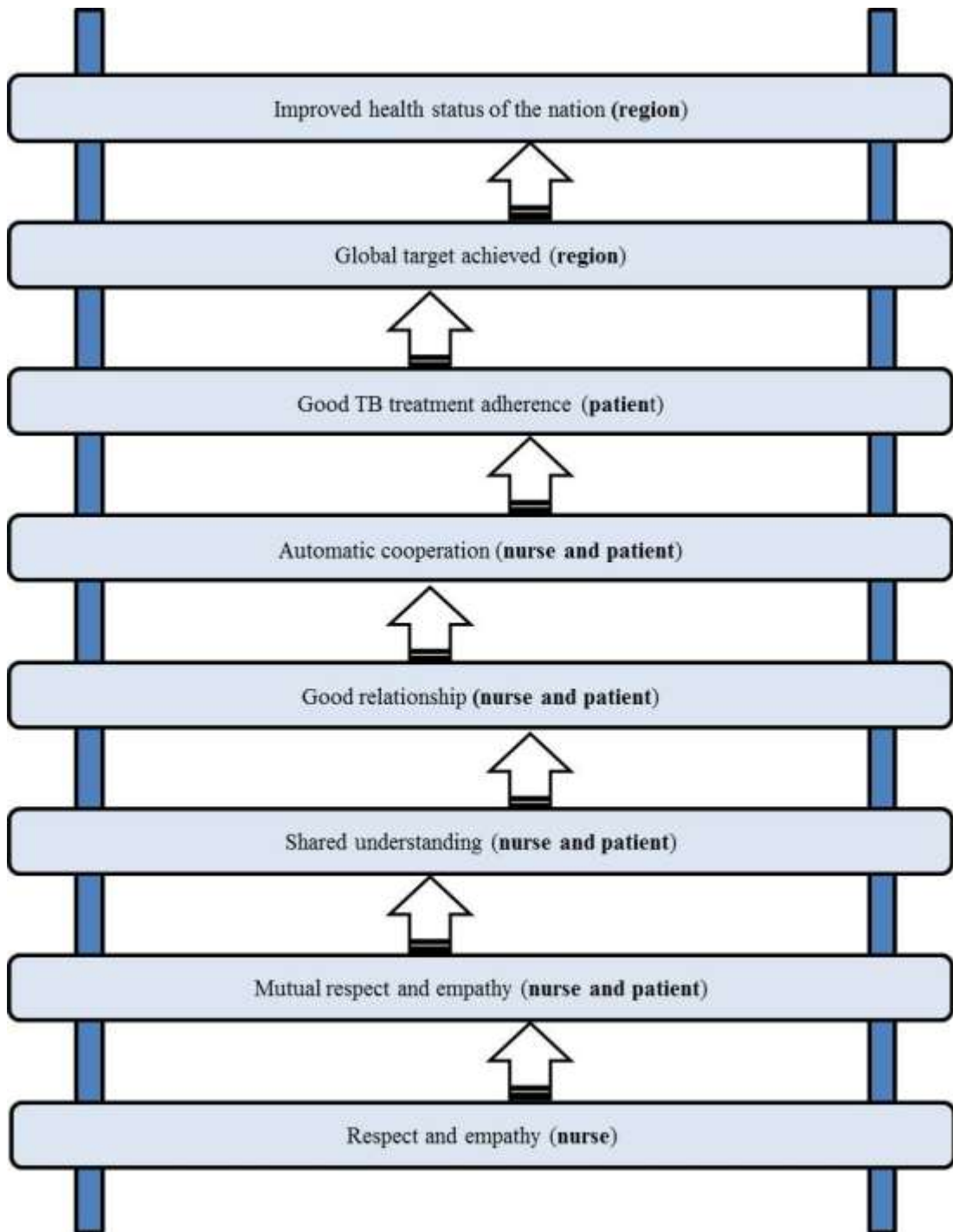


Figure 3: The ladder of respect and empathy of nurses (By Kamenye)

ANNEXURE O: EVALUATION RESULTS**SECTION A: BIOGRAPHICAL INFORMATION OF THE NURSE PARTICIPANTS**

This section covered the biographical information of the nurse participants (NPs); such as the participant's gender, age, qualifications, years of experience in nursing services, months of experience in TB department, and the health facilities where the interviews took place.

Gender of the nurse participants (n = 7): The data were collected from seven nurses. Of the seven nurse participants, 71.4% (n = 5) were women, and 28.6% (n = 2) were men.

Nurse participants' age (n = 7): All the nurse participants were below the age of 50 years old.

Nurse participants qualifications (n = 7): Of the seven nurse participants, 85.7% (n = 6) were enrolled nurses, and 14.3 % (n = 1) was a registered nurse.

Nurse participants years' of experience in nursing service (n = 7): Of the seven nurse participants, 28.6% (n = 2) had more than ten years' experiences in nursing science, while the majority of 71.4% (n = 5) had less than ten years' experiences in nursing science.

Nurse participants' months of experiences in Tuberculosis department (n = 7):

All nurse participants had experience in TB services for more than 3 months.

Health facilities (n = 7): All nurse participants were drawn from the following public health facilities in the Khomas Region: Katutura Health Centre, Khomasdal Clinic, Wanaheda Clinic, Hakahana Clinic, Okuryangava Clinic, Donkerhoek Clinic, and the Robert Mugabe Clinic (MoHSS, 2009 / 2010a; MoHSS, 2009 / 2010b). Furthermore, the evaluation was conducted in TB rooms at all the above mentioned health facilities.

SECTION B: BIOGRAPHICAL INFORMATION OF THE PATIENT PARTICIPANTS

Section B covered the biographical information of the patient participants such as: the patient's participant's gender; age; employment status; and educational level.

Patients participants gender (n = 7): Of the seven patient participants, 42.9% (n = 3) were males, while 57.1% (n = 4) were females.

Patient participants ages (n = 7): Of the seven patient participants 14.3% (n = 1) were between the ages of 15 to 24; 42, 9% (n = 3) were between the ages of 25 to 34; 42.9% (n = 3) were between the ages of 35 to 44. The age of all the patient participants ranges between 22 and 44 years old.

Employment status of the patient participants (n = 7): Of the seven patient participants, 57.1% (n = 4) were unemployed, 14.3% (n = 1) were formally employed, and 28.6% (n = 2) were informally employed.

Educational level of the patient participants (n = 7): Of the seven patient participants, 42.9% (n = 3) attended school till primary level, 42.9% (n = 3) attended school up to the secondary level, 14.3% (n = 3) attended school up to tertiary level. None had never attended schools in life.

SECTION C: COMMUNICATION OBSERVATION CHECKLIST RESULTS

In this section, the researcher analysed the data of the observations done while the nurses communicating with TB patients in the public health facility in the Khomas Region, three (3) months after they (nurses) got training on the guidelines on communication. In short, three months after they implemented the contents of the guidelines on their daily activities.

In order to prevent unnecessary repetition, results will be presented statistically in table forms which can be compared with previously results in Chapter 4, Section 4.7 C for better understanding. A brief discussion for that specific part will be made immediately after the table.

COMMUNICATION SKILLS

Creating a conducive environment (atmosphere) for communication (N = 7)

Table 1: Create a conducive environment (atmosphere) for communication

Items observed	Yes	No	N / A	Total
Arranging the room / area in a way that facilitates good communication; for example tidy room, tidy table	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (N = 7)
Arranging seats in an appropriate way, for example chairs are arranged at an angle	71.4% (n = 5)	28.6% (n = 2)	0% (n = 0)	100.0% (N = 7)
Windows are open	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (N = 7)
Welcoming the patient (verbally)	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (N = 7)
Offering a chair to the patient	85.7% (n = 6)	14.3% (n = 1)	0% (n = 0)	100% (N = 7)
Greeting the patient	71.4% (n = 5)	28.6% (n = 2)	0% (n = 0)	100.0% N = 7)
Introducing self to the patient	0% (n = 0)	100.0% (n = 7)	0% (n = 0)	100.0% (N = 7)

Items observed	Yes	No	N / A	Total
Showing appropriate body language when talking to the patient. Does the nurse sit or stand appropriately during conversation?	100.0% (n = 100)	0% (n = 0)	0% (n = 0)	100.0% (N = 7)
Ensuring privacy, i.e. no other people is present in the room. It encourages a patient to be more open and to communicate more freely.	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (N = 7)
Ensuring a quiet environment; for example no noise like a radio, to and fro movement of the people, or no cell phone ringing. It encourages a person to concentrate on the discussion.	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (N = 0)
All obstacles between the nurse and the patient during conversation are removed; for example a computer, bundle of books, or any other person, Such obstacles are communication barriers that prevent good communication.	85.7% (n = 6)	14.3% (n = 1)	0% (n = 0)	100.0% (N = 7)
Negotiating with the patient which language to use during conversation (especially new cases) to prevent misunderstanding.	0% (n = 0)	100.0% (n = 7)	0% (n = 0)	100.0% (N = 7)

The researcher observed an improvement in communication skills of the nurses with regard to creating a conducive environment (atmosphere) for communication.

Assess and understand the patients' mood and level of understanding of TB situation (N = 7)

Table 2: Assessing and understanding the patients' mood and level of understanding of the TB situation

Items observed	Yes	No	N / A	Total
Assessing the patient's mood before information are provided, and taking care of feelings first (ice breaker).	85.7% (n = 6)	14.3% (n = 1)	0% (n = 0)	100.0% (N = 7)
Asking about the patient's existing knowledge of tuberculosis disease before additional information gets provided; for example what causes tuberculosis, or how tuberculosis spread.	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (N = 0)
Exploring the patient's beliefs about the disease before appropriate information is provided; for example beliefs like TB is caused by dust, alcohol, smoking, TB is hereditary, and TB can be cured.	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (N = 7)
Exploring the patient's practices about the disease before correct information is provided; for example not eating some foodstuffs like eggs when taking TB treatment, and making use of traditional treatment.	85.7% (n = 6)	14.3% (n = 1)	0% (n = 0)	100.0% (N = 7)

The results of this part indicated a significant improvement in communication skills of the nurses, because before training in the communication guidelines, no item scored more than 6.7%; after training the item that scored lowest was 85.7% while the highest score of a 100.0% was recorded (Chapter 4, Table 4.6, and page 142).

GIVING TB HEALTH INFORMATION

Basic medical information about tuberculosis (N = 7)

Table 3: Basic medical information about tuberculosis

Items observed	Yes	No	N / A	Total
Meaning of tuberculosis.	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (N = 7)
Diagnosis of the patient.	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (N = 7)
Cause of tuberculosis.	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (N = 7)
Contributing factors to tuberculosis.	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (N = 0)
Prevention of tuberculosis.	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (N = 7)

Items observed	Yes	No	N / A	Total
Treatment of tuberculosis.	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	0% (N = 7)
Importance of knowing HIV status.	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (N = 7)
Dangers of non- compliance to tuberculosis treatment.	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (N = 7)

Furthermore, this part also indicated significant improvement. When compared with information provided before training, all the nurses focused 100.0% on all items in relation to basic medical information. Before training, this part was of great concern (Chapter 4, Table 4.7, page 144). It provided evidence that the nurses had acquired effective communication skills how to provide basic medical information about TB.

Lifestyle information regarding tuberculosis (N = 7)

Table 4: Lifestyle information in relation to tuberculosis

Items observed	Yes	No	N / A	Total
Dangers of consuming alcohol while on tuberculosis treatment.	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (N = 7)
Smoking and TB.	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (N = 7)

Items observed	Yes	No	N / A	Total
Types of food to be taken during treatment.	85.7% (n = 6)	14.3% (n = 1)	0% (n = 0)	100.0% (N = 7)
Family planning (if applicable).	14.3% (n = 1)	28.5% (n = 2)	57.1% (n = 4)	100.0% (N = 7)

Before training, the highest score recorded for any item was 60%, but after training in communication guidelines, two items scored 100.0%. The item about the types of food to be taken during treatment had scored 0% before training, but after training it scored 85.7%. The family planning item showed a marginal improvement when compared with the previous results (Chapter 4, Table 4.8, page 146). These results also demonstrated that communication skills of the nurses of providing lifestyle information to TB patients had improved.

Social information in relation to tuberculosis

Table 5: Social information in relation to tuberculosis

Items observed	Yes	No	N / A	Total
Advantages of joining the Penduka TB organisation for craft work and support.	85.7% (n = 6)	14.3% (n = 0)	0% (n = 0)	100.0% (N = 7)
Identification of support person.	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (N = 7)

Items observed	Yes	No	N / A	Total
When to assume duty (applicable to workers).	57.1% (n = 4)	0% (n = 0)	42.9% (n = 3)	100.0% N = 7
Socialising with the family members (not to isolate oneself).	85.7% (n = 6)	14.3% (n = 1)	0% (n = 0)	100.0% (N = 7)
Taking responsibility when patient does not understand; for example by giving the correct answer to the patient in a simple way, not to give homework to the patient, or to be non-confrontational.	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (N = 7)
Summarising of the main information by emphasising the key issues. It is important to ensure that the information is appropriately understood by the patient; for example restate the diagnosis, duration of treatment, and advantages of compliance by communicating in a simple way.	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (N = 7)

Moreover, the researcher observed significant improvement in communication skills of the nurses, since the highest score for any item had been only 63.3% before training. However, after training three items scored 100.0%. Before training none of the participants had summarised the main information to the patients, but after

training all the nurse participants (100.0%) did summarise the information (Chapter 4, Table 4.9, page 147).

Interacting with patients to influence motivation and ability to follow advice (N = 7)

Table 6: Interacting with patients to influence motivation and ability to follow advice

Items observed	Yes	No	N / A	Total
Encouraging dialogue since sharing information and knowledge enhances understanding and addresses the need of other people.	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (N = 7)
Positive talks during conversation; for example any agreement, laughter, or word of encouragement like “that’s good”, “thanks”.	85.7% (n = 6)	14.3% (n = 1)	0% (n = 0)	100.0% (N = 7)
Being self-confident and trusting your own words; for example avoid using words like “I think...”, or “Let me try...”	85.7% (n = 6)	14.3% (n = 1)	0% (n = 0)	100.0% (N = 7)
Confirming date and time of a return visit by requesting the patient to repeat the information. It helps the patient to remember the next appointment date easily.	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (N = 7)
Motivating the patient to complete the	100.0%	0%	0%	100.0%

Items observed	Yes	No	N / A	Total
tuberculosis treatment.	(n = 7)	(n = 3)	(n = 0)	N = 7)

The researcher also observed an improvement to the items in Table 6, since the lowest score for any item was 85.7% after training, while before training in communication the lowest score for any item had been a mere 36.7% (Chapter 4, Table 4.10, page 150).

Listening skills (N = 7)

Table 7: Listening skills

Items observed	Yes	No	N / A	Total
Listening attentively by using non-verbal movement; for example nodding of the head, or keeping eye contact to show interest and concern.	100.0 % (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (N = 7)
Listening until the patient has finished expressing his/her thoughts. Do not complete the patient's sentence or mention that you know that already. The patient needs to feel that her/his inputs are valued.	57.1% (n = 4)	42.9% (n = 2)	0% (n = 0)	100.0% (N = 7)
Doing nothing else except listening – encourage the patient to talk.	71.4% (n = 5)	28.5% (n = 2)	0% (n = 0)	100.0% (N = 7)

None of these items in Table 7 had scored 100.0% before training. However, after training one item scored 100.0% while the lowest score for any was 57.1% (Chapter 4, Table 4.11, page 152). This part also showed significant improvement in the communication skills of the nurses with regard to listening skills.

Questioning skills (N = 7)

Table 8: Questioning skills

Items observed	Yes	No	N / A	Total
Asking descriptive questions - it provides information that assists to define strengths, issues, and concerns.	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (N = 7)
Using close-ended questions appropriately - it assists patient to reinforce information that he/she might forget.	85.7% (n = 6)	14.3% (n = 1)	0% (n = 0)	100.0% (N = 7)
Asking the patient's opinions. By acknowledging and adding to the patient's opinions the patient knows that his/her ideas and inputs are valued.	85.7% (n = 6)	14.3% (n = 1)	0% (n = 0)	100.0% (N = 7)

Items observed	Yes	No	N / A	Total
Asking questions to find reasons for patients' behaviour ; for example a patient who is always arriving late at the health facility, a patient who is interrupting medicine more often, or a patient who is not interested in discussion.	57.1% (n = 4)	42.9% (n = 3)	0% (n = 0)	100.0% (N = 7)

The lowest score recorded for any of items before training in communication guidelines had been 13.3%, but after training the lowest score was 57.1% (Chapter 4, Table 4.12, page 154). This part also indicated an improvement in the questioning skills of nurses.

Verbal and non-verbal communication (N = 7)

Table 9: Verbal and non-verbal communication

Items observed	Yes	No	N / A	Total
Using short, simple, and clear sentences. It motivates the patient to follow and is understandable.	85.7% (n = 6)	14.3% (n = 1)	0% (n = 0)	100.0% (N = 7)
Using appropriate non-verbal communication to welcome the patient; for example smile, or touch patient on	85.7% (n = 6)	14.3% (n = 1)	0% (n = 0)	100.0% (N = 7)

Items observed	Yes	No	N / A	Total
shoulder or arm.				
Being approachable and friendly.	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (N = 7)
Speaking loudly enough for patient to hear. It prevents misunderstanding.	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (n = 7)

Before training in communication guidelines, the lowest score for any item of this part had been 20.0%. A significant improvement was observed after training, since the score of the lowest item was 85.7% (Chapter 4, Table 4.13, page 155).

Constructive feedback skills (N = 7)**Table 10: Constructive feedback skills**

Items observed	Yes	No	N / A	Total
Complementing the patient for what he / she has done well; for example thank the patient for arriving early that day, or thank the patient for promising to complete her/his treatment. It prompts the patient to realise that what he/she is doing well is noticed, and will motivate the patient to listen and to improve.	85.7% (n = 6)	14.3% (n = 1)	0% (n = 0)	100.0% (N = 7)
Giving specific constructive feedback to the patient. Generalize feedback confuses the patient because he/she will end up not knowing where to improve. for example all TB patients are difficult to care for. It assists the patient to improve.	57.1% (n = 4)	42.9% (n = 3)	0% (n = 0)	100.0% (N = 7)

The researcher observed a significant improvement, since all items had scored only 13.3% each before training, but after training the lowest item scored 57.1%, while the highest scored 85.7% (Chapter 4, Table 4.14, page 158). The results of the items in this part also indicated an improvement in the communication skills of the nurses.

Respect and empathy

Table 11: Respect and empathy

Items observed	Yes	No	N / A	Total
Showing empathy by understanding the effect of disease on the patient, i.e. understanding pain and suffering of the patient.	100.0% (n = 7)	0% (n = 15)	0% (n = 0)	100.0% (N = 7)
Showing respect and while still providing the correct facts, i.e. respect the patient, but a fact remains the fact.	100.0% (n = 7)	0% (n = 0)	0% (n = 0)	100.0% (N = 7)

Before training in the communication guidelines, all items of this part had scored 50.0% respectively, but after training all items scored 100.0% each (Chapter 4, Table 4.15, page 159). It also indicated an improvement in the communication skills of the nurses in relation to respect and empathy.

SECTION D & E: INTERVIEW RESULTS (OPEN-ENDED QUESTIONS)

Sections D & E aimed at getting detailed information about why some of the activities were done as according to the ways that are presented in Section C.

SECTION D: KNOWLEDGE AND OPINIONS OF THE NURSE PARTICIPANTS ABOUT COMMUNICATION AND TB

Description of the conversation (personal opinion) (N = 7): The nurse participants were asked to describe how they had experienced their conversations with the patients. All the nurse participants (n = 7) expressed that their conversations were outstanding, while 6.6% described that their conversations with the patients were unsatisfactory before the training (Chapter 4, Section 4.8.1.1).

Explanation of the description of the conversation (N = 7): The nurse participants were asked a follow-up question to clarify what compelled them to think (say) that their conversations with patients were outstanding. All the nurse participants mentioned that their conversations with the patient participants was good because they had understood one another and all of them emphasised that when they had asked the patients questions, they all answered satisfactorily.

Checking for understanding of information (N = 7): The nurse participants were asked whether they knew that the information they had provided to the patients was well understood. All nurse participants answered that they knew that the patients understood the information, because when they (nurses) asked the patients questions, mainly to check whether they were following, they (patients) provided appropriate answers. Before training, lots of inappropriate answers were provided to the items of this part (Chapter 4, Section 4.8.1.3).

Source of TB information (N = 7): The nurse participants were asked about the source of TB information that they had provided to the TB patients. All nurse participants replied that the source of information was the TB guidelines and 26.6% (n = 2) added that apart from TB guidelines they also obtained information from the TB leaflets. It indicated a significant improvement in comparison with the answers that had been provided before training (Chapter 4, Table 4.16, page 163).

Nurses' suggestions with regard to their communication skills (N = 7): The nurse participants were asked to suggest what should be done to assist the nurses to communicate TB health information more effectively. All the nurse participants suggested that nurses need training in communication and 28.6 % (n = 2) added that training in TB guidelines was also necessary.

**SECTION E: KNOWLEDGE, PERCEPTIONS, AND OPINIONS OF
PATIENT PARTICIPANTS ABOUT TB AND
COMMUNICATION**

Description of the conversation (personal opinion) (N = 7): The patient participants were asked to describe how they had experienced their conversations with the nurses. All the patient participants reported that their conversations were good, while 6.6% described their communication with the nurses as unsatisfactory before training (Chapter 4, Sections 4.8.2.1 and 4.8.2.2).

Explanation of the description of the conversation (N = 7): All the patient participants 100.0% (n = 7) were asked a follow-up question to clarify what made them think that their conversation with nurses had been good. All the patients replied that their conversation was good because they understood one another. They also added that the nurse:

- explained everything well (57.1%; n = 4);
- talked very clearly (14.3%; n = 1); and
- was very friendly (28.6%; n = 2).

Basic points (facts) about tuberculosis (N = 7): The patient participants were asked to mention all the main TB facts they remembered as a result of their conversations with the nurses.

The majority of the patient participants 57.1% (n = 7) remembered seven points facts, while 28.6% (n = 2) of the nurse participants remembered 6 facts, and 14.3% (n = 1) remembered 8 facts. The patients had remembered all of the following facts correctly:

- Tuberculosis is caused by bacteria / germs in the air (57.1%; n = 4);
- Take tablets every day (57.1%; n = 4);
- Eat healthy food (71.4%; n = 5);
- If you know that someone is coughing for more than two weeks, tell him / her to visit the nearest health facility (28.6%; n = 2);

- Get your weight taken every week (28.5; n = 2);
- If you feel ill, go to the clinic (28.5%; n = 2),
- Cover your mouth when you cough (100.0%; n = 7);
- TB is curable 57.1%; (n = 4);
- TB is preventable (14.3%; n = 1);
- Finish taking your tablets 85.7%; (n = 6);
- Know your HIV status (57.1%; n = 4);
- Do not spit around, rather spit into a container or a tissue (14.3%; n = 1);
- Join the Penduka TB organisation (14.3%; n = 1);
- Alcohol and smoking are weakening the lungs and as a result one gets TB easily (28.5%; n = 2);
- There is no need to use own utensils (14.3%; n = 1); and
- I have TB of the brain (14, 3%; n = 1).

Before training (after conversation between the nurse and the patients), patients had remembered very few TB facts, i.e. between two and four facts only (Chapter 4, Section 4.8.2.3).

Types of tuberculosis (N = 7): The patient participants were asked about the type of tuberculosis (their own diagnosis) they had and they all provided the correct answers:

- TB of the lungs (42.9%; n = 3);
- TB of the stomach 14.3%; n = 1);
- MDR TB (14.3%; n = 1);

- TB of the brain (14.3% (n = 1); and
- TB outside the lung, surrounding the lungs (14.3%; n = 1).

Before training, 43.3% had replied that they did not know the type of TB they had, while some provided incorrect answers (Chapter 4, Section 4.8.2.4).

Causes of Tuberculosis (N = 7): The patient participants were asked what the cause of tuberculosis was.

All patient participants 100.0% (n = 7) knew the causes of TB. The majority of the patient participants 71.4% (n = 5) used lay language to explain that TB was caused by germs, 28.6% (n = 2) mentioned that TB was caused by bacteria in the air, while only 13.3% knew that TB was caused by bacteria before training (Chapter 4, Section 4.8.2.5).

Patient suggestions: The patient participants were asked to suggest what should be done in order for them to acquire adequate knowledge about TB. Almost all patient participants 85.7% (n = 6) indicated that they knew lots of facts about TB, and 42.8% (n = 3) added that they would ask when they might experience problems. Only 14.3% (n = 1) suggested that it would be a good idea if the nurses were providing them with some printed TB information so that they could go and read more at home.

Before training, the majority of the patient participants 70.0% suggested that the nurses should tell them everything about TB, and should not wait until the patients asked for information (Chapter 4, Section 4.8.2.6).

**ANNEXURE P: ACKNOWLEDGEMENT LETTER
FORM THE DIRECTOR**

MEMORANDUM		
MINISTRY OF HEALTH AND SOCIAL SERVICES		
KHOMAS REGIONAL OFFICE		
Private Bag 13322 Windhoek Namibia	Director's Office Khomas Region Florence Nightingale Street	Tel: (061) 2035024/08 Fax: (061) 256997 International: (264 61 2035997)
Eng: Dr FS Zam		3 rd December 2012

OFFICE OF THE REGIONAL DIRECTOR

**TO: MS EN KAMENYE
WINDHOEK DISTRICT OFFICE**

**FROM: MS EK MUREMI
REGIONAL DIRECTOR
KHOMAS REGION**

DATE: 3RD DECEMBER 2012

RE: ACKNOWLEDGEMENT OF RECEIPT OF PROPOSED "GUIDELINES TO ENHANCE COMMUNICATION SKILLS OF NURSES WHO ARE CARING FOR PATIENTS WITH TUBERCULOSIS IN PUBLIC HEALTH FACILITIES IN KHOMAS REGION OF NAMIBIA"

MINISTRY OF HEALTH AND SOCIAL SERVICES OFFICE OF THE DIRECTOR
2012 -12- 0 5
P/BAG 13322, WINDHOEK DIRECTORATE KHOMAS REGION

Dear Ms Kamenye

Our Office acknowledges with thanks and pride receipt of the document with the above underlined title.

We appreciate your continued interest and devotion to improving the wellbeing of TB patients in this region.

We have gone through the document with interest and enthusiasm and we have submitted it with our recommendations to the Directorate of Policy Planning and Human Resource Development for their perusal and consideration. We urge you to continue doing the good work.

Thank you,

ANNEXURE Q: LETTER FROM EDITOR



"The stars that tell the spade when to dig and the seeds when to grow"
"tsimeja - tsimeja tsimeja tsimeja tsimeja tsimeja tsimeja tsimeja tsimeja tsimeja tsimeja"

P O Box 65251
Erasmusrand
0165

20 March 2013

Dear Ms Kamenye

CONFIRMATION OF EDITING YOUR DISSERTATION WITH THE TITLE GUIDELINES TO ENHANCE COMMUNICATION SKILLS OF NURSES CARING FOR PATIENTS WITH TUBERCULOSIS AT PUBLIC HEALTH FACILITIES IN THE KHOMAS REGION OF NAMIBIA

I hereby confirm that I have edited the abovementioned dissertation as requested.

Please pay particular attention to the editing notes AH01 to AH85 for your revision.

The tracks copy of the document contains all the changes I have effected while the edited copy is a clean copy with the changes removed. Kindly make any further changes to the edited copy since I have effected minor editing changes after removing the changes from the tracks copy. The tracks copy should only be used for reference purposes.

Please note that it remains your responsibility to supply references according to the convention that is used at your institution of learning.

You are more than welcome to send me the document again to perform final editing should it be necessary.

Kind regards

A handwritten signature in black ink, appearing to read 'Andre Hills', is written over a horizontal line.

Andre Hills
083 501 4124