

**THE ADAPTATION OF THE MODEL OF OCCUPATIONAL SELF-EFFICACY FOR
RETURNING INDIVIDUALS LIVING WITH TUBERCULOSIS TO WORK**

**A THESIS SUBMITTED IN FULFILMENT OF THE REQUIREMENT OF THE DEGREE
MAGISTER SCIENTIAE (OCCUPATIONAL THERAPY)**



**Department of Occupational Therapy
University of the Western Cape**

**UNIVERSITY of the
WESTERN CAPE**

AYESHA JAINODIEN

Student number: 2858896

Supervisor: Prof. Shaheed Soeker

Co supervisor: Prof. Mario Smith


DECLARATION

I, **Ayesha Jainodien**, hereby declare that the work on which this thesis: *The adaptation of the Model of Occupational self-efficacy for returning individuals living with Tuberculosis to work*, is my own original work (except where acknowledgements indicate otherwise), and that neither the whole work nor any part of it has been, or is to be submitted for another degree in this or any other university.

All sources that I have used or quoted have been indicated and acknowledged by means of complete references.

Ayesha Jainodien

Date: 05/12/2018

Signature: 



UNIVERSITY *of the*
WESTERN CAPE

TABLE OF CONTENTS

DECLARATION.....	i
TABLE OF CONTENTS.....	ii
ACKNOWLEDGEMENTS.....	x
DEFINITION OF TERMS.....	xi
LIST OF	
ABBREVIATIONS.....	xiii
ABSTRACT.....	Er
ror! Bookmark not defined.	xiv
KEYWORDS.....	xv
CHAPTER ONE: BRIEF OVERVIEW OF THE STUDY	1
1 Background.....	1
1.1 Introduction.....	2
1.2 Rationale.....	3
1.3 Aim of the study	4
1.4 Research question.....	4
1.5 Overview of the subsequent chapters.....	4
CHAPTER TWO: LITERATURE REVIEW	6
2 Introduction.....	6
2.1 Epidemiology of Tuberculosis.....	6
2.1.1 Incidence of PTB and MDR-TB.....	6
2.1.2 PTB and MDR- TB.....	8

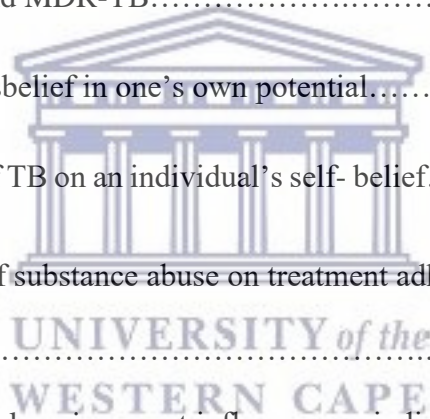
2.1.3 Mortality and burden of disease as it related to PTB and MDR-TB.....	8
2.1.4 Risk Factors for PTB and MDR-TB.....	9
2.2 Diagnostic identification of PTB and MDR-TB.....	10
2.3 Outcomes of having a PTB and MDR-TB.....	11
2.4 How does TB affect work as an occupation.....	11
2.5 Barriers and Facilitators affecting the RTW.....	12
2.6 Legislation and its relation to employment.....	13
2.6.1 Employment Equity Act.....	13
2.6.2 Skills Development Act.....	14
2.6.3 The Disability Rights Charter of South African	14
2.6.3.1 Social Grants relating to Persons with Disabilities.....	15
2.6.3.2 Employment of Persons with Disabilities.....	15
2.6.3.3 Disability and Income.....	16
2.6.4 The United Nations Convention on Disability.....	16
2.7 Strategic plans to decrease TB in South Africa.....	17
2.8 Models and Rehabilitation Approaches.....	18
2.8.1 Health Belief Model.....	18
2.8.2 The Theory of Planned Behaviour.....	20
2.8.3 The Self-Regulation Model of Illness.....	21



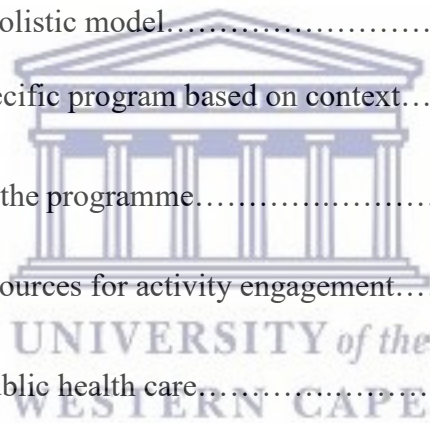
2.8.4 Work hardening programme.....	22
2.8.5 Supported employment.....	23
2.8.6 The Model of Occupational Self- Efficacy.....	24
CHAPTER THREE: METHODOLOGY AND RESEARCH DESIGN.....	30
3 Introduction.....	30
3.1. Research problem	30
3.2. Aim of the study	31
3.3 Objectives of the study.....	31
3.4 Research Approach.....	31
3.4.1 Exploratory research.....	31
3.4.2 Population and Sampling.....	32
3.4.3 Description of study participants.....	33
3.4.3.1 Rehabilitation experts.....	34
3.4.3.2 Participants- Tuberculosis survivors.....	35
3.5 Data Collection: Interviews.....	36
3.6 Data management and analysis.....	37
3.7 Trustworthiness.....	38
3.7.1 Truth value.....	39
3.7.1.1 Member checking.....	39
3.7.1.2 Interview techniques.....	39



3.7.1.3 Peer debriefing.....	40
3.7.2 Applicability.....	40
3.7.3 Consistency.....	40
3.7.4 Confirmability.....	40
3.8 Ethics statement.....	41
CHAPTER FOUR: FINDINGS.....	42
4. Presentation of findings.....	42
SECTION 1: Themes emerging from participants’ experience and perception of individuals living with PTB and MDR-TB.....	43
4.1 Theme One: A sense of disbelief in one’s own potential.....	43
4.1.1 The negative influence of TB on an individual’s self- belief.....	44
4.1.2 The negative influence of substance abuse on treatment adherence and an individual’s self- belief.....	47
4.2 Theme Two: The contextual environment influences an individual’s worker role.....	50
4.2.1 Poor socio economic conditions influence the worker role.	51
4.2.2 Work opportunities in the community influences the worker role.....	53
4.3 Theme Three: The future of OT services in TB rehabilitation.....	56
4.3.1 Developing OT services that aid in work place reintegration.....	57
4.3.2 Rehabilitation services in primary health care.....	60



4.4	Theme Four: Engagement in activities alleviates feelings of despondency.....	62
4.4.1	Participation in activities regulates negative emotions related to returning to the worker role.....	63
4.4.2	Engagement with others, facilitates socialisation.....	66
4.5	Summary.....	67
SECTION 2: Adaptation of the MOOSE.....		70
4.6	The Adaptation process.....	70
SECTION 3: Rehabilitation specialists' view of the adapted MOOSE.....		82
4.7	Theme five: Promoting a holistic model.....	82
4.7.1	Developing a client specific program based on context.....	83
4.7.2	Therapist engagement in the programme.....	86
4.8	Theme Six: The use of resources for activity engagement.....	87
4.8.1	Resources and staff in public health care.....	88
4.8.2	Lack of vocational rehabilitation assessment tools.....	90
CHAPTER FIVE: DISCUSSION.....		92
5.	Introduction.....	92
5.1	Objective One: Barriers to return to work.....	93
5.1.1	A sense of disbelief in one's own potential.....	93
5.1.1.1	The negative influence of TB on an individual's self- belief.....	94
5.1.1.2	The negative influence of substance abuse on treatment adherence and an individual's self- belief.....	95



5.1.2	The contextual environment influences an individual’s worker role.....	97
5.1.2.1	Poor socio economic conditions influence the worker role.....	97
5.1.2.2	Work opportunities in the community influences the worker role.....	98
5.1.3	The use of resources for activity engagement.....	99
5.1.3.1	Lack of resources and staff in public health care.....	99
5.1.3.2	Lack of vocational rehabilitation assessment tools.....	100
5.2	Objective Two: Facilitators of return to work.....	101
5.2.1	Theme 3: Future of OT services in TB rehabilitation.....	101
5.2.1.1	Developing OT services that aid in work place reintegration.....	101
5.2.1.2	Rehabilitation services in primary health care.....	102
5.2.2	Adaptation strategies: Engagement in activities alleviates feelings of despondency.....	104
5.2.2.1	Participation in activities regulates negative emotions related to returning to the worker role.....	105
5.2.2.2	Engagement with others facilitates socialisation.....	105
5.3	Objective Three: The stakeholder’s perceptions of the adapted MOOSE.....	107
5.3.1	Theme 5: Promoting a holistic model.....	107
5.3.1.1	Developing a client specific program based on context.....	108
5.3.1.2	Therapist engagement in the program.....	110



CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS.....	112
6. Introduction.....	112
6.1 Conclusion.....	112
6.2 Limitations of the study.....	114
6.3 Recommendations.....	115
6.3.1 Recommendations for occupational therapy practice.....	116
6.3.2 Recommendations for multidisciplinary intervention strategies.....	116
6.3.3 Department of Health.....	117
6.3.4 Health promotion.....	118
6.3.5 Recommendation for future occupational therapy research.....	119
6.3.6 Recommendations for the Model of Occupational Self Efficacy.....	119
REFERENCES.....	121
APPENDICES.....	131
APPENDIX A.....	131
APPENDIX B.....	134
APPENDIX C.....	136
APPENDIX D.....	137



LIST OF TABLES

Table 1: Describing the original model of occupational self-efficacy	26
Table 2: Demographic details of key informants.....	34
Table 3: Demographic details of patient group.....	36
Table 4: Theme One and related categories.....	43
Table 5: Theme Two and related categories.....	50
Table 6: Theme Three and related categories.....	56
Table 7: Theme Four and related categories.....	62
Table 8: Adapted model of occupational self-efficacy -Stage 1	72
Table 9: Core adaptations of stage 1.....	74
Table 10: Adapted model of occupational self-efficacy- Stage 2.....	75
Table 11: Core adaptations of stage 2.....	76
Table 12: Adapted model of occupational self-efficacy- Stage 3.....	77
Table 13: Core adaptations of stage 3.....	78
Table 14: Adapted model of occupational self-efficacy-Stage 4.....	79
Table 15: Core adaptations of stage 4.....	81
Table 16: Holistic features of the Adapted MOOSE.....	84
Table 17: Theme six and its related categories.....	88

LIST OF FIGURES

Figure1: Diagrammatic representation of the relationship of themes one to four and its categories.....	68
--	----

ACKNOWLEDGEMENTS

First, and foremost I would like to thank God for this opportunity, for having blessed me with good health and strength, and the capacity to have completed this study. Without His guidance, mercy and love, the completion of this study would have been impossible.

Secondly I would also like to acknowledge and thank Prof. Shaheed Soeker and Prof. Mario Smith of the University of the Western Cape for their guidance and support through the completion of this thesis. I appreciate their commitment in supervising this study, as well as their feedback which made the completion of the work possible.

This study would not have been possible without the willingness and kindness of the participants in sharing their experiences. Especially the rehabilitation team who assisted me in more ways than one.

To my dear husband, Zain thank you for all your patience, support and motivational words throughout this study. Thank you for believing in me, I appreciate all the sacrifices you made to assist me while I was working through this study.

To all four of my parents, thank you for providing me with the foundational skills I have today, I will forever be indebted to you for all your support, patience, understanding and prayers.

To my siblings and friends, thank you for always rooting for me, and showing interest in my studies, I appreciate your concern and support throughout.

DEFINITION OF TERMS

Return to work: For this study, this term refers to the period of participation in vocational tasks after the client has completed or experienced interventions such as surgical treatment, physiotherapy, occupational therapy and speech therapy.

Disability: The negative aspect of interactions that exists between an individual who has a health condition and the individual's contextual factors which includes environmental and personal factors (World Health Organization [WHO], 2001).

Experience: The knowledge or skill gained over a period of time (Waite & Hawker, 2009). It is also defined as the direct involvement in an activity over a period of time (Crepeau et al., 2009).

Rehabilitation: In the context of this study, rehabilitation is defined as undergoing physiotherapy, occupational therapy and speech therapy (either one intervention or a combination thereof).

Adaptation: In the context of the study, adaptation is defined as the internal and external process through which the stroke survivor responds to the need for change by combining new occupational skills and behaviours into daily occupational performance (Moyers, 2005).

Barriers: Barriers are described as more than just a physical obstacle. It is described as components in a person's environment that through its presence or absence, may hinder one's ability to function optimally within the environment (World Health Organization, 2017).

Facilitators: Facilitation is described as being a component that stimulates, promotes or enhances the surrounding environment with the aim of improving it (World Health Organization, 2017).

Perception: The interpretation given to a sensory input or stimulus by the brain. It is also defined as the mental process involving the recognition and meaningful interpretation of sensory information (Crepeau, Cohn, & Schell, 2009).



LIST OF ABBREVIATIONS

CWH: Cognitive work hardening

HIV: Human immuno deficiency

MDR- TB: Multi- drug resistant tuberculosis

MOOSE: Model of occupational self-efficacy

OT: Occupational Therapy

PTB: Pulmonary Tuberculosis

RTW: Return to Work

SRMI: The Self-Regulation Model of Illness

TBI: Traumatic brain injury

UN: United Nations

UWC: University of the Western Cape

WHO: World Health Organisation



ABSTRACT: Tuberculosis (TB) and multi-drug resistant (MDR) TB have been identified as one of the largest health problems in the world, and notably recognized as a big issue in democratic South Africa. Socio-demographic factors such as poverty and unemployment were identified to be major contributing factors to the epidemic. Individuals with TB reportedly have poor levels of occupational self-efficacy and found it challenging to return to work after prolonged hospitalization. The Model of Occupational Self-Efficacy (MOOSE) has been used effectively to assist individuals with traumatic Brain Injury (TBI) to return to work. Adaptation of the MOOSE was recommended for application with other syndromes associated with long hospitalization and absence from work. The aim of the study was to adapt the MOOSE for clients living with tuberculosis and to aid them in returning to work. The study was conducted through exploratory research. Semi-structured interviews were conducted with ten purposively selected key informants from private and public health facilities in the Western Cape. The data was analysed through thematic analysis from which six themes emerged. Themes One, Two and Six describe the barriers experienced by the participants when returning to work following their diagnosis of PTB or MDR-TB. Theme Three, Four and Five discussed the factors that facilitate the resumption of the worker role for the PTB and MDR-TB survivors. The findings of this study were used to inform the adaptation of the MOOSE for use with patients living with TB. Ethics clearance was obtained from the Biomedical Research Ethics Committee (BMREC) of UWC. Permission was given by the Department of Health to conduct the study on the clinical platform. All ethics principles were upheld.

KEYWORDS: Model of occupational self-efficacy, tuberculosis, return to work, young adults, adaptations, occupational therapy, perception, experience, self-efficacy, client-centred approach, qualitative research, vocational rehabilitation.



CHAPTER ONE

BRIEF OVERVIEW OF THE STUDY

1. Background

The focus of this research study was to adapt the model of occupational self-efficacy so that it could be used with Tuberculosis (TB). Tuberculosis (TB), specifically pulmonary TB is the most common form of TB with the highest incidence rates. Clients with TB experience low levels of motivation due to the long period of medical intervention, while some clients lack work related skills. The poor return to work rates of PTB and MDR-TB clients encouraged the researcher to explore the reasons why PTB and MDR-TB clients were not returning to work. In the current study, the MOOSE was seen as a possible rehabilitation model to improve the motivation and work skill.

This study analyzed the perceptions of five Pulmonary Tuberculosis (PTB) and Multi- Drug Resistant Tuberculosis (MDR-TB) clients who had returned to work after having suffered from PTB or MDR-TB. The researcher also studied the perceptions of five rehabilitation specialists who worked with individuals who had PTB and MDR-TB, and assisted with their return to work. Based on the experiences and perceptions of these two groups of participants, the MOOSE as a model was adapted in order to facilitate the return to work for individuals living with PTB and MDR-TB. The MOOSE was adapted so that it could be used for PTB and MDR-TB clients. The information provided in the current study could be used by occupational therapists to facilitate return to work process with individuals diagnosed with PTB and MDR-TB.

1.1 Introduction

The World Health Organisation (2015) describes TB as an infectious bacterial disease that is caused by mycobacterium tuberculosis, which most commonly affects the lungs of individuals. Rossouw (2008), has stated that there are 2 billion people worldwide who are infected with TB, and this alarming figure is increasing dramatically, as there are 8 to 9 million new cases each year. 80% of the new cases of TB are found in the twenty-two highest burden countries (Rssouw, 2008). According to the WHO (2018), in 2017, 87% of new TB cases occurred in the 30 high TB burden countries, with South Africa being one of the eight high TB burden countries (World Health Organization, 2018). TB is therefore a well-known medical condition in South Africa due to its growing incidences. According to American Lung Association (2006), it has been estimated that nearly one billion people will be newly infected with TB, over 150 million will become sick, and 36 million will die worldwide by the year 2020 due to the growing epidemic (American Lung Association, 2006). With South Africa being 9th on the list of 22 “high burden countries” that are most affected by TB, we should be concerned about the future population of this country as this statistic is alarming. It can be assumed that individuals living with TB form a large percentage of the working population. As a result, it is important that adults living with TB continue to engage in work skills that they are capable of performing. According to the South African National Tuberculosis Control Program Practical Guidelines (2004), one of the most common symptoms of pulmonary TB is the loss of motivation in individuals. Motivation is the driving force behind one’s source of willingness to engage in everyday activities. Therefore, if adults living with TB suffer from a loss of motivation their general confidence in their work skill abilities become affected.

1.2 Rationale

The rationale for the study has come about through the increasing prevalence of TB in South Africa, and the poor return to work rates of people after having suffered from TB, mostly due to poor self-efficacy levels. According to Soeker (2009), the model of Occupational Self- Efficacy aims to improve poor self- efficacy of traumatic brain injured (TBI) individuals to a point where they independently seek vocational opportunities, and see themselves as worthy individuals. The MOOSE is a model that was used to increase the self-efficacy of individuals suffering from a TBI. The MOOSE guides this study, as it was previously proven by Soeker (2009) that low self-efficacy levels can impact an individual's motivation to work. Therefore, due to the increasing incidences of TB and the impact it has on the working field, the MOOSE can assist in improving the poor return to work rate of individuals living with TB. This study is motivated by the need to assist individuals living with TB to get back into working in the open labour market through the use of increasing their work skills and sense of self-efficacy. According to Soeker (2009), the MOOSE states that once the functional abilities of a brain injured individual is accepted, they appeared less despondent or fearful of their limitations. Therefore, the main aim of the MOOSE was to improve the brain injured individual's self – efficacy to the point that they ultimately started accepting their new roles as workers, and subsequently return to work in both the public and private sectors. This model was successfully applied to the TBI population and was therefore used in this study, where the model was adapted in such a way that it could be used for conditions other than TBI. According to Bartlett-Esquillant and colleagues (2016), in some cases individuals with TB need to be hospitalised for weeks, as hospitalisation is an important part of treatment. Therefore, when workers contract TB, the loss of their employment is most feared, with unemployment equaling no income. This impacts their families and livelihoods, and subsequently increase the level of unemployment.

1.3 Aim of the study

The aim of the study was to adapt the model of occupational self-efficacy for application with clients living with tuberculosis to aid their return to work.

1.4 Research question

How can the model of occupational self-efficacy be adapted in order to improve the work skills of clients living with TB in order to aid them in returning to work?

1.5 Overview of the subsequent chapters

Chapter One: Brief overview of the study

Chapter One of this study provides the background for the study, introduces PTB and MDR-TB, and shows how it is an increasing public health concern. Chapter one gives the reader an overview of the chapters, describes the rationale for the study, the research design and methods, the research context as well as the research question.

Chapter Two: Literature review

Chapter Two of this study focuses on PTB and MDR- TB and the impact of PTB and MDR-TB on society. In Chapter Two, the body of literature is reviewed and links between Tuberculosis (PTB and MDR-TB), self-efficacy and subsequent return to work are examined. An academic rationale was established for the present study that illustrated the need for the MOOSE to be adapted for application with tuberculosis patients.

Chapter Three: Research Methodology

Chapter Three illustrates the methodological principles of the study. It gives clarity on the study design, study setting, the sampling technique used for selecting the participants for the

study, data collection technique and data analysis processes. Lastly, methods through which the trustworthiness and research ethics for the study were achieved, were discussed.

Chapter Four: Findings

Chapter Four describes the findings of the study which is presented and described as themes, categories and sub-categories. The finding of the study describes the participant's experience and perception of individuals living with PTB and MDR-TB and their return to work. It describes that which emerges from the analysis of the study.

Chapter Five: Discussion

This chapter discusses the findings of the study in relation to relevant literature. Thereafter, the findings were interpreted and discussed within the adapted framework of the Model of Occupational Self-Efficacy.

Chapter Six: Conclusion and recommendations

Chapter Six is the concluding chapter for this study where recommendations and the conclusion of the study are discussed. This chapter describes the perceptions and experiences of PTB and MDR-TB survivors, as well as the perceptions and experiences of rehabilitation care specialists in working with clients/patients with PTB and MDR-TB.

CHAPTER TWO

LITERATURE REVIEW

2. Introduction

The body of literature on return to work and tuberculosis was covered in this chapter. The epidemiology and impact of PTB and MDR-TB was discussed in section 2.1. Section 2.2 discussed the diagnostic identification of PTB and MDR-TB. Section 2.3 discussed the outcome of having PTB and MDR-TB and 2.4 provided a discussion on how TB affect work as an occupation. Section 2.5 describes how the barriers and facilitators affect RTW. Section 2.6 discusses legislation and its relation to employment. 2.7 describes strategic plans to decrease TB in South Africa. 2.8 the various types of models and rehabilitation approaches are discussed. 2.9 is the conclusion.

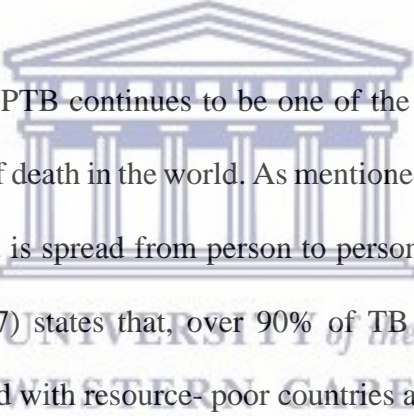
2.1 Epidemiology of Tuberculosis

The World Health Organization (2015) describes TB as an infectious bacterial disease that is caused by mycobacterium tuberculosis, which most commonly affects the lungs of individuals. TB is an infectious airborne disease that spreads from person to person through coughing, speaking or sneezing which is sprayed out into the air as infectious droplets (Nur, 2008). TB is a major public health threat that is the cause of death to millions of people worldwide (Matteelli, et al., 2014). The epidemiology of TB is described in terms of incidence, prevalence, mortality and risk factors, which is discussed in further detail below in the relevant subsections.

2.1.1 Incidence of PTB and MDR-TB

The term incidence refers to the measure of probability of the occurrence of new cases of disease over a specific period of time, which is commonly measured as a rate or proportion (Krug & McNutt, 2013). As stated by the WHO, about 8.6 million cases were recorded in

2012, with the highest incidence occurring in Asia and Africa. (Matteelli, et al., 2014). Baitsiwe, (2009) states that South Africa has the 5th highest TB incidence in the world with 0.46 million cases reported in 2007 (WHO, 2009). TB is the ninth leading cause of death worldwide and the leading cause from a single infectious agent, ranking above HIV/AIDS. The World Health Organisation (WHO) statistics has released an estimated incidence of 454,000 cases of people living with active TB in 2015. 0.8% of the population of about 54 million people develop active TB disease each year. People with rifampicin resistant TB are now eligible for the same treatment as people with MDR TB (World Health Organisation, 2016). Furthermore, according to WHO (2009) it is reported that the risk of HIV positive people developing TB has increased from 6% to 20.6% in countries that have a high HIV prevalence rate.



According to Baitsiwe (2009), PTB continues to be one of the main challenges and is the single largest infectious cause of death in the world. As mentioned before, PTB is an airborne infectious bacterial disease that is spread from person to person. The Academy of Science of South Africa (ASSaf) (2007) states that, over 90% of TB cases occur in developing countries. TB is often associated with resource-poor countries and subsequently previously attracted poor attention. Today, TB continues to be a medical condition of major public health importance. It is stated by ASSaf (2007) that TB is often labelled as the “neglected disease” due to the poor attention it has been given in previous years, and consequently poor investment has been made to improve medication even though it is desperately needed. Therefore, due to the lack of attention, the prevention and treatment of TB has fallen behind other diseases that were more common in developed countries (ASSaf, 2007).

2.1.2 PTB and MDR- TB

TB is a global condition however, it is more prevalent in poorer countries, as the disease is more frequently associated with poor socio- economic factors (ASSaf, 2007). These socio-economic factors include poverty, overcrowding, unemployment, malnutrition, HIV and AIDS and poor health. Subsequently South Africa unfortunately experiences these socio-economic factors, which explains why TB is so prevalent in this country, as there are over 250 000 new cases of TB annually (ASSaf, 2007). When patients do not adhere to TB treatment, it makes it difficult to control the spread of the disease as patients would default off their treatment (Baitsiwe, 2009). Multi-drug resistant Tuberculosis (MDR-TB) is a communicable disease that occurs when its causative organism has developed resistance against first line TB drugs (Arjun, Matlakak & Mavundla, 2013). With MDR-TB in particular, the management of the condition is a lengthy process, as individuals require treatment for at least 18 to 24 months. This is in spite of newly developed National Guidelines for Drug Resistant TB offering guidance on the management of stable MDR-TB patients in locations closer to their home, within the community or in health facilities. However, long term hospitalisation remains compulsory for cases in which complications arise due to MDR-TB. Furthermore, during this lengthy time of unemployment, clients with TB and MDR-TB encounter sentiments such as poor motivation, depression and poor self-esteem, which are often associated with the TB an MDR-TB illness, with poor self-efficacy being one of them (Firfirey, 2014).

2.1.3 Mortality and burden of disease as it related to PTB and MDR-TB

TB is the leading cause of death amongst young adults who are in the most productive years of their lives (ASSaf, 2007). TB is a major public health concern globally, and is rated second only to the HIV virus as a cause of morbidity and adult mortality. It was reported that there

were an estimated 10.4 million new cases of TB disease in 2016. Ten percent (10%) of the individuals were living with HIV of which 90% were adults of whom 65% were male, and 74% of these individuals lived in Africa (World Health Organisation, 2017). These infected adults are losing an average of 3-4 months of work during their recovery time as stated by the WHO (ASSaf, 2007). This implicates society's economic activity to the extent that an average of fifteen years of the productive workforce is lost for every adult TB death. It has been reported by the WHO that there is a lower TB treatment success rate in Africa in comparison to other regions, which ultimately leads to a higher proportion of deaths. More specifically looking at the mortality rate of MDR-TB in 2014, an estimated 190 000 people died of MDR-TB, with more TB patients being tested for drug resistance in than ever before (ASSaf, 2007).

2.1.4 Risk Factors for PTB and MDR-TB

TB occurs globally, but it is more prevalent in poorer countries, as people are at a higher risk of getting infected due to poor socio-economic factors. These socio-economic factors include poverty, overcrowding, unemployment, malnutrition, substance abuse, poor health HIV and AIDS. Subsequently, South Africa experiences many of these socio-economic factors, which explains why TB is so prevalent in this country, as there are over 250 000 new cases of TB annually (ASSaf, 2007). Baitsiwe (2009) identified the HIV epidemic is one of the main contributing factors to the increase in the amount of people diagnosed with TB, and at the same time TB is the leading cause of death amongst HIV positive people. (WHO, 2008). The HIV disease causes a drop in one's immune system, therefore HIV positive patients are at a higher risk contracting the disease (WHO, 2008).

However, poor socio economic factors are not the only risk factors that people are faced with when contracting TB and MDR-TB. Individuals who reside in areas with high incidences of active TB are those individuals who reside in long-term care facilities and those who have close contact with infected individuals. Being a healthcare worker also puts you at greater risk of contracting TB or MDR-TB, and being in inadequately ventilated spaces, especially in unsanitary or crowded areas (Schub, 2014).

2.2 Diagnostic identification of PTB and MDR-TB

The WHO (2015) stated that the most common symptoms of active TB are a persistent cough with sputum for more than two weeks, associated with blood, chest pains, fatigue, weight loss, fever and night sweats. Numerous countries still rely on a method called sputum smear microscopy to diagnose TB. Once the sputum sample has been collected, laboratory technicians would look at the sputum samples in search for the presence of the TB bacteria, and with three such tests, diagnosis can be made within a day (WHO, 2015). According to Baitsiwe (2009), TB is only diagnosed once it is confirmed through the collection of two sputum specimens on consecutive days for TB smear microscopy and in the case of HIV positive patients, a third specimen is collected for smear and culture.

According to the WHO (2015), Multidrug-resistant tuberculosis (MDR-TB) is a form of TB caused by bacteria that does not respond to the two most powerful first-line anti-TB medications, isoniazid and rifampicin. Failure to respond to first-line treatment causes the TB condition to become resistant. This condition is called MDR-TB, an illness which is curable by using second-line drugs. However, second-line treatment options are limited and the recommended medication may not always be readily available. Therefore, diagnosing MDR-TB and HIV-associated TB can be more complex. A new 2-hour rapid test, Xpert MTB/RIF, has proven highly effective in diagnosing TB, and the presence of drug resistance is now being utilized in many countries (WHO, 2017).

2.3 Outcomes of having a PTB and MDR-TB

TB negatively affects one's health, be it physically or mentally, as PTB or MDR-TB patients often suffer with stigma and isolation from their local communities. According to Guo (2009), there are some communities globally where TB patients are regarded as a source of infection. This creates a feeling of rejection and isolation in those who are or were suffering from TB, affecting their psychosocial well-being. Therefore, TB patients suffer from anxiety and fear of negative reactions from the community following their diagnosis (Guo, 2009).

PTB does not only affect you physically, but social and economically too (Dhuria, et al., 2008). That being said, your social and economic health is equally as important as your physical wellbeing, and therefore focusing on PTB holistically is significant. However, the effects of having PTB or MDR-TB affects the quality of life of people, making it tough to work or lead an active life. Yet most of the focus around TB management is concentrated on physical health, which results in the patients' holistic quality of life being neglected. dos Santos et al. (2016) discussed that PTB and MDR-TB patients have a significant chance of being affected by low self-efficacy levels as TB is a disease that is often accompanied by depression. TB patients have a significantly higher risk of developing depression compared with those in the general population. The onset of depression in individuals with TB is associated with delays in seeking health care, prolonged hospitalisation, poor treatment compliance that can lead to drug resistance, poor disease outcomes, morbidity and mortality (dos Santos et al., 2016).

2.4 How does TB affect work as an occupation

Occupation of work for individuals suffering from TB is affected as they have poor work skills due to their illness (Franche & Krause, 2002). The unemployment rate increases due to stigma. This as a result of low self-esteem and the challenge of holding jobs when

becoming re-infected. These individuals have low self-esteem and, they struggle to maintain work when they get re-infected. This is due to the fact that TB infected individuals perceive themselves to be at risk of a number social and economic consequences due to stigma (Franche & Krause, 2002). Courtwright and Turner (2010) discussed that due to the fact that the most common result of the TB stigma is isolation from other members of society, and therefore the TB disease can have a great impact on economic opportunities for TB survivors. For example, the stigmatization of TB in Ghana has led to the banning of TB survivors from selling goods in public markets and attending community events. This type of isolation and stigmatization from society has an impact on the socioeconomic and financial status of individuals. Men in general, are more concerned about the impact of the TB stigma on their financial prospects, which include job loss and reduced income (Courtwright and Turner, 2010) .

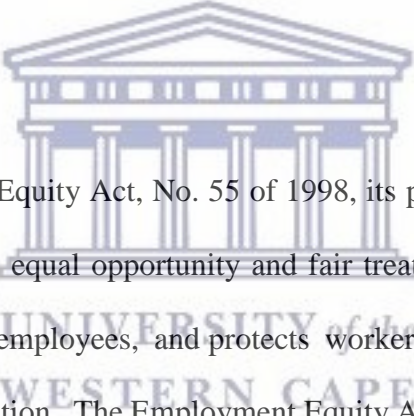
2.5 Barriers and Facilitators affecting the RTW

According to Luthans, Luthans, & Luthans (2015) self-efficacy refers to people's judgments about their abilities to perform particular courses of action to do specific things. A good sense of self-efficacy is said to be an important factor for effective job performance (Luthans, Luthans, & Luthans, 2015). Luthans and colleagues (2015) further state that the importance of self- efficacy in relation to effective job performance must not be underestimated, as people require a good self- efficacy in order to be efficient and capable workers. Similarly, Bandura (2006) reports that in order for people to participate in things, they need to do to be able to perform a job effectively. Bandura (2006) further identified that there are four conditions that need to be present: skill, self-efficacy, opportunity to perform and a supportive environment.

Return to work following an illness or injury has been identified as a process influenced by various social, psychological, and economic factors. The atmosphere of the work environment, health care, and the insurance system all have a significant influence on the outcome of whether the individual can return-to-work (Franche & Krause, 2002). Not excluding the underlying medical condition and other risk factors that may be associated with a specific illness. The employee's reasoning and ability to return to work cannot be considered in isolation of the social, psychological and economic factors (Franche & Krause, 2002). However, it needs to be discussed in relation to policies and legislation in South Africa.

2.6 Legislation and its relation to employment

2.6.1 Employment Equity Act



According to the Employment Equity Act, No. 55 of 1998, its purpose is to achieve equity in the workplace by promoting equal opportunity and fair treatment in employment. This applies to all employers and employees, and protects workers and job seekers through elimination of unfair discrimination. The Employment Equity Act, No. 55 of 1998 provides a framework for implementing affirmative action measures to redress the disadvantages in employment experienced by designated groups. Furthermore, in an effort to ensure equitable portrayal in all occupational categories and levels in the workplace, the Employment Equity act allows people the opportunity to get a job despite having had TB. Legislation within the South African context is favorable to support individuals with TB in the workplace (Republic of South Africa Government Gazette, 1998). This area of legislation will be discussed by the following policies:

2.6.2 Skills Development Act

The main purpose of the Skills Development Act, No. 97 of 1998 is to develop the skills of the South African workforce and to improve the quality of life of workers and their opportunities of employment. The act serves to improve productivity in the workplace and the competitiveness of the workforce in order to promote self-employment. It also encourages employers to provide opportunities for new entrants to the labour market to gain work experience; and use the workplace as an active learning environment (Republic of South Africa Government Gazette, 1998). The act provides employees with the opportunity to acquire new skills; to employ people who have difficulty with finding employment; to encourage the workforce to participate in learnership and other training programmes; to improve the employment prospects of people who were previously disadvantaged by unfair discrimination, and to redress those disadvantages through training and education to assist work-seekers find employment. The Act is important as it provides legislation that facilitates opportunities for skills development for all communities (Republic of South Africa Government Gazette, 1998) (reference).

2.6.3 The Disability Rights Charter of South African

The Disability Rights Charter of South Africa is a platform that reflects the requests made by people with disabilities. The aim of the Charter is to promote equal opportunities for people with disabilities, by stating their right to live independently in a society free from any forms of discrimination, exploitation and abuse (White Paper on the Rights of Persons with Disabilities, 2015).

According to the White Paper on the Rights of Persons with Disabilities (2015) and Statistics South Africa (2014), a community Survey showed that people with disabilities are amongst the poorest of the poor and face different levels of discrimination and exclusion. The survey

also stated that people living in poverty stricken environments are more at risk of acquiring a disability when compared to others, and are commonly denied their rights (Statistics South Africa, 2014) and (White Paper on the Rights of Persons with Disabilities, 2015).

It is safe to say that TB is a disabling disease, and most people who are diagnosed with TB end up being supported by a government funded support grant with either a temporary disability grant or a permanent disability grant, as they are “unfit” to return to work (Western Cape Government, 2018). The Disability Rights Charter of South Africa is therefore focused on the rights of people with disabilities, some of which will be explored in further detail below. Most individuals that is diagnosed with PTB would perhaps get temporary disability grant while they are receiving treatment. Some of them continue to get ongoing disability grant, they choose to get a grant instead of pursuing work (White Paper on the Rights of Persons with Disabilities, 2015).

2.6.3.1 Social Grants relating to Persons with Disabilities

The South African Social Security Agency (SASSA) system in April 2015 showed that over one million beneficiaries receive disability grants, with the KwaZulu-Natal province ranking in the highest access to disability grants (25.5%), followed by the Eastern Cape Province (16.5%) and the Western Cape (14%) (South African Social Security Agency, 2015).

2.6.3.2 Employment of Persons with Disabilities

According to the 214th Commission for Employment Equity (CEE) Annual Report, only 0.9% (50 867 out of a total 5 593 326) of the country’s Economically Active People (EAP) are persons with disabilities. Furthermore, there is low labour market absorption of persons with disabilities, and various population groups are affected differently. When focusing across all functional domains and degrees of difficulty, the highest proportion of employed

persons with disabilities fell within the white population group, while the black African population had the lowest proportion (Statistics South Africa, 2014). Males with disabilities are favoured over females with disability as the female's population are more marginalised in terms of employment compared to males with disabilities (Statistics South Africa, 2014).

2.6.3.3 Disability and Income

There is a very close link between employment and income, as one's income largely determines one's state of financial security and welfare. According to the 2011 Census, persons without disabilities generally earn a higher income than persons with disabilities. Among persons with disabilities, the severity and type of one's disability determines one's income. Men with disabilities earn double what females earn regardless of the degree of disability, and this is due to the fact that females are marginalised when it comes to employment and disability (Statistics South Africa, 2014).

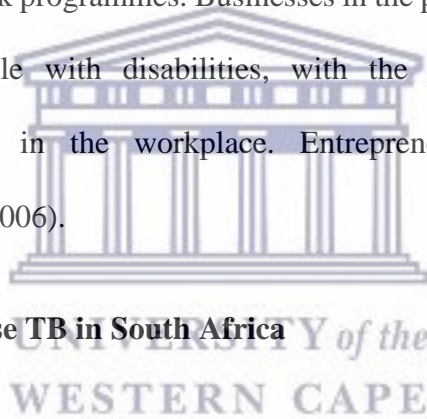
2.6.4 The United Nations Convention on Disability

According to the United Nations Convention on the Rights of Persons with Disability its purpose is to promote, safe guard and ensure that all persons with disability have access to equal human rights and their dignity is respected. Article 26 of the United Nations (UN) convention states that persons with disabilities are encouraged to attain and maintain maximum independence, and their participation in all aspects of life should be fully inclusive. This should be done by enhancing and extending comprehensive habitation and rehabilitation services and programmes, focusing on services that cover areas of health, employment and education (United Nations, 2006).

The area of work and employment is thoroughly discussed in Article 27 of the convention, wherein the state recognizes the equal right for people with disability to work and earn a

living in the open labour market. Furthermore, the employment of persons with disability should be protected and done in an equal and appropriate manner, through forbidding discrimination. Equality should be ensured in the workplace by adhering to equal conditions and standards of employment, such as providing equal opportunities, equal working conditions, and equal practice of labour (United Nations, 2006).

In addition, Article 27 of the convention states that employment opportunities, career development and return to work for persons with disabilities in the open labour market should be encouraged. People with disabilities should have access to vocational rehabilitation, vocational guidance programmes and training, placement services, job preservation and return-to-work programmes. Businesses in the public and private sector are encouraged to employ people with disabilities, with the provision that reasonable accommodation is provided in the workplace. Entrepreneurship opportunities are encouraged (United Nations, 2006).



2.7 Strategic plans to decrease TB in South Africa

To assist in the prevention of the spread of TB and MDR-TB, South Africa has included strategies and plans in various nationwide development plans to improve the TB and MDR-TB outbreak. The National Developmental Plan (NPD) 2030 is a plan for South Africa which offers a long-term perspective of society's role in achieving the countries goals, and provides a strategic framework to guide important choices and actions (NPD, 2012). TB has been identified as a disease for targeted reduction in both incidence and burden of disease through empirically validated strategies and innovative research.

As reported in the Strategic plan of 2014/15 to 2018/19 the main purpose of the TB programme is to reduce the number of burden of diseases related to the HIV and TB

epidemics, through improving overall data management, as well as enhanced management of MDR-TB and preventing new cases of TB (Strategic Plan, 2014). The strategic objective is to strengthen the current system for tracing patients that are lost, to follow-up before and during the treatment process, as well as increase access to MDR-TB treatment commencement. Lastly, improve the functioning of MDR-TB control programme through encouraging earlier commencement and decentralized treatment (Strategic Plan, 2014). Additionally, as reported in the executive summary of the NDP (2012), South Africa continues to be a divided and highly unequal society where too many people live in poverty and too few hold employment (NDP, 2012). Therefore, through the NDP, it is aimed to decrease the level of divide that exists as the long-term strategy is to increase employment and opportunities through education, broaden vocational training and work experience, public employment programmes, and health and nutrition (NDP, 2012).

2.8 Models and Rehabilitation Approaches

The MOOSE will be used as the framework for this study, but it is important to look at other models from a comparative perspective. In this section there will be a discussion on the following models: The Health Belief Model, The Theory of Planned Behaviour and the Self-Regulatory Model. These are all models that utilise a framework focusing on cognition and processes (McCann, Clark & Lu, 2008). Furthermore, there will be a discussion on supported employment, work hardening and MOOSE as RTW approaches.

2.8.1 Health Belief Model

The Health Belief Model (HBM) is a widely known model and one of the most used theories in the field of health education and promotion (Turner, 2004). The model was developed in the 1950's by social psychologists Hochbaum and colleagues (1958), as a means of explaining why medical screening programmes offered by the United States Public Health

Service, specifically for TB were not very successful. Hochbaum et al. (1958) describe that the underlying concept of the original HBM is that healthy behaviour is determined by one's personal beliefs or perceptions about a disease, and it looks at what's strategies are available to decrease its occurrence. The model consists of four core perceptions that constitute the constructs of the model: perceived seriousness, perceived susceptibility, perceived benefits and perceived barriers. These perceptions can be used either individually or in combination, to explain health behaviour. In later years other constructs were added to HBM, expanding the model to include, cues to action, motivating factors and self-efficacy (Turner, 2004).

The construct "perceived seriousness" focuses on the individual's belief about the seriousness or severity of a disease, and the difficulties a serious disease could create in their lives. The second construct of perceived susceptibility promotes people to look more at adapting healthier behaviours, by focusing on the fact that the more the individual is informed about perceived risk, the greater the probability that they will engage in behaviours that decrease risk, ultimately preventing risky behaviours. The third construct addresses "perceived benefits", and is described as one's personal opinion of the value or usefulness of a new behaviour. This new behaviour will assist in decreasing one's risk of developing a disease, as people will often adopt healthy behavioural habits if they believe the new behaviour will lessen their chance of developing a disease. The last construct of the HBM focus on perceived barriers to change. As change does not come easy to most people, this construct focuses on an individual's own assessment of the barriers standing in the way of him or her adopting a new behaviour. Furthermore, the four constructs of perception that is described above are modified by various other variables, such as education, culture, skills, experience and motivation, which all influences personal perceptions. However, behaviour can also be influenced by cues to action, such as events or people who influence them to change their behaviour (Turner, 2004).

Self-efficacy was added to the original HBM's four beliefs in 1988. Self-efficacy is the belief in one's own ability to do something (Bandura, 1977). People are generally creatures of habit, and do not commonly try new things unless they believe they will be successful. According to McCann, Clark and Lu (2008) the Health Belief Model (HBM) focuses on the individual, but does not consider social influences, whereas Self Efficacy is a more holistic approach.

2.8.2 The Theory of Planned Behaviour

According to LaMorte and Wayne (2016), the main component to the Theory of Planned Behaviour (TPB) is behavioural intent. A person's behavioural intention is guided by the expected outcome of the behaviour whether negative or positive, with the expected result determining the engagement in the action. This model is useful with predicting health behaviours and behaviour intent, however the behavioural outcome depends on both motivation (intention) and ability (behavioural control) (LaMorte & Wayne, 2016). There are six concepts that the TPB is made up of, which collectively represent a person's control over the behaviour. They are attitude, behavioural intention (motivation), subjective norms, social norms, perceived power and perceived behavioural control. The person's attitude is identified by whether the person shows positive or negative emotion towards the behaviour of interest, mainly focusing on the behavioural outcome. Secondly, the motivation behind a certain type of behaviour (behaviour intention), is the influence of the intention to perform the behaviour. Therefore, if a person has a strong intention, the behaviour is more likely to be performed. Subjective norms refer to the approval of the behaviour by those whose opinion matters to the person, to the point of influencing the person to engage in the behaviour or not. Social norms are governed by people or immediate community who accept a certain type of behaviour, and deem it normal (LaMorte & Wayne, 2016). The fifth construct, perceived power, is the recognition of factors that may allow or prevent the

execution of behaviour. Lastly, perceived behavioural control is the judgement made by the person of whether the behaviour of interest is easy or challenging to perform, people will therefore have different perceptions for different situations. The Theory of Planned Behaviour focuses mainly on the individual, but the expectations of others can influence the outcome (LaMorte & Wayne, 2016).

2.8.3 The Self-Regulation Model of Illness

Initially described as the common sense model in the 1980's, The Self-Regulation Model of Illness (SRMI) provides a framework for understanding the emotions and symptom experiences when one is faced with a life threatening disease or diagnosis. A health threat that compromises one's health to the extent where one's perception of illness is altered, results in a need for subsequent coping strategies of behaviour (Browning, Ferketich, Otterson, Reynolds, & Wewers, 2009).

The SRMI has been widely used and investigated across various illnesses and health related behaviours such as HIV, medication adherence, coronary heart disease and diabetes self-management. The model focuses on the notion that individuals search to understand their illness by researching the cause, effects, symptoms, outcome, duration, ultimately striving to understand what the illness is, what it means and whether it can be managed or cured (Browning et al, 2009). The idea or perception of the illness which the individual understands does not necessarily need to be gathered through scientific or medically validated information, but also gathered from personal experience, social influence and interaction with healthcare providers. Individuals will adapt or change their health behaviour in order to reduce their health risk based on their knowledge of the illness represented to them (Browning et al, 2009). Lastly, the Self-Regulatory Model focuses mostly on the individual and not the environment (McCann, Clark & Lu, 2008).

2.8.4 Work hardening programme

Described by Sandoval and DeWeese (2014), work hardening is aimed at restoring an injured individual's functions with the goal of assisting them with improving their physical capacity to return to work. A work hardening programme is made up of goal orientated and work related treatment that focuses on the improvement and restoration of an individual's physical capacity and function. A variety of factors need to be considered when determining whether an individual is suitable for a work hardening programme. Some of the conditions include, having attended acute therapy sessions such as OT rehabilitation, and having made progression throughout therapy. The candidate also needs to have the motivation to return to work and understand the expectations of the job (Sandoval & DeWeese, 2014). However, since patients with PTB and MDR-TB sustain greater return to work challenges in the form of cognitive limitations it is important to consider cognitive work hardening (CWH) as this type of work hardening programme might be better suited for PTB and MDR-TB patients. Krupa and Wisenthal (2014) describe CWH as being an intervention programme that focuses on the treatment of individuals who suffer from cognitive difficulties/mental illnesses such as depression who have difficulty with returning to work following functional incapacity in the workplace. CWH is based on the same principles as mainstream work hardening which focuses on the needs of individuals who have physical injuries, however CWH addresses the area of mental health. Even though CWH focuses on the mental health of an individual, both types of work hardening use activities that simulate an individual's current work tasks and demands that ultimately aim to enhance an individual's work performance. In CWH the individual is challenged with activities that improve mental stamina, and is taught coping strategies and how to manage mental fatigue (Krupa and Wisenthal, 2014).

The CWH process allows individuals the opportunity to gain insight into their strengths and limitations, and develop their skills in order to prepare them for when they RTW. Through

learning these skills, their self-confidence to RTW improves to the extent that they once again feel competent in their abilities. This in turn can contribute to improved self-efficacy, which has been identified as an essential factor in work rehabilitation. Therefore, having healthy self-efficacy levels, can improve self-esteem. Work hardening focuses on both work test placement of the client with a disability in the workplace, as well as provide them with ongoing support within with their job (Krupa & Wisenthal, 2014).

2.8.5 Supported employment

According to Wehman (2012), supported employment has provided individuals with significant support needs with the opportunity of employment in the community. Supported employment can be described as ongoing support services that are provided for individuals with either a physical or mental disability in an integrated setting. In previous years, adults with disabilities were enrolled into sheltered workshops or adult day programmes. However, in the later years of 1970 and 1980, group models were developed, and were seen as an alternative to workshops. These models provide adults with disability such as mental illness, physical disabilities, traumatic brain injury (TBI) and autism, an opportunity to work in the open labour market under the supervision of an adult service provider Wehman (2012). However, supported employment does not focus on improving self-efficacy, or on enhancing a specific skill; it mostly provides ongoing support in the workplace (Wehman, 2012). Whereas the MOOSE follows a holistic approach and uses the Gibbs reflective cycle where the process of reflection takes place and the client has the opportunity to reflect and overcome past challenges they have struggled with.

2.8.6 The Model of Occupational Self- Efficacy

The MOOSE was selected as the framework for this study because it is a South African based model that has been empirically proven to work in a South African context, by aiding clients with chronic and traumatic conditions to return to work. The Model of Occupational Self-Efficacy was established by Soeker (2012) and is based on an individual's belief in his or her ability to succeed. This success related specifically to a client's success in his/her job performance, work skills and ability to perform duties. This dynamic model consists of four specific stages through which the client will be facilitated. Stage 1 is termed *A strong belief in functional ability*. During this stage the client is allowed to self-reflect on the incident, creating an opportunity for introspection. By means of reflection, the client will be able to address any emotions regarding their new life circumstances since having had the traumatic brain injury (TBI) (Soeker, 2012).

Stage 2 is recognized as the *Use of Self*, the stage in which self-sufficiency within the person is identified, as the client takes control of their life and deals with the current situations occurring in their life. With the assistance of the therapist, it is also during this stage that autonomy within the client can be established. In this phase, the main aim of therapy is to improve cognition and endurance, as they require intervention (Soeker, 2012).

Stage 3 is termed as the *Creation of competency through occupational engagement*, where the clients' view of self is shifted from the negative to a more positive and independent role. This is due to the fact that the client is continually improving so their views of themselves are shifted. This subsequently improves their work performance (Soeker, 2012).


As the stages of the model progress, the main outcome is to reach stage 4, the *capable individual*. During this last stage the client's volition and worker role have improved through

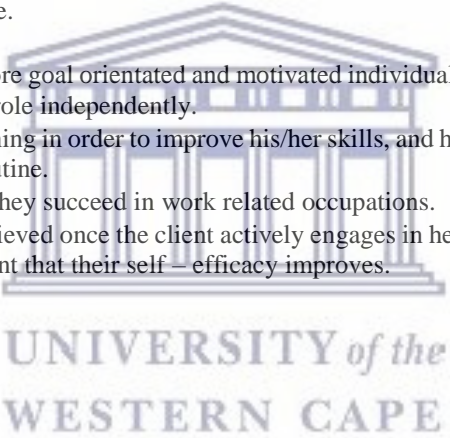
the successful engagement in work tasks, which then leads to an improved view of self as they succeed in work related occupations. The goal of the model is eventually achieved when the client's self- efficacy improves, through the use of active engagement in healthy and meaningful occupations. Lastly, the aim of the model is to generate goal orientated and motivated individuals who are able to display independence in the worker role (Soeker, 2012). In a study conducted by Pape (2014), it was demonstrated how the MOOSE improved the work skills of individuals with brain injuries to the extent that they could find and maintain employment for more than 6 months. The model also improved the cognitive skills of those individuals who sustained brain injuries. The four stages of the model are described in detail in Table 1 below.



TABLE 1: DESCRIBING THE ORIGINAL MODEL OF OCCUPATIONAL SELF EFFICACY

Stages of the model	ORIGINAL MODEL PHASES The Model of Occupational Self Efficacy	Activities used:
Stage 1	<p><i>A strong belief in functional ability:</i> this stage focuses on the process of introspection and self-reflection of life’s circumstances.</p> <ul style="list-style-type: none"> • The occupational therapist would facilitate introspection by requesting that the brain injured individual or client describe in detail the event or concern that he or she may have. • The client goes through the process of reflecting on physical/ emotional/ psychological changes. • This concern may be related to feelings regarding the acceptance of the brain injury, barriers that he or she may be experiencing relating to occupational roles and community re-entry or return to work. • The client will be encouraged to reflect on the environment, context of the event or action, other people’s roles and his or her role, and the outcome of the event. 	<p>The type of activities that were used:</p> <ul style="list-style-type: none"> • Building a healthy IPR through group and peer facilitation and support • Building a realistic and healthy / positive self-image after the injury. • Goal setting • Use of positive thought log (logic/ reason) • Positivity journal (experience journal of their daily lives, their challenges and ways to come to healthy solutions) • Memory activities • Grocery list retention • Money management

<p>Stage 2</p>	<p><i>Use of Self</i>, during this phase the client takes control of his life circumstances and realizes their self- efficacy.</p> <ul style="list-style-type: none"> • The occupational therapist will facilitate the process in which the client needs to explore his or her thought processes. • The aim of therapy in this phase is to improve functional components such as cognition and endurance. • The client will explore his or her feelings regarding the actual event or stressor. They may want to know how the event or people made them feel, as well as how they felt about the outcome of the event. • Through the improvement of components, the client’s participation increases, and with the added positive input he or she receives from the therapist, their self – esteem, self – worth and ultimately their self – efficacy improves. • Thus improving their work performance and improving their ability to move onto the next stage of the model. 	<ul style="list-style-type: none"> • Concrete activities • Focused on improving work components such as memory retention • Thinking skills • Problem solving activities
<p>Stage 3</p>	<p><i>Creation of competency through occupational engagement.</i> During this stage the client continually improves, so their view of themselves are shifted from internalizing a sick role (or I am unable) to a more positive and independent role.</p> <ul style="list-style-type: none"> • The client will be requested to evaluate his circumstances or make a judgment about his experience regarding the event or phenomena of interest. • The occupational therapist will enable the client to consider what was good and bad about the experience. Once the problem is thoroughly evaluated, the client needs to determine which aspects of the processes he or she completed successfully. 	<ul style="list-style-type: none"> • CV developing • Memory activities • Grocery lists • Routes to places (shop, CHC, day hospital) • Simulated work as a packer, merchandiser • Physical labour work hardening skills • Encourage the client to problem solve and think up realistic ways on how to improve components that he is struggling with at home

	<ul style="list-style-type: none"> The model aims to improve their self – efficacy to the extent that they engage independently in work tasks. As they are involved in work tasks, their ability to perform in work tasks are improved until they become capable individuals that are able to return to work and maintain work successfully. 	<ul style="list-style-type: none"> Positive but realistic reinforcement of self Working in a controlled environment with simulated work.
Stage 4	<p>The <i>capable individual</i>: at this stage the client has successfully engaged in work tasks that ultimately improve their volition and worker role.</p> <ul style="list-style-type: none"> The aim of the model is to produce a more goal orientated and motivated individual who is capable of maintaining their worker role independently. The client may need to seek further training in order to improve his/her skills, and he/she may need to adapt his tools or work routine. Their view of themselves improves as they succeed in work related occupations. Ultimately, the goal of the model is achieved once the client actively engages in healthy and meaningful occupations to the extent that their self – efficacy improves. 	<ul style="list-style-type: none"> Working in the environment/ work placement/ open labour market and learnership facilities. Memory to facilitate the learning and class work Discussions individually as a worker and the challenges faced in this stage Coping skills in the work place Good team work and conflict management

In conclusion, the above-mentioned model does not appear to focus on an individual's belief in his/her ability to succeed nor the environment, but instead only focuses on the individual. Therefore, the present study attempted to address the need for research into RTW for individuals with TB by adapting the MOOSE for use with this population.

From the literature it can be concluded that MOOSE is a suitable model for improving the work skills of clients with PTB and MDR-TB, as well as enhancing their self-efficacy. This is a result of affected individuals suffering from a decrease in motivation.



CHAPTER THREE

METHODOLOGY AND RESEARCH DESIGN

3. Introduction

In section 3.1 and 3.2, the research problem and aim of the study are discussed. In section 3.3, the objectives of the study are explained. Sections 3.4 and 3.5 discuss the research paradigm used for the study and the description of the study setting respectively. Section 3.6 provides a discussion on the sampling strategy used for the selection of participants for the study. In section 3.6 and 3.8, the data collection technique and data analysis are discussed. Finally, in section 3.9, 3.10, 3.11 and 3.12, bracketing, trustworthiness, ethical statement and limitations of the study are discussed respectively.

3.1. Research problem

Schnippel et al. (2013) state that individuals living with TB are generally hospitalised for long periods of time, and subsequently for adults that means long periods of time out of the working environment. Therefore, adults who have a loss of motivation find themselves feeling incapable of adequately performing their previous work skills. Various models for facilitating return to work are available and have been tested empirically for specific diagnostic groups such as, stroke patients or TBI (Trexler & Parrott, 2018). These models tend to be diagnosis or syndrome specific and have not been adapted or tested empirically for patients with TB. Currently, there is no vocational rehabilitation model(s) that has improved the return –to- work rates of clients living with TB and MDR-TB in a South African context. Thus, there is a need for the development or systematic adaptation of empirically validated models for use with TB patients.

3.2. Aim of the study

To adapt the model of occupational self-efficacy for application with clients living with tuberculosis to aid their return to work.

3.4 Objectives of the study

- To explore the stakeholders' perceptions of the barriers relating to return to work programmes for clients living with PTB and MDR-TB.
- To explore the stakeholder's perceptions of the facilitatory factors relating to return to work programmes for clients living with PTB and MDR-TB.
- To explore the stakeholder's perception of adaptations needed for clients with PTB and MDR-TB
- To adapt the content of the Model of Occupational Self- Efficacy for clients living with PTB and MDR-TB.



3.4 Research Approach:

3.4.1 Exploratory research

In this study the researcher used exploratory research. According to Andersen et al. (2012), exploratory research is used to clarify a problem through the use of the exploration/ investigation of an experience or phenomena. Exploratory research is appropriate for unexplored and under-researched phenomenon (Shields & Rangarajan, 2013). Similarly, Hackley (2003) recommends exploratory studies where there is a lack of understanding and clarity on a particular subject. Exploratory research attempts to set a foundation for future studies and makes use of current knowledge in order to explain particular phenomena (Thompson, Hickey, & Thompson, 2016). In the present study, exploratory research was

used to gain an understanding of the programmes used by rehabilitation health experts (key informants) in their aim to guide PTB and MDR-TB patients back into the workplace. In addition, the present study used these insights to propose an adaptation of the MOOSE for use with TB patients. To this end, the present study incorporated qualitative methods. According to Andersen, Nielsen and Brinkmann (2012) qualitative research was formulated with the aim to explore people's perspectives and points of views, which made it suitable to the aims of the current study. Exploratory studies can yield rich information permitting a deeper level of understanding on the topic (McNabb, 2004). Qualitative methods were therefore suitable for use in exploratory studies. Qualitative methods were also the preferred method of data collection and analysis in exploratory studies (Curry, Nembhard & Bradley, 2009).

3.4.2 Population and Sampling

There are two population groups that were sampled for this study. The first population represented the key informants working in the private and/or public sector as rehabilitation specialists. The second population group for this study were individuals living with PTB and MDR-TB who have returned to work.

Key informants

A sample of five rehabilitation specialists were recruited using the following *inclusion criteria*: For inclusion in this study, eligible participants had to be health rehabilitation experts such as Occupational therapists or Physiotherapists, who have worked with PTB or MDRTB clients for at least 6 months and have had involvement or experience in getting PTB and MDRTB clients back to work. The participants needed to be able to communicate effectively in English or Afrikaans. *Exclusion criteria*: Participants who were not rehabilitation specialists in PTB and MDRTB were to be excluded from the study as they

may not have had the experience related to working with PTB and MDRTB clients. Key informants were purposively selected and provided information related to how the MOOSE could be adapted. This target group had two levels of participation in the present study. The points of data collection that they participated in are described in greater detail under data collection.

PTB and MDRTB Survivors

The second population group for this study consisted of individuals living with PTB and MDR-TB who have returned to work. ***Inclusion criteria:*** for inclusion in this part of the study it was essential that the participants had been previously diagnosed with PTB and MDR-TB. The participants were required to fall within the employment age of 18 to 50 years of age. The participants must have been discharged from the rehabilitation programme for at least 3 months. Individuals should have been employed before their diagnosis, and have returned to work for at least one month after treatment and participation in the study.

Exclusion criteria: Participants who had not been diagnosed with PTB and MDR-TB were to be excluded from the study. Individuals who had other forms of TB such as XDR-TB were also to be excluded from the study due to the XDR-TB condition usually limiting the ability to return to work for affected patients. Participants should not have experienced active symptoms relating to co-morbid psychiatric conditions or conditions that could lead to multiple impairments such as brain injury and PTB.

The final sample size was 9 participants, 5 key informants and 4 PTB and MDR-TB survivors. The data collection and data analysis process occurred simultaneously.

3.4.3 Description of study participants

The research participants were gained from the TB/HIV care association, and from public hospitals. They consisted of five rehabilitation experts, three PTB and two MDR-TB survivors who were within the working age group of 18 to 50 years of age and were all

productive members of society working within the open labour market before their TB diagnosis.

3.4.3.1 Rehabilitation experts

There were five participants in this group with ages ranging from 25 to 50 years old. Four of them were female, and one a male. With regard to their level of education, all five participants had a tertiary level of education, three of them had completed a Bachelor of Science degree in Occupational Therapy and one a Bachelor of Science in Physiotherapy. One participant has an Occupational Therapist Technician Diploma. All five participants worked in Tuberculosis specialised hospitals in the public sector. All of the participants were employed at the time of the interview. The participants were identified through the specialised TB hospital at which they worked or had previously worked, and contact was made via email and telephonically. Once the participants agreed to participate in the study, arrangements were made to proceed with an interview.

TABLE 2: DEMOGRAPHIC DETAILS OF KEY INFORMANTS

Demographics of key informants					
Study Participants	Participant	Gender	Age	Level of education	Profession
Rehabilitation specialist (Key informants)	Participant 1	Female	33 years old	Tertiary	OT
	Participant 2	Female	37 years old	Tertiary	OT
	Participant 3	Female	44 years old	Tertiary	OT
	Participant 4	Female	38 years old	Tertiary	OT
	Participant 5	Male	31 years old	Tertiary	PT

3.4.3.2 Participants- Tuberculosis survivors

There were four participants in this group with ages ranging from 30 to 60 years old, three females, and one male. With regard to their level of education, one participant had a tertiary level of education, and three of them had secondary education. Three of the participants were previously diagnosed with MDR-TB and one with XDR-TB. Three out of the four participants were employed at the time of the interview. The participants were identified by the rehabilitation specialist who previously had contact with these participants when they were patients at the specialised TB hospital. The participants were contacted either telephonically or via email. Once the participants agreed to participate in the study, arrangements were made to meet at a central location and interviews proceeded. The detailed description of the participants are as follows:

- *Participant one (P1)*: P1 is female with a secondary level of education. She was diagnosed with MDR-TB and was previously employed at a well-known food franchise before being diagnosed with MDR-TB twice while employed at the food franchise. At the time of the interview, she was seeking employment.
- *Participant two (P2)*: P2 is a female with a secondary level of education. She was initially diagnosed with TB which was subsequently followed by XDR-TB. At the time of the interview she was employed by an institution where she facilitated support groups.
- *Participant three (P3)*: P3 is a female with a tertiary level of education. She was diagnosed with MDR-TB after contracting it when working as a professional nurse in a tertiary hospital. She subsequently sustained partial hearing loss. At the time of the interview she was resuming work as a professional nurse.

- *Participant four (P4)*: P4 is a male with a secondary school level of education. He was diagnosed with MRD-TB. At the time of the interview he was employed and working in a factory-producing tiles.

TABLE 3: DEMOGRAPHIC DETAILS OF PATIENT GROUP

Demographics of patient group					
Study Participants	Participant	Gender	Age	Level of education	Profession
PTB and MDR-TB survivors	Participant 1	Female	44 years old	Secondary	Teller
	Participant 2	Female	38 years old	Secondary	Support group facilitator
	Participant 3	Female	43 years old	Tertiary	Nurse
	Participant 4	Male	39 years old	Secondary	Factory worker

3.5 Data Collection: Interviews

Semi-structured interviews were used as the method of data collection. According to Corbin and Strauss (2008) semi-structured interviews are in-depth interviews where the interviewer asks specific open-ended questions to the interviewee. Semi-structured interviews are commonly used for individual interviews or sometimes within a group setting (Corbin & Strauss, 2008). Semi-structured interviews are further explained by DiCicco-Bloom and Crabtree (2006) as being a list of schematic presented questions or topics that need to be explored by the interviewer. Through conducting semi-structured interviews in this systematic and comprehensive way, the interviewer is able to focus on the desired line of action without losing focus on the topic (DiCicco-Bloom & Crabtree, 2006).

Key informants and TB survivors were interviewed through the semi-structured interview format, where they discussed their perceptions of return-to-work for the PTB clinical

population. An interview schedule was developed for the respective groups which assisted the data collection process (Appendix D).

Interview Process: After seeking ethics approval from the Research Ethics Committee at the University of the Western Cape, the interview process began, starting with the recruitment of participants. Participants were identified through the statistical records held at public hospitals, where they were contacted via telephone. Through a telephone call, the participants were given brief information about the study, and the researcher ensured that the participant met the criteria for inclusion, and then arranged an appointment for discussing possible participation and interest. Thereafter, an introductory meeting with each participant took place where the aim of the study was explained both verbally and in writing. The participants' informed consent were sought and obtained, after which interview dates were arranged. All of the introductory meetings and interviews took place in the Occupational Therapy department at the TB/HIV care association and in public hospitals. During data collection, semi-structured interviews were conducted, where the researcher had the opportunity to prompt for responses that aided in obtaining rich information. The duration of the interviews were between 45-60 minutes.

3.6 Data management and analysis

The interviews were audiotaped and transcribed by a professional typist, that is familiar with issues of confidentiality and ethics. The data was then analysed by the researcher, using the technique of Tesch (1990) where the data was placed into codes, categories and themes. After the data were analysed, the MOOSE was adapted and the key informants were requested to comment on the usefulness of the adapted MOOSE specifically for clients diagnosed with PTB and MDRTB.

In this study, the eight steps as advocated by Tesch (1990) was utilised.

Step one the researcher read all the transcripts related to the study. This aided the researcher with gaining an in-depth understanding of the participants' and key informants' experiences.

Step two the researcher read the interview documents, highlighted common topics, and made notes in the margin of the transcript.

Step three the researcher compiled a list of all the topics as analysed from the transcripts. These codes were identified through the notes made during analysis in step two.

Step four the topics were abbreviated as codes and the codes were written next to the appropriate segments of the text. The researcher applied the various codes to the text of transcription, specifically using highlighting to code for various identified topics.

Step five the most descriptive wording was identified and categorised into topics. Grouping topics can decrease the list and amount of categories. This was done collectively once all transcripts were coded, then themes, categories and subcategories were created.

During **step six** abbreviations were selected for each of the categories as well as the codes that link to the category.

During **step seven** the researcher developed categories from the codes.

Step eight was only required if the researcher needed to recode the existing data. In this study reflexivity was used in order to guarantee the rigidity of the project. Reflexivity was applied to this study through reflection and the impartial analysis of the data (Palaganas, Sanchez, Molintas, & Caricativo, 2017). The researcher did not allow her beliefs; background or attitude affect the research process. The researcher thoroughly examined and acknowledged her assumptions that was applied to the study.

3.7 Trustworthiness

Trustworthiness was pursued in both phases using Guba's model (Krefting, 1991). It was identified by Krefting (1991) identified that the model consists of four basic criteria namely

truth value, applicability, consistency and neutrality of data. Below is a brief exposition of how it was achieved across the phases.

3.7.1 Truth value:

According to Krefting (1991), truth value refers to the credibility of findings within a study, as it focuses on the truthfulness of the reports given as results arising from a research project (Krefting, 1991). In order to ensure truthfulness of data obtained within the study, the researcher used an audiotape to record all interviews with participants, and transcribed the audio recordings verbatim. Through following this process, the researcher ensured that all data was accurate, and that it was a true representation of the participants' experience.

To achieve further credibility of the study, the following strategies by Krefting (1991) were used:



3.7.1.1 Member checking:

Lincoln and Guba (1985) describe member checking as the process by which one would obtain the informants feedback regarding the interpretation and conclusion of the study. The transcripts from the interviews were thoroughly described and explained to the participants before data analysis took place, and their views were taken into consideration. The findings of the study were verified with each participant for validation, and any necessary adjustments were made to the findings if they were not interpreted correctly, and this ensured that the findings of the study was a true reflection of the participants' experiences and perceptions.

3.7.1.2 Interview techniques:

As mentioned before, the in-depth interview technique was used by the researchers used to gather data. This type of interview technique gave the researcher the opportunity to explore the phenomenon of returning to work following PTB or MDR-TB, by ensuring that the topic was covered thoroughly and in-depth guaranteeing rigor to this study. The researcher

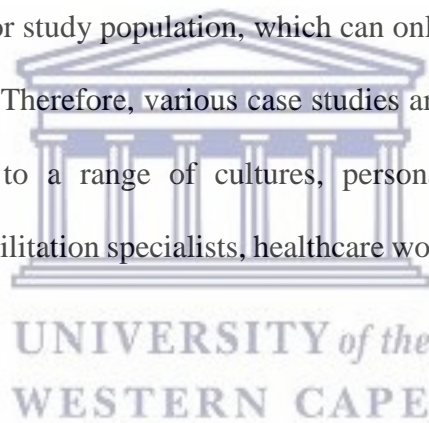
ensured that the findings of the study were reflective of the participants' experiences and perceptions by closing off any opportunity for personal biases that may have influenced the research process.

3.7.1.3 Peer debriefing:

The researcher was in close contact with supervisors and colleagues, which ensured consistent discussions about the relevancy and accurate interpretations of the findings.

3.7.2 Applicability:

Applicability refers to how transferable the findings of a study is to similar settings. Applicability was ensured through the use of assessing if the data discovered was transferable to another group or study population, which can only be done through member checking and peer debriefing. Therefore, various case studies are beneficial to the study as it introduces the researcher to a range of cultures, personalities and ethnic groups. Participants ranged from rehabilitation specialists, healthcare workers and the persons living with PTB and MDRTB.



3.7.3 Consistency:

Krefting (1991) states that consistency is assessed by means of dependability. This implies that consistency is measured when the same results are produced from different case studies. Consistency of data was achieved through a detailed description of the research method and peer examination.

3.7.4 Confirmability:

Guba (1981) defines confirmability as the extent in which findings from a study are from informants rather than from personal biases or perspectives. To achieve confirmability, the principle of neutrality was used, the research also utilised member checking and reflexivity. Member checking was achieved by the findings of the study being presented to study

participants at the end. The researcher contacted some of the participants telephonically and face to face where the findings of the study were described to the participants. The researcher also utilised a reflexive journal where her thoughts related to the study findings, methodology and theory that were utilised, were reflected on. The various steps of the process were documented in depth thus ensuring that an external audit trail was maintained.

3.8 Ethics statement

Ethical dilemmas are vast and may make landfall in research studies. Orb, Eisenhauer, and Wynaden (2000) stated that ethics pertains to benefiting and avoiding harm, as harm can be prohibited or eliminated through the use of appropriate ethics principles. Therefore, the rights, protection and confidentiality of the participants in this study were important. Ethics approval was sought from the University of Western Cape's Research Ethics Committee before the commencement of the study (Appendix A). An information sheet was prepared, which included details regarding the study being conducted, information regarding confidentiality, the risks and benefits involved (Appendix B).

The participants were requested to provide informed consent forms for all members before participating in the study, and they were ensured that they could withdraw from the study at any point without any consequences (Appendix C). The researcher ensured confidentiality through the use of pseudonyms and kept transcribed data locked in a password-protected computer.

The study was conducted in the best interest of the participants, the participants were not harmed, and consent forms were issued before the commencement of the study. This was accompanied by a verbal and written description of the study containing the study aim, objectives, rationale and planned programme. The researcher provided the participants with the names of referral sources such as counsellors and health professionals from NGO's and hospitals.

CHAPTER FOUR

FINDINGS

4. Presentation of findings

The analysis produced themes, categories and subcategories relating to the participants' experience and perception of living with PTB and MDR-TB, and their return to work. First, the results of the thematic analysis are presented. Four main themes emerged from the analysis. Theme One spoke to a sense of disbelief in one's own potential. Theme Two related to the contextual environment influences an individual's worker role. Theme One and Two relates to barriers hindering the resumption of the worker role of the PTB and MDR-TB survivors. Theme Three relates to the facilitation of OT service programmes that specialise in the treatment of TB rehabilitation, and Theme Four focuses on the facilitation of PTB and MDR-TB participants adapting to their worker role through engagement in activities.

Second, the adaptation of the MOOSE is presented. The adaptation was informed by the themes identified and the literature on PTB. Third, the responses of rehabilitation specialists to the adapted model were reported. Two additional themes, Five and Six, were identified from participants' views on the proposed adapted Model of Occupational Self Efficacy specifically for individuals diagnosed with PTB and MDR-TB.

SECTION 1:

THEMES EMERGING FROM PARTICIPANTS' EXPERIENCE AND PERCEPTION OF INDIVIDUALS LIVING WITH PTB AND MDR-TB

4.1 Theme One: A sense of disbelief in one's own potential.

The above theme describes the participants' perceptions of their abilities following their diagnosis of PTB and MDR-TB.

Table 4: Theme One and related categories

Theme one	Categories
A sense of disbelief in one's own potential.	<ul style="list-style-type: none">• The negative influence of TB on an individual's self- belief• The negative influence of substance abuse on treatment adherence and an individual's self- belief

The participants interpreted the lack of physical and functional abilities one has when diagnosed with TB or MDR-TB as a burden that causes you to be demotivated. The lack of motivation and emotional instability leads to a disbelief in their potential. One participant captured the description by saying:

“you will get the very motivated patient who will think ‘you know I’m here now but I’m going to make the most of my time, but then you will get those who don’t want to do anything because they feel that they’re just there for their medication so they don’t really want to participate in anything else and then you get some that are just too sick to participate in like group therapy.” (P1: Rehab specialist)

“it’s difficult because you have to really motivate them” (P1: Rehab specialist)

“I didn’t want to go to OT but when time goes on then I did want to go to OT.” (P2: TB survivor)

The above quotes illustrate that it is common for TB and MDR patients to withdraw from participation in task and activities, either due to lack of motivation or physically, due to poor endurance. This feeling of helplessness and lack of motivation eventually results in a loss of confidence in their ability. The following categories are used to discuss the foregoing theme: the negative influence of TB on an individual’s self-belief, and the negative influence of substance abuse on treatment adherence and an individual’s self- belief.

4.1.1 The negative influence of TB on an individual’s self- belief

The above category describes the participants’ perception of how TB or MDR-TB negatively impacts the TB survivor’s level of self-belief. The loss of belief in oneself often results in feelings of despondency, and the manner in which a TB or MDR- TB diagnosis can cause a change in oneself, eventually affecting engagement in daily activities and vocational skills.

One participant stated

“Some are actually dragged into the hospital to try and get them to finish their medication those are usually the ones that are not motivated” (P3: Rehab specialist)

The above quote indicates how having TB or MDR- TB can affect one’s self-efficacy level to the point where there is an inability to carry out tasks previously engaged in.

Another participant indicated that TB and MDR- TB patients go through a rollercoaster of emotions and challenges when they are hospitalised.

“they’re hospitalised uhm they going through a lot of psychological issues based on maybe loss of work uhm their family that they have to be away from so there’s a loss of income if they’re the sole providers and then being in hospital itself is depression, anxieties uhm and having to cope with all of that.” (P1: Rehab specialist)

The above subcategory indicates that PTB and MDR-TB patients endure a lot of psychosocial challenges and loss of motivation when they are hospitalised, and naturally this results in negative emotions, affecting their self-efficacy levels.

- **Symptoms of the medical condition negatively influences participation in rehabilitation.**

This subcategory expresses the participants’ description of experience and perceptions of the symptoms of having TB or MDR-TB. The symptoms were described as influencing engagement in daily occupation. A participant described her experience stating:

“This injection did damage to my right ear; I mean it’s like I’m deaf I can’t hear myself.” (P1: TB survivor)

The above quote indicates that the participant experienced damage to her right ear following her MDR treatment, resulting in permanent partial hearing loss.

A poor immune system affects the individual’s functional ability to engage in daily occupations due to low endurance caused by TB or MDR-TB. Three participants described this in the following quotes. They said:

“Everyone is different but I think majority of the patients it is a struggle to get them out of bed, is also the side effects of the medication so sometimes

they just feel sick to actually come out. And sometimes there is just nothing that is of interest to them” (P1: Rehab specialist)

“Because you have TB and your immune system is...sometimes your immune system is very low. “When patients get sick their quality of life tends to decrease” (P3: Rehab specialist)

“They feel that they want to, but they can’t because they too weak and endurance is poor.” (P2, Rehab specialist)

The above subcategory indicates that the symptoms and side effects which accompany the PTB and MDR-TB disease, affected the PTB and MDR-TB survivor’s engagement in the rehabilitation process, limiting their capabilities and causing an increase in negative feelings.

- **Poor motivation and drive negatively influences one’s work skills.**

This subcategory expresses the participants’ description of experience and perception of having poor motivation, and how lack of drive negatively influences work skills. The lack of motivation and drive were described as affecting engagement in daily occupation. A participant described her experience in working with TB and MDR- TB patients and said:

“You have to literally drag them out of their beds to come to gym or to do any form of activity” (P3: Rehab specialist)

The above quote indicates that the Rehabilitation specialist (therapists) experience reactions like this regularly from TB and MDR- TB patients.

Another participant described that when clients/patients are more informed about the benefits of Occupational Therapy and they have more motivation, then they are more compliant with wanting to engage in skilled tasks.

“when they are more competent and motivated so they're coming out of their own to join the activities.” (P1: Rehab specialist)

The above subcategory indicates that when the PTB and MDR-TB survivors have improved motivation and drive, they perform better at tasks and activities.

4.1.2 The negative influence of substance abuse on treatment adherence and an individual's self- belief

This category represents the role substance abuse plays in the treatment adherence of individuals with PTB and MDR-TB. The category also describes the participants' experience and perception of the negative influence substance abuse has on individual's self-belief. One of the participants described her experience by stating:

“a lot of the things now that are being covered is aimed at treatment adherence and not using substances and finishing your treatment.” (P1: Rehab specialist)

Another participant indicated that PTB and MDR-TB survivors have difficulty with adhering to the treatment protocol once they are discharged from the hospital, and forget what they promised themselves when they were admitted to hospital. She said:

“When they get outside or they just relapse when they get outside and then they just continue their previous lifestyle.” (P2: Rehab specialist)

This category points out that substance abuse affects the treatment adherence of PTB and MDR-TB patients. This category is further described by subcategories relating to substance abuse and how it affects the PTB and MDR-TB treatment approach, as well as its effect on the worker role.

- **Substance abuse negatively affects treatment compliance.**

The participants in this study revealed that substance abuse negatively impacts the client's/patients treatment compliance. The participant said:

“a lot of the time patients who get admitted, it is because they are non-compliant, and the reason they are non-compliant is because of substance abuse.” (P1: Rehab specialist)

Another participant stated that even after having PTB or MDR-TB, clients/patients would revert back to their previous lifestyle. One participant said:

“99% of them go back to the substances, they are on substances” (P4: Rehab specialist)

The above subcategory indicates that substance abuse negatively affects treatment compliance, which causes PTB and MDR-TB patients to default from their medication, thus delaying their re-engagement at / into work.

- **Substance abuse within communities negatively affects the worker role.**

This category represents the worker role and how it is affected by substance use of PTB and MDR-TB clients/patients. The category describes the participants' perception of substance use and how it affects PTB and MDR-TB survivors. It further captures how a positive environment can influence the mind-set of the PTB and MDR-TB participants, as they are more positive and motivated once they sober up. This experience was described by stating:

“When they get here they sober up and they're not high anymore so then they realise that they have responsibilities so then they want to start providing for their families and for their children and whatever, so then yes,

then they're very interested in finding work, 'how do I find work, how do I move forward' so it is a big interest" (P2, Rehab specialist)

Participants indicated that substance abuse is one of the main barriers resulting in poor return to work rates of PTB and MDR-TB patients. Some participants said:

"substance abuse and so yeah so that is, that is one of the main barriers in terms of returning to work and also the type of work they used to do and the type of work that they can now do so being able to differentiate and make those informed choices based on their current abilities" (P1: Rehab specialist)

"The outcome is most of the time I will give a six-month disability but I will also look at their substance use, because it is quite rife here in the TB hospital because that is one of the reasons why they get TB, because of the drug use." (P4: Rehab specialist)

Another participant described how substance abuse needs to be resolved before focusing on returning to the worker role. She stated:

"Some of the groups is based on substance use and how do they cope outside because that's a big issue with patients, so before they can even start working or think about working they need to sort that issue out." (P2: Rehab specialist)

In summary, participants revealed that they experienced and have perceptions of how external and internal factors negatively influence individuals suffering with PTB and MDR-TB, both during and after their diagnosis.

4.2 Theme Two: The contextual environment influences an individual's worker role

The above theme represents the barriers identified by participants which influences the worker role. Table 5 below reflects the categories that make up the second theme.

Table 5: Theme Two and related categories

Theme Two	Categories
The contextual environment influences an individual's worker role	<ul style="list-style-type: none">• Poor socio economic conditions influence the worker role.• Work opportunities in the community influences the worker role.

Participants described the common worker role of patients who are admitted to hospital, the nature of the survivor's job characteristic, and stigma from society. The participants described that the survivor's experience and perceptions described how psychosocial factors can influence the worker role. One participant stated:

“Most of our patients they are domestic workers” (P5: Rehab specialist)

Another participant indicated how important the context of where the PTB or MDR-TB patient comes from, and how the context can influence your motivation to return to work.

“If you find a patient that comes from a secured community where it's frowned upon to not work with that patient particularly he will probably want to go to work” (P3: Rehab specialist)

The following categories are used to discuss the foregoing theme: the contextual environment influences an individual's worker role; the influence of poor socioeconomic

conditions on the worker role, and work opportunities in the community influences the worker role.

4.2.1 Poor socio economic conditions influence the worker role

Under this category, participants elaborated on the external factors in the community where they influence patients diagnosed with PTB and MDT-TB. It appears to be a common phenomenon for people to motivate for disability grants instead of pursuing the idea of returning to work. Most participants were of the opinion that because of their diagnosis they will never be able to return to work. One participant captured this description by stating:

“They’re all interested in a disability grant and that is their focus, some of them think that they’re too weak, they’ll never be able to work again” (P2: Rehab specialist)

This category is explained further with subcategories relating to ineffective community reintegration and the abuse of social support grants, and how these factors negatively influences rehabilitation intervention.

- **Ineffective community reintegration after rehabilitation negatively affects the worker role**

This subcategory conveys the message of the challenges that arise when the PTB and MDR-TB survivors go back to their community, and how the community impacts the individual.

One participant captured this by saying:

“They come here and they sober up and they want to change their lives and change the world and they’re going to make things different and we give them the skills. But when they get out there, they’re back to where they

started, they relapse, they default their treatment despite all the advice, the skills, the support that we have given them.” (P2: Rehab specialist)

Another participant indicated that there is a stigma attached to having TB and it is something that she cannot disclose when going back to the community. She said:

“If I go back to work now I can’t go put on my CV I had TB, nobody’s gonna employ me” (TB1: TB survivor)

- **Social support grants negatively influences the worker role**

Participants of the study revealed that social support grants are seen in a negative light when it comes to PTB and MDR-TB patients, as the social support grants are often abused, and further discourages PTB and MDR-TB survivors to return to work, even if they are fit and capable. A participant explained that PTB and MDR-TB survivors who suffer from substance abuse tend to misuse the grant. He said:

“But at the end of the day we also can’t watch each and every patient and what they do with the money, or grant because 99% of the patients do abuse it. They don’t use it for food and their medication, they use it for drugs and that is why they come back here and default on their medication. Because they going back to the same place that they were before, it’s quite difficult but uhm we give it to them and give them the benefit of the doubt” (P4: Rehab specialist)

Participants indicated that PTB and MDR-TB survivors would not be interested in returning to work for as long as they receive a disability grant. They described this by stating:

“so for as long as they can get their grant then they don’t see the need to go and get a job...” (P1: Rehab specialist)

“They’re all interested in a disability grant and that is there focus some of them think that they’re too weak they’ll never be able to work again” (P2: Rehab specialist)

Another participant expressed that there seems to be this misconception that social support grants exempts you from having to return to work. She said:

“there’s barriers from the clients’ side and there’s also barriers from the therapists’ side so because the clients are demotivated or they feel based on historically when you have TB you don’t have to work or they just physically unfit, those are the kinds of barriers, it’s more in terms of motivation and uhm yeah just the drive to go out because it’s easier to get obviously your social grant...” (P1: Rehab specialist)

The above subcategory indicates that social support grants negatively affect PTB and MDR-TB survivors, and their worker role.

4.2.2 Work opportunities in the community influences the worker role

This category explains the participants’ description of the worker role in the community. Participants in this study expressed that it was challenging to encourage PTB and MDR-TB survivors to be motivated towards work related activities while in the rehabilitative phase of treatment, as some of them might not have worked prior to being admitted to hospital. One participant described this by stating:

“then with the substance abuse then maybe they were not even ever working before so a lot of work programs are aimed at ‘Okay so this is what is meaningful to you and this is what you use to do but how can we adjust what it is that you are doing so that when you go out you can work in something that’s more suited to your abilities now’ but they don’t come from a culture of working so now you’re trying to create a whole new culture and that I think is a big challenge as well...”(P1: Rehab specialist)

Another participant expressed that you need to be of a certain age in order to attain a job in the community where she comes from, stating that:

“A lot of them are maybe 50 and then they say ‘no I’m too old they’re never going to accept me in the open labour market” (P2: Rehab specialist)

The above subcategory indicates that available work opportunities in the community affects the worker role, along with the culture that exists among PTB and MDR-TB survivors, that they do not have to return to work following a TB diagnosis as they will be compensated with a social grant.

- **The provision of a workplace experience enhances the worker role.**

Participants felt that the more educated an individual is the better chance they have of finding employment. One participant captured this experience by stating:

“I don’t know if this is a generalisation but your more educated patients or your patients that have quite secure jobs like one of my patients was a chef for example, okay not in a fancy restaurant or anything but you know...uhm those are the patients that would really beg and plead to get back to work and to become functional again uhm and then the others not really so.” (P3: Rehab specialist)

Another participant expressed that when you return to work, you want to return to a working environment that will be positive and good for you. She stated:

“Nee mos if you go back to work you must work in a healthy environment, a good environment.” (TB3: TB survivor)

- **Emotional support improves motivation to work.**

Participants revealed that the support they received during the rehabilitation phase of their treatment encouraged them to stay motivated. One participant indicated that through conversation with the rehab specialist she received support from, stating:

“I talk to her a lot and she inspire me to go to work.” (TB3: TB survivor)

Another participant stated that through attending therapy she was encouraged to stay positive, which aided her recovery. She described this by stating:

*“It motivated me a lot, I said to myself ‘There’s hope and I can get better.’”
(TB1: TB survivor)*

The above participant further indicated that she was motivated to return to work after having received her treatment, she stated:

“Yeah after the treatment I just told myself I need to go work, I mean I couldn’t live with my parents, I need to make some money I had to go to work so I went to Shoprite” (TB1: TB survivor)

Another participant indicated that through encouraging other patients to join OT, this motivated her, which encouraged her to stay positive for when she returned to work, and ended up in a job position where she now assists other TB survivors. She described this by stating:

“It makes me possible to go back to work because since we are the patients there and then we have different backgrounds those things and then I did said: ‘I will go out and then help the others’ because that time I was in hospital for six months and then doing nothing just going to OT, nothing, not doing the job I was doing and then I decided that when I’m going out I must make sure I’m doing my job properly because I need to help someone.”

(TB2: TB survivor)

In summary, theme two reveals that the context from which the PTB and MDR-TB survivors come from plays an integral role in how they will be accepted back into their community. It also portrayed how their context influences their worker roles.

4.3 Theme three: The future of OT services in TB rehabilitation

This theme represents the participants’ perception of change, and how a change in service delivery can facilitate improved OT services that specialise in the treatment of TB. Table 6 below summarizes the categories that comprise the third theme.

Table 6: Theme Three and related categories

Theme Three:	Categories
The future of OT services in TB rehabilitation	<ul style="list-style-type: none"> • Developing OT services that aid in work place reintegration • Rehabilitation services in primary health care

The participants indicated that work related intervention programmes would enable the PTB and MDR-TB survivors to re-engage in their worker role more effectively. Engagement in

work related programmes will also improve their ability to return to work and grant those who are unskilled to learn new skills. One participant said:

“OT doesn't have to be me sitting here and making a little crafty thing, but that you can make a crafty thing in the community, but it can be how to use a computer because that is something that every job now, you need to know how to use a computer” (P1: Rehab specialist)

The above participant indicated that OT that is practiced in TB settings should not only focus on doing arts and craft activities, but more on work related tasks and activities that will aid PTB and MDR-TB survivors in returning to work. The participant further stated:

“I know a lot of OT's do what they know and they kind of just stay away from what they are not comfortable with and this is a grey area in the TB setting.”
(P1: Rehab specialist)

The above participant expressed that occupational therapists prefer to focus on areas that they are familiar with, rather than working on components that would benefit the TB participant.

4.3.1 Developing OT services that aid in work place reintegration

This category focuses on the return to work of PTB and MDR-TB patients, and how OT services can assist in this process. One participant stated:

“When we did focus groups the requests was to have uhm ‘how to, how can we find a job” (P2: Rehab specialist)

Another participant described the programmes and activities that are currently being facilitated in government run TB institutions.

“At the moment we have education, education is: HIV, TB, eating healthy, get your life back, like the goal setting uhm life skills, time management uhm stress management, conflict all of those life skills stuff. Uhm and then there’s leather work and then there’s arts and crafts and then there’s substance use groups” (P2: Rehab specialist)

Another participant described why it was important for her to return to work, and why engagement in work related tasks would be of a benefit to her, and assist her with work re-integration. She said:

“I want to go to work because I like my work and I have a passion for my work. “(TB3: TB survivor)

This category is further explained with subcategories such as a need for vocational rehabilitation programmes in existing TB programmes, and the enhancement of work capacity of OT staff.

- **A need for vocational rehabilitation programmes in existing TB programmes.**

This category describes how vocational rehabilitation programmes can improve rehabilitation service in order to facilitate the return to work of PTB and MDR-TB survivors. The participants were of the opinion that providing vocational rehabilitation in TB programmes would enhance the return to work rates of TB survivors. One participant stated:

“the gap has always been with work and simulating appropriate tasks for the patient to prepare them to go out there and actually engage uhm you know in the community” (P1: Rehab specialist)

Another participant stated:

“Currently we do not have uhm a set program for the clients to return to

work” (P3: Rehab specialist)

The participant below described that the TB survivors themselves request activities that will improve their vocational skills for when they return to work, or seek new employment opportunities. She said:

“We did an evaluation once, of the groups, and then one of their favourite topics was the CV’s and presentation skills.” (P2, Rehab specialist)

Another participant expressed that engagement in vocational tasks and activities would allow those unskilled labourers the opportunity to learn new skills. She stated:

“Looking at also work habits, looking at being at work on time, looking at writing up a CV. Because like I have said before some of them don't know how to compile one, so looking at all of those things and skills and also doing role-playing, like I am the interviewer and you are the interviewee.” (P4: Rehab specialist)

The participant further captured this by stating:

“Setting up a garden area where they can you know, where they can learn how to garden and all of those things.” (P4: Rehab specialist)

- **Enhance work capacity of OT staff**

This subcategory conveys the participants’ descriptions of the lack of staff in community TB rehabilitation settings. Most of the participants in this study were of the opinion that the lack of staff capacity limits the type of rehabilitation programmes that rehabilitation specialists are able to facilitate. She described this by stating:

“The barriers would be lack of staff because I mean we only have...I’m the only OT here and then we have 3 OTT’s.” (P4: Rehab specialist)

Another participant explained that the lack of rehabilitation specialists in most community rehabilitation centres limits a holistic approach to rehabilitation of PTB and MDR-TB survivors. He said:

“There is a lack of capacity because I mean we are, I mean I’m one physio and just the other day we had a head count in the hospital of 190 patients. So it makes it quite impossible and that’s again also why I see patients up until a certain point” (P3: Rehab specialist)

4.3.2 Rehabilitation services in primary health care

This category indicates that the engagement of participants in vocational rehabilitation programmes will facilitate the resumption of the TB survivor’s worker role, as well as encourage holistic occupational therapy practice in a TB rehabilitation setting. She said:

“It will definitely add benefit, it brings the occupation back, whereas now sometimes the way OT is, you get sidetracked based on the culture of the institution you are at, but this brings it all back to occupation so I think it can definitely be used and be woven into what is already been happening” (P1: Rehab specialist)

- **Enhance vocational rehabilitation to allow for early intervention**

This subcategory conveys that through improving vocational rehabilitation, TB survivors will receive early intervention, which will enhance the understanding of the TB disease, and that returning to their previous worker role is possible. One of the participants indicated:

“Equip them just to make sure they understand that it’s not the end of road if you have the disease. It’s just, you must make sure that you are going to finish your treatment.” (TB2: TB survivor)

Another participant described this by stating:

“I’d say an educational program or some form of education they should be getting, you know to tell them that look number 1, this is not a debilitating illness.” (P3: Rehab specialist)

- **A need to enhance the content of vocational rehabilitation programmes**

This subcategory conveys the participants’ recommendations for vocational rehabilitation programmes that will enhance the current programmes being facilitated. One of the participants indicated:

“Here at (DP Marais) we don’t really have an existing program officially for people who need to or who would want to return to work because uhm we don’t have the you know...the necessary uhm how can I say...materials or necessary equipment for that.” (P4: Rehab specialist)

Another participant described this by stating:

“Currently we do not have uhm a set program for the clients to return to work” (P3: Rehab specialist)

Another participant indicated that the improvement of skills will encourage those patients who have a limited skill set to broaden their job opportunities in the open labour market.

One participant described this by stating that:

“everything is technological nowadays so maybe they have never used a computer before, so you can teach them how to use Word” (P1: Rehab specialist)

In summary, Theme Three reveals that the future of OT services in TB rehabilitation requires the development of OT services which will aid in work place reintegration, as well as improve rehabilitation services in primary health care.

4.4 Theme Four: Engagement in activities alleviates feelings of despondency

This theme describes the participants’ experience and perception of engagement in activities, and how it alleviates feelings of despondency during rehabilitation. Table 7 summarizes the categories that comprises the fourth theme.

Table 7: Theme Four and related categories.

Theme four	Categories
Engagement in activities alleviates feelings of despondency	<ul style="list-style-type: none"> • Participation in activities regulates negative emotions related to returning to the worker role • Engagement with others facilitates socialisation

The participants in this study revealed that engaging in activities led to an improvement in the medical and emotional state of the TB survivors. They further indicated that this improvement in health brought about positivity and was an encouragement to resume their previous worker role. One participant indicated this by stating:

“I used to do that and then each and every day even on Sundays I have to go to OT and then doing the program, for me it was fine and good because it made me feel comfortable and then believed in myself.” (TB2: TB survivor)

Another participant described this by stating:

“I was very emotional and I was very depressed and so at the progress he helped me to overcome it and I do a lot of things here like I learn to work on a sewing machine and I show the other patients what to do and work in groups and I’m the one who show them what to do and how to do it because needlework was my thing that I do yeah.” (TB3: TB survivor)

The participant further elaborated that:

“It helped me a lot and you know what, I’m not at work at the moment but I do lot of things and I sell it and to the people.” (TB3: TB survivor)

The above theme is further explained in the following subcategories: how PTB and MDR-TB patients’ participation in activities regulates negative emotions related to returning to their worker role; and how engagement with others, facilitates socialisation.

4.4.1 Participation in activities regulates negative emotions related to returning to the worker role

This category describes how the participants’ engagement in activities during the rehabilitation phase of treatment helped facilitate their recovery through decreasing their negative emotions, and ultimately aided in the resumption of their worker role. One participant said:

“I went to OT out of my own, I just told myself I need to get up and help myself, and if I can, help other people in the ward” (TB1: TB survivor)

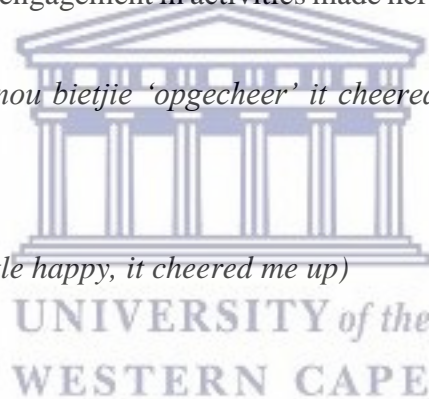
Another participant said:

Yes I did achieve many goals because I did set the goals, I remember the time I was admitted there I said: ‘I’m going to achieve the goals’ and then I said: ‘No the first week I must finish this, I must do that’ and now I finish this, and then the second week and then by the end of the month I finished this and then I start the other one, I always keep the goals then I finish the six months and everything was fine for me because I always when I wake up I just said: ‘No I’m going to finish this day and then my goal I’m going to finish it’. (TB2: TB survivor)

Another participant added that engagement in activities made her feel happy, she said:

“Yes, dit het vir my nou bietjie ‘opgecheer’ it cheered me up.” (TB3: TB survivor)

(Yes, it made me a little happy, it cheered me up)



- **To be healthy**

Improvement in health was described by the participants as a motivator in order to be discharged from hospital and resume the worker role. One participant stated:

“You must just tell yourself I need to get better, I need to get out of here, it’s like its entirely up to you there in the hospital.” (TB1, pg4)

This participant expressed that her outward appearance assisted her in feeling healthy, as she did not want to look and feel like a patient. She said:

“I told my parents bring me clothes, I don’t want to walk in my pajamas whole day and don’t want to look like a patient” (P1: TB survivor)

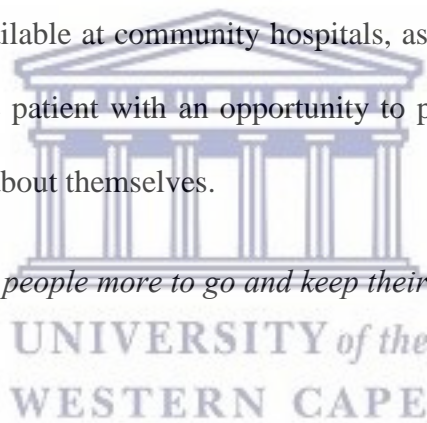
- **Engagement in therapeutic activities provides a sense of meaning and growth for individuals.**

Through improving the PTB and MDR-TB survivor's state of motivation, participation in meaningful activities provided an opportunity for them to explore and learn new skills. One participant described this by stating that:

“Creating that sense of worth within themselves that they can actually go out and do something other than what it is that they have been doing before”
(P1: Rehab specialist)

Another participant reported that patients should be encouraged to attend OT rehabilitation programmes available at community hospitals, as they will engage in activities that will provide the patient with an opportunity to possibly learn a new skill, or learn something new about themselves.

“They must motivate people more to go and keep their minds busy.” (TB1: TB survivor)



The participant further described the type of activities she engaged in:

“I did beading and I knit, there was a lot of things I did to keep me going.”
(TB1: TB survivor)

Another participant expressed that through attending the OT programme she felt more positive about herself, and it improved her emotional well-being. The participant said:

“Yes it helped me emotionally, because I sit there in my room because every day I came here to the OT department and that make me better” (TB3: TB survivor)

The participant below described that when the patients attend the OT programme, their goal is usually to return to work or seek employment once they are discharged. The participants (Rehab Specialist) indicated that this is brought about through having the individual with PTB/MDRTB engage in meaningful activities, as they begin to see their potential.

“In goal setting they all want to, their goals is always to work. “(P2: Rehab Specialist)

It can therefore be stated that participation in therapeutic activities had a positive influence on the resumption of the worker role of the PTB and MDR-TB survivors.

4.4.2 Engagement with others, facilitates socialisation

This category focuses on the influence other clients/patients can provide during the rehabilitation phase through creating a supportive environment. It is evident through this statement that it only takes one motivated participant to encourage and support others. One participant indicated this by stating:

“Maybe they scared because they don't want to come here, they stay in their rooms but I encourage them, I go and encourage them to come here.” (TB3: TB survivor)

- **Emotional support from others facilitates growth**

One participant indicated that patients undergoing treatment they require a lot of support, especially from family and friends, as there are many factors that are affected other than being diagnosed with TB. The participant stated:

“they're hospitalised uhm they going through a lot of psychological issues based on maybe loss of work uhm their family that they have to be away

from, so there's a loss of income if they're the sole providers and then being in hospital itself is depression, anxieties uhm and having to cope with all of that.” (P1: Rehab specialist)

- **Group participation enhances one's ability to learn new skills**

This subcategory explains the participants' perception of group participation, and how the willingness of patients to participate in group work influences their recovery and motivation to engage in activities. One participant said:

“Our patients are very different season-to-season, sometimes we have a group of patients that's willing to co-operate and sometimes we have a group of patients that's not willing to co-operate “(P2: Rehab specialist)

Another participant stated:

“It depends on the patient, because sometimes we do get difficult patients, sometimes we do get those that are willing, and those that are willing they are motivated” (P5: Rehab specialist)

Theme Four is an indication that TB survivors' engagement in rehabilitation intervention assisted in their recovery. Furthermore, the emotional and social support they received from their families, friends and rehabilitation specialists was a contributing factor that aided their recovery and the eventual return to work.

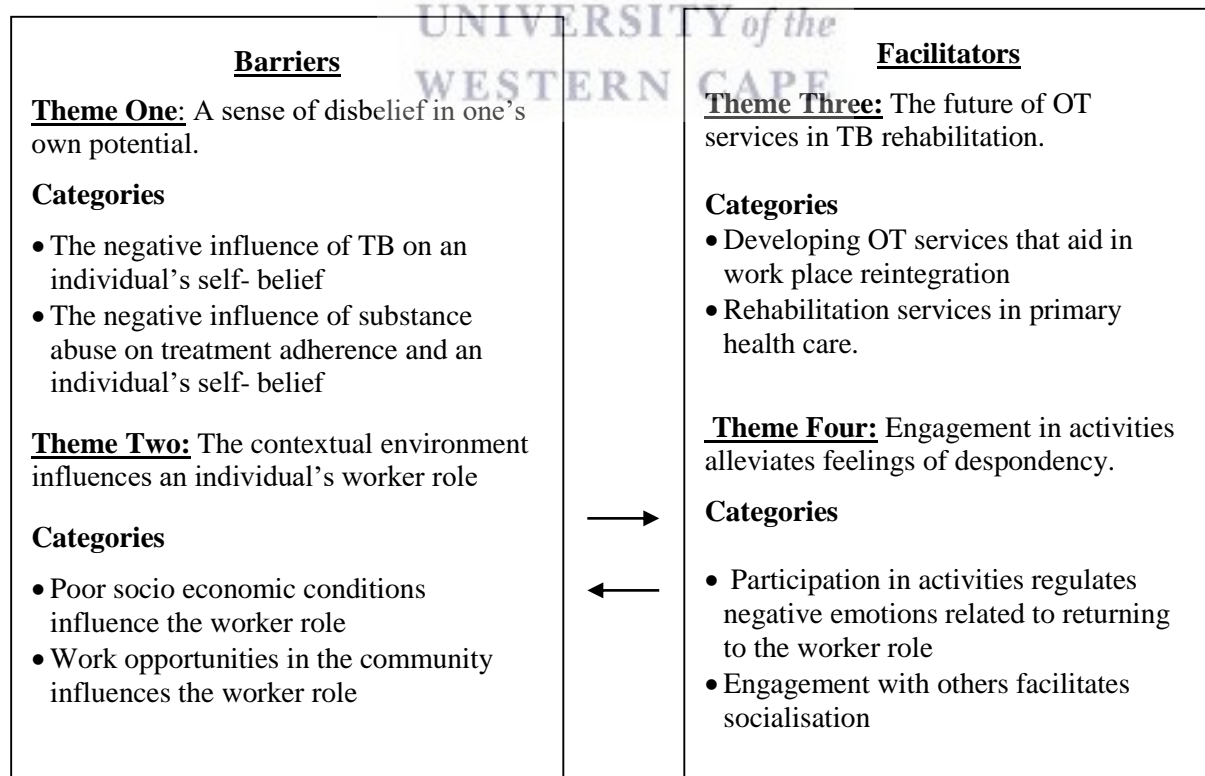
4.5 Summary

The analysis identified four themes which described the participants' experiences of RTW after rehabilitation. Theme One and Theme Two presented the participants' experiences and perceptions of the barriers hindering the resumption of the worker role of the PTB and MDR-TB survivors. Theme Three and Four described the participants' experiences and perceptions

of the factors (facilitators) that enhance OT services and programmes in the treatment of TB rehabilitation, as well as facilitate PTB and MDR-TB participants in adapting to their worker role through engagement in activities.

The barriers and facilitators link to one another through the presence of the barrier an individual with PTB and MDR TB will struggle to adapt to their worker roles. However, through the presence of facilitators the return to work process and adaptation to the worker role is enhanced. If the barriers are eliminated, there will be an improvement in return to work, and similarly with the inclusion of facilitators in the rehabilitation there is more opportunity for the individual with PTB and MDR TB to adapt to their worker role. Figure 1 below illustrates the relationship between the themes and the categorization of barriers and facilitators.

FIGURE 1: DIAGRAMMATIC REPRESENTATION OF THE RELATIONSHIP OF THEMES ONE TO FOUR AND ITS CATEGORIES



In summary, the four themes that emerged from the responses of the participants identified barriers and facilitators of return to work. This thematic content informed possible adaptations of the MOOSE.



SECTION 2:

ADAPTATION OF THE MOOSE

4.6 The Adaptation process

The qualitative information provided by the participants, including PTB and MDR-TB survivors and key informants, which were the Occupational Therapists (OT's) and Physiotherapists (PT's) was used to inform the adaptations to the MOOSE. In addition, the original concept and literature was used to integrate proposed amendments whilst maintaining programme integrity of the MOOSE as reported by Soeker (2011). The proposed adaptations to the MOOSE have been described and its layout is in a table format. The Adapted MOOSE focuses on nine components that creates the framework of the programme. The first component of the programme is *activities*, where various types of activities were recommended to be used during the programme. Explicit recommendations for activities were made which was not present in the original model. This was followed by the *therapist role* that describes which therapeutic approach is recommended to be used, followed by the *assessment method* that will best suit that specific phase of treatment. The table then describes the *clinical outcome(s)* which focuses on the specific stage of the model that the patient is engaging in. The next column looks at the duration of the treatment *session*, followed by the *core constructs*, illustrating what the therapist should focus on. The recommended *time frame* and amount of treatment sessions is suggested, followed by the type of therapist *treatment approach*. Lastly the *programme structure* is recommended.

The nine components used as the framework of the programme they remain consistent across the four stages-through which the client (i.e. individual diagnosed with PTB and MDR TB) will participate in from the commencement of therapy until the day of discharge. The four stages of the original MOOSE were kept consistent with the adapted MOOSE as they were

applicable to the study population. The components of the original MOOSE consisted of a description of the MOOSE, and recommended activities to use at each of the four stages of the model. In this study, these components were expanded to nine components in order to provide more structure and organisation to the adapted MOOSE. In doing so, the therapist facilitating the programme will have a better idea of how to facilitate therapy sessions and what outcomes to expect.

The diagrammatic representation in figure 4.1 reveals the interactions between the themes, the barriers (theme one and two) and facilitators (theme three and four). When the facilitators are able to overcome the barriers, the adaptation process of returning to work is considered to be successful. However, when the facilitators are challenged and overwhelmed by the barriers, the adaptation process of returning to work is unsuccessful.

The adaptations to each of the four stages are discussed in greater detail below. Each stage is presented in tabular form with the proposed adaptations followed by a short motivation. In this way, the adaptations are clearly discernible and allows for assessment.

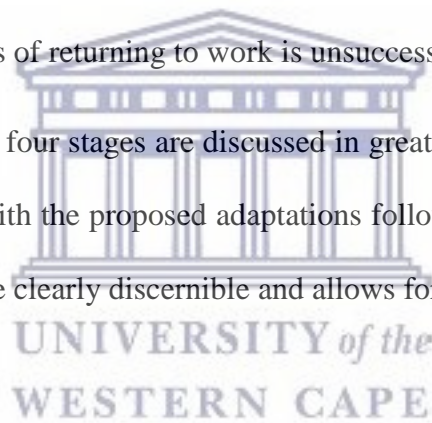


TABLE 8: ADAPTED MODEL OF OCCUPATIONAL SELF-EFFICACY- STAGE 1

STAGE 1: Stage 1 one will occur over a duration of one week

Activities	Therapist role	Assessment	Clinical outcomes	Session	Core constructs	Time frame	Treatment approach	Program structure
Role play	A client centred approach to treatment will be used. Client's insight into diagnosis will be assessed.	Assessment of specific components (i.e. range of motion, muscle strength, sensation, conation and cognition etc.)	<p>Stage 1: <i>A strong belief in functional ability</i></p> <ul style="list-style-type: none"> This stage is aimed at introspection and self-reflection of the incident and the feelings surrounding their new life circumstances post TBI. 	60 minute session	<p>Client reflects on the physical, emotional and psychological changes. Focusing on then and now.</p> <p>Telling the group, the problem, getting feedback from peers.</p>	3 x 60 minute sessions once a week	Group therapy	<p><u>Components to improve</u></p> <ul style="list-style-type: none"> - Social skills - Arousal level - Cognitive behaviour skills - Creative skills - Reflection - Self-image
Simulated work activities		<ul style="list-style-type: none"> • Modapts • Valpar • Work samples 	<ul style="list-style-type: none"> • The outcome of this phase is very similar to the first stage of the original model. Using the Gibbs reflective cycle, with focusing on introspection. The client reflects on the change that has occurred, and needs to have insight into his/her diagnosis and accept his/ her new capabilities and challenges with the goal of going back to the workplace. 	45 minute session	<p>Simulated work tasks that are specific to the client.</p> <p>Focus on work hardening skills.</p>	1 x 45 minute session once a week	Individual therapy	<p><u>Components to improve</u></p> <ul style="list-style-type: none"> - Endurance - Muscle strength - Range of Motion - Self image

Stage 1 focuses on the PTB and MDR-TB patients' introspection. This stage of the model is the same stage that was used in the original MOOSE. The same principles of stage 1 were used in the adapted MOOSE as the Gibbs reflective cycle is identified as an effective tool for introspection. However, during stage 1 of the adapted model, the researcher went into greater detail of how the programme will be run. Whereas in the original model, only a list of activities to use was listed, and not the creation of a full programme layout by utilising role play and simulated work activities, stage 1 will be facilitated through the use of both group and individual therapy techniques. In conclusion, the changes that were made to the adapted model in stage 1 will assist rehabilitation care specialists to assist PTB and MDR-TB survivors through the use of appropriate assessment tools and therapy techniques. Changes made to the adapted MOOSE were decided upon based on the findings of the study where rehabilitation care specialist shared their experiences and recommendations. The core adaptations are reflected in the Table 9 below.

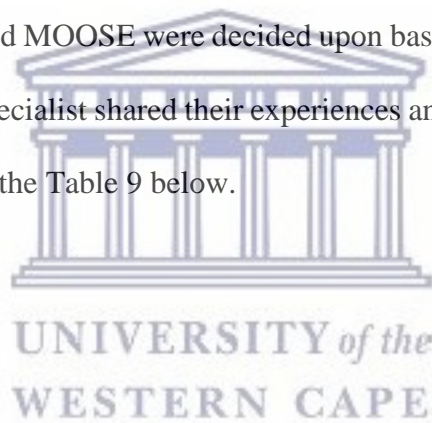


TABLE 9: CORE ADAPTATIONS OF STAGE 1

ADAPTATION	DATA SOURCE
Inclusion of Role play as an activity	Theme 3, category 1, sub category 2 supports the reasoning behind including the technique of role play. A participant recommended as a good opportunity for PTB and MDR-TB survivors to learn interviewing skills (P4: Rehab specialist).
Education/ Knowledge	Theme 3, category 2, sub category 1: it was recommended by a rehabilitation specialist that an educational program or some form of education be included, as this supported the clinical outcome of stage 1 (P3: Rehab specialist).
Work simulated tasks	Theme 3, category 1, sub-category 1. It was identified that if patients could engage in work simulated tasks, that it would prepare the patient for when they are discharged (P1: Rehab specialist). It was also stated in this theme by another participant that there wasn't a set programme in place for the clients to return to work (P3: Rehab specialist).
Assessment tools	Theme 1, category 2 that the use of will be beneficial in the programme.

From the table above it becomes evident that the adaptations in Stage One included explicit activities whereas the original model focused on the overarching tenor of the stage. The specificity with which the activities are identified is in direct relation to the target population and their clinical presentation. Thus, the participants were able to aid in making the model more specific to the target group which in turn will aid the rehabilitation specialist.

TABLE 10: ADAPTED MODEL OF OCCUPATIONAL SELF-EFFICACY- STAGE 2

STAGE 2

Stage Two will occur over a duration of two weeks

Activities	Therapist role	Assessment	Clinical outcomes	Session	Core constructs	Time frame	Treatment approach	Program structure
Skills training- Microsoft word	The therapist will facilitate basic training on Microsoft word to those participants who fit the criteria.	<p>-Work samples (e.g. Modapts and Valpar)</p> <p>-Assessment of specific components (i.e. range of motion, muscle strength, sensation, conation and cognition etc.)</p> <p>-Assessment of work abilities (i.e. work habits, work competence, work endurance)</p>	<p>Stage 2: <i>Use of Self</i></p> <ul style="list-style-type: none"> • During this stage the client regains control of their life situation and realizes their potential. • During this stage, the participant should have insight in his/ her coping strategies, and enhance their sense of self- efficacy. • Patient should be competent in understanding the meaning of self- efficacy before entering the next stage. 	60 minute session	Focus on critical thinking skills and problem solving. Encourage the client to find logical and practical solutions to problems.	5 x 60 minute sessions for 1 week.	Group therapy.	<p><u>Components to improve</u></p> <ul style="list-style-type: none"> - Memory - Sequencing - Attention span - Concept formation - Problem solving

Stage 2 of the adapted model focuses on the use of self, with an improvement of the adapted model through the elaboration of how the programme will be facilitated. For example, the rehabilitation specialist will be to facilitate training on the use of Microsoft word. One participant underscored technological skills in his reflection on the rapidly developing technology and the extensive use thereof in the world of work and leisure. Thus, it only seems sensible to empower the PTB and MDR-TB survivors with skills that will enhance their marketability in the open labour market. This recommendation was identified in Theme 3, Category 2, Subcategory 2 (P1: Rehab specialist). Table 11 below summarizes the major adaptations and links to the data source.

TABLE 11: CORE ADAPTATIONS OF STAGE 2

ADAPTATION	DATA SOURCE
Prevocational skills training.	Theme 4: Assessing the PTB and MDR-TB survivors' work abilities (P1: Rehab specialist)
Technological skills/ word processing	Theme 3: A participant stated that the practice of OT rehabilitation doesn't need to only be focused on activities that require you to make a craft, but rather skills such as knowing how to use a computer. This was highlighted as the use of computers is widespread across all communities and it is a common practice to have some basic knowledge on the use of computers. It is vital to know how to access and use Microsoft word (P1: Rehab specialist).
Developing a curriculum vitae	Curriculum Vitae writing was also highlighted as a valuable skill in this study, so in
Use of group-based learning	life skills groups, education groups, support groups, sport, leisure, and recreation, arts and crafts and substance abuse groups

In Stage 2, the adaptation is primarily around the inclusion of prevocational skills. The adaptation identified particular skills such as technical skills and Curriculum Vitae (CV) writing to make a more credible and realistic link to the world of work.

TABLE 12: ADAPTED MODEL OF OCCUPATIONAL SELF-EFFICACY- STAGE 3

STAGE 3: Stage 3 will occur over a duration of two weeks

Activities	Therapist role	Assessment	Clinical outcomes	Session	Core constructs	Time frame	Treatment approach	Program structure
Work specific skills	The therapist will facilitate the activity and assess the participant's engagement in the activity.	-Assessment of specific components (i.e. range of motion, muscle strength, sensation, conation and cognition etc.) -Assessment of work abilities (i.e. work habits, work competence, work endurance)	Stage 3: <i>Creation of competency through occupational engagement</i> <ul style="list-style-type: none"> In this stage the client continually improves, so their view of themselves are shifted from a sick role (or I am unable) to a more positive and independent role. During this phase, the client is given the opportunity to equip themselves with the necessary skills in order to return to work This allows for the improvement of a positive sense of self-efficacy. This sense of independence could be measured by a Functional Independence Measure The client will be able to engage in simulated tasks as per the requirement of the job description identified. The client will be involved in work test placements for brief periods of time 	60 minute session (s)	Allowing the client to find ways to solve their own problems at work.	3 x 60 minute sessions for 1 week.	Individual therapy	<u>Components to improve</u> <ul style="list-style-type: none"> - Endurance - Muscle strength - Memory - Sequencing - Problem solving - Instruction retention - Safety with tools
CV writing and professional behaviour	The therapist will facilitate basic training on how to construct a CV and conduct oneself in a professional manner during job interviews.		<ul style="list-style-type: none"> The client will be able to engage in simulated tasks as per the requirement of the job description identified. The client will be involved in work test placements for brief periods of time 	60 minute session (s)	Encourage the client to reflect on the physical demands of the job and the possible workplace scenarios they might be faced with that could be challenging. Brainstorming practical solutions to problems.	5 x 60 minute sessions for 1 week.	Group therapy	<u>Components</u> <ul style="list-style-type: none"> - Memory - Sequencing - Attention span - Concept formation - Problem solving - Social conduct - Time management - Coping skills

Stage 3 is the area of the programme that focuses on creating competency through engagement in tasks. Stage 3 of the adapted model focuses on improving the self-efficacy of the PTB and MDR-TB survivors, but differs from the original, in that it provides a more detailed outline of the type of activities that the PTB and MDR-TB survivors will engage in. Here the rehabilitation specialist will facilitate work skills specific to the PTB and MDR-TB survivors, as well as facilitate training on professional behavior appropriate in the workplace, and how to compose a CV. Table 13 below summarizes the adaptation and the data source.

TABLE 13: CORE ADAPTATIONS OF STAGE 3

ADAPTATION	DATA SOURCE
Job seeking skills	Theme 3, category 1, a rehabilitation specialist explained that during the focus groups, PTB and MDR-TB survivors would show a strong interest in returning to work, by enquiring about the process it takes to find a job (P2: Rehab specialist).
work related group sessions	Theme 3, category 1, sub category 2, PTB and MDR-TB survivors enjoyed engaging activities such as, CV composition and presentation skills. (P2, Rehab specialist). Theme 3, category 1, sub category 2 supported that professional behavior and work habits be addressed in the programme (P4: Rehab specialist).
Nutrition and health	Theme 3, category 1, a rehabilitation specialist recommended components that will be useful in the structure of the programme, such as HIV and TB education, having a healthy diet, life skills,
Life skills	Money management, goal setting , time management and stress management (P2: Rehab specialist).

From the above table, it becomes evident that the adaptations attempt to strengthen the contextual relevance of the activities.

TABLE 14: ADAPTED MODEL OF OCCUPATIONAL SELF-EFFICACY- STAGE 4

STAGE 4: Stage 4 will occur over a duration of one week

Activities	Therapist role	Assessment	Clinical outcomes	Session	Core constructs	Time frame	Treatment approach	Program structure
Coping skills and conflict management	The therapist will facilitate life skills groups.	-Assessment of work abilities (i.e. work habits, work competence and work endurance).	<p>Stage 4: <i>The capable individual.</i></p> <ul style="list-style-type: none"> At this stage the client has successfully engaged in work tasks that ultimately improve their volition and worker role. Their view of themselves improves as they succeed in work related occupations. During this phase, the client is placed into the open labour market or learner-ship facility. This will provide the client with a sense of independence and allow them to feel a greater sense of self confidence and improve their self-efficacy levels. 	60 minute session	The client should be encouraged to discuss how they are coping within the workplace.	Once a week	Group therapy	<p><u>Components to improve</u></p> <ul style="list-style-type: none"> - Self confidence - Problem solving skills - Reflection - Coping skills

Stage 4 is the final stage of the programme, where the PTB and MDR-TB survivor moves towards functioning as a capable, motivated individual who is ready to integrate back into society. In Stage 4 of the adapted programme, the PTB and MDR-TB survivor is placed in the open labour market, so having confidence in their abilities and job skills is important for successful integration. The PTB and MDR-TB survivors engage in work tasks that assists with improving their volition and worker role.



TABLE 15: CORE ADAPTATIONS OF STAGE 4

ADAPTATION	SOURCE DOCUMENT
Detailed program structure to focus on psychological well being	Theme 4, category 2, sub category 1: the PTB and MDR-TB survivors go through a lot of changes, and psychological difficulties when they are hospitalised. These psychological problems are often based on unemployment, a lack of family responsibility, as well as a loss of income if they're the sole providers. Therefore possibly causing PTB and MDR-TB participants to go through phases of depression and anxieties (P1: Rehab specialist).
Activities	Coping skills and conflict management

From the above, it becomes evident how the barriers and facilitators were considered in the adaptation of the MOOSE. The resultant adapted version was presented to the rehabilitation specialists to review, and to reflect on the appropriateness of the adaptation. The results are presented in the next section. Theme Five and Theme Six presented the participants' perception, specifically focusing on the rehabilitation care specialists' view of the usefulness of the adapted Model of Occupational Self Efficacy.

SECTION 3:

REHABILITATION SPECIALISTS' VIEW OF THE ADAPTED MOOSE

Two themes emerged from the reflections on the proposed adaptations.

The themes were based on the rehabilitation care specialists' view of the usefulness of the adapted MOOSE, specifically for individuals diagnosed with PTB and MDR-TB. Theme Five related to promoting a holistic model. Theme Six related to the use of resources for activity engagement. The themes are discussed in greater detail below.

4.7 Theme five: Promoting a holistic model

The above theme represents the participants' comments on the adapted programme. The rehabilitation specialists reflected that the adapted programme focused on various areas impacting the lives of TB and MDR-TB patients, and could therefore be considered a holistic approach to facilitating return to work for this target group. The participants also indicated that the adaptation assisted with community integration and return to work as a rehabilitation intervention. The quote below illustrates this theme,

“So the programme itself like I said, is a holistic program ... like prevocational skills training is one component of it, ...it includes like, life skills, education groups, support groups, uhm just leisure, sport and leisure, and recreation, arts and crafts and then substance abuse” (P1: Rehab specialist)

Another participant indicated that the adapted programme recognizes the type of clients that will be engaging in the rehabilitation programme and their contextual reality. She said:

“...when I say realistic, [it looks] at the context where they coming from because some of them....some of them don't have the resources, uhm you know

the resources to achieve those goals, so we look at the context where they coming from, the community...where they are going back uhm so we try and make it as realistic as possible...” (P4: Rehab specialist)

Theme Five consisted of two categories namely, Developing a client-specific program and therapist involvement.

4.7.1 Developing a client specific program based on context

This category describes the focal point of the programme. Most of the participants felt that the adapted programme appeared to be guided by the needs of the clients/patients. One participant explained that the tasks and activities proposed for the client/patient to engage in are meaningful, which in turn would benefit the client/patient. He said:

“tasks [that] they can’t actually do [it] outside [is] not really meaningful. So I think those [are the] kinds of things to consider uhm when drawing up (programme)” (P1: Rehab specialist)

This was further captured by another participant, who stated:

“...programs [must be based] on what the patients’ needs are and what they say they’re interested in, if they don’t come up with stuff then we would recommend certain things” (P2: Rehab specialist)

The participants identified a number of features of the adapted MOOSE which is an example of holistic programming. Table 16 below summarizes these features with supporting or illustrative quotes.

TABLE 16: HOLISTIC FEATURES OF THE ADAPTED MOOSE

Feature	Explanation	Illustrative quote
User friendly program	Participants felt that the programme demonstrated an understanding of who the clients were clinically. The components of the programme would thus encourage active participation and provide a scaffolded approach to skills acquisition and rehabilitation that would facilitate return to work for this clinical group.	<p><i>The first stage of the model, is the strong believe in functional ability [the programme considers] that some of them don't even know what it is to set a goal [and how] important [it is] for them to build a realistic and healthy self-esteem” (P1: Rehab specialist)</i></p> <p><i>“Having that simulated work environment, so maybe they can start off with concrete task centered activities but then they can go towards like having now a specific task.”(P1:Rehab specialist)</i></p>
Engagement with a psychosocial approach	Participants felt that the programme demonstrated an understanding of psychosocial factors that might represent an intersection with race and class. The components of the programme, the explicit identification of activities, and the use of groups reflected both the socio-political context of rehabilitation in the public health care system and the client population.	
Active and optimal therapist engagement in the programme	The types of activities included require higher levels of therapist engagement, and thought was given as to how groups could be used as a viable alternative to individual contact for rehabilitation. Clients who proceeded to higher stages in the model could also be included as peer facilitators that in turn increases SE and provides opportunities for practicing the work role in a supervised or guided fashion.	<p><i>... in terms of human resources also uhm we don't always have the time[for]lots of patients [working] in one on one sessions just to draw up the CV... so most of everything [can] take place in a group” (P2: Rehab specialist)</i></p>

<p>Positioning the therapist as external support and motivation</p>	<p>The adapted programme takes into account the need of clients to draw on the rehabilitation specialist as a resource for external motivation. The activities selected do not require the external environment to be ready and fully capable to receive the rehabilitated patient. It fosters an alliance with the therapist and the rehabilitation process as a resource which the patient will be able to internalize during the rehabilitation process.</p>	<p><i>See[ing] motivation from [the therapist]. So they need to see that someone else actually believes in them. A lot of time ... people just don't have that self-belief because no one believes in them in any case" (P3: Rehab specialist)</i></p>
---	---	--



From the previous table it becomes evident that the adapted programme demonstrated features of holistic programming

4.7.2 Therapist engagement in the programme

This category is representative of the participants' view of the extent of therapist involvement in the activities included in the adapted programme. Activities such as CV writing and group work are labour intensive. Participants expressed that the adapted programme may not be feasible given the limitations in the public health care system. For example, one participant explained that human resources were inadequate to fulfil all the goals and objectives for the clients/patients. The participants identified that group work is adopted as a compromise to ensure that therapists can be involved with more clients, at the expense of depth work at an individual contact level.

- **Understanding the client's context**

The participants underscored the importance of understanding the population of patients that are admitted for PTB and MDR-TB treatment. The ability of therapists to facilitate return to work is predicated on the extent to which the target group has a premonitory appreciation of employment and functional work. The participants reflected that the PTB and MDR-TB patients might not have been employed prior to being admitted to the hospital. A participant stated that some clients/patients would need a lot of education to understand the worker role. Thus in reviewing the adapted programme, participants identified that the inclusion of work-related activities was contextually sensitive and relevant for the target group. The contextual relevance of these activities will enhance the adoption and generalization of the adapted programme.

- **Therapist as external support and motivation**

The participants reported that the adapted programme did not specifically speak to the role of therapists in providing support and motivation to patients. The adapted programme provided appropriate activities for engagement with patients, but did not structurally provide for the explicit provision of support and motivation to patients given that patients with PTB and MDR-TB often have insufficient external and internal resources. This is consistent with all programmes unique to the adapted programme. The rehabilitation specialist must possess or display an awareness of the need for and an intention to provide support to patients in the process of initiating or resuming the worker role.

In summary, the participants indicated that the adapted programme includes many features of holistic programming. However, they cautioned that human resources in the public sector may not support the programme initiatives and activities. The adapted programme clearly speaks to being client-centred. Participants introduced realistic limitations related to the social context and premorbid functioning of the target group that in turn will require of the therapists to extend themselves and to present themselves as psychological resources. This theme reveals that the rehabilitation specialists need to know who their patients are and where they come from, in order to provide them with appropriate rehabilitation services. This will encourage patients to resume their worker role or initiate a new worker role.

4.8 Theme Six: The use of resources for activity engagement

Theme Six addressed the resources for activity engagement in the adapted programme for patients with PTB and MDR-TB. The theme included two categories namely; 1) resources and staff in public health care, and 2) vocational rehabilitation assessment tools.

Table 17: Theme six and related categories

<u>Theme 6</u> Resources for activity engagement	<ul style="list-style-type: none">• Resources and staff in public health care• Vocational rehabilitation assessment tools
--	--

4.8.1 Resources and staff in public health care

Within this category, participants underscored the importance of considering the resources available in rehabilitation settings where the adapted programme would be implemented. They identified that the lack of physical, human and financial resources would pose a threat to the resumption of the survivor's worker role. Most participants were of the opinion that improved services to the PTB and MDR-TB survivors could be delivered if they had the necessary resources. One participant captured this description by stating:

“Here at DP we don't really have an existing program officially for people who need to or who would want to return to work because uhm we don't have the you know...the necessary uhm how can I say...materials or necessary equipment for that.” (P4: Rehab specialist)

Another participant described this by stating:

*“... we're very limited with resources, human and physical resources.”
(P2: Rehab specialist)*

These quotes illustrate the context within which the adapted programme would be used to facilitate return to work for the targeted clinical group. This reality makes it necessary to work collaboratively in order to manage the lack of resources.

“If we merged more often surrounding our patients then it would definitely work a lot better and the patient will have a better outcome”

(P3: Rehab specialist)

The participants felt that the adapted programme lends itself to collaborative service delivery. The activities included may be labour intensive, but the way in which it is compiled allowed for rehabilitation specialists to work together if there were human resource constraints. Collaboration made possible by the inter-professional nature of the activities included in the adapted programme could be more of a benefit to the PTB and MDR-TB survivors. This category has two sub-categories. Below is a brief explanation of these subcategories.

- **The lack of resources affects the quality of treatment provided**

This subcategory conveys the participants' concerns that delivering good quality rehabilitation or intervention descriptions are contingent on sufficient resources. Thus, the adapted programme should be robust enough to maintain its good quality despite the lack of resources. The adapted programme has the appropriate components to empower the PTB and MDR-TB clients/patients, but financial support will enhance the implementation of the programme. However, managing the impact of contextual factors such as, resources, is related to the skill level and experience of the rehabilitation team or therapist.

- **Skill development**

Participants in this study were of the opinion that engagement in work skills were not focused on enough during rehabilitation, as well as the promotion of new skills. They indicated that therapists often overlooked vocational rehabilitation in favour of the physical rehabilitation of the client/ patient. Participants felt that the adapted MOOSE specified activities that promoted skills development during the rehabilitative phase.

The above subcategory indicates that rehabilitation services need to focus more on skill development that promotes vocational rehabilitation.

4.8.2 Lack of vocational rehabilitation assessment tools

This category is representative of the participants' perceptions of the lack of vocational rehabilitation assessment tools that are made available in government-run health institutions. Participants underscored that work skills are often sacrificed when there are financial constraints that impact material resources. The category is further described with subcategories relating to participants' experiences and perception of vocational rehab standardized assessments and the engagement in vocational rehabilitation.

- **Usefulness of vocational rehab standardized assessments**

This subcategory conveys the description of the usefulness of vocational rehabilitation standardised assessments. Participants in this study were of the opinion that standardised assessments would provide more of an accurate representation of the client/patient's work ability. She described this by stating:

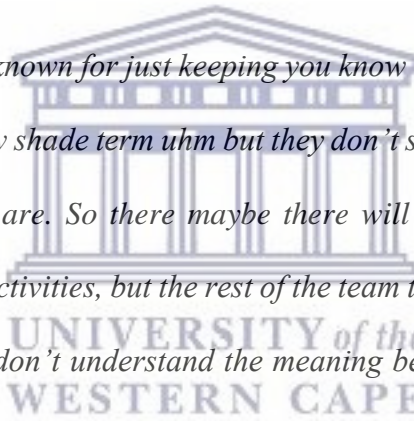
“Looking at also getting equipment, and more standardized tests where the work assessment, the result could be more accurate,” (P4: Rehab specialist)

The participant further emphasized this point by saying:

“The doctor will sometimes refer us, refer the patients to us for a disability grant scheme, uhm but it's not how can I say.... It's very basic because we don't like I said have the necessary equipment like the Valpar and Modapts or all of those things to actually assess them in the way that they supposed to be assessed...” (P4: Rehab specialist)

- **Engagement in vocational rehabilitation**

This subcategory addressed the extent to which the adapted programme makes vocational rehabilitation tasks available for PTB patients to engage in. One participant expressed that it would be easier to encourage engagement in work-related tasks or activities given that it is included in the adapted programme. The inclusion of vocation related activities and skills development will increase patients' interest, which in turn will promote learning and engagement. One participant identified that these aspects of the adapted programme will contribute to the sustainability of return-to-work and integration back into the community. One participant identified that the adapted programme helps to make the link between the activities and the rehabilitation outcome clearer for patients and therapists.



“OT historically is known for just keeping you know that whole “keeping people busy” the new shade term uhm but they don’t see what the purpose of the interventions are. So there maybe there will be car washes and income generating activities, but the rest of the team they aware of what’s happening but they don’t understand the meaning behind the activities”
(P1: Rehab specialist)

The above quote describes that clients/participants need to understand why they are being taught new skills or engaging in specific work related tasks. This insight or linkage between theory and practice was less apparent in traditional OT interventions.

CHAPTER FIVE

DISCUSSION

5. Introduction

This chapter discusses the results reported in the previous chapter in relation to the body of literature. The chapter is organised in terms of the objectives of the study. The present study attempted to adapt the model of occupational self-efficacy (MOOSE) for application with clients living with tuberculosis to aid their return to work. The present study was conducted along four objectives reflected below:

- To explore the stakeholder's perceptions of the barriers relating to return to work programmes for clients living with PTB and MDR-TB.
- To explore the stakeholder's perceptions of the facilitatory factors relating to return to work programmes for clients living with PTB and MDR-TB.
- To explore the stakeholder's perception of adaptations needed for clients with PTB and MDR-TB
- To adapt the content of the Model of Occupational Self- Efficacy for clients living with PTB and MDR-TB.

For the purposes of this chapter, Objectives One, Two and Four are discussed briefly in relation to literature. The process of adaptation contained in the third objective has been reported on fully in the preceding chapter.

5.1 OBJECTIVE ONE: BARRIERS TO RETURN TO WORK

Themes One and Two addressed thematic content related to barriers to returning to work.

5.1.1 A sense of disbelief in one's own potential

As a result of the findings in this study, there were many barriers identified by participants, one of which was, "A sense of disbelief in one's own potential". This barrier was described in theme one of the study, where participants expressed that they experienced having poor motivation and belief in themselves after having suffered from PTB and MDR-TB.

According to the World Health Organization (2001), barriers are more than just a physical obstacle. Rather, it is described as components in a person's environment that through its presence or absence, may hinder one's ability to function optimally within the environment. These components are described as obstacles that cause inaccessibility to one's physical environment i.e. shortage of assistive devices, society's attitude or approach towards disability, and lastly, legislation that prevents the involvement of all people.

According to the Oxford Dictionary (2009), disbelief is described as the inability or denial in accepting that something is true or real, while potential is defined as the ability to have or display the capacity to develop into something in the future, and lead to future success or usefulness. The participants expressed that being diagnosed with PTB and MDR-TB hinders one's physical and functional abilities to the extent that one starts feeling demotivated, which leads to feelings of disbelief in their potential. Even though the participants show the potential to learn new skills or perhaps return to their previous worker roles, their lack of belief in themselves limits their capacity to do so. One

participant further elaborated that the patient's level of motivation varies from patient to patient, as people in general cope with stressful situations in different ways, and will subsequently identify with their potential individually.

5.1.1.1 The negative influence of TB on an individual's self- belief

A participant mentioned that at times patients are forced by their families to remain in hospital in order for their course of medication to be completed. This is largely due to patients being unmotivated and showing signs of despondency. Another participant pointed out that patients often go through a lot of psychological changes when they are diagnosed with PTB and MDR-TB, such as depression and anxiety. Their feelings of despondency are often brought on by the fact that the patient could face losing their job, which would result in a loss of income and job security. It is important to note that treatment adherence in patients with TB is a major factor in the success of their treatment. Poor treatment adherence leads to a greater opportunity of a relapse.

The findings reflected in this theme are consistent with research on adherence to other syndromes where psychological processes come into play. For example, Kakili (2010) reported that mental conditions such as depressive disorders, anxiety and stress have a negative effect on treatment adherence of patients. In a study conducted on depression in South Africa, researchers found that patients with depression default from treatment more than non-depressed patients (Kagee & Le Roux, 2007). Furthermore, it is indicated that patients who are receiving chronic medication for TB, diabetes, HIV/AIDS and hypertension tend to suffer from stress and depression as they have to adjust to coping with taking medication on a daily basis (Simpson, 2006; Kim, Han, Hill, Rose & Roary, 2003; Kilbourne et al., 2005). Thus, the recognition of psychological sequelae in the rehabilitation of PTB patients is very important.

5.1.1.2 The negative influence of substance abuse on treatment adherence and an individual's self- belief

The term referred to as adherence is interpreted as the extent to which individuals follow instructions for taking prescribed medication (Clark *et al.*, 2008). Therefore, in order for treatment adherence to take place, the patient and healthcare worker need to be in agreement so that the patient understands what is expected of him or her. According to the World Health Organisation (2003) only 50% equates to the adherence rate for individuals who suffer from various conditions.

According to Kakili (2010), TB treatment adherence in patients is an important facilitator in achieving treatment success, as poor adherence leads to a greater chance of defaulting off treatment. This will result in a greater opportunity for drug resistance, such as MDR-TB and XDR-TB. Alcoholism is another major barrier in TB adherence as excessive alcohol consumption is known as one of the major contributing factors for patients defaulting from their treatment. This is due to the fact that patients either forgot or they do not prioritise taking their medication due to intoxication. In addition, when patients default off their medication, there is a negative effect on the healthcare system as the patient will need to restart their medication regime.

According to Clark and colleagues (2008) the behaviour which governs a person to follow through with taking medication is a complex one as it involves biological, psychological and social aspects. It has been consistently reported that some of the risk factors for poor treatment adherence include poor insight, substance abuse and a negative attitude about treatment efficacy (Fenton *et al.*, 1997, Lacro *et al.*, 2002).

Kakili (2010) further states that in many developing countries such as India, Mexico and South African, alcohol use is the major barrier to TB treatment adherence. Excessive

alcohol consumption has been noted as a major factor contributing to defaulting on TB treatment. Studies found that patients tend to forget or ignore taking their medication after excessive consumption of alcohol (Jaiswal et al., 2003 & Guillen et al., 2008).

One participant stated that clinicians working in TB settings are starting to focus more on treatment adherence, as participants often relapse and default off their medication when they are discharged from the hospital. Previous lifestyles and habits are resumed, as they forget the promises they made themselves when they were hospitalised. When individuals engage in substance abuse, it naturally alters their state of mind, which can lead to poor treatment compliance. Substance abuse also affects the quality of life of individuals, as the use of substances becomes the priority in the individual's life, which results in them neglecting their health (Clark *et al.*, 2008). Poor adherence to medication is one of the factors that can increase the likelihood of patients relapsing (Zygmunt *et al.* 2002).

As stated by the World Health Organisation (2003) in a discussion of a topic relating to treatment adherence in long- term therapy, it is said that adherence is a multidimensional phenomenon that has five inter-related factors that influences treatment adherence in patients. These factors include; socio economic factors, therapy- related factors, Patient-related factors, Condition- related factors and Health system/ team factors. Therefore, the common belief that patients are solely responsible for their treatment adherence is false or at least confusing, as the other factors are often overlooked and not taken into account when patients default from their medication. According to Kakili (2010), socio-economic factors are known to have a negative influence on treatment adherence.

5.1.2 The contextual environment influences an individual's worker role

Theme Two - "The contextual environment influences an individual's worker role" was identified as a barrier by participants in this study. This barrier was pointed out by various participants who expressed that the context in which the participants come from i.e. either their home or work environment, plays a part in determining the worker role of the participants. The participants' context can either positively or negatively influence the participants' desire to return to their previous worker role, based on the stigma and influence within society (Kakili, 2010).

5.1.2.1 Poor socio economic conditions influence the worker role

The participants in this study indicated that socio economic factors influences the worker roles of participants, as people who come from poor socio-economic areas tend to have a different opinion of the worker role. As people who come from a higher socio economic area, tend to have a greater drive to return to their previous worker role, as it is a societal norm to seek work to earn an income. However, in lower socio economic areas, where you will find people at home during the day and not actively working, people living in these areas appear to be less motivated to return to work, especially if they are satisfied in receiving a monthly disability grant. Even though patients receive a disability grant, the amount of income received is not significant, particularly if they were previously employed.

It is known that unemployment is a critical problem in many developing counties such as South Africa, (Kakili, 2010). Participants expressed that upon their return from areas of a lower socio economic status, they are exposed to many social ills and stigma, and lower income jobs are less likely to employ you if you previously suffered from a disease.

This has further been expressed in a study that explored the experiences of patients with adverse-drug effects of MDR-TB in primary health care facilities in the Western Cape. There are various socio-economic factors which typically impact MDR-TB patients. They are challenged in being stigmatized for having MDR-TB and often face socioeconomic barriers such as inaccessibility of accessing treatment due to transport costs, and acquiring a social grant. Participants expressed their frustration of lost income due to their incapacity of returning to work, due to the long duration of treatment. The loss of income negatively impacts the family especially when the patient is the breadwinner (Tinzi, 2017).

5.1.2.2 Work opportunities in the community influences the worker role

A participant in this study conveyed that many of the patients that are admitted for PTB and MDR-TB treatment were either unemployed or they were low income workers prior to being admitted to hospital. Another participant expressed that when returning to work, you want to be in a working environment that will be supportive and positive, and not one where you will feel discriminated for having TB. Discrimination is a key work-related factor that surrounds PTB and MDR-TB patients, as they feel that disclosing their TB status to their employers and colleagues will allow for discrimination in the workplace. In addition, there is a fear of job loss (Kakili, 2010). This ‘fear of job loss’ which most TB and MDR-TB survivors live with, is further discussed by Tinzi (2017), where it is indicated that when a diagnosed MDR-TB patient starts their treatment, they embark on a two-year treatment regime which involves several hospital visits and close monitoring for at least the first six months of treatment. Unfortunately, not all work environments can accommodate or tolerate staff from missing out on their work responsibilities, which results in participants either having to resign from their jobs or being asked to leave (Tinzi, 2017).

A participant expressed that through emotional support, her motivation to work improved, and the support she received while hospitalised, helped her stay motivated. Another participant stated that occupational therapy aided her recovery as it helped her to stay positive, which motivated her to return to work after having received her treatment. The contexts which PTB and MDR-TB patients come from is said to influence their worker role, so it is imperative that this context is understood as it plays a vital role in controlling how the patient is accepted back into to the community.

5.1.3 The use of resources for activity engagement

This section focuses on the lack of resources and the experiences of the rehabilitation specialists in working with TB patients. The participants of this study reported that due to the lack of resources, they are limited in terms of delivering rehabilitation services to PTB and MDR-TB survivors, which negatively affects their ability to resume their worker role.

5.1.3.1 Lack of resources and staff in public health care

In this category the participants described that a lack of resources, including physical, human and financial, pose a threat to the resumption of the survivor's worker role. Most participants were of the opinion that they would be able to deliver better services to the PTB and MDR-TB survivors if they had the necessary resources. One participant who works in the public sector expressed that due to a lack of physical, human and financial resources, the implementation of a return to work program is impossible as they do not have the necessary resources. Medical staff shortages in public healthcare facilities continue to be one of the major problems in the medical field within the public sector. This is found to be a common problem due to the high turn-over rate of staff, the lack of resources, and over populated medical facilities (Tinzi, 2017). Due to the fact that clinicians are not able to provide the necessary intervention programmes, there is a lack

of appropriate rehabilitation services provided, and growth is thus limited. Another participant who works in the public sector expressed that the area of vocational rehabilitation is often overlooked due to the fact that other demanding areas of treatment such as, physical rehabilitation is prioritised. Therefore, very little focus is placed on work skills, specifically the engagement in work skills as well as the promotion of new skills.

5.1.3.2 Lack of vocational rehabilitation assessment tools

This category describes the perceptions of the participants that work in the public sector, as they convey their experience from working in government-run health institutions. The lack of vocational rehabilitation assessment tools was said to be as a result of the lack of financial resources in providing for standardised work assessment materials. One participant described that in order for return to work programmes to be facilitated, one would need standardised vocational rehabilitation assessment tools. These assessment tools allow for an accurate representation of the patient's abilities, which in turn provides a greater chance of patients returning to work. Another participant expressed that patients will show a willingness to engage in work related tasks, and improve their vocational skills if the resources are made available.

5.2 OBJECTIVE TWO: FACILITATORS OF RETURN TO WORK

Themes Three and Four addressed facilitators to return to work.

5.2.1 Theme 3: Future of OT services in TB rehabilitation

Theme three “The future of OT services in TB rehabilitation” was interpreted as a facilitator by the participants of this study. The WHO (2017) describes facilitation as being a component that stimulates, promotes or enhances the surrounding environment with the aim of improving it. In this study, the participants’ perception of change described the specific facilitators that would elicit change, in guiding and showing that there is room for improvement when it comes to TB rehabilitation services, such as OT.

5.2.1.1 Developing OT services that aid in work place reintegration

Participants of this study revealed that the OT programme for PTB and MDR-TB rehabilitation patients does not only need to be arts and craft type activities, but activities that focus more on work rehabilitation. Work-related intervention programmes are more appropriate and suitable for PTB and MDR-TB survivors who want to return to work after rehabilitation, as this would allow them the opportunity to re-engage in their worker role more effectively. At the same time, engagement in work related programmes will also grant those who are unskilled to learn new skills, and improve the skills of those patients who have limited skills, in the hope of broadening their job opportunities in the open labour market (Blas & Kurup, 2010). Research showed that rehabilitation interventions such as occupational therapy, physical therapy and vocational rehabilitation among others, have been reported in the literature to improve recovery and return to work (Langhorne, Bernhardt, & Kwakkel, 2011; Dohle et al., 2009).

One participant stated that there is no return to work programme in place at present.

Participants were also of the opinion that the rate of TB survivors returning to work would

increase as this would provide them with the opportunity to engage in work related tasks while hospitalised.

Rehabilitation specialists described that in government run rehabilitation settings, they have a shortage of staff capacity in order to facilitate more programmes than what they currently have in place. This therefore limits them from practicing a holistic approach to the type of rehabilitation programmes they are able to facilitate. Some participants felt strongly that if PTB and MDR-TB participants engage in a vocational rehabilitation programme, it would facilitate the resumption of their worker role, as well as encourage the practice of holistic occupational therapy. This will also provide the opportunity for early intervention, enhancing their understanding of the TB disease, to the extent that they will understand that returning to their previous worker role is achievable (Escorpizo, Brage, Homa, & Stucki, 2015). Participants recommended that vocational rehabilitation programmes will improve the current programmes that are being facilitated, as there are none in place at present.

5.2.1.2 Rehabilitation services in primary health care

The primary health care system is one that is widely known and recognised. The WHO (2003) has stated that this system focuses on providing basic health care that is both practical, scientifically based, and uses appropriate methods of treatment. It is important that this system is socially acceptable and that it makes use of the correct channels to achieve technological levels that are accessible to people in and surrounding the community. In addition, the cost of this service is one that is affordable at every stage of their development, while at the same time maintaining self-reliance and self-determination. The primary health care system forms an important and integral part of the country's health care system which is the central function of the overall growth of the

social and economic development of the community. It is the first level of contact individuals of the community have with the national health system, where it makes health care accessible and convenient to where people live and work, and constitutes the first element of a continuing health care process. The Alma Ata Declaration of 1978 governs primary health care and is a pledge that governments made their allegiance to, while also serving as the platform for development of many national policies. Therefore, primary health care fundamentally focuses on providing affordable and easily accessible services to people within the community, in the hope of integrating health promotion, prevention and providing treatment and rehabilitation to all those within the surrounding community (World Health Organization and UNICEF, 1978).

Furthermore, in health care, primary prevention consists mainly of health promotion strategies to prevent illnesses from occurring. Health education is an example of this and forms a major component of primary health care (Bury, 2003). Secondary prevention in health care consists of early intervention in order to prevent the development of impairments. This includes the treatment of diseases such as Tuberculosis. Lastly, tertiary prevention involves rehabilitative treatment that will most likely reduce impairment and/or prevent disability. Therefore, the rehabilitation team, consisting of physical and occupational therapists and mid-level rehabilitation workers, have been identified as being well suited to facilitate the prevention of tertiary disability (World Health Organization, 1995).

Participants in this study described the benefits of having rehabilitation services in primary health care centres, as they felt that through participation in vocational rehabilitation programmes and learning new skills, they would be able to either resume their previous worker role, or assume a new worker role. Donnelly *et al* (2009) stated that

there is a great need for the integration of rehabilitation services with primary health care centres. This is largely due to the need of the service being readily accessible to patients with a more severe conditions, those who have unstable conditions, or the duration over which the condition spans. This statement elaborates the need for rehabilitation services in primary health care centres as most people living in poor socio-economic areas have difficulty in accessing hospitals on a weekly or monthly basis. Therefore, in order for vocational rehabilitation programmes to be successfully implemented, it is required of primary health care facilities to understand the importance of such programmes, so that they can motivate for its implementation.

Vocational rehabilitation allows for remediation of previous skills as well as the exploration of learning new skills for when they integrate back into society. During vocational rehabilitation, the patient's main focus is typically to get healthy so that they may enter the open labour market, which becomes a distraction and takes the focus away from having TB (Horstman et al., 2011).

5.2.2 Adaptation strategies: Engagement in activities alleviates feelings of despondency

The participants of this study felt that through engagement in activities, it helped alleviate feelings of despondency during rehabilitation. One participant stated that through activity engagement she felt better about herself as she started believing in her abilities, which lead to an improvement in her self-esteem and emotional well-being.

Another participant revealed that the improvement in one's emotional state helps create positive feelings, which then encourages the resumption of their previous worker role. This occurs due to the support received from the clinicians and fellow patients, as the engagement with them helped improve socialisation (Horstman et al., 2011).

5.2.2.1 Participation in activities regulates negative emotions related to returning to the worker role

It has been tested and proven by participants that through perseverance and activity engagement, they felt more positive about their recovery process and optimistic about returning to work. These feelings emerged from visiting the OT department regularly to engage in the current programmes that were set in place.

Once the participants started attending educational groups where they learnt more about their illness, they started to become more motivated when they noticed the improvement in their health and well-being, which was a motivator that helped them work towards returning to work. Having a positive attitude and mind is ultimately an individual's responsibility, since you need to have the determination to want to improve.

Furthermore, participants specifically stated that engagement in therapeutic activities had a positive influence on the resumption of the worker role, as their levels of motivation improved. The participant is given the opportunity to measure his/her self-worth where they see their potential. It was through the participation of meaningful activities that these participants were granted the opportunity to learn new skills. One participant who was a rehabilitation specialist said that the engagement in meaningful tasks and activities instilled a sense of worth and an opportunity to learn a new skill in patients (Andrews, 2011).

5.2.2.2 Engagement with others facilitates socialisation

While there are different ways in which people choose to communicate with others, socialisation is seen as one of the main factors that contribute to forming supportive environments between patients and/or rehabilitation specialists. Fendt-Newlin and Webbe (2017) describe a social network as having a close, supportive relationship with family

and friends, as well as casual interactions with people within in the community. It was identified by a participant in the study that having the support from family and friends is vital for a successful recovery.

Fendt-Newlin and Webbe (2017) emphasise the importance of having a good social environment and close relationships (either intimate or platonic where a person feels close to another) as a key role in physical and mental health. This is because having good social relationships is not only important for one's psychological and emotional well-being, but also directly impacts one's physical well-being (Cohen, 2004; Uchino, 2006).

From the statements of the participants and through the description of their experiences, this study revealed that patients feel like less of a burden towards others when they are provided with emotional support, as well as when they realise that they are not alone in their rehabilitation process. It was identified that through developing good, trusting relationships, that patients became more comfortable and willing to speak about their thoughts and feelings. This engagement changed their perception about group therapy, as well as their motivation to engage in activities.

In order to improve the social relationship between people, intervention needs to take place through improving one's social participation within the community. This may occur through having an active role in one's community or society and engaging with people to make social connections with them (Fendt-Newlin & Webber, 2017). The term "community" is not only isolated to the external community environment, but the same principals of community participation can apply to the hospital community the patient currently finds himself in, thus constituting his immediate surrounding community.

5.3 OBJECTIVE THREE: THE STAKEHOLDER'S PERCEPTIONS OF THE ADAPTED MOOSE

The Third objective spoke to the perceptions of rehabilitation experts on the adapted MOOSE. Themes Five and Six respective related to the participants' views of the adapted programme.

5.3.1 Theme 5: Promoting a holistic model

Theme five - "promoting a holistic model" was interpreted as being a facilitator by participants of the study, which was used to adapt the content of the original MOOSE in creating the new adapted MOOSE. The participants expressed that the rehabilitation program of PTB and MDR-TB patients participate in should be one that is holistic and focuses on all aspects of improving one's health and well-being. Finlay (2001) explained that occupational therapy is based on the philosophical core principals of providing humanistic, holistic, and client-centred therapy (Hagedorn,1995; Hemphill-Pearson & Hunter, 1997; Mayers, 1990). Clients and patients are viewed as complex whole beings who each have their own unique values, skills, problems, needs, and greater cultural heritages. Therefore, the cognitive, emotional, physical and social, aspects within their lives need to be taken into consideration rather than viewing these components as isolated parts. As time has progressed, research has challenged the degree to which the holistic approach in occupational therapy practice has been used, keeping in mind the realities of time and financial constraints people are faced with today. Four underlying assumptions can be recognized in literature which focuses on various holistic approaches in health care, including seminal references such as, Barnitt and Pomeroy (1995), Hemphill- Pearson and Hunter (1997) and McColl (1994). Firstly, humans should be viewed as integrated, unique beings where their mind, body, and spirit are all connected. Secondly, health conditions and illnesses cannot be isolated as they are created from an interaction of social,

psychological, physical, and environmental factors. Thirdly, people have a self-healing capacity when they are able to determine what is important and take accountability for their own health. Lastly, health care should focus on creating lifestyles that synchronize with the individual's self-fulfilment, health maintenance, and the integration within their environment. Therefore, occupational therapists prefer to use a client-centered approach so that clients can actively engage and be a part of the treatment process (Finlay, 2001).

A holistic approach in occupational therapy can be implemented at any time and throughout the life stages. It starts with teaching lifelong skills to children, and later on addresses the middle adult years, as the initial skills that were taught gets put into practice. Through the use of holistic therapy, individuals have better health for longer, and the older generations have more sense of hope that their end of life can be more pleasurable and good (Lubas & Vadnais, 2012). Thus both the adapted programme and the implementing therapists must take into consideration the context that the patient comes from and the various areas that impact the lives of TB and MDR-TB patients. Community reintegration, family support, prevocational skills and work rehabilitation need to be prioritised as these areas are often over looked due the main focus being medical and physical rehabilitation.

5.3.1.1 Developing a client specific program based on context

Participants of the current study felt that the adapted programme was informed by the needs of the clients/patients. The needs of the client/patient thus guided which areas of treatment requires the most attention and intervention, and subsequently which tasks or activities will be meaningful to the client/participant. This notion was consistent with Trombly (1995), who explained meaningful occupation as being the engagement or participation in an activity, to the extent that a person values it, gains pleasure from it, or feels threatened when participation in the occupation is removed. More recent

publications described meaningful occupation as the core construct underlying and facilitating the practice of occupational therapy (Ikiugu *et al.*, 2015). Historically the occupational therapy profession was built on the concept that occupation is important for the basic well-being of people (Argentzell, Hakansson & Eklund, 2012). This view of the occupational therapy profession stems from evidence that was found through research, where participation in meaningful occupations, including work, generally leads to increased feelings of overall well-being (Argentzell, Hakansson, & Eklund, 2012; Ivztana, Sorensena, & Halonen, 2013; McIntyre, & Howie, 2002). This finding is consistent with Bigelius, Eklund, and Erlandsson (2010) who stated that if occupations are not meaningful, then they cannot be therapeutic. Lastly, Ikiugu *et al.* (2015) reported that researchers have come to the agreement that meaningful occupations provide people with a sense of control, it gives them an identity, allows for a connection with other people, and develops competence and self-expression.

The adapted programme was deemed suitable to clients/patients who come from various types of contexts, so that it is applicable to most people. Therefore, the types of tasks and activities included were ones that either relate to their previous worker role, or ones that they have an interest in, for the potential to learn a new skill. Rehabilitation specialists must endeavour to fully understand the context where these clients/patients come from, so that these patients can acquire skills that are achievable, or apply for jobs that will be suitable for them.

The adapted programme retained a stage approach so that the client/patient can start off at a level that is suitable for him or her, where realistic goals can be set, and engage in appropriate activities that will be applicable to the level of work experience. Participants of this study expressed that the use of a psychosocial approach in the adapted programme

would assist in facilitating programmes with these types of clients/patients, as this type of approach looks at the person holistically.

5.3.1.2 Therapist engagement in the program

The role of the therapist is vital as they will be facilitating the programme that the patients will partake in. Therefore, it is important for public rehabilitation facilities to be equipped with enough staff to facilitate these programmes, as well as have therapists who will be available to facilitate treatment for patients who have specific or individualised job roles. However, in this study the participants relayed that there is a lack of staff in the public health sector. Therefore, most intervention programmes are exclusively facilitated through group therapy, so that they are able to assist all patients. However, this is not always the best method of intervention as every person has individualised needs, and this limits the person who comes from a different context, and has different skill capabilities.

The participants state that for clients/patients interested in learning a new skill, it is important for the therapist to understand the populations they are working with, so that they know what the client/patients interests and skillsets are, and can thus select appropriate work related tasks. When clients/ patients learn new skills, the therapist will encourage and empower the patients to be able to utilize those skills to find new jobs once they reintegrate back into the community and explore new worker roles, or encourage them to resume their previous worker role provided (Bjune, Frich & Gebremariam, 2010).

The participants in the study highlighted that the support they received from the therapists motivated them to engage in services that the rehabilitation specialists provided (Bjune, Frich & Gebremariam, 2010). Through their engagement in tasks and activities, the patients/ clients realized their potential to either learn a new skill or improve in the performance of previous skills, in order to engage in previous work tasks.

Participants also relayed that sometimes, patients/clients require your support to such a degree that they begin to realise that you believe in their capabilities to perform certain tasks and activities (Horstman et al., 2011).



CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6. Introduction

In this chapter, the conclusion and recommendations from the current study that focused on the experiences and perceptions of stakeholders about the RTW process of individuals living with PTB and MDR tuberculosis was discussed.

6.1 Conclusion

This study discussed the perceptions and experiences of PTB and MDR-TB survivors, as well as the perceptions and experiences of rehabilitation care specialists working with clients/ patients with PTB and MDR-TB. Through the findings of this study, barriers and facilitators of return to work were identified in the rehabilitation of patients with PTB and MDR-TB survivors' experiences.

The barriers identified in the present study included “A sense of disbelief in one’s own potential”, “The contextual environment influences an individual’s worker role” and “The use of resources for activity engagement”. This sense of disbelief stemmed from the poor motivation and belief the participants had in themselves after having suffered from PTB and MDR-TB. When having to return to their homes after hospitalisation, it was identified that the contextual environment in which the PTB and MDR-TB survivors found themselves in, negatively influenced their return to their previous worker role, or the pursuit of a new worker role. This was mainly due to the poor socio-economic factors which surrounded them. The lack of resources in public facilities were also noted as one of the main barriers described by the rehabilitation care specialists. Through the lack of resources, they found themselves having limitations in terms of delivering rehabilitation

services to PTB and MDR-TB survivors, which in essence negatively affected their ability to resume their worker role.

The facilitators that were highlighted in this study include; “The future of OT services in TB rehabilitation”, “Engagement in activities alleviates feelings of despondency”, and “Promoting a holistic model”. The importance of OT services in TB rehabilitation emerged through the perception of the rehabilitation care specialists as they identified the lack of public rehabilitation services that focus on work rehabilitation. They discussed how beneficial it would be for the patient suffering from PTB or MDR-TB to access work related intervention programmes in order to re-engage with their previous worker role or provide an opportunity to gain a new skill. Another facilitator that was highlighted in this study focused on the fact that through the engagement of meaningful activities, PTB and MDR-TB patients showed positive signs towards their improved overall well-being. The latter assisted with the return to work process as patients were given the opportunity to engage in meaningful work related activities or allowed the opportunity to explore other areas of work.

The study provided an opportunity for the rehabilitation care specialists to express their thoughts on the current development of TB rehabilitation within public based rehabilitation centres, and an opportunity to make recommendations for future programmes. This led to the topic of promoting a holistic model, where the participants revealed their expectations of what they would like to see in an enhanced programme where better opportunities will be provided for PTB and MDR-TB survivors to return to work. The focus on a holistic approach for the programme was a consistent factor throughout, as there was an emphasis placed on community reintegration to improve return to work.

It was identified that this study created an opportunity for the participants to open up, and express their thoughts, and make recommendations for the existing rehabilitation process. The study has established that the low levels of self-efficacy experienced by PTB and MDR-TB survivors are influenced by many key factors such as the environment, the level of motivation the patient experiences, exposure to various skills, level of ability and engagement with familiar work skills, among others.

The rehabilitation specialist identified barriers and facilitators of return to work and engagement with treatment that were consistent with the literature. The rehabilitation specialists concluded that the adapted programme included components that made it more relevant and suitable for use with the PTB patient group.

In conclusion the MOOSE was adapted for the use of PTB and MDR-TB survivors in this study group. The psychosocial context and setting in which rehabilitation takes place was taken into account when adapting the model. The four stage approach of the model was retained, and the focus on self-efficacy as an important psychological construct was reserved. Group based intervention was retained to increase the adoption across contexts. The high level outcome in the original model was further operationalized through the inclusion of specific activities, and work related activities were specifically included to make the focus on return to work more explicit or intentional.

6.2 Limitations of the study

The following limitations of the present study were noted:

- The recruitment of PTB survivors who returned to work was challenging. The inclusion criteria for the present study was too stringent in that it only allowed for participants who successfully returned to work. The criteria thus precluded possible participants who initiated work after physical rehabilitation. This

limitation was important as the premorbid functioning of most PTB patients was unemployed.

- Only two male participants were recruited in the PTB and MDR-TB survivors' subgroup. Despite concerted efforts to recruit from both genders, it was difficult to identify male participants. The breadwinner role is culturally often assigned to males and thus the limited attention paid to gender intersectionalities was a limitation in the present study.
- This was a small scale study, it is therefore recommended that future studies relating to this topic, explore this topic in greater detail. It is recommended that a larger population (both participants living with TB, employers and experts that are involved in the treatment of individuals with TB) are included in the study. As the perspectives of other health professionals and employers will add value to this topic.
- The adapted programme was presented to the same rehabilitation participants which allowed for them to track the extent to which their comments were considered. The exclusion of other rehabilitation specialists who were not familiar with the original programme was a limitation as it represented an important alternate view.
- The process for commentary on the adapted programme was not based on a detailed methodological approach such as Delphi methods. This constituted a limitation in the present study as it did not represent a high level of methodological rigour.
- The adapted MOOSE was not piloted for feasibility on a sample of participants in the context of a rehabilitation.

- The adapted MOOSE allowed for formal assessments and measures, but did not specify it.

6.3 Recommendations

As a result of this study, the main concepts of self-efficacy and return to work were explored, and from the findings it was revealed that there are certain areas of practice that can improve TB rehabilitation. Therefore, in order to enhance the efficiency of re-integration into the workplace, the following recommendations have been identified: Recommendations for occupational therapy practice; Health professionals; the Department of Health and Research in occupational therapy.

6.3.1 Recommendations for occupational therapy practice

- To ensure more active involvement in the return to work process of PTB and MDR-TB survivors, it is highly recommended that occupational therapists practice occupational therapy holistically. This can be done by implementing more principles of community based practice, such as getting actively involved with community re-integration of the PTB and MDR-TB survivors.
- Along with the implementation of vocational rehabilitation in public rehabilitation centres and hospitals, it is important that the occupational therapists' practice all spheres of work rehabilitation, which includes performing work screening, work site visits and recommendations for different types of new jobs. This will address the lack of active involvement from employers which was disclosed by the participants of this study.
- Emotional and social support from family, friends and colleagues had a positive effect on the PTB and MDR-TB survivors. Occupational therapists should explore this avenue in greater depth as there are many instances where family members

and friends do not realise the importance of their support in the rehabilitation phase of treatment. Occupational therapists should promote the need for emotional and social support, as this can improve the PTB and MDR-TB survivors' self-efficacy, their ability to engage in work related tasks, and adapt to their worker role.

6.3.2 Recommendations for multidisciplinary intervention strategies

- It is suggested that during the rehabilitation phase of treatment and in the beginning phases of the RTW programme, it is important for the PTB and MDR-TB survivor to understand the importance of the rehabilitation phase. When patients have improved endurance and start to feel physically better they usually tend to avoid therapy or abscond. However, if they have insight regarding their condition and the process of rehabilitation, their low levels of attending rehabilitation can be minimised and they may have better treatment compliance.
- Rehabilitation and RTW programmes should educate and empower the PTB and MDR-TB survivor to understand the importance of taking responsibility for their individual rehabilitation. This could be conveyed through utilising a client-centred approach in rehabilitation.
- In order to avoid PTB and MDR-TB survivors from losing their confidence and reducing their sense of self efficacy during hospitalisation and when employed as a worker, health professionals should focus on early treatment intervention. Herein, the barriers identified in this study that hinder individuals from resuming their worker role and impact their work abilities can be addressed
- It is proposed that employers be informed about the RTW progress of the PTB and MDR-TB survivor early during rehabilitation. This will provide employers with enough time to acquire the knowledge regarding the duration of rehabilitation as

well as the possible implications of the condition in order to make provision for when the PTB or MDR-TB survivor returns to the workplace.

6.3.3 Department of Health

- The establishment of vocational rehabilitation tools are recommended as these are imperative for the successful establishment of public health facilities that offer vocational rehabilitation within communities.
- Vocational rehabilitation centres that focus not only on prevocational training for those without previous work skills, but also for individuals with previous worker experience should be established in areas of South Africa that are accessible to all people, especially those who live in poor socio economic conditions. This will provide PTB and MDR-TB survivors access to vocational rehabilitation intervention, which will ultimately facilitate the resumption of their worker role.
- It is also recommended that awareness regarding the dissemination of social grants be advocated early on in the rehabilitation process, as a temporary social grant could aid individuals in completing their rehabilitation goals. It appears that individuals often tend to choose a social grant over learning a new skill or returning to work. It would be useful if PTB and MDR-TB understood the level of recovery they should expect post rehabilitation. The benefits and limitations of a social grant should be explained, as one could earn a better income by working. Self-efficacy to perform day to day tasks may also improve as work often encourages social relationship with others and promotes the concept of independence.

6.3.4 Health promotion

- The prevention of illnesses and diseases starts with health promotion strategies, and it is an important component in the prevention of illnesses like PTB and MDR-TB. Therefore, health promotion programmes should focus on public awareness and educate individuals to understand the risk factors involved, as well as the importance of early intervention, treatment adherence and rehabilitation. This awareness will also bring about a change in the perception individuals have around stigma and misconceptions of PTB and MDR-TB. Awareness can be created via social media platforms to educate the general population.

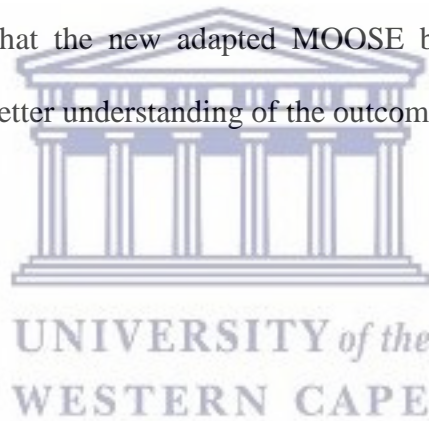
6.3.5 Recommendation for future occupational therapy research

- It is recommended that studies of a similar nature be conducted in other regions of South Africa. These type of studies will enhance the current information available relating on return to work processes of the PTB and MDR-TB survivor.
- Further research that provides qualitative data regarding the perceptions of the employer and co-workers of the PTB and MDR-TB survivor after their return to work would also be of great value. This could look at factors such as work readiness, and the amount of support needed to provide for the PTB and MDR-TB patient when they return to work. A study like this should involve employers of PTB and MDR-TB survivors in both the public and private sector that had returned to work in the labour market.
- It is further recommended that a return to work model for PTB and MDR-TB survivors should focus on methods of disseminating knowledge of TB prevention. This could be in the form of Health Promotion initiatives such as the education of the TB condition, risk factors, treatment and outcome. This is important as individuals that are in contact with the PTB and MDR-TB survivor could have

misconceptions about contracting the disease, causing discomfort around the PTB and MDR-TB survivor, when in turn the PTB and MDR-TB needs the support from their families, employers and colleagues.

6.3.6 Recommendations for the Model of Occupational Self Efficacy

- A protocol that explains the process of the MOOSE step by step would be useful for therapists and clients that are using the model. Participants with PTB and MDR-TB need to quantitatively measure whether the client's quality of life improves after they have participated in the programme. These prospective studies could take the form of pre-post intervention research study design with larger samples of participants.
- It is recommended that the new adapted MOOSE be tested on a sample of participants to get a better understanding of the outcome of the adapted MOOSE.



REFERENCES

- Academy of Science of South Africa. (2007). *HIV/AIDS, TB and Nutrition*. Pretoria, South Africa. The Academy of Science of South Africa.
- American Lung Association. (2006). *Infectious Diseases*. Retrieved from http://www.globalhealth.org/view_top.php3?id=228&gclid=CLkWrTAlupYCFQOxIAodHBR5Lw.
- Andersen, M., Nielsen, K., & Brinkmann, S. (2012). Meta – synthesis of qualitative research on returning to work among employees with common mental disorders. *Scandinavian Journal of Work, Environment and Health*, 38 (2), 93-104.
- Andrews, M. C. (2011). *Meaningful engagement in educational activity and purposes for learning*. Stanford University. Retrieved from https://stacks.stanford.edu/file/druid:qp476bx9339/Andrews_PurposesforLearning_6-1-11-augmented.pdf
- Argentzell, E., Hakansson, C., & Eklund, M. (2012). *Experience of meaning in everyday occupations among unemployed people with severe mental illness*. US National Library of Medicine. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/21171830>
- Arjun, S. D., Matlakala, M. C., & Mavundla, T. R. (2013). Enrolled nurses' experiences of caring for Multi drug resistant tuberculosis patients in the Kwa-Zulu Natal Province of South Africa. *Africa Journal of Nursing & Midwifery*, 2013, 15 (1), 54-67. Department of Health Studies, University of South Africa.
- Bandura, A., & Adams, N. E. (1977). Analysis of Self-Efficacy Theory of Behavioral Change. Stanford University. *Cognitive Therapy and Research*, Vol 1, No. 4, 1977, pp. 287-310.
- Bandura, A. (1993). Perceived self – efficacy in cognitive development and functioning. *Journal of Educational Psychology*, 28(2), 117-148.
- Bandura, A. (2006). Toward a Psychology of Human Agency. Stanford University. *Association for Psychological Science*. Vol 1- No. 2. Retrieved from <https://pdfs.semanticscholar.org/4c53/0339369cff0093101ba611b28e48620f3493.pdf>
- Baitsiwe, P. (2009). *An exploration of the reasons for defaulting amongst Tuberculosis patients on the Community Based Directly-Observed Treatment Programme in the Siyanda district, Northern Cape Province*. Cape Town: The University of the Western Cape.
- Bartlett-Esquillant. G., Benedetti. A., Boivin. J.F., FitzGerald. J.M., Menzies. D., Ronald. L.A., & Schwartzman. K. (2016). *Predictors of hospitalization of tuberculosis*

- patients in Montreal, Canada: a retrospective cohort study*. National Institutes of Health.
- Barnitt, R., & Pomeroy, V. (1995). An holistic approach to rehabilitation. *British Journal of Therapy and Rehabilitation*. doi.org/10.12968/bjtr.1995.2.2.87 Retrieved from <https://www.magonlinelibrary.com/doi/abs/10.12968/bjtr.1995.2.2.87?journalCode=bjtr>
- Bigelius, U., Eklund, M., & Erlandsson, L. K. (2010). *The value and meaning of an instrumental occupation performed in a clinical setting*. US National Library of Medicine. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/1919107>. Doi: 10.1080/11038120802714880.
- Bjune, G. A., Frich, J. C., & Gebremariam, M. K. (2010). *Barriers and facilitators of adherence to TB treatment in patients on concomitant TB and HIV treatment: a qualitative study*. doi: [10.1186/1471-2458-10-651]. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2978153/>
- Blas, E., & Kurup, A. S. (2010). Equity, social determinants and public health programmes. World Health Organisation. Retrieved from https://books.google.ae/books?hl=en&lr=&id=7JxutqCmctUC&oi=fnd&pg=PP2&dq=Equity,+social+determinants+and+public+health+programmes&ots=XFPvzgzk8Ai&sig=SXdAAjKs7O3OqLH8jL4mRFjswno&redir_esc=y#v=onepage&q=Equity%2C%20social%20determinants%20and%20public%20health%20programmes&f=false
- Bowen, G. A. (2008). Naturalistic inquiry and the saturation concept: a research note. *Qualitative research*, 8(1), 137-152.
- Browning, K.K., Ferketich, A.K., Otterson, G.A., Reynolds, N. R., & Wewers, M. E. (2009). The Self-Regulating Model of Illness Applied to Smoking Behaviour in Lung Cancer. US National Library of Medicine.
- Bury, T. (2003). *Primary Health Care and Community Based Rehabilitation: Implications for physical therapy based on a survey of WCPT's Member Organisations and a literature review*. World Confederation for Physical Therapy.
- Clark.E., Lui. S., & Mc Cann.T.V. (2008). *The Self-efficacy model of medication adherence in chronic mental illness*. School of Nursing and Midwifery.
- Cohen, S. (2004). *Social relationships and health*. US National Library of Medicine. National Institutes of Health. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/15554821>. Doi: 10.1037/0003-066X.59.8.676.
- 214th Commission for Employment Equity (CEE). (2017-2018). *Annual Report Department of Labour South Africa*. Retrieved from

http://www.labour.gov.za/DOL/documents/annual-reports/Commission%20for%20Employment%20Equity%20Report/2017-2018/downloads/documents/annual-reports/employment-equity/2017-2018/18ceereport_amended.pdf

- Corbin, J. M., & Strauss, A.L., (2008). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory* (3rd edition). Thousand Oaks, Los Angeles, California: Sage Publications.
- Courtwright, A. & Turner, A.N. (2010). *Tuberculosis and Stigmatization: Pathways and Interventions*. US National Library of Medicine, National Institutes of Health. USA. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2882973/>
- Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into practice*, 39(3), 124-130.
- Curry, L. A., Nembhard, I. M., & Bradley, E. H. (2009). *Qualitative and mixed methods provide unique contributions to outcomes research*. US National Library of Medicine, National Institutes of Health. USA. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/19289649>.Doi:10.1161/CIRCULATION.AHA.107.742775.
- Department of Health, Republic of South Africa. (2004). *South African National Tuberculosis Control Program: Practical Guidelines, 2004*. Retrieved from <http://www.kznhealth.gov.za/chrp/documents/Guidelines/Guidelines%20National/Tuberculosis/SA%20TB%20Guidelines%202004.pdf>
- Department of Health- Republic of South Africa. (2014). *Strategic Plan*. Retrieved from <https://www.health-e.org.za/wp-content/uploads/2014/08/SA-DoH-Strategic-Plan-2014-to-2019.pdf>
- Department of Health- Republic of South Africa. (2014). *Strategic plan 2014/15 to 2018/19*. Published by Department of Health. Retrieved from <http://www.health-e.org.za/wp-content/uploads/2014/08/SA-DoH-Strategic-Plan-2014-to-2019.pdf>
- Dhuria, M., Ingle. G.k., & Sharma, N. (2008). Impact of Tuberculosis on the Quality of Life. *Indian Journal of the Community Medicine*.
- DiCicco-Bloom, B., & Crabtree, B.F. (2006). *The qualitative research interview*. DOI: 10.1111/j.1365-2929.2006.02418.x. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/16573666>
- Dohle, C., Püllen, J., Nakaten, A., Küst, J., Rietz, C., & Karbe, H. (2009). Mirror therapy promotes recovery from severe hemiparesis: a randomized controlled trial. *Neurorehabilitation and neural repair*, 23(3), 209-217.

- Donnelly, C., Godwin, M., McColl, M.A., O'Brien, P., Rowe, K., Shortt, S., & Smith, K. (2009). *Models for integrating rehabilitation and primary care: a scoping study*. Arch Phys Med Rehabilitation.
- dos Santos, A.P.C., Lazzari, T.K., & Silva, D.R. (2016). *Health-Related Quality of Life, Depression and Anxiety in Hospitalized Patients with Tuberculosis*. US National Library of Medicine National Institutes of Health. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5256348/>
- Escorpizo, R., Brage, S., Homa, D., & Stucki, G. (2015). *Handbook of Vocational Rehabilitation and Disability Evaluation: Application and Implementation of the ICF*. Springer International Publishing. DOI: 10.1007/978-3-319-08825-9. Retrieved from https://books.google.ae/books?id=wM2IBQAAQBAJ&pg=PA491&lpg=PA491&dq=vocational+rehabilitation+and+tuberculosis&source=bl&ots=ywhTaP72Kc&sig=ACfU3U2J_nC_A-ECcziR4Yd98EbK1IRerg&hl=en&sa=X&ved=2ahUKEwjLgYcmvfzgAhVi1uAKHd_fDI04ChDoATAQegQIABAB#v=onepage&q=vocational%20rehabilitation%20and%20tuberculosis&f=false
- Fendt-Newlin, M., & Webber, M. (2017). *A review of social participation interventions for people with mental health problems*. US National Library of Medicine, National Institutes of Health. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/28286914>. doi: 10.1007/s00127-017-1372-2.
- Fenton, W. S., Blyler, C. R., & Heinssen, R. K. (1997). *Determinants of medication compliance in schizophrenia: empirical and clinical findings*. US National Library of Medicine, National Institutes of Health. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/9366000>
- Finlay, L. (2001). Holism in occupational therapy: Elusive fiction and ambivalent struggle. *American Journal of Occupational Therapy*, 55, 268–276.
- Firfirey, N., & Hess- April, L. (2014). A study to explore the occupational adaptation of adults with MDR-TB who undergo long-term hospitalization. Retrieved from *South African Journal of Occupational Therapy- volume 44*.
- Franché, R.L., & Krause, N. (2002). Readiness for Return to Work Following Injury or Illness: Conceptualizing the Interpersonal Impact of Health Care, Workplace, and Insurance Factors. *Journal of Occupational Rehabilitation*, Vol. 12, No. 4.
- Guillen, I., Perez, H.J., Burguete, J., & de Juan, M. (2008). Anti-tuberculosis treatment defaulting. An analysis of perceptions and interactions in Chiapas, Mexico. *Salud Publication Mexico*, 50: 251-257.

- Guba, E. G. (1981). Criteria for assessing the trustworthiness of naturalistic inquiries. *Educational Resources Information Center Annual Review Paper*, 29, pp. 75-91.
- Guo, N., Marra C. A., & Marra. F. (2009) *Measuring health- related quality of life in tuberculosis: a systematic review*. BioMed Central Ltd. Health and Quality of Life Outcomes.
- Hagedorn, R. (1995). *Occupational therapy: Perspectives and processes*. Edinburgh, UK: Churchill Livingstone.
- Hemphill-Pearson, B., & Hunter, M. (1997). Holism in mental health practice. *Occupational Therapy in Mental Health*, 13(2), 35–49.
- Hochbaum, G., Rosenstock, I., and Kegels, S. (1958). *Health belief model*. United States Public Health. Jones and Bartlett Publishers.
- Horstman, K., Meershoek, A., Nijhuis. F., & van Hal, L.B.E. (2011). *The 'Empowered Client' in Vocational Rehabilitation: The Excluding Impact of Inclusive Strategies*. doi: [10.1007/s10728-011-0182-z]. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3400028/>
- Ikiugu, M.N., Hoyme, A.K., Mueller, B.A., & Reinke, R.R. (2015). Meaningful occupation clarified: Thoughts about the relationship between meaningful and psychologically rewarding occupations. University of South Dakota. *South African Journal of Occupational Therapy vol.45, no.1*.
- Ivtzana, I., Sorensena, E., & Halonen, S. (2013). The Effect of occupational meaningfulness on occupational commitment. *International Journal of Psychological Research*, 6(2): 15-23. Retrieved from https://www.psychologytoday.com/sites/default/files/occupational_meaningfulness.pdf
- Jaiswal, A., Singh, V., Ogder, J.A., Porter, J.D.H., Sharma, P.P., Sarin, R., Arora, V.K., & Jain, R.C. (2003). Adherence to tuberculosis treatment: lessons from the urban setting of Delhi, India. *Tropical Medicine and International Health*, 8(7): 625-633.
- Kagee, A., & Le Roux, M. (2007). Treatment Adherence among Patients in a Historically Disadvantaged Community in South Africa. *Journal of Health Psychology*, 12(3): 444-460.
- Kakili, T. (2010). *Factors that contribute to treatment defaulting amongst tuberculosis patients in Windhoek District, Namibia*. Cape town: University of the Western Cape.
- Kielfhofner, G. (2007). *Model of Human occupation: Theory and Application*.(4th ed.) Baltimore: Lippincott Williams & Wilkins.

- Kilbourne, A. M., Reynolds, C.F., Good, C.B., Sereika, S.M., Jusice, A.C., & Fine, M.J. (2005). How does depression influence diabetes medication adherence in older patients? *American Journal of Geriatric Psychiatry*, 13: 202-210.
- Kim, M. T., Han, H. R., Hill, M. N., Rose, L., & Roary, M. (2003). *Depression, substance use, adherence behaviors, and blood pressure in urban hypertensive black men*. US National Library of Medicine National Institutes of Health. DOI: 10.1207/S15324796ABM2601_04. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/12867351>.
- Krefting, L. (1991). Rigour in qualitative research- the assessment of trustworthiness. *The American Journal of Occupational Therapy*, 45 (3),214-222.
- Krug, A., & McNutt, L. (2013). *Incidence- Epidemiology*. Encyclopedia Britannica, Inc. Retrieved from <https://www.britannica.com/science/incidence-epidemiology>
- Krupa, T., & Wisenthal, A. (2014) Using intervention mapping to deconstruct cognitive work hardening: a return-to-work intervention for people with depression. *BMC Health Services Research*. 14:530
- Lacro, J. P., Dunn, L. B., Dolder, C.R., Leckband, S.G., & Jeste, D.V. (2002). *Prevalence of and risk factors for medication nonadherence in patients with schizophrenia: a comprehensive review of recent literature*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/12416599>
- LaMorte, M.D., & Wayne W. (2016). *The Theory of planned behaviour*. Behavioural change models. Boston University School of Public Health.
- Langhorne, P., Bernhardt, J., & Kwakkel, G. (2011). Stroke rehabilitation. *The Lancet*, 377(9778), 1693-1702.
- Lincoln, Y., & Guba, E. (1985). *Naturalistic Inquiry*. Beverly Hills, CA: Sage.
- Lubas, M., & Vadnais, E. (2012). *Holistic Occupational Therapy: Complementary and alternative medicine is an emerging specialty practice area in the profession*. Retrieved from <http://holisticot.org/wp-content/uploads/2014/09/Holistic-Occupational-Therapy.pdf>
- Luthans, B.C., Luthans, Fred., & Luthans, K.W. (2015). *Organizational Behaviour, An Evidence-Based Approach* (13th Edition). Information Age Publishing, Inc. United states of America
- Matteelli, A., Roggi, A., Raviglione, M.C., Sulis, G. (2014) *Tuberculosis: Epidemiology and Control*. US National Library of Medicine, National Institutes of Health. doi: 10.4084/MJHID.2014.070.
- Mayers, C. (1990). A philosophy unique to occupational therapy. *British Journal of Occupational Therapy*, 53, 379–380.

- McCann, T.V., Clark, E., & Lu, S. (2008). *The self-efficacy model of medication adherence in chronic mental illness*. School of Nursing and Midwifery, Victoria University. Melbourne: Australia.
- McCull, M. A. (1994). Holistic occupational therapy: Historical meaning and contemporary implications. *Canadian Journal of Occupational Therapy*, 61, 72–94.
- McIntyre, G., & Howie, L. (2002). Adapting to widowhood through meaningful occupations: A case study. *Scandinavian Journal of Occupational Therapy*, 9: 54–62.
- McNabb, D. E. (2004). *Research Methods for Political Science: Quantitative and Qualitative Approaches*. M.E Sharpe, Inc. United States of America. Retrieved from https://books.google.ae/books?id=8PJYznDXQIcC&printsec=frontcover&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false
- National Planning Commission Department South Africa. (2012). *National Developmental Plan 2030: Our Future- make it work*. Retrieved from <https://www.poa.gov.za/news/Documents/NPC%20National%20Development%20Plan%20Vision%202030%20-lo-res.pdf>
- Nur, A.B. (2008). *Factors influencing delay in seeking tuberculosis treatment in Belet-Weyne District, Somalia*. School of Public Health. Cape town: University of the Western Cape.
- Orb, A., Eisenhauer, L., & Wynaden, D. (2000). Ethics in qualitative research. *Journal of Nursing Scholarship*, 33 (1), 93–96.
- Pajares, F., & Urdan, T. (2006). *Self-efficacy beliefs of Adolescents*. Information age publishing. USA.
- Palaganas, E. C., Sanchez, M. C., Molintas, M. P., & Caricativo, R. D. (2017). *Reflexivity in Qualitative Research: A Journey of Learning*. *The Qualitative Report*, 22(2), 426-438. Retrieved from <https://nsuworks.nova.edu/tqr/vol22/iss2/5>
- Republic of South Africa Government Gazette. (1998). *Employment Equity Act, No. 55 of 1998*. Retrieved from <http://www.labour.gov.za/DOL/downloads/legislation/acts/employment-equity/eegazette2015.pdf>
- Republic of South Africa Government Gazette. (1998). *Skills Development Act, No. 97 of 1998*. Retrieved from https://www.bankseta.org.za/wp-content/uploads/2018/08/Skills_Development_Act_1998.pdf

- Rossouw, T. (2008). *The experience of patients with regard to social and health service factors that contribute to delays in seeking treatment for tuberculosis*. Department of Social work. Cape Town: The University of the Western Cape.
- Sandoval, G., & DeWeese, C. (2014). *Expediting the Return to Work Process Using Work Conditioning/Hardening*. DSI Work Solutions Inc
- Schnippel, K., Rosen, S., Shearer, K., Martinson, N., Long, L., Sanne, I., & Variava, E. (2013). Costs of inpatient treatment for multi-drug-resistant tuberculosis in South Africa. *Tropical Medicine and International Health*. Volume 18 No. 1 p.109–116
- Schub, T. (2014). *Tuberculosis in Adults*. Cinahl Information Systems, Glendale, CA
- Shields, P. M., & Rangarajan, N. (2013). *A Playbook for Research Methods: Integrating Conceptual Frameworks and Project Management*. Retrieved from https://www.researchgate.net/publication/263046108_A_Playbook_for_Research_Methods_Integrating_Conceptual_Frameworks_and_Project_Management
- Simpson, R.J. (2006). Challenges for Improving Medicine Adherence. *The Journal of the American Medical Association*, 296. Retrieved from <http://jama.amaassn.org/cgi/content/full/296.21.jed60074v1>. [Downloaded 15/02/09 11:23 PM]
- Soeker, M.S. (2009). *Occupational Self – efficacy: An Occupational Therapy practice model to facilitate returning to work after a brain injury*. PhD Thesis. Department of sport, recreation and exercise science. Cape Town: The University of the Western Cape.
- Soeker, M. S. (2011). Occupational Adaptation: A Return to Work Perspective of Persons with Mild to Moderate Brain Injury in South Africa. *Journal of Occupational Science*, 18(1), 81-91.
- Soeker, M. S. (2012). The Development of the Model of Occupational Self Efficacy: an occupational therapy practice model to facilitate returning to work after a brain injury. *Work*, 43 (3), 313-322.
- South African Government website. (2012). *Our future-make it work, National development plan 2030, Executive Summary*. National Planning Commission. Reviewed April, 23, 2015. Retrieved from <http://www.gov.za/issues/national-development-plan-2030> and <http://www.gov.za/sites/www.gov.za/files/Executive%20Summary-NDP%202030%20-%20Our%20future%20-%20make%20it%20work.pdf>
- South African Social Security Agency. (2015). *Annual Performance Plan 2014/2015*. Retrieved from <http://www.sassa.gov.za/index.php/knowledge-centre/annual-performance-plans>

- Statistics South Africa. (2014). *Census 2011: Profile of persons with disabilities in South Africa*. Report 03-01-59. Pretoria. Retrieved from <https://www.statssa.gov.za/publications/Report-03-01-59/Report-03-01-592011.pdf>
- Tesch, R. (1990). *Qualitative research: Analysis types and software tools*. Great Britain, Bedford: LSL Press Ltd.
- Thompson, W. E., Hickey, J. V., & Thompson, M. L. (2016). *Society In Focus: An Introduction To Sociology* (8th edition). Rowman and Littlefield, Lanham, MD.
- Tinzi, S. (2017). *Exploration of patients with the adverse-drug effects of multidrug-resistant tuberculosis treatment in a primary health care facility*. Faculty of Community and Health Sciences. Cape Town: The University of the Western Cape.
- Trexler, L. E., & Parrott, D. R. (2018). *Models of brain injury vocational rehabilitation: The evidence for resource facilitation from efficacy to effectiveness*. US National Library of Medicine National Institutes of Health. doi: 10.3233/JVR-180965. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6218150/>
- Trombly, C. A. (1995). Occupation: Purposefulness and Meaningfulness as Therapeutic Mechanisms. *American Journal of Occupational Therapy*. Retrieved from <https://ajot.aota.org/pdfaccess.ashx?url=/data/journals/ajot/933286/960.pdf>
- Turner, L.W., Hunt, S.B., DiBrezza, R., & Jones, C. (2004). Design and implementation of an osteoporosis prevention program using the health belief model. *American Journal of Health Sciences*, 19(2), 115-121.
- Uchino, B. N. (2006). *Social support and health: A Review of Physiological Processes Potentially Underlying Links to Disease Outcomes*. 2006;29(4):377–387. doi: 10.1007/s10865-006-9056-5. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.584.5721&rep=rep1&type=pdf>
- United Nations. (2006). *Convention on the Rights of Persons with Disabilities*. Retrieved from <http://www.un.org/disabilities/documents/convention/convoptprot-e.pdf>
- Waite, M., & Hawker, S. (2009). *Oxford paperback dictionary and thesaurus* (3rd ed.). Oxford: Oxford University Press.
- Wehman, P. (2012) Introduction to Special Issue, Supported Employment: What is it?. *Journal of Vocational Rehabilitation*.139–142. IOS Press. Virginia USA
- Western Cape Government. (2018). *Disability Grants*. Retrieved from <https://www.westerncape.gov.za/service/disability-grants>

- White paper on the rights of persons with disabilities. (2015). Retrieved from [whitehttps://www.ru.ac.za/media/rhodesuniversity/content/equityinstitutionalculture/documents/White%20Paper%20on%20the%20Rights%20of%20Persons%20with%20Disabilities.pdf](https://www.ru.ac.za/media/rhodesuniversity/content/equityinstitutionalculture/documents/White%20Paper%20on%20the%20Rights%20of%20Persons%20with%20Disabilities.pdf)
- World Health Organization and UNICEF. (1978). *WHO called to return to the Declaration of Alma-Ata*. Retrieved from http://www.who.int/social_determinants/tools/multimedia/alma_ata/en/
- World Health Organization. (2001). International classification of functioning disability and health (ICF)., (pp. 1-303). Geneva.
- World Health Organisation. (2003). *The World Health Report 2003: Shaping the Future*. WHO Library Cataloguing in Publication Data. Switzerland.
- World Health Organization. (2009). *Global Tuberculosis Control: Epidemiology, Strategy, Financing: WHO Report 2009*. WHO Library Cataloguing in Publication Data. Switzerland.
- World Health Organization. (2015). *Tuberculosis*. Retrieved from <http://www.who.int/mediacentre/factsheets/fs104/en/>
- World Health Organisation. (2016). *World Health Statistics 2016: Monitoring health for the Sustainable Development Goals*. WHO Library Cataloguing- in- Publication Data, Switzerland. Retrieved from https://www.who.int/gho/publications/world_health_statistics/2016/en/
- World Health Organisation. (2017). *World Health Statistics 2016: Monitoring health for the Sustainable Development Goals*. WHO Library Cataloguing- in- Publication Data, Switzerland. Retrieved from https://www.who.int/gho/publications/world_health_statistics/2017/en/
- World Health Organisation. (2018). *Tuberculosis*. Retrieved from <http://www.who.int/tb/en/>

APPENDICES

APPENDIX A

ETHICAL APPROVAL FROM HIGHER DEGREES COMMITTEE, U.W.C.



OFFICE OF THE DEAN
DEPARTMENT OF RESEARCH DEVELOPMENT

08 September 2015

To Whom It May Concern

I hereby certify that the Senate Research Committee of the University of the Western Cape approved the methodology and ethics of the following research project by:
Ms A Jaimodjen (Occupational Therapy)

Research Project: The adaption of the model of occupational self-efficacy for returning individuals living with tuberculosis to work.

Registration no: 15/6/6

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

The Committee must be informed of any serious adverse event and/or termination of the study.

*Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape*

APPENDIX B

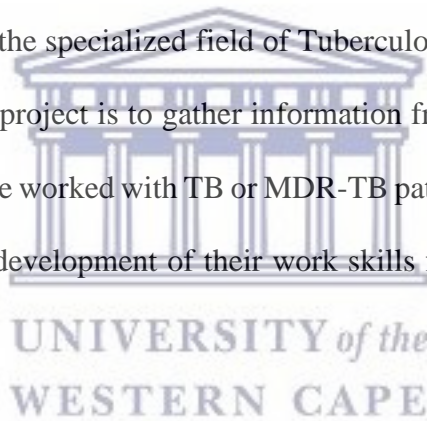
INFORMATION SHEET

Title of Research:

The adaptation of the Model of Occupational Self-Efficacy for returning individuals living with Tuberculosis to work

What is this study about?

This is a research project being conducted by a postgraduate Occupational Therapist at the University of the Western Cape. I am inviting you to participate in this research project because you have worked in the specialized field of Tuberculosis for at least six months. The purpose of this research project is to gather information from a health rehabilitation expert, like yourself, who have worked with TB or MDR-TB patients. Your expert opinion is valued with regard to the development of their work skills for transitioning back into the workplace.



What will I be asked to do if I agree to participate?

You will be asked to take part in an interview at your workplace. This interview will be 45 to 60 minutes long and will take place at a time mutually convenient to you. In the interview you will be asked questions about the current programmes that facilitate TB patients back into the workplace.

Would my participation in this study be kept confidential?

The researchers undertake to protect your identity and the nature of your contribution. To ensure your anonymity your name will not be included on the collected data and a code

will be placed on this data. Through the use of an identification key, the researcher will be able to link your interview data to your identity code and only the researchers will have access to the identification key. This research project involves making audiotapes of you, allowing the researchers to gather the data as accurately as possible. To ensure your confidentiality, the voice recordings and transcriptions of the findings gathered in the interviews will be locked away within a cupboard in the University of Western Cape Occupational Therapy department, to only be accessed by the researchers. Once the study is completed the voice recordings will be deleted.

I agree to be audiotaped during my participation in this study.

I do not agree to be audiotaped during my participation in this study.

If we write a report or article about this research project, your identity will be protected.



What are the risks of this research?

There may be some risks from participating in this research study. All human interactions and talking about self or past emotional situations carry some amount of risks. We will nevertheless minimize such risks and act promptly to assist you if you experience any discomfort, psychological or otherwise during the process of your participation in this study. Where necessary, an appropriate referral will be made to a suitable professional for further assistance or intervention or you will be provided with information of services which will provide further support.

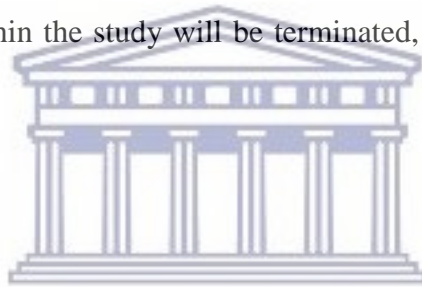
What are the benefits of this research?

This research is not designed to help you personally, but the results may help the investigator learn more about the programmes used, and the effectiveness thereof, which guide TB and MDR-TB patients back into the workplace. This information in turn will

help the researcher adapt an existing vocational rehabilitation model to assist clients living with TB and MDRTB to return to work. We hope that, in the future, other people might benefit from this study.

Do I have to be in this research and may I stop participating at any time?

Your participation in this research is completely voluntary. You may choose not to partake in it. If you decide to participate in this research, you may withdraw from the study at any given time. If you decide not to participate in this study or if you withdraw from the study, you will not be penalized or lose any benefits to which you otherwise qualify. If your job at the facility which you are currently working is terminated before the interview has taken place, your participation within the study will be terminated, as you will no longer fall within the inclusion criteria.



What if I have questions?

This research is being conducted by Ayesha Jainodien, Occupational Therapist at the University of the Western Cape. If you have any questions about the research study itself, please contact the researcher on the provided details below:

Researcher: Ms. Ayesha Jainodien

Email: 2858896@myuwc.ac.za

Tel: 082 4968209

Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Head of Department: Prof. L. Wegner

University of the Western Cape

Private Bag X17

Bellville 7535

(021) 9593153

lwegner@uwc.ac.za

Supervisor: Prof. Shaheed Soeker
Occupational Therapy Department
Tel: +2721 959 9339
Fax: 021 959 1259
Email: msoeker@uwc.ac.za

Co-Supervisor: Prof. Mario Smith
Psychology Department
Tel: +2721 959
Fax: 021 959
Email: msmith@uwc.ac.za

This research has been approved by the University of the Western Cape's Senate Research
Committee and Ethics Committee.



APPENDIX C

CONSENT FORM

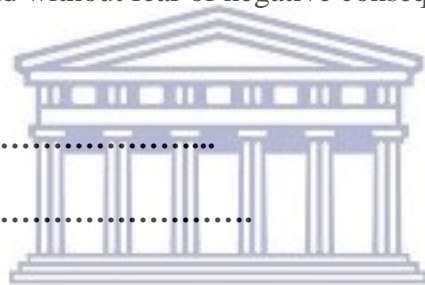
Title of Research: The adaptation of the Model of Occupational Self-Efficacy for returning individuals living with Tuberculosis to work

The study has been described to me in language that I understand. My questions regarding the study have been answered. I understand what my involvement will entail, and I agree that my participation is my own choice and free will. I understand that my identity will not be disclosed to anyone. I understand that I may withdraw from the study at any time without reason and without fear of negative consequences or loss of benefits.

Participant's name:

Participant's signature:

Date:



UNIVERSITY of the
WESTERN CAPE

Should you have any questions regarding this study or wish to report any problems you have experienced related to the study, please contact the researcher.

Researcher: Ms. Ayesha Jainodien

Email: 2858896@myuwc.ac.za

Cell: +2782 496 8209

APPENDIX D

INTERVIEW GUIDE

Rehabilitation care specialists- Key informants

- Could you describe to me the existing programmes you run with the clients to assist with their return to work?
- Could you describe the barriers relating to return to work programmes for the clients you treat?
- Could you describe the factors that make it possible for you to run the return to work programmes for your clients?
- If there are any changes that could be introduced to enhance the current programmes, what will they be?
- Are you familiar with the MOOSE?

PTB and MDR- TB survivors

- Could you describe the programmes you participated in that assisted you in returning to work?
- Could you describe the barriers relating to the rehabilitation programme you participated in?
- Could you describe the factors that make it possible for you to return to work?
- If there are any changes that could be introduced to enhance the current programmes, what will they be?
- Are you familiar with the MOOSE?

