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INTEGRATION OF OCCUPATIONAL THERAPY SERVICES AT PRIMARY HEALTHCARE LEVEL IN SOUTH AFRICA

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**A dissertation submitted to the Faculty of Health Sciences,
University of the Witwatersrand, in fulfilment of the requirements for
the degree of Master of Science in Occupational Therapy.**

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DECLARATION

I, Anthony Oluwaseun JEJELAYE, declare that this dissertation is my own work. It is being submitted for the degree of Master of Science in Occupational Therapy at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this or any other University.

A handwritten signature in black ink, appearing to read 'Anthony Oluwaseun JEJELAYE', is written over a horizontal line. To the right of the signature, the number '21' is circled in ink.

.....
24th day of May 2019

DEDICATION

This dissertation is dedicated to God the Father, God the Son, and God the Holy Spirit; from whom all knowledge springs!

I equally dedicate this work to everyone who lives with one form of disability; it is my hope that there would be optimal access to, and quality of occupational therapy services to improve your health outcomes someday soon.

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My profound gratitude goes to all the occupational therapists who responded to this study's survey and especially the five occupational therapists who afforded me the opportunity of interviewing them. This study would not have been completed without your participation and rich comments.

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ABSTRACT

Background: Literature shows that access to rehabilitation services for persons with disabilities in South Africa is limited. Recent policy documents by the National Department of Health related to disability and rehabilitation propose integration of occupational therapy services in primary healthcare (PHC) reengineering. However, the implementation strategies are not entirely clear as there is inadequate evidence locally on the occupational therapy service provision in PHC even though there is growing evidence internationally.

Purpose: This study sought to determine the services provided by occupational therapists in PHC. Their perceptions of the integration of occupational therapy services within the PHC reengineering streams was also explored.

Methods: A two-phase explanatory sequential mixed method strategy was utilized in this study with data from the first quantitative phase guiding the second qualitative phase both of equal weights. The first phase was a nationwide cross-sectional quantitative survey strategy using an electronic questionnaire developed on REDCap to establish the extent to which occupational therapy services are delivered in PHC in South Africa. The second phase was an in-depth study using semi structured interviews to comprehensively explore with the occupational therapists practicing in PHC on their perceptions of integrating occupational therapy services in the PHC reengineering streams of the National Health Insurance (NHI). Ethics approval (M180819) was sought and obtained from the University of the Witwatersrand Human Research Ethics Committee (Medical).

Analysis: Descriptive analysis was done for the close-ended questions of the quantitative survey, frequencies and content analysis was done for the open-ended questions in the survey, and thematic content analysis was done for the qualitative data. Trustworthiness procedure such as confirmability, member-checking, dependability and triangulation of data sources (In-depth semi-structured interviews, field notes and survey) was used to ensure credibility of the research findings.

Results: Findings from this study showed there is increasing alignment of occupational therapy services in PHC with the community-based rehabilitation (CBR), the Social Model, the International Classification of Functioning (ICF), and Medical Model using self-management and case-management intervention approaches. The majority of occupational therapists in PHC work on the hospital-based MDT comprising other rehabilitation professionals and nurses. Occupational therapists in PHC have a strong perception of their relevance in the PHC reengineering streams despite the numerous barriers and few facilitators available for the integration of occupational therapy services in PHC reengineering streams of the NHI currently. Their perception is that occupational therapy service integration in the PHC reengineering streams will lead to improved healthcare and the integration will not happen without occupational therapy being adequately supported in PHC.

Conclusion: This study serves to provide evidence to help position occupational therapy and by extension other rehabilitation professions in the PHC reengineering streams of the NHI. The integration of occupational therapy services in the PHC reengineering streams of the NHI is essential to improve the health outcomes of the population and reduce the overall healthcare cost and growing burden of non-communicable diseases in the country

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DEFINITION OF TERMS

Integration: The organization and management of health services so that people get the care they need, when they need it, in ways that are user friendly, achieve the desired results and provide value for money (WHO, 2008).

National Health Insurance: A health financing system that is designed to pool funds to provide universal access to quality, affordable personal health services for all South Africans based on their health needs, irrespective of their socio-economic status, which would be implemented through the creation of a single fund that is publicly financed and publicly administered. The health services covered by NHI will be provided free at the point of care and will provide a mechanism for improving cross-subsidization in the overall health system. Funding will be linked to an individual's ability-to-pay and benefits from health services will be in line with an individual's need for health care (National Department of Health, 2015: p.9).

Occupational therapy: Occupational therapy is a client-centred health profession concerned with promoting health and wellbeing through occupation. The primary goal of occupational therapy is to enable people to participate in the activities of everyday life. Occupational therapists achieve this outcome by working with people and communities to enhance their ability to engage in the occupations they want to, need to, or are expected to do, or by modifying the occupation or the environment to better support their occupational engagement (WFOT, 2012).

Primary Healthcare reengineering: Primary healthcare re-engineering is a key pillar of the NHI and a four-stream approach using the District Health System (DHS) as the established medium of delivery. These four streams include clinical specialist support teams, integrated school health services, municipal ward-based PHC outreach teams, and contracting private health practitioners at non-specialist level (NDoH, 2011; Paulus, 2013; NDoH, 2015).

Primary Healthcare: Primary Healthcare is essential health care based on practical, scientifically sound, socially acceptable methods, and technology, made universally accessible to individuals and families in the community through their full participation and at a cost that the community and the country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination (WHO-UNICEF, 1978).

ABBREVIATIONS

CBR	Community Based Rehabilitation
CHC	Community Health Center
CHW	Community Health Workers
CPD	Continuing Professional Development
CPG	Clinical Practice Guidelines
CRW	Community Rehabilitation Workers
CVI	Content Validity Index
DCST	District Clinical Specialist Teams
DPO	Disabled People's Organization
FSDRSA	Framework and Strategy for Disability and Rehabilitation Services
HCPSA	Health Professions Council of South Africa
HRH	Human Resources for Health
ICF	International Classification of Functioning, Disability and Health
I-CVI	Individual Content Validity Index
ISHP	Integrated School Health Programme
MDT	Multi-Disciplinary Team
MM	Mixed Method(s)
NDoH	National Department of Health
NGO	Non-Governmental Organization
NHI	National Health Insurance

NPO	Non-Profit Organization
OHSC	Office of Health Standards Compliance
OTA	Occupational Therapy Assistant
OTASA	Occupational Therapy Association of South Africa
OTT	Occupational Therapy Technician
PHC	Primary healthcare
PTA	Physical Therapy Assistant
PWD	Persons/People with Disability (ies)
QUAL	Qualitative
QUAN	Quantitative
REDCap	Research Electronic Data Capture
RuReSA	Rural Rehab South Africa
SAMRC	South African Medical Research Council
S-CVI	Survey Content Validity Index
UHC	Universal Health Coverage
UNCRPD	United Nations Convention on the Rights of Persons with Disabilities
WBPHCOT	Ward Based Primary Healthcare Outreach Team
WHO	World health organization

CHAPTER 1: INTRODUCTION

1.1 BACKGROUND

There are an estimated 4.2 million people with disabilities (PWDs) in the population of 57.73 million in South Africa, resulting in a prevalence of 7.5% for disability (Statistics South Africa, 2011; Statistics South Africa, 2018). Literature shows that access to rehabilitation services for PWDs in South Africa is limited due to factors such as the distant location of clinics, inadequate rehabilitation workforce, a two-tiered health system, transportation challenges, inadequate policies, and implementation regarding disability and rehabilitation (Naidoo, Van Wyk, and Waggie, 2017b; OTASA, 2017).

The Framework and Strategy for Disability and Rehabilitation Services in South Africa 2015-2020 (FSDRSA) and the National Health Insurance (NHI) White Paper 2017 are two recent policy documents published by the National Department of Health (NDoH) related to healthcare, disability, and rehabilitation. The FSDRSA and NHI propose the integration of rehabilitation services within the primary healthcare (PHC) framework in South Africa (NDoH, 2015; NDoH, 2017).

Integration in this study is operationally defined as the presence of occupational therapists working in the inter-professional PHC teams in keeping with the PHC reengineering streams of the NHI. Although, the proposed PHC reengineering was extended to include rehabilitation professionals such as occupational therapists (NDoH, 2011; Paulus, 2013; NDoH, 2015), the implementation strategies of the policies are not entirely clear (Maseko, De Witt, Bham *et al.*, 2016; Ned, Cloete and Mji, 2017).

The lack of clarity is compounded by inadequate evidence locally on the occupational therapy service provision in PHC (Misbach, 2004; Donnelly, Leclair, Wener *et al.*, 2016; Dahl-Popolizio, Rogers, Muir, *et al.*, 2017; Ned, Cloete and Mji, 2017), even though there is growing evidence for the role of occupational therapy internationally. Thus at this point in South Africa, when policies and frameworks in relation to disability and rehabilitation in PHC are in the initial phases of implementation, it is important to fill the knowledge gap by providing an evidence base for the provision of occupational therapy services in PHC (Myezwa and Van Niekerk, 2013).

Perceptions of occupational therapists on how occupational therapy services are best positioned to deliver appropriate services for PWDs, their families, and the community at large therefore needs to be established (Roberts, Farmer, Lamb *et al.*, 2014). This study will therefore determine the current occupational therapy service delivery in PHC and the integration of occupational therapy services within the PHC reengineering framework.

1.2 STATEMENT OF THE PROBLEM

Previous research in South Africa on the delivery of occupational therapy and other rehabilitation services for PWDs in PHC have looked at the challenges faced by PWDs in accessing rehabilitation services (especially occupational therapy and physiotherapy) (Kahonde, Mlenzana, and Rhoda, 2010; Sherry, 2015; Naidoo, Van Wyk, and Waggie, 2017b). Other studies have focused on the perspectives of rehabilitation practitioners regarding service delivery at the PHC level especially for PWDs, corroborating the findings on the challenges faced by PWDs in accessing rehabilitation services (Misbach, 2004; Maleka, Franzsen and Stewart, 2008; Ned, Cloete and Mji, 2017).

The third perspective included studies which investigated the perspectives of health district managers from various provinces regarding the implementation of PHC policy documents and the challenges they encountered (Dayal, 2010; Fusheini and Eyles, 2016; Naidoo, Van Wyk and Joubert, 2016; Moosa, Derese and Peersman, 2017). All these studies, although approached in various ways, indicate that better health outcomes and quality of life can be achieved for PWDs with adequate occupational therapy service provision in PHC.

Effective implementation of policy continues to be a problem in South Africa especially since few studies have investigated the role of occupational therapy, the delivery of occupational therapy services in PHC, and how to facilitate the integration of occupational therapy services at the primary level of healthcare (Misbach, 2004; Naidoo, Van Wyk, and Waggie, 2017b). A study by Naidoo and colleagues (2016) in the KwaZulu-Natal Province points out the failure of both occupational therapists and district health management in designing and implementing services based on PHC

principles. Furthermore, Dayal (2010) highlighted some of the factors which hindered the successful implementation of OT services such as a lack of distinct role clarification among the different levels of PHC management, inadequate knowledge of rights-based public policies and the absence of a clear-cut blueprint to “operationalise” rehabilitation services within the PHC framework.

There is a lack of research in South Africa that focuses on establishing the services provided by occupational therapists in PHC and their opinion regarding the integration of occupational therapy in PHC within the proposed streams of PHC reengineering in the NHI.

1.3 STATEMENT OF PURPOSE

This study sought to explore how services are provided by occupational therapists in PHC. The perceptions of occupational therapists on the integration of occupational therapy services within the PHC reengineering streams of the NHI were also explored.

1.4 RESEARCH QUESTION

How are occupational therapy services provided in PHC and how do occupational therapists perceive occupational therapy services to be integrated in the PHC reengineering streams of the NHI in South Africa?

1.5 AIM OF THE RESEARCH

The aim of the study was to determine how services are currently provided by occupational therapists in PHC and their opinion regarding the integration of occupational therapy services in PHC within the streams of PHC reengineering in the NHI in South Africa.

1.5.1 Research Objectives

- To explore how occupational therapy services are currently provided in PHC in South Africa from the perspective of the occupational therapists (Phase 1)

- To explore the perceptions of occupational therapists on the integration of occupational therapy services in the PHC reengineering streams of the NHI (Phase 1 and 2)
- To explore the perceived barriers and facilitators to integration of occupational therapy services in the PHC reengineering streams of the NHI (Phase 1 and 2)

1.6 JUSTIFICATION

Findings from this study will add to the emergent body of evidence in highlighting the role of occupational therapy and the importance of integrating occupational therapy services at a PHC level. This study will also provide insight into the occupational therapy services currently provided in PHC in South Africa and what occupational therapists understand integration to be. Furthermore, it will provide clarity into how occupational therapists see occupational therapy services fitting in with PHC reengineering with the potential of being expanded to also support the implementation of policy on the integration of occupational therapy services at PHC level.

1.7 OUTLINE OF THE DISSERTATION

Chapter 1: Introduction

This chapter presents a background to the disability and rehabilitation terrain in South Africa in line with pertinent policy documents. This was followed by statement of the problem identified in literature, and research question. The purpose, aim, and objectives of the study were enumerated – to determine the service provided by occupational therapists in PHC and the opinion of occupational therapists regarding the integration of occupational therapy in PHC within the proposed streams of PHC reengineering in South Africa.

Chapter 2: Literature Review

This chapter presents the existing knowledge and knowledge gaps about the health system of South Africa in relation to disability and rehabilitation services. It explores the development of the health system from the apartheid era to date, with a special focus on major health policies and programs especially as they relate to PWDs. Literature on healthcare for PWDs is also explored. The NHI, PHC reengineering, and role of

occupational therapy at PHC level are also explored in detail. The chapter ends with a short summary.

Chapter 3: Methodology

This chapter presents the type of study, the design adopted, and the overall procedure employed. Information about the study setting, study participants, sampling techniques, and research procedure is provided. This is followed by discussing the data measurement tools, instrument validation, data collection and management, data analysis, and ethical procedures. Measures used to ensure rigor are also presented.

Chapter 4: Results

This chapter presents the findings of the study. The results of the two phases are presented sequentially. The chapter ends with a summary of the result from the two analyses.

Chapter 5: Discussion

This chapter presents the discussion of the study findings in relation to existing literature in answering the research question. The demographics of participants are initially discussed, followed by a discussion of the study findings in relation to each of the three study objectives. Finally, the chapter ends with the strengths and limitations of the study.

Chapter 6: Conclusion and Recommendations

This chapter presents the overall summary of the dissertation. Recommendations for further studies, policy, and practice are subsequently presented.

CHAPTER 2: REVIEW OF THE LITERATURE

2.1 INTRODUCTION

This chapter highlights the existing knowledge about the South African health system in relation to disability, occupational therapy, and other rehabilitation services. It explores the development of the health system from the apartheid era to date with a special focus on major health policies and programs especially as they relate to PWDs. The NHI, PHC reengineering and the role of occupational therapy at PHC level are also explored in detail. Outcomes and methodologies of relevant studies are reported as part of the literature synthesis.

The relevant literature that informed this chapter was obtained by accessing numerous databases, which included EBSCO, PubMed, Google Scholar, Springer, Science Direct, and Scopus. Individual journals, websites and grey literature were also accessed such as Disability and Rehabilitation Journal, Journal of Health Services Research, Journal of Public Health Policy, Disability and Health Journal, International Journal of Health Policy and Management, Office of Health Standards Compliance website (ohsc.gov.za), South African Government website (www.gov.za), WHO website (www.who.int), and unpublished Masters dissertations, and PhD theses. The bibliography of relevant articles was also searched.

Keywords for the literature search included 'National Health Insurance' OR 'NHI', 'Service Integration', 'Implementation', 'Community Based Rehabilitation', 'Framework and Strategy', 'South Africa', 'White Paper', 'Historical Background', 'Disability' OR 'Persons with Disabilities', 'Health Systems', 'Primary Healthcare' OR 'Primary Care' OR 'PHC', 'Primary Healthcare Reengineering', 'Inter-professional Practice' OR 'Interdisciplinary Practice', 'Occupational Therapy', and 'Rehabilitation'.

2.2 BACKGROUND OF HEALTHCARE IN SOUTH AFRICA

2.2.1 The Historical Background of the South African Health System

In South Africa, the "historical socio-economic fragmentation" (Bheekie and Bradley, 2016: p.242) resulted in a skewed healthcare system. The history of the health system in South Africa dates back to the Dutch and British colonial era (1652 – 1910) (Coovadia, Jewkes, Barron, *et al.*, 2009). Health care during this period was provided by indigenous healers, missionaries, a Dutch company, and the Dutch and British governments. Further, there was creation of Supreme Medical Committee to supervise the health system, and promulgation of the Public Health Amendment Act of 1897 which separated curative and preventive care within the private and public health sectors (Philips, 1993). The colonial era was followed by the period of segregation when the Union of South Africa was established (1910 – 1948). Following this period was the apartheid era between 1948 to 1994. The end of apartheid heralded the democratic era from 1994 to this moment. Some of the events related to the health system before democracy are presented in this section.

2.2.1.1 1910 – 1948: Period of Segregation

Fragmentation of health services among the four provinces ensued following the formation of the Union of South Africa. Local authorities were charged with health promotion and prevention while the hospitals were responsible for curative health care. Also, as more jobs were retained for the white population, the proportion of poor white population reduced (Coovadia, Jewkes, Barron, *et al.*, 2009). During the second war period, Britain was planning a comprehensive national health service model to cater for the post war period – a system which later served as a standard for the modern-day NHI (London and Sanders, 2018). However, the Union of South Africa was divided in her allegiance to Britain at that time and in an attempt to address the fragmented health system, a commission was set up (Phillips, 1993).

The commission was to investigate, give account, and recommend solutions to the health crises at the time. This was to guarantee sufficient and appropriate curative healthcare services for the populace irrespective of racial divides, in tandem with the contemporary notion of "Health" (a state of optimal physical and mental functioning,

and not only the absence of infirmities) (Phillips, 1993). Necessary procedures to actualise a comprehensive National Health Service was required from the commission's recommendations (Phillips, 1993).

Such a National Health Service which could be considered the predecessor of the modern-day Universal Health Coverage (UHC) was to address inequity in health services provision and unilateral medical practice (OHSC, 2018). Subsequent to the commission's review of several reports from the Dutch Reformed Church, the Carnegie Foundation, labour organizations, and government agencies, a comprehensive report known as the Gluckman Report (1945) recommended nationally coordinated interdepartmental state health and wellness programs (Phillips, 1993). The report based their findings on the social determinants of health, education, and built environment and recommended a sweeping restructuring of the managerial organisation of healthcare services. Health services were to be constructed around an action based four-tier model of healthcare which included promotive health, preventive health, curative health and rehabilitative health.

Furthermore, a clear indication of the relevant organisation and human resources required for each tier was provided (Phillips, 1993). The Gluckman report (1945) recommended the creation of health centres as a practical solution to deliver the four-tier healthcare and in cognisance with contemporary medical thinking. These centres would accommodate team-based or interdisciplinary healthcare practice as opposed to the customary individualistic medical practice. The idea was to foster optimal health outcomes of the people by leveraging on the diverse skills of team members; and placing more importance on health promotion and maintenance than the curative approach to healthcare used at the time. (Phillips, 1993).

Some health centres were established following the Gluckman Report (1945), and the Pholela clinic, with its focus on low-cost preventive medicine using a multiracial team of health workers was very successful. The support for this policy was short-lived however due to inconsistencies in governance. The demise of health-oriented care to medical-oriented care ensued following the election of the Nationalist Party to

government and ultimately, the efforts of the Gluckman Commission were met with little success (Phillips, 1993).

2.2.1.2 1948 – 1994: Apartheid Era

The ascendancy of the Nationalist party established the racial segregation of apartheid, thus reinforcing the foregoing inequities between the whites and non-whites economically and health-wise. Health services were racially biased and two-tiered along public-private healthcare divides. For example, the private health sector was well funded and catered mainly for the white minority while the public health sector which catered for the non-whites, who constituted most of the population was poorly funded (Coovadia, Jewkes, Barron, *et al.*, 2009; National Department of Health, 2015). As such, there were significant disparities in disease and mortality rates among races reflecting racial differences in access to basic living conditions and other health determinants (Mayosi, Lawn, Van Niekerk, *et al.*, 2012). There was also a marked disparity in access to health and related services at urban and rural areas, characterized by low health workers and facilities in the rural areas (Coovadia, Jewkes, Barron, *et al.*, 2009; Katuu, 2018).

By 1978, the fragmentation of South Africa's health system deepened, leading to 14 different departments of health divided along racial lines, still maintaining the curative outlook to healthcare delivery (Coovadia, Jewkes, Barron, *et al.*, 2009; Katuu, 2018). This change to medical-oriented care continued to prevent the comprehensive integration of occupational therapy services in the health system especially at the primary level of care (Cullinan, 2006; Coovadia, Jewkes, Barron, *et al.*, 2009).

2.2.2 The Health System in the Dawn of Democracy

The newly elected democratic government took on the task of re-addressing the fragmentation which had characterised and weakened the country's health system for the past decades on advent of democracy in South Africa by 1994 (Marten, McIntyre, Travassos *et al.*, 2014; Burger and Christian, 2018). Consequently, the 1994 Health Plan was aligned with the Alma Ata declaration of primary healthcare concept and the

Gluckman Commission's earlier recommendations (World Health Organization, UNICEF and Others, 1978; Beard and Redmond, 1979; Phillips, 1993).

Some of the gains recorded by the 1994 Health Plan include the transformation of the 14 departments of health into nine Provincial Departments of Health and a single National Department of Health (NDoH). Desegregation of health facilities by delivering hospital services through tertiary, regional, and district levels of care has been prioritised together with PHC driven by a district health system. Furthermore, nurse-led PHC services encompassing clinics and health centres have been prioritised. These priorities led to the transformation of the public health system into an inclusive nationwide service to rectify the past inequities in health service provision and improve access to primary healthcare services at no cost to underserved populations (Coovadia, Jewkes, Barron, *et al.*, 2009; Moodley and Ross, 2015; Katuu, 2018).

Although the constitution of South Africa obliges the State to work towards progressive realization of the right to health, the country still has health inequities decades after democracy (The South African Government, 1996; Marten, McIntyre, Travassos *et al.*, 2014; Moodley and Ross, 2015). The private sector consumes approximately ten times the yearly per capital spending in the public sector, with proportional inequities in health care provision by the two sectors. Similarly, about 70 percent of the doctors in South Africa provide services for the private healthcare sector which constitutes about 8 million users with health insurance and 10 million uninsured out-of-pocket users. The remaining 30 percent of the doctors however provide service for more than 30 million uninsured users who are predominantly in the rural areas (Chopra, Lawn, Sanders, *et al.*, 2009; Mayosi and Benatar, 2014). Similarly, the distribution of occupational therapists between the private and public sector is about 74% and 26% respectively. The low proportion of occupational therapists available to provide services in the rural and public sector indicates that there is shortage of occupational therapists at PHC level (Van Rensburg, 2014).

2.2.2.1 Human Resources for Health (HRH)

Among the reasons for a shortage in human resources for health in South Africa is the migration of locally trained healthcare professionals to developed countries. Another

reason for Human Resources for Health (HRH) shortage is the reduced influx of foreign trained personnel to South Africa due to stringent registration procedures by the Health Professions Council of South Africa (HPCSA) (Mayosi and Benatar, 2014).

To supplement healthcare professionals in underserved areas, the National Department of Health introduced various strategies. For example, the training of clinical associates or midlevel healthcare providers was introduced in 2015. The Occupational Therapy Department at the University of the Witwatersrand offered training of midlevel community rehabilitation workers (CRWs) from 1998 to 2002. The training was to support rehabilitation at a district and PHC level, however it was discontinued as pre-graduate courses were no longer permitted in the university by the Department of Education (Concha, 2014).

In an attempt to augment the limited HRH and increase accessibility to health care, particularly in the underserved areas, Non-governmental Organizations (NGOs) have tried to fill the gap in training through the training of community health workers (CHWs). These CHWs are usually volunteers who live in communities and receive a stipend. (Mannan, Boostrom, MacLachlan, *et al.*, 2012; Nxumalo, Goudge and Manderson, 2016; Austin-Evelyn, Rabkin, Macheke, *et al.*, 2017).

Also, the Cuba training project was instituted to augment the training of medical doctors to serve the people of South Africa. However, the project has been criticized that it produces fewer medical graduates (about 750) from 1996 to 2018 compared to the numbers produced from South African medical schools yearly (about 1,800) despite the huge cost implication. Further, the prevention-based Cuba training is seen as contrasting to the curative-based South African training/practice. The NDoH in 2018 decided to temporarily scale down the program to address the challenges it poses to South Africa in terms of cost implication and placement of the foreign trained graduates for community service and internship (Kahn, 2018b).

Nevertheless, services in rural and under resourced areas are reinforced by all healthcare professionals graduating from South African universities through the completion of a compulsory one year of community service before being licensed to

practice (Van Stormbroek and Buchanan, 2016). There has been a steady increase in the number of students enrolling (34%, 1114 in 2000 - 1491 in 2012) and graduating (18%, 1131 in 2000 – 1335 in 2012) from the medical schools in South Africa (Abdool Karim, 2004; Mayosi and Benatar, 2014; DHET, 2018). However, there is concern that recently, there is not an upward trend for the training of nurses (South African Nursing Council, 2018), who have led the healthcare delivery at PHC level and in rural areas, where doctors rarely practice (Coovadia, Jewkes, Barron, *et al.*, 2009). Several authors (Mayosi and Benatar, 2014; London and Sanders, 2018) have called for a substantial increase in the amount of HRH to bring about cost efficiency and organized PHC service delivery for the whole country especially in underserved rural areas. However, the national HRH strategic plan does not address these issues squarely (Rispel, 2016).

2.2.2.2 Current Challenges

The limitations to implementing the comprehensive PHC in South Africa since 1994 have been attributed to problems in delineating physical borders, assigning of tasks to different levels of government, and the organisation of district health systems. For example, the National Health Act of 2004 authorised the provincial authorities to coordinate PHC and district health systems activities which previously fell under the auspices of the local government authorities (The South African Government, 2004; Chopra, Lawn, Sanders *et al.*, 2009). Other debilitating factors to implementing comprehensive PHC described by Coovadia, Jewkes, Barron, *et al.* (2009) include lack of competence and organisation of HRH, poor leadership and poor administration among health managers as well as the burden of the HIV epidemic on the South African public health sector.

With the increasing proportion of HRH in the private health sector, fewer are available to offer services in the public health sector. Most private health services are situated in the big cities in the country's nine provinces (Chopra, Lawn, Sanders, *et al.*, 2009). More so, the scarcity of occupational therapy professionals in the PHC setting has been documented (Hanass-Hancock, Nene, Deghaye, *et al.*, 2017). This poses substantial challenges to achieving UHC (Naledi, Barron and Schneider, 2011) through a PHC driven health system (Bheekie and Bradley, 2016; Kreda, Abrams, Young, *et al.*, 2017).

Universal health coverage is a fundamental human right as enshrined in the WHO Constitution (WHO, 1946). It is expressed as “financing systems that enable people to use all types of health services – promotion, prevention, treatment and rehabilitation – without incurring financial hardship” (WHO, 2010: p.2). The United Nations Sustainable Development Goals (SDGs) has UHC as goal 3 with proposed worldwide attainment by 2030 (National Department of Health, 2015; WHO, 2016). Although, some countries have achieved UHC, many countries in the developing world, including South Africa, are still working towards this goal (National Department of Health, 2015; Dalinjong, Welaga, Akazili, *et al.*, 2017). South Africa, has a responsibility to attain UHC as a model to other countries in the region to emulate (Marten, McIntyre, Travassos *et al.*, 2014).

It must be understood that UHC comprises two main components: quality of essential health service coverage, and financial coverage for the whole population including PWDs. Therefore, essential health service coverage must include occupational therapy and other rehabilitation services which are currently under-represented in PHC reengineering (Hanass-Hancock, Nene, Deghaye, *et al.*, 2017). The Framework and Strategy for Disability and Rehabilitation Services in South Africa 2015-2020 (FSDRSA), along with other policies, was published in 2015 by the National Department of Health. In the spirit of UHC, the FSDRSA intends to address the significant inequities in access to healthcare in South Africa with the implementation of the NHI (Mayosi, Lawn, Van Niekerk, *et al.*, 2012; National Department of Health, 2015). The FSDRSA will be considered in line with the NHI below.

2.3 NATIONAL HEALTH INSURANCE (NHI)

The National Department of Health published the white paper on the NHI in 2015, following the green paper in 2011 which were essential in light of the health priorities in South Africa. Initially the quadruple burden of disease, Human Immuno-deficiency Virus (HIV) and tuberculosis; violence and injury; mother and child health as well as mental health and non-communicable diseases were addressed (National Department of Health, 1997; Tollman, Kahn, Sartorius, *et al.*, 2008; Mayosi, Fisher, Lalloo, *et al.*, 2009; Schneider, Bradshaw, Norman, *et al.*, 2009; Mayosi, Lawn, Van Niekerk, *et al.*, 2012;

NDoH, 2015). Despite the gains in these health priorities, a lack of support for postnatal feeding, increased non-communicable disease risk factors, increased accidents and violence remain evident (Mayosi, Lawn, Van Niekerk, *et al.*, 2012). As the mortality rate from the collective effect of the diseases doubled from 1997 to 2006 (Tollman, Kahn, Sartorius, *et al.*, 2008), the percentage of disabilities as a result of these diseases and other causes also increased from 5% in 2001 to 7.5% in 2011 (StatSA, 2011).

The NHI is publicised to provide a solution to the current inadequacies in the South African health system such as the private-public sector inequity and mal-distribution of HRH. Moreover, it aims to address the challenges in accessing healthcare services, affordability, effectiveness, and appropriateness of services, among others. The NHI also seeks to address the country's curative healthcare dominated services by encouraging preventive healthcare as well as addressing the inappropriate entry level for healthcare services above the PHC level (National Department of Health, 2015).

The NHI is multi-faceted ranging from NHI coverage (population, service, and cost), reorganisation of the health care system and services under NHI, NHI financing, and purchasing of health services (National Department of Health, 2017b). However, this review only focuses on the aspects that are most pertinent to the scope of this study such as population coverage, service coverage, and PHC reengineering because these aspects have a direct impact on the current and future provision of occupational therapy services at PHC level.

The National Department of Health is implementing the NHI in three phases within the space of 14 years. Phase 1 was implemented from 2011- 2015 while Phase 2 is in progress from 2016-2020, and Phase 3 will be introduced from 2021-2025 (Coovadia, Jewkes, Barron, *et al.*, 2009; Kleinert and Horton, 2009; Mayosi, Lawn, Van Niekerk, *et al.*, 2012; Rispel and Barron, 2012; National Department of Health, 2015).

The National Department of Health (2015) defined the proposed NHI as:

“a health financing system that is designed to pool funds to provide universal access to quality, affordable personal health services for all South Africans based on their health needs, irrespective of their socio-economic status, which

would be implemented through the creation of a single fund that is publicly financed and publicly administered. The health services covered by NHI will be provided free at the point of care and will provide a mechanism for improving cross-subsidization in the overall health system. Funding will be linked to an individual's ability-to-pay and benefits from health services will be in line with an individual's need for health care" National Department of Health (2015: p.9).

Furthermore, item 127 of the 2015 NHI White Paper states that:

"The point of entry to accessing health services will be at the primary health care level with referrals to higher levels of care by providers at the PHC level. PHC services will be delivered by accredited integrated teams of providers or networks structured as multidisciplinary practices of a wide range of health care professionals such as medical practitioners, dentists, nursing professionals, pharmacists, audiologists, optometrists, physiotherapist and oral health practitioners amongst others. Those who practice as individual practitioners will have to be part of referral networks. The PHC providers will serve a catchment population that takes into account geographic, demographic and epidemiological profiles of the community" (National Department of Health, 2015: p.25, 26).

To be part of a referral network, individual private practitioners will have to team up with other health care professionals on a multidisciplinary practice level (NDoH, 2015) despite the HCPSA restriction on group practice and employment model. Overall, the relationship between the referral network with existing regulation and legislature is unclear.

The NHI suggests that vulnerable populations such as PWDs will enjoy improved access to appropriate rehabilitative care, and that service coverage will also increase the involvement of rehabilitation practitioners such as occupational therapists. Lessons from Taiwan post-NHI implementation however suggests that care must be taken not to put the vulnerable population of the country at further disadvantage which may be the case if the NHI implementation does not comprehensively integrate occupational

therapy services in PHC (Chu, Liu, Chen *et al.*, 2005). More so, studies appraising the potential success of the proposed NHI suggested that the utmost commitment from the government in the implementation of the policy is required (Rispel, 2016). The success of the implementation will require communication and cooperation among the levels of government to prevent ambiguity in role performance, the strengthening of the district health system, and decisively addressing the human resource issues in healthcare.

Recently, the Minister of Health, Dr Aaron Matsoaledi published the NHI bill in June 2018 which covers mandatory pre-payment healthcare services in accordance with section 27 of the Constitution; to establish an NHI Fund. However, occupational therapy services which are necessary for PWDs, are not explicitly captured in this document. More so, the bill was rejected by the South African Cabinet in December 2018 although there was indication that the Cabinet will accept the bill in 2019 (Kahn, 2018a).

Several unclear areas exist in the NHI bill, for example the specific basket of services that will be available under the NHI package is not clearly stipulated which stimulates speculations that more restricted basket of services will be available for the current underserved populations. Similarly, the composition of the committees responsible for determining the constituent of the NHI packages is biased towards technocrats with little involvement of professional bodies, community members, and civil society groups which may continue to perpetuate the dominant hospital-based medical model of specialist care (London and Sanders, 2018). For the dominant hospital-based medical model of specialist care not to linger, the necessary preventive, promotive and rehabilitative health service needs necessary for PWDs have to be considered in deciding the basket of services under the NHI. Also, active participation of all stakeholders in the operationalization of the NHI needs to be undertaken (Rispel, 2016; London and Sanders, 2018) to ensure the effective reorganisation of the healthcare system.

2.3.1 Primary Healthcare Reengineering

Primary healthcare reengineering is a key pillar of the NHI and a four-stream approach with the District Health System (DHS) as the established medium of delivery (Pillay and

Barron, 2011). The initial three streams included clinical specialist support teams, school health services, and municipal ward-based PHC outreach teams, but evolved to four streams in the 2011 green paper to include contracting private health practitioners at non-specialist level (NDoH, 2011; Paulus, 2013; NDoH, 2015). Apart from general practitioners, the contracted providers are expected to comprise rehabilitation professionals, including occupational therapists (NDoH, 2015).

The roles of each PHC reengineering stream are briefly presented below:

- **Municipal Ward-based Primary Healthcare Outreach Teams (WBPHCOTs):** A team of nurse-led community health workers who are attached to primary health care centre and charged with evaluating individual and household health status; give health promotion talks; identify service needs (rehabilitative, preventive, curative, among others) and make appropriate referral to required service provider at the primary healthcare centre.
- **Integrated School Health Programme (ISHP):** This service is responsible for overall wellness among school-age children by providing services such as learning-related health challenges screening – cognitive, mental, oral, visual, auditory, and delayed developmental milestones; immunization services, counselling and psychological services, sexual and reproductive health services, and HIV and AIDS targeted services.
- **District Clinical Specialist Teams (DCSTs):** This stream will serve as capacity building and mentorship platform and reinforce clinical guidelines and data usage for improved health results.
- **Contracting private healthcare providers:** This will be in the form of “Contracting-in – to reduce user congestion in the public sector” and “Contracting-out – organization of interdisciplinary team of service providers in a horizontal arrangement to foster improved access for service users.

Since the implementation of the national policies is expected mainly to be championed at the community (PHC facilities and district) level, literature has consistently touted the empowerment of health managers at this level to ensure success of the PHC driven

NHI (Rispel and Barron, 2012; Rispel, 2016; National Department of Health, 2017b; Marcus, Hugo, and Jinabhai, 2017). Suggested ways to improve capacity of managers include up-skilling, information system upgrading, and increased managerial tasks delegation to them (National Department of Health, 2017b; Moosa, Derese, and Peersman, 2017). This means that district managers have a key role to play in the integration of occupational therapy services in the PHC reengineering streams of the NHI. Although there is indication of greater role assignment to district health managers and more accountability as portrayed in section 36 of the NHI Bill (National Department of Health, 2018), inadequacies in the crucial role of health managers, especially at the district level has attracted much attention in the literature.

There has not been a seamless translation of national policy making to local (district) policy implementations (Dayal, 2010; Rispel, 2016; Health Systems Trust, 2017). Literature shows that district health management has little to no administrative power over their jurisdiction over human and financial resources. Literature also shows that communication of information and challenges facing the PHC occupational therapists at district level often never gets to the higher levels of provincial and national management where policies are made (Gray, Vawda and Jack, 2011; Rispel and Barron, 2012; Rispel, 2016). Hence, holding district health management accountable is difficult, which has negatively impacted the capacity to deliver occupational therapy services for PWDs at district level even though the FSDRSA (2015-2020) lays out the strategy to be followed at all levels of health care in relation to rehabilitation (Dayal, 2010).

2.3.2 Framework and Strategy for Disability and Rehabilitation Services in South Africa 2015-2020 (FSDRSA)

The Framework and Strategy for Disability and Rehabilitation Services in South Africa came into effect in 2015 as a response to the challenges limiting access to occupational therapy and other rehabilitation services for PWDs in South Africa. The challenges are due to, but not limited to, emphasis on curative intervention and the medical model as opposed to community-based rehabilitation. The challenges further led to a lack of integration of occupational therapy services with major health programmes, a poor

referral system and paucity of occupational therapy units and centres at district level (Ned, Cloete and Mji, 2017). In the FSDRSA (2015-2020), PWDs are defined in line with the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD), as “including those who have long-term physical, mental, intellectual or sensory impairments, which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others” (NDoH, 2015: p.21).

The FSDRSA (2015-2020) provides for a comprehensive package of health services that cover preventive (including community outreach) and promotion services; chronic disease management services; optometry services; rehabilitation services; mental health services amongst others. However, the rehabilitation professions including occupational therapists have also failed to provide evidence-based data and research, especially at the PHC level to justify the quality, type, effectiveness, and outcome of rehabilitation service provision at the provincial and district level (Dizon, Grimmer, Machingaidze *et al.*, 2018). Also, national data sets to justify resource allocation for rehabilitation; and the absence of an established “ideal core rehabilitation team, comprising physiotherapist, occupational therapist, speech therapist, audiologist, medical orthotist and prosthetist, and related mid-level health workers” remain issues to be dealt with (NDoH, 2015: p.10). The lack of visibility of data supporting services provided by occupational therapists and in PHC needs to be addressed by providing research evidence related to these services especially at the PHC level (Dizon, Grimmer, Machingaidze *et al.*, 2018). Research evidence will force the National Department of Health to consider the implementation of disability-related policy more seriously.

Furthermore, the FSDRSA (2015-2020) outlines the rehabilitation services to be provided at all levels of care, specifically at home/community, school, primary health care facilities (clinics, community health centres), hospital based (district, regional, tertiary, central, and specialized) (National Department of Health, 2015). Nevertheless, the majority of the framework’s eight goals remain largely unattained, especially the first goal which seeks to comprehensively integrate disability and rehabilitation services throughout the levels of the health system, and within the country’s major health

programs. Hence, Hanass-Hancock, Nene, Deghaye, *et al.* (2017) called for an urgent review of the FSDRSA (2015-2020) regarding the integration of essential disability services such as occupational therapy and the accessibility of these services for PWDs.

With the advent of the NHI documents published in 2017 and 2018 the lack of occupational therapy services for PWDs is evident as these documents refer only briefly to rehabilitation under purchasing of health services. The 2017 document states that “adequate provision must be made for other (allied) healthcare professionals registered through the HPCSA to ensure that the needs of the population are met” (NDoH, 2017: p.35). Nevertheless, occupational therapy like other rehabilitation professions is not explicitly named in the policy document despite PHC reengineering being seen as an avenue to integrate rehabilitation services into overall healthcare at this level (Ned, Cloete and Mji, 2017). The NHI guiding blueprint does not refer to the FSDRSA (2015-2020) or portray the full integration of occupational therapy services and is also not detailed in terms of legislation and policy changes necessary for implementation. In the standards for PHC clinics, only speech and hearing services are mentioned as services that are required. The omission of the other rehabilitation services has left rehabilitation professions such as occupational therapy with more questions than answers (Roberts, Farmer, Lamb *et al.*, 2014; Maseko and Harris, 2018; NDoH, 2018).

The lack of integration of occupational therapy services in the NHI has the potential to perpetuate the curative view of health care in service planning and provision, which will continue to overlook rehabilitation as a component of PHC. Therefore, primary healthcare reengineering should offer a means for making occupational therapy more accessible to PWDs. By so doing, it can prevent disability through early intervention (Sherry, 2015). It is essential that experiences of providing occupational therapy services at a PHC level be researched so that this lack of integration of occupational therapy services in the NHI can be addressed. Thus, accessibility to healthcare for PWDs must be considered from many aspects as majority of PWDs are in the rural areas (Coovadia, Jewkes, Barron *et al.*, 2009; Mayosi and Benatar, 2014; Katuu, 2018). Results from a study in Ghana by Dalinjong, Welaga, Akazili, *et al.* (2017) proved that

equity in healthcare services can be achieved in an African country with a NHI and a service coverage of up to 80-90% (Aryeetey, Westeneng, Spaan *et al.*, 2016). Similar success is achievable in South Africa with the integration of occupational therapy services in the PHC reengineering streams of the NHI to improve service coverage to the under-served population including PWDs.

2.4 HEALTHCARE FOR PERSONS WITH DISABILITIES

There are about one billion people, approximately 15% of the global population, who experience some form of disability. It is estimated that the number will keep growing due to an increase in the ageing population as well as the prevalence of chronic, and non-communicable diseases (WHO, 2011, 2014). Statistics South Africa (2018) puts the mid-year population estimates at 57.73 million, which is about 1.2 million higher than the previous year. The most recent data on the estimates of PWDs in South Africa, the 2011 Census, reported a 7.5% prevalence in a population of 38.08 million (Statistics South Africa, 2011), but the figure is expected to have increased due to increased population and risk factors for non-communicable diseases. With this high proportion of the population who experience some form of disability in South Africa, integration of occupational therapy services in PHC reengineering to improve health outcomes for PWDs is germane.

2.4.1 Accessibility and Barriers to Healthcare for Persons with Disabilities

Equity in opportunities for citizens of a country cannot be achieved without addressing the pertinent issue of limited accessibility for PWDs to healthcare services. While there is a plethora of literature on access to healthcare for the general population (Dixon-Woods, Cavers, Agarwal *et al.*, 2006), only a few have explored the accessibility of healthcare services among PWDs especially in developing countries (Mji, Braathen, Vergunst *et al.*, 2017; Vergunst, Swartz, Hem *et al.*, 2017). Addressing issues of accessibility for PWDs is important because PWDs require healthcare services in excess of the conventional services available to the general population (WHO, 2014; Jeon, Kwon and Kim, 2015; Hussey, MacLachlan and Mji, 2016).

As a result, PWDs continue to remain marginalized, both socially and in having access to healthcare services, despite them having greater inadequacies in health and rehabilitation services as compared to their non-disabled counterparts (Scheer, Kroll, Neri *et al.*, 2003; Moodley and Ross, 2015; Sherry, 2015; Skempes, Stucki and Bickenbach, 2015). The marginalization of PWDs results in social stratification of PWDs into the poorest sections in the social order (United Nations, 2007). Similarly, studies have shown the effects of marginalization resulting from barriers in accessing health and rehabilitation (including occupational therapy) services at PHC level by PWDs. Such effects include reduced life span, quality of life, and less than optimal functioning (Mudrick, Breslin, Liang *et al.*, 2012; Mulumba, Nantaba, Brolan *et al.*, 2014; Hanass-Hancock, Nene, Deghaye, *et al.*, 2017).

Evidence shows that PWDs in South Africa, rural populations, those without medical insurance, and the poor experience more barriers to accessing adequate healthcare services particularly occupational therapy and other rehabilitation services compared to other South Africans (Coovadia, Jewkes, Barron *et al.*, 2009; Eide, Schür, Ranchod *et al.*, 2011; Harris, Goudge, Ataguba *et al.*, 2011; Graham, Moodley, Ismail *et al.*, 2014; Mheta, 2015). In addition, the lack of access by PWDs can be linked to how service providers, researchers and policy makers view disability (Eerola, 2012; Retief and Letsosa, 2018). The manner in which people view disability is influenced by how members of society interact with PWDs (Johnston, 1997; Barnes and Mercer, 2004). Disability models are the lenses through which disability is viewed by society and they provide insight into the approach taken by healthcare providers in addressing disability (Retief and Letsosa, 2018).

2.4.2 Disability Models of Health

Some of the most relevant disability models to occupational therapy literature and their relationship to health-seeking behaviours, healthcare provision, and access are presented below:

2.4.2.1 Moral Model

The oldest model conceived prior to the 18th century Western Industrial Revolution, the moral model, viewed disability as a result of sin, chastisement for negative deeds, or as a spiritual test. Therefore, it is closely linked to cultural and religious beliefs. The religions with inherent positive and negative perceptions about disability include Buddhism, Christianity, Hinduism, Islam, and Judaism (Blanchard, 2011; Roush and Sharby, 2011). Unfortunately, in very traditional societies, even some in South Africa, these beliefs persist to explain illness or disability. In such societies, PWDs are often severely marginalised (Anderson, 2013; Retief and Letsosa, 2018). For example, the Disability Survey by the National Department of Health showed that 3% of PWDs believed 'bewitchment' or wrongdoing against their ancestors, to be the cause of their disability. Such beliefs often result in them not accessing the healthcare system (National Department of Health, 2002).

2.4.2.2 Individual Model

The individual model comprises of the popular medical model and the psychological model to health and disability. The premise of the medical model is that disability results from the underlying impairment(s) suffered by an individual, and thus, it is a personal tragedy which differentiates a PWD from other members of society (Oliver, 1986; Eerola, 2012). This individualistic outlook to disability also dictates a personalised approach to treatment. PWDs access medical and rehabilitation services for interventions which alleviate or remediate the physiologically induced impairments (Oliver, 1986; Misbach, 2004; Roush and Sharby, 2011; Vergunst, Swartz, Hem *et al.*, 2017). However, this model unintentionally promotes discrimination and prejudice towards PWDs (Barnes and Mercer, 2004; Misbach, 2004), emphasising how they differ from those without disabilities. The psychological model on the other hand, is based on behavioural factors of PWDs who fall short of surmounting and adjusting to their deficits. This model puts blame on PWDs as being responsible for their state (Johnston, 1997) and interventions use a medical model resulting in poor access to a comprehensive disability and rehabilitation service especially for persons in rural and disadvantaged areas (National Department of Health, 2015).

2.4.2.3 Social model

The social model of disability, which developed in the 1970s, a few decades later, after the moral and medical models (Barnes and Mercer, 2004; Eerola, 2012). The social model assumes a paradigm shift from the moral and medical models in that focus is placed on mitigating the barriers that limit social participation of PWDs. In this model PWDs are re-established as being part of society, only disadvantaged by the physical, social, attitudinal, environmental, economic and political structures, and barriers in society, rather than victims of their biological/physiological circumstances.

The focus therefore, shifts from access to healthcare with an emphasis on policy makers improving the quality of life and equitable social participation for PWDs through de-marginalisation. The social model of health and disability has been the forerunner to several societal policy changes around the world such as inclusion of PWDs in matters related to disability (Nothing About Us Without Us) and changing the way societies relate with disability and PWDs (Johnston, 1997; Office of the Deputy President, 1997; Barnes and Mercer, 2004; Roush and Sharby, 2011; Levitt, 2017). However, it has also been criticised as being incomprehensive in conceptualising and addressing disability (Samaha, 2007; Oliver, 2013).

2.4.2.4 Human Right Model

The Human Rights Model, which came into being years after the medical and social models, is conceived to be an advancement of the social model. The reason for this is that it advocates for the human rights of all persons especially those with disabilities, and equity among all people. It similarly charges states to ensure egalitarian societies and empower PWDs for optimal functioning (Rioux and Carbert, 2003). The human rights model differs from the social model in that it offers a theoretical framework for disability policy that emphasises human dignity. It does so, for example, by including civil, political, economic, social, and cultural rights that respect the challenging life situations of PWDs. Moreover, the human rights model suggests that properly formulated prevention policy may be regarded as human rights protection and offers constructive proposals for improving the life situation of PWDs (Degener, 2017).

2.4.2.5 Biopsychosocial Model

The inadequacies of the Individual model and the Social model resulted in a more comprehensive look at disability and the development of the biopsychosocial model. The model encapsulates the medical and social models, in that it views disability from various angles including biological, social and psychological. This view makes it more acceptable and widely applicable across many settings (Roush and Sharby, 2011; WHO, 2011; Wade, 2016b). The biopsychosocial model also recognizes the social impact of disabilities on caregivers and responsible others (Vergunst, Swartz, Hem *et al.*, 2017). Consequently, biopsychosocial model forms the basis of the World Health Organization's International Classification of Functioning, Disability and Health (ICF) (World Health Organization, 2001), which is used in occupational therapy to guide the services provided by occupational therapists for PWDs (Eerola, 2012).

2.4.3 International Classification of Functioning, Disability and Health (ICF)

The ICF which was developed by WHO in 2001 is now an internationally recognised framework used by occupational therapists to assess disability and health on a continuum at both personal and population levels. As depicted in figure 2.1, human functioning difficulties are classified into three interrelated sections in the ICF. The three sections include impairments (problem with body function or structure), activity limitations (difficulties in task performance), and participation restrictions (difficulties in social engagements due to external barriers) (Functioning and Disability Reference Group and FDRG, 2010; WHO, 2011).

The ICF also includes five environmental factors related to activity limitations and participation restrictions which are present to varying degrees in all nations of the world. These environmental factors include “products and technology, the natural environment and human-made changes to it, support and relationships, attitudes, and services, as well as systems and policies” (ILO, UNESCO and WHO, 2004: p. 3).

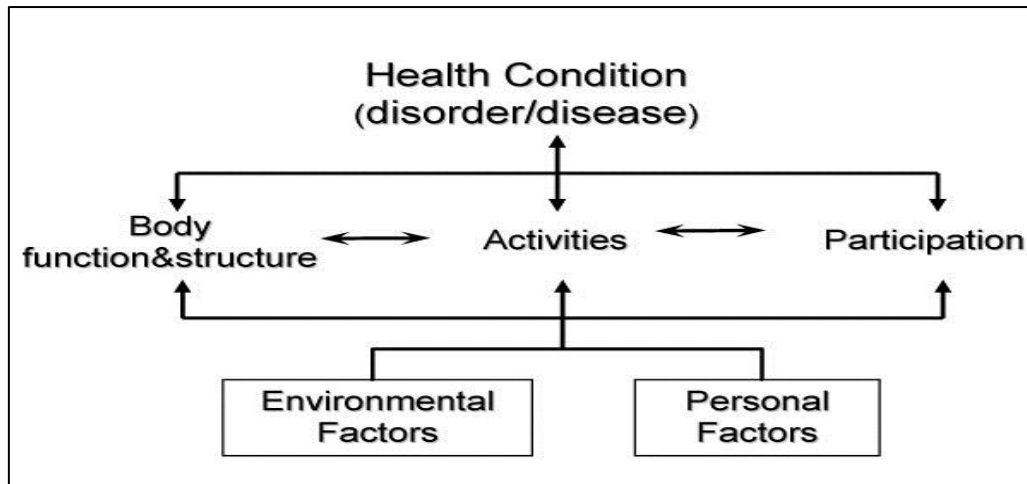


Figure 2.1: Representation of the International Classification of Functioning, Disability and Health (WHO, 2011)

Experience of difficulties in any of the ICF sections amounts to disability. Hence, the ICF recognizes that everyone experiences some form of disability through their life course in the interaction between personal and environmental factors (World Health Organization, 2002; WHO, 2011).

The ICF is particularly important in the low- and middle-income countries owing to the presence of four-fifths of the world disability population and prevalence of significant social subjugation in these regions (Hussey, MacLachlan and Mji, 2016; Vergunst, Swartz, Hem *et al.*, 2017). Mannan, McVeigh, Amin *et al.* (2012) evaluated how well disability and rehabilitation policies of selected low- and middle-income African countries have fared in promoting social justice and inclusion for PWDs, using their novel “EquiFrame” policy appraisal tool. They found a low ranking for South Africa, ranked with concern about the lack of policies and guidelines in the area of rehabilitation. The reported lack in policy has resulted in occupational therapy services that are either absent or underdeveloped; even though the National Rehabilitation Policy of 2000 aimed to improve the quality of life of PWDs (South African Government, 2018).

The main aim of the National Rehabilitation Policy (2000) was to aid equitable healthcare access for all citizens – in keeping with the constitutional provisions, by

facilitating improved access to rehabilitation services. The six objectives of the policy include: improve access to rehabilitation services for PWDs, and people who are prone to disability; execute all-inclusive rehabilitation through cooperative effort among multiple sectors; address human resources issues from the perspective of both the service users and providers; establish and execute surveillance and evaluation frameworks to monitor rehabilitation service provision; include PWDs in all areas of rehabilitation program – planning, implementation, and monitoring; and support research efforts on disability and rehabilitation.

The ranking for South Africa by Mannan, McVeigh, Amin *et al.* (2012) showed 41% vulnerable group coverage, as key vulnerable populations such as PWDs, children with special needs, youth, displaced persons, the aged, minority groups, and persons prone to morbidity and disability were either not mentioned or sparsely mentioned in the policy. Similarly, the policy was rated 47% on coverage of core concepts such as accessibility, integration and personalized services, non-discrimination, prevention, protection, independence, confidentiality, family support and resources, quality, capacity building, among others which were either not mentioned or sparsely mentioned. Finally, the quality of the core concepts was rated 19% which highlighted monitoring to coordinate service delivery, identify policy action to tackle participation, integration and access – giving an overall low quality to the National Rehabilitation Policy. This appraisal clearly shows that provision of occupational therapy and other rehabilitation services for PWDs at PHC level is of great concern.

2.5 PROVIDING OCCUPATIONAL THERAPY AT A PRIMARY HEALTHCARE LEVEL

Rehabilitation, including occupational therapy has been named as a core component of PHC which incorporates preventive, promotive and curative components (Leland, Fogelberg, Halle *et al.*, 2017; Halle, Mroz, Fogelberg *et al.*, 2018). McColl, Shortt, Godwin *et al.* (2009) presented six models which have been used in PHC level to provide occupational therapy services in an integrated manner: these include community-based rehabilitation, shared care, case management, self-management, clinic-based care, and community outreach.

Although occupational therapists who practice at the PHC level strive to provide evidence-based services for PWDs, there are no widely adopted Clinical Practice Guidelines (CPG) for occupational therapy services currently in use for this level of practice in South Africa. The lack of a widely adopted CPG results in duplicity of effort, fragmentation, lack of uniformity (equity) in occupational therapy service provision across the country, paucity of evidence-based occupational therapy service outcomes to inform government decisions and policy regarding disability and rehabilitation services, among others (Dizon, Grimmer, Machingaidze *et al.*, 2016; Dizon, Grimmer, Machingaidze *et al.*, 2018). Therefore, occupational therapy services at PHC level in South Africa (where they exist) are said to be delivered mostly through the institution-based medical model with only a handful of centres utilizing CBR. The institution-based medical model orientation is due to the low-inclusiveness of occupational therapy in the PHC reengineering streams of the NHI which further reduces the potential for community reintegration of PWDs (Mji, Rhoda, Statham, *et al.*, 2017; Ned, Cloete and Mji, 2017).

2.5.1 Community Based Rehabilitation (CBR)

CBR was introduced by the World Health Organization over two decades ago, as part of the endeavour to enhance rehabilitation coverage to the majority of the world's population. The development and promotion of CBR as a low-cost strategy was introduced, as institutional rehabilitation was not meeting the needs of PWDs worldwide (Rifkin, Kangere and Hartley, 2002; ILO, UNESCO, and WHO, 2004).

The CBR matrix consists of five developmental sections, with each having five sub-sections in the form of a matrix, which is presented in Figure 2.3 (World Health Organization, 2004).

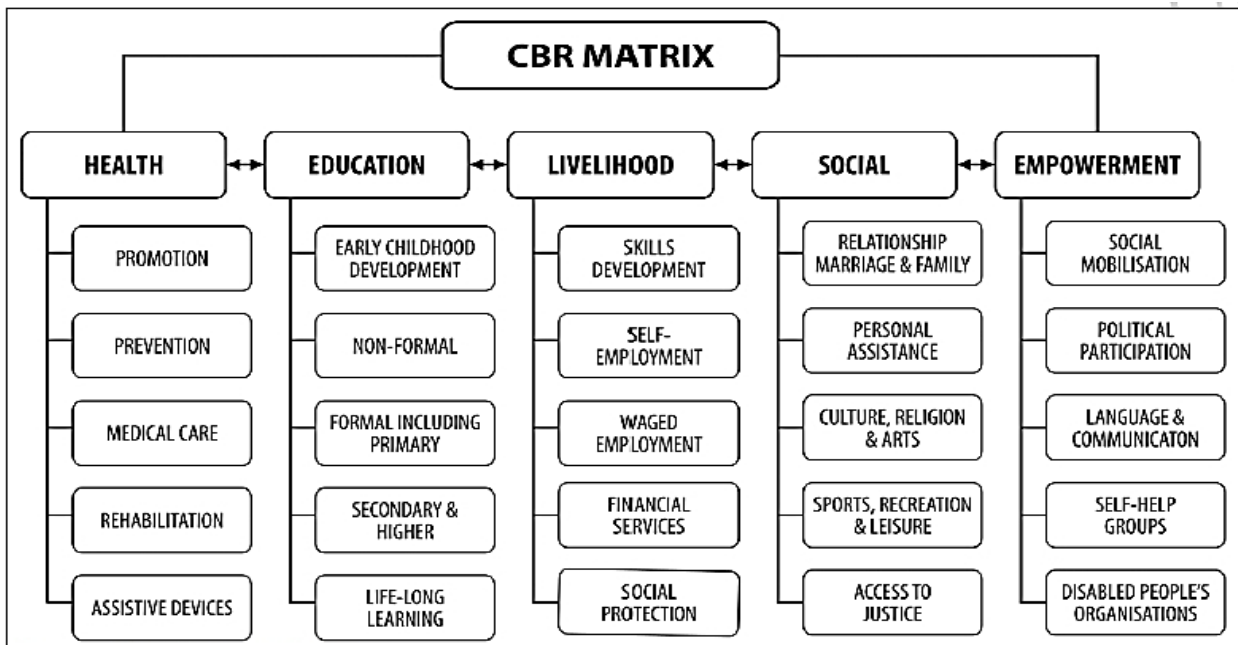


Figure 2.3: Community Based Rehabilitation Matrix (World Health Organization, 2004)

Community based rehabilitation supports the human rights and biopsychosocial model of disability with the focus on maximizing ability for PWDs. The maximization of ability for PWDs includes, ensuring their access to regular health, vocational, social and educational services for optimal social integration within their communities (Dayal, 2010). Community based rehabilitation is a form of community development, thus community-based organisations such as Disabled People’s Organization (DPO), NGO, and families are also central to the effectiveness of CBR. Community based rehabilitation therefore aims to optimise quality of life and improve access to occupational therapy services, along with other rehabilitation services by bringing rehabilitation services closer to PWDs. Furthermore, CBR aims to improve equity in opportunities and social participation, while promoting and protecting the human rights of all PWDs (World Health Organisation, 2004; WHO, 2011). The principles of CBR resonate with those of PHC in that both focus on the accessibility of healthcare to everyone including those who are difficult to reach. This access to healthcare results in the majority of the rehabilitation needs of PWDs being addressed by empowering them

to limit the barriers they encounter, and involving their family members in their home rehabilitation programs (Misbach, 2004; M'kumbuzi, and Myezwa, 2016).

The implementation of CBR could be at the three level of healthcare, National/tertiary, Intermediate/district/secondary and community levels, with each level in tandem with the others. The three levels are to achieve seamless organisation and planning at national level, strong referral system to specialized rehabilitation service at the intermediate level, and effective community level empowerment of PWDs and their family members (ILO, UNESCO and WHO, 2004; Chappell and Johannsmeier, 2009; M'kumbuzi and Myezwa, 2016). However, because of the multisectoral approach that CBR requires, this has very often been sighted as the biggest challenge to its implementation (World Health Organisation, 2004).

Although the South African National Department of Health through the ratification of the NRP (2000), FSDRSA (2015-2020), and UNCRPD (2006) recognizes CBR as a strategy, the implementation has been poor (National Department of Health, 2015; Sherry, 2015; Mji, Rhoda, Statham, *et al.*, 2017). This is because both the Ministries of Health and Social Development are responsible for the CBR-based disability and rehabilitation services (Lorenzo, Van Pletzen, and Booyens, 2015). Similar to other South African countries, little evidence exists to show cooperation between the two departments in the implementation of CBR (M'kumbuzi and Myezwa, 2016). Although community-based workers (CBWs) are recruited to augment shortage of highly skilled rehabilitation specialists such as occupational therapists in providing CBR services, the integration of the generalist skills of the CBWs with the specialist skills of occupational therapists in PHC reengineering is absent (Lorenzo, Van Pletzen, and Booyens, 2015).

2.5.2 Occupational Therapy in Primary Healthcare

Literature indicates that cost-effectiveness in healthcare delivery can be achieved when various health disciplines like nursing, medicine, and allied health professions provide services collaboratively with each contributing unique skills, knowledge, and expertise (Donnelly, Leclair, Wener *et al.*, 2016; Dahl-Popolizio, Rogers, Muir, *et al.*, 2017). The presence of occupational therapists working in the inter-professional PHC team has

been documented both locally and internationally to result in increased access to immediate and collaborative needs-based care while also saving cost (Donnelly, Leclair, Wener *et al.*, 2016; Dahl-Popolizio, Rogers, Muir, *et al.*, 2017; Ned, Cloete and Mji, 2017).

Growing evidence has also emerged over the years supporting the role of occupational therapy in PHC, although this stems for the main part from developed countries, with very little emanating from Africa, more especially South Africa (Townsend, 2003; Misbach, 2004; Myezwa and Van Niekerk, 2013; Wood, Fortune and Mckinstry, 2013; Donnelly, Brenchley, Crawford *et al.*, 2014; Roberts, Farmer, Lamb *et al.*, 2014; Royal College of Occupational Therapists, 2015; Dahl-Popolizio, Rogers, Muir, *et al.*, 2017; Doyle and Wade, 2018). Thus occupational therapy in South Africa should form an essential component of PHC services based on the CBR framework as highlighted in position statements from both national and international Occupational Therapy Associations (CAOT, 2013; AOTA, 2014; OTASA, 2015).

The integration of occupational therapy services in PHC is supported by several groups such as DPOs, NGOs, and Non-profit Organizations (NPOs). These groups advocate for the integration of occupational therapy and other rehabilitation practitioners in all aspects of PHC reengineering streams of the NHI. These advocacy groups include a group of rehabilitation professionals working in rural areas in South Africa who formed an organisation - Rural Rehab South Africa (RuReSA) to advocate for and support services in rural areas (RuReSA, 2011).

The integration of occupational therapy services in PHC is important because occupational therapists are able to identify barriers to ideal health and functioning. In other words, occupational therapists render services geared towards improved independent health conditions management and independence in occupational performance areas (Activities of Daily Living, Work and Productivity, Play, Leisure and Social participation) (Metzler *et al.*, 2012). Despite the documented benefits of occupational therapy service provision in PHC, several barriers still exist. Some of the barriers to the integration of occupational therapy services at PHC level include the absence of a multidisciplinary team (MDT) approach, absent population based

rehabilitation, poor management structures, sub-optimal communication channels, lack of transparency, lack of inter-professional trust, poor referral system, and inadequate compensation (McColl, Shortt, Godwin *et al.*, 2009). With mitigation of the existing barriers, the integration of occupational therapy services in the South African PHC reengineering streams will gradually become a reality as seen in other parts of the world (Letts, 2011; Donnelly, Brenchley, Crawford *et al.*, 2013; Dahl-Popolizio, Muir, Davis, *et al.*, 2017).

2.5.3 Occupational Therapy Service Integration in Primary Healthcare in South Africa

Between 20% to 30% of PWDs in need of occupational therapy services are unable to get the required services as reported in a rural area of South Africa (Vergunst, Swartz, Hem *et al.*, 2017). The integration of occupational therapy and other rehabilitation services in the PHC reengineering streams is the way in which equitable and accessible rehabilitative care for PWDs can be achieved in South Africa (McVeigh, MacLachlan, Gilmore *et al.*, 2016). Barriers to the provision of occupational therapy services in PHC reengineering streams of the NHI majorly include lack of funding (Donnelly, Brenchley, Crawford *et al.*, 2013; Wood, Fortune and Mckinstry, 2013) and dominance of institution-based medical model with the focus on the rehabilitation of impairments opposed to the promotion of health or a community based model of PHC delivery (Tse, Penman and Simms, 2003; Wood, Fortune and Mckinstry, 2013; Dahl-Popolizio, Muir, Davis, *et al.*, 2017). More so, the perception of occupational therapy and other rehabilitation professions by National Department of Health stakeholders as not being an integral part of PHC is also a barrier (Dizon, Grimmer, Machingaidze *et al.*, 2016, Dizon, Grimmer, Machingaidze *et al.*, 2018; Naidoo, Van Wyk and Joubert, 2016).

In South Africa, these barriers have led to challenges with the integration of occupational therapy services in the PHC reengineering streams. Ned, Cloete, and Mji, (2017) have however highlighted several policies which have indicated the need for this service at a PHC level. Although in the FSDRSA (2015-2020), the Minister of Health indicates that PHC reengineering provides an opportunity "to reconfigure rehabilitation as an integral part of health services across all programmes, within a system that

provides services as close as possible to where persons live and work" (NDoH, 2015: p.5), there is no indication of how this will be achieved as it is not clear how this will be done.

It is imperative therefore to provide high quality evidence to support the kind of services occupational therapists provide and how these services are relevant for improving health outcomes in the context of the PHC. This will establish the role of occupational therapy so that its importance in PHC delivery can be better recognised by the National Department of Health.

2.6 SUMMARY

Rehabilitation service provision is a burning issue especially in the low- and middle-income countries, where 80% of the global population of one billion PWDs live (WHO, 2011). Persons with disabilities have been shown to be prone to a lower quality of life compared with persons without disabilities as a result of poorly addressed impairment, activity limitation, and participation restriction (Vergunst, 2016; Mji, Braathen, Vergunst *et al.*, 2017). This poor health outcomes among PWDs associated with inequity in accessing healthcare and rehabilitation services, such as occupational therapy is profound in these regions (Vergunst, 2016). In South Africa, the historical fragmentation of the health sector, two-tiered private-public contrast in healthcare delivery and human resources for health crises are some of the major limitations confounding PWDs in accessing quality and adequate rehabilitation.

As the world moves towards achieving UHC (Marten, McIntyre, Travassos *et al.*, 2014), more evidence is required to integrate occupational therapy services with the mainstream health programs under the four-streamed PHC reengineering proposed by the NHI in South Africa (Dizon, Grimmer, Machingaidze *et al.*, 2018). Although policy documents that address disability and rehabilitation are in existence in the country, they have been poorly implemented. Local studies reveal limited provision of occupational therapy and other rehabilitation services for PWDs in South Africa, who are estimated to be about 10% of the population following an increasing ageing population as well as chronic, and non-communicable diseases. This limited provision of occupational

therapy services is due to the National Department of Health not considering rehabilitation as essential service, paucity of decisive policies and implementation strategies to integrate rehabilitation services including occupational therapy in the mainstream health care programs especially at PHC level for PWDs.

CHAPTER 3: METHODOLOGY

3.1 INTRODUCTION

This chapter describes the type of study and the design adopted. Details of the study setting, study participants, sampling techniques, and research procedure are provided. This is followed by a discussion of the data measurement tools, instrument validation, data collection and management, data analysis, and ethical procedures.

3.2 TYPE OF STUDY AND GENERAL DESIGN

There are several methodologies each with its weaknesses and strengths, broadly categorised as qualitative, quantitative, and mixed methods that could be employed in investigating the concepts of interest in a research. Quantitative (QUAN) method generates numerical data to determine the size and character of the variable under investigation. This magnitude of the variable however does not yield the emotion and deeper meaning behind such numbers (Petros, 2012; Creswell, 2015). Qualitative (QUAL) method on the other hand generates experiential and rich textual data but the information generated is limited in the ability to generalize such finding to a population to the extent of data yielded from quantitative method (Petros, 2012; Creswell, 2015). Used individually, qualitative and quantitative methods are limited in giving a holistic understanding of the research question which led to the emergence of the mixed methods (MM) (Kaur, Vedel, Sherif *et al.*, 2019).

Mixed methods have thus grown exponentially over the years to gather both quantitative and qualitative data, analyse and integrate both data to produce a comprehensive understanding of the concept of interest (Fetters and Freshwater, 2015; Moseholm and Fetters, 2017). By leveraging on the strengths of both the qualitative and quantitative methods using the $1 + 1 = 3$ integration framework, an interpretation of more than the individual component methods can be achieved (Fetters and Freshwater, 2015). The basic forms of MM research are convergent, explanatory sequential, and exploratory sequential mixed methods. The advanced forms of MM research are composed of a combination of the basic elements and they include intervention designs, social justice or transformative designs, and multistage evaluation

designs (Creswell, 2015). There has been an increase in the usage of mixed methods to comprehend the complicated problems associated with primary healthcare (Kaur, Vedel, Sherif *et al.*, 2019).

In reference to the foregoing, this study on primary healthcare used a two-phase explanatory sequential mixed method design with data from the first quantitative phase guiding the second qualitative phase both of equal weights (Creswell, 2009). The quantitative method in phase one was used to test the concept under investigation and the qualitative method in phase two was used to explore the concept in detail to gain a better understanding of the problem under investigation. Either the quantitative or qualitative approaches used individually would not have addressed the research question (How are occupational therapy services delivered in PHC and how do occupational therapists perceive occupational therapy services to be integrated in the PHC reengineering streams of the NHI in South Africa?) sufficiently (Petros, 2012; Van Griensven, Moore and Hall, 2014).

A mixed method design, which is informed by pragmatic knowledge claims worldview, is unique by accommodating both emerging and predetermined approaches, uses both open and closed ended questions, entails collection of various data forms for a more comprehensive investigation and interpretation, and allowance of both numerical and text data, and analysis (Van Griensven, Moore and Hall, 2014; Alavi, Archibald, McMaster *et al.*, 2018). Time, weight, integration, and theory are the four major features which influence the various forms of mixed methods procedures (Creswell, 2015). For this study, these four aspects were utilized as follows:

Timing: This refers to how data is being collected, either sequentially or convergently. This study's timing was in a sequential form – quantitative data collection before qualitative data collection.

Weighting: Weighting is the amount of emphasis placed on the two parts of the mixed approach. Emphasis was placed equally on both the quantitative and qualitative approaches in this study.

Integrating: This is the meeting point between the quantitative and qualitative approaches. Several authors have sought to provide practical and explicit ways of

integrating the qualitative and quantitative data (Fetters and Freshwater, 2015; Moseholm and Fetters, 2017; Kaur, Vedel, Sherif *et al.*, 2019). For example, Kaur, Vedel, Sherif *et al.* (2019) in a review of the mixed methods strategies used to integrate qualitative and quantitative methods in community-based primary healthcare research posited nine practical strategies to integrate phases, results or data in mixed methods from three broad types of integration namely the connection of qualitative and quantitative phases (found in explanatory or exploratory designs by connecting two phases), the comparison of qualitative and quantitative results (common in convergent designs by comparing the qualitative and quantitative results), and the assimilation of qualitative and quantitative data (common in advanced designs by merging of qualitative and quantitative data). In this study, data was integrated by connecting the data analysis from phase one (quantitative) to inform questions and probing in the phase two (qualitative).

Theorizing: This is the explicit or implicit use of assumptions, structures, or premonitions and theories to guide the strategy of enquiry. Theory was implicit – not mentioned in this study. Theory emerged from the data.

The first phase was a nationwide cross-sectional descriptive quantitative survey strategy using an electronic questionnaire to establish the extent to which occupational therapy services are delivered in PHC in South Africa. This was done by collecting both continuous and categorical data to explore the perceptions of occupational therapists on the integration of their services in the PHC reengineering streams of the NHI at one point in time. The study was descriptive as no variables were manipulated.

The second phase was an in-depth study using semi structured interviews. It entailed comprehensive exploration with occupational therapists practicing in PHC setting in South Africa to build on the findings in phase one about their perceptions on the integration of occupational therapy services in the PHC reengineering streams of the NHI (Van Griensven, Moore and Hall, 2014; Alavi, Archibald, McMaster *et al.*, 2018).

The quantitative data from the survey, the qualitative data from the survey, the qualitative data from the in-depth interviews, and the field notes were triangulated to integrate all the data sources to create a comprehensive picture of the data, an outcome

which would not have been obtainable using either the quantitative or the qualitative method individually. Novel codes from the ones obtained on the open-ended survey section were generated from the in-depth interviews. The interviews also elaborated on the information captured in the survey.

The procedure was as highlighted below in (Figure 3.1):

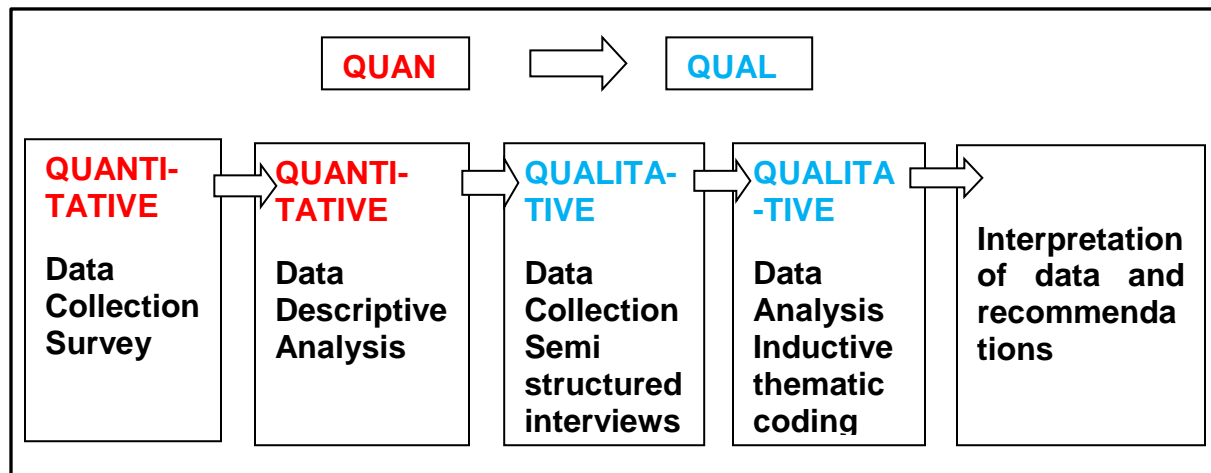


Figure 3.1: Explanatory Sequential Design. Adapted from Creswell (2009)

3.3 STUDY SETTING

The study was conducted with occupational therapists practicing throughout South Africa within the nine provinces namely Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, Northern Cape, North West, and Western Cape (South African Government, 2007). South Africa has 226 local municipalities, 44 districts, and eight metropolitan local governments. The Health Professions Council of South Africa (HPCSA) does not indicate how many of the 5, 191 occupational therapists registered in 2018 work in the PHC platform or how many of these therapists are retired, out of the country, or not currently practicing (Health Systems Trust, 2017). The second phase of the study was carried out with occupational therapists from any of the nine provinces in South Africa, working in a PHC setting who showed willingness to participate in phase two and consented to being interviewed in phase two of the study.

3.4 PHASE 1

3.4.1 Participants and Sampling

The target population/participants were occupational therapists working at the Primary Healthcare level in South Africa. Only the data from occupational therapists who indicated that they have/had experience with PHC was included in the analysis.

Regarding sampling in MM, there are a plethora of techniques available including basic MM sampling, sequential MM sampling, concurrent MM sampling, and multilevel MM sampling (Teddlie and Yu, 2007). The unique sampling techniques in MM research is a blend between the probability and purposive sampling in order to achieve external validity and transferability of findings (Teddlie and Yu, 2007). The type of mixed method employed usually determines the sampling strategy. Thus, the most appropriate sampling technique for this study was a QUAN-QUAL sampling strategy using a probability sampling in the quantitative phase followed by a purposive sampling in the qualitative phase with participants recruited from those in the quantitative phase.

Using convenience/cluster sampling, the survey was sent out to all members of the Occupational Therapy Association of South Africa (OTASA) in an all-member mailing and therapists who have experience with PHC were asked to respond. The survey was also distributed through the Rural Rehab South Africa (RuReSA) platform. Lastly, a snowball sampling technique was used to recruit participants nationwide by asking therapists who receive the survey to pass it on to colleagues who had not received it.

3.4.1.1 Sample size

Although emails reached over 2000 occupational therapists, there appeared to be a very small number of therapist who have experience with or are working in PHC settings (the exact number is unknown), but it was assumed to be less than 10% of therapists (Naidoo, Van Wyk and Joubert, 2016; Naidoo, Van Wyk, and Waggie, 2017b). Therefore a sample size of 75 based on a population of 200 therapists was needed to represent the population with a 5% margin of error as recommended by Bartlett, Kotrlik and Higgins (2001).

3.4.2 Research Measurement Tool

3.4.2.1 Electronic Survey - Integration of Occupational Therapy Services at Primary Healthcare Level (Appendix A)

The survey utilized in the first phase of this study was adapted from an open access Canadian study titled, Occupational therapy in primary care: Results from a national survey by Donnelly, Leclair, Wener *et al* (2016). It was in electronic format using REDCap and was modified to suit the local context and study objectives (Appendix B). The researcher undertook a course in questionnaire designing and consulted with a REDCap administrator at the University of the Witwatersrand while developing the survey on REDCap. The functionality was thoroughly tested by the researcher and the administrator before being moved from development to production phase.

The survey contained 17 close-ended and seven open-ended questions. The close-ended questions captured aspects such as the participants' demographic information, the nature of occupational therapy services they provide, and the service delivery model they utilize. The open-ended questions of the survey captured the perceptions of occupational therapists on the perceived barriers and facilitators for integration of current occupational therapy practice in PHC. The survey was piloted with three occupational therapists who are experienced with PHC for content validity and ambiguity to address emergent issues before data collection commenced.

3.4.3 Pilot Study - Content Validity of Electronic Survey

The content validity of the survey for Integration of Occupational Therapy Services at PHC Level was done as informed by literature (Wynd, Schmidt and Schaefer, 2003; Yaghmaie, 2003; Polit and Beck, 2006). Content validity is a process of determining the extent to which the content of an instrument captures the intended measurement of interest (Yaghmaie, 2003). A minimum of three experts are required to calculate a content validity index (Polit and Beck, 2006).

3.4.3.1 Participants and Research procedure

The experts included two public health occupational therapy lecturers at the University of the Witwatersrand, Johannesburg and an occupational therapist who practices at PHC level in the Johannesburg Metropolitan District. They have experience with PHC

which made them suitable to be recruited for the pilot study. Although five experts were initially identified and included for the pilot study, only three responded after a series of email reminders. The failure of all of them to respond may be due to the pilot study being conducted during the final examination period at the University of the Witwatersrand, which was a busy period for lecturers and examiners.

Content validity index for item (I-CVI) and content validity index for scale (S-CVI) were calculated for the survey—relevance, clarity, simplicity and ambiguity of the items on the questionnaire as depicted in (Table 3.1). For a CVI process with five or more experts, an 80% agreement is permissible (Polit and Beck, 2006). The rating was done using a 4-point scale based on the guideline in literature (Wynd, Schmidt and Schaefer, 2003; Yaghmaie, 2003; Polit and Beck, 2006). For an item to be considered a true reflection of the construct under measure, all three experts must give a unanimous relevant rating (with either a 3 or 4) for the item – I-CVI of 1.00 while S-CVI is the proportion of items on the instrument that achieved a rating of 3 or 4 by all the content experts (Wynd, Schmidt, and Schaefer, 2003; Polit and Beck, 2006).

A template for the thirty-three items on the survey to be rated by the experts was designed as shown in (Appendix D). A clear instruction was given to the experts regarding how the ratings should be done: “In relation to the research topic stated above, please rate each of the 33 items below based on relevance, clarity, simplicity and ambiguity on the four-point scale highlighted. Rate each of the four categories for each item (1-33) – four ratings/section/item by highlighting the number that closely relates to your choice (Appendix D).

The initial 25 closed ended and eight open ended questions (33 items) was reduced to 24 items (17 closed ended and seven open ended questions) after the CVI was calculated. Some items (1, 3, 5, 8, 19 – 22, 24 – 27, and 29) that were rated relevant but required modification based on clarity, simplicity, and ambiguity were subsequently reworded and modified as recommended by the experts.

3.4.3.2 Changes to electronic survey

Items 4, 7, 12 – 18 failed to achieve I-CVI of 1.0 each, hence they were not included in the final survey. Some questions were changed following recommendation from the

experts. Such items include 1, 3, 5, 8, 19 – 22, 24 – 27, and 29. The deleted and modified items are highlighted in (Appendix D).

Table 3.1: Content Validity Index (S-CVI and I-CVI).

ITEM	EXPERT 1	EXPERT 2	EXPERT 3	Number in Agreement	ITEM CVI (I-CVI)
1, 2 and 3	1	1	1	3	1.00
4	1	0	1	2	.67
5 and 6	1	1	1	3	1.00
7	1	0	0	1	.33
8, 9, 10 and 11	1	1	1	3	1.00
12 and 13	1	1	0	2	.67
14,15,16 and 17	1	1	0	2	.67
18 to 33	1	0	0	1	.33
Proportion Relevant:	1.00	.91	.72	Mean I-CVI:	.89
				S-CVI/UA:	.72
				S-CVI/Ave or Mean Expert Proportion:	.88

3.4.4 Data Collection and Management

The first phase of the study commenced by sending the revised electronic survey to occupational therapists in South Africa through the databases of OTASA and RuReSA, once ethical clearance for the project (M180819) (Appendix F) had been obtained from the University of the Witwatersrand Human Research Ethics Committee (Medical). Snowball sampling was also utilized. In the survey, the participants were given the option to indicate their willingness to participate in the second phase of the study as well. A reminder email was sent through RuReSA after two weeks of initially sending

out the survey to improve the response rate. Although a period of six to eight weeks was anticipated for the data collection in this phase, the calculated sample size was obtained after three weeks of the initial survey dissemination and further survey responses were not received in the REDCap database. The data was safe guarded on the REDCap platform as only the researcher and the supervisors of the study had access to the REDCap account.

3.4.5 Data Analysis

The survey data of participants was presented using descriptive statistics on REDCap and Excel. The responses provided for each of the open-ended questions were analysed using frequencies for categorical data, mean and standard deviation for continuous data such as age of participants. Frequencies and content analysis was used for the open-ended (qualitative) section of the survey and served as a basis for the refinement of the in-depth interview questions that were used in phase 2 of the study.

3.5 PHASE 2

3.5.1 Participants and Sampling

As described in section 3.4.1 above, participants for this phase were purposively and sequentially recruited from those who participated in the quantitative phase of the study. The target population/participants were occupational therapists working at the Primary Healthcare level in South Africa. Participants who work in PHC level were asked to indicate their willingness to participate in the second phase of the study by contacting the researcher on the provided email in the information sheet of the first phase. There is no consensus among authors on the minimum required sample for a qualitative enquiry (Guest, Bunce and Johnson, 2006; Stephen, Emily and Mitchell, 2007). Thus, an initial sample of 10 occupational therapists was selected; however, the final number of participants was five as determined by data saturation following a sequential recruitment of participants and cross checking the information obtained from later interviews with the initial interviews.

To determine data saturation, the researcher developed a code book from the first two interviews conducted. Information from the subsequent interviews were compared and matched with the established codes to check for similarity and presence of new data/codes. In developing the codes, a hands-on guide to doing content analysis by Erlingsson and Brysiewicz (2017) was used by the researcher.

3.5.2 Research Measurement Tools

3.5.2.1 In-depth Semi-Structured Interview (Appendix H)

The qualitative second phase of the study explored the responses from the open-ended questions of the survey in depth through an interview. The questions for the in-depth interview were derived from the open-ended section of the survey questions and modified following the results from the quantitative phase of this study to further elaborate and explain the result from the survey. The specific questions for the interview included aspects such as the perceptions of occupational therapists on the integration of occupational therapy services in the PHC reengineering streams of the NHI, the perceived barriers, and facilitators for integration of occupational therapy services in the PHC reengineering streams of the NHI.

A semi structured interview format was chosen as it provided room for clarity of concepts that may have loose associations or lack of focus. The questions were also flexible to accommodate probing and emergence of new ideas. The duration of the semi-structured interviews was approximately 36 minutes. Field notes were taken by the research assistant during the interviews so as to document observed non-verbal communication of the participants which the audio-recorder may not capture (Harrell and Bradley, 2009).

3.5.3 Data Collection and Management

3.5.3.1 Training of research assistant

The research assistant was a master's student in the Physiotherapy Department of the University of the Witwatersrand at the time of conducting the study. He is a comfortable user of English language. The research assistant was oriented to the interview procedure and how to take notes during the interview sessions as recommended by

literature (Harrell and Bradley, 2009). A mock interview was conducted with another master's student in the Physiotherapy Department to assess the competence of the research assistant in carrying out the task of note-taking and judged satisfactory before the qualitative phase of the study commenced.

3.5.3.2 Interviews

Five interviews were conducted from November to December 2018. The interviews were conducted in English and all were audio-recorded. Upon confirmation of willingness to participate in the second phase of the study, a convenient time and location for the participants was scheduled for the interview (Stephen, Emily and Mitchell, 2007).

In the event of failure to carry out a face-to-face interview with any of the prospective participants, Skype and WhatsApp interviews were carried out and audio-recorded. Data was collected until saturation was reached, where additional participant recruitment did not give new data from those already obtained (Guest, Bunce and Johnson, 2006).

3.5.3.3 Data Management

The data was only accessible to the research team and transcriber. Data and consent forms were safeguarded in a locked cabinet that is only accessible to the researcher and will be permanently deleted after 5 years. Feedback to participants was available on request.

3.5.4 Analysis of Results

The qualitative data analysis involving thematic content analysis was done manually. All interviews were transcribed verbatim and field notes were typed. The researcher read and edited all the transcripts to get a broad overview of the information and to ensure the accuracy of the transcriptions. Thematic content analysis was used where individual transcripts were initially broken down into condensed meaning. The condensed meaning units were analysed to develop codes which were then categorized into categories (sub-themes) and themes (Stake, 1995; Yin, 2009; Erlingsson and Brysiewicz, 2017). Finally, interpretation of data was done based on

meanings that emerged from the themes. Results were presented comprehensively under separate headings for each analysis.

Data collection and analysis took place concurrently for this part of the study thereby allowing the researcher to monitor the emergence and saturation of codes from the data by comparing codes derived from subsequent data to the previously established codes. After analysing the fourth interview, no new code was generated as all the condensed meaning units from the fourth interview fit in well with the already established codes. To confirm saturation, a further (fifth) interview was conducted and no new codes emerged as well. Thus, at that point, the research team decided not to carry out further interviews as the last two interviews did not generate additional data to the established ones.

3.5.5 Trustworthiness

Trustworthiness was ensured using the following means as described by (Krefting, 1991)

Credibility which is a measure of the truth value of the study information was ensured by spending prolonged time with the participants to create rapport before carrying out the video interviews (for those who were not available for physical interview) so that body language and gestures were observed during the interview as well as the speech. The presence of the note-taking research assistant also contributed to the credibility of the qualitative data as the primary researcher was able to fully focus on the interview and not note-taking. Further, member checking was done where participants were asked if their opinions had been accurately captured after initial analysis of the interviews had been done and sent to them. Similarly, a reflexive journal was used by the researcher to reflect on the trend of the interviews and finally, interview questions were easy to comprehend since the participants were knowledgeable about the concept under investigation, thus, they could give rich data.

Regarding transferability, the researcher ensured that the interview participants are representative of the population of occupational therapists practicing at the PHC level in South Africa as shown in the demographic details of the participants in table 4.5 of the results section.

Also, a detailed description of the findings was given in the research report to ensure dependability/clarity and that findings can be applicable to other contexts, circumstances, and situations. Contrary information to the general themes was reported in the findings. Confirmability of findings was established by providing an audit trail, which highlighted every step of data analysis that was made to provide a rationale for the decisions made.

Finally, inquiry audit was used to establish dependability to provide the degree of consistence in findings if the study were to be repeated by other researchers. The allocated categories and themes that emerged were also checked and confirmed by the supervisors of this study. Finally, Triangulation of data sources (In-depth semi-structured interviews, field notes, quantitative survey data and qualitative survey data) was used to ensure credibility of the research findings.

3.6 ETHICS

Ethical approval (Appendix F) was sought and received from the University of the Witwatersrand Human Research Ethics Committee (Medical). For Phase 1, an information sheet about the study (Appendix J) accompanied the survey (Appendix A). Responding to the survey and submission on REDCap signified consent to participate in the study.

Participants who opted to be included in Phase 2, the qualitative stage of the study were provided with an information sheet (Appendix G) and were requested to sign informed consent (Appendix I) as well as grant permission to be audio-recorded (Appendix C) during the interview (Appendix H). They were informed that participation was voluntary and that they may withdraw at any stage without consequence. The participants were identified by numeric code (01 – 05) to maintain anonymity and confidentiality (SAMRC, 2002; Kalantri, 2003; Fouka and Mantzorou, 2011). Finally, there was provision for counsellors to attend to any participant should they become emotionally disturbed as a result of the interview questions (Fouka and Mantzorou, 2011).

CHAPTER 4: RESULTS

4.1 INTRODUCTION

This chapter presents the findings of the study. The results of the two phases of the study are presented sequentially. The first section presents the descriptive statistics of participants' demographic information, current role and practice setting, service delivery model, multidisciplinary teamwork, and PHC reengineering. The content analysis and frequencies of the open-ended questions in the survey on the perceptions of occupational therapists on integration of occupational therapy services in PHC, barriers, and facilitators to integration of occupational therapy services in PHC are also presented.

The second section of this chapter presents the thematic content analysis of the in-depth interviews conducted in the second phase of the study. The steps undertaken in the thematic content analysis is attached as (Appendix H)

4.2 CURRENT OCCUPATIONAL THERAPY SERVICES PROVIDED IN PRIMARY HEALTHCARE IN SOUTH AFRICA - PHASE 1:

Seventy-two surveys were returned and consisted of both fully completed and partially completed responses. None of the returned responses was excluded as they all indicated that they are/have experience with PHC which the major inclusion criteria was. Although all the 72 returned survey responses were analysed, the specific responses for each question differ as some responses were not fully completed. Hence, results are based on the total number of responses for each question/section.

4.2.1 Demographics of Participants

Of the 72 participants whose responses were analysed, only 59 (89.14%) of them indicated their gender. Fifty-four were female (91.5%), 4 were male (6.8%), and 1 participant opted to not disclose his/her gender (1.7%) as shown in Figure 4.1.

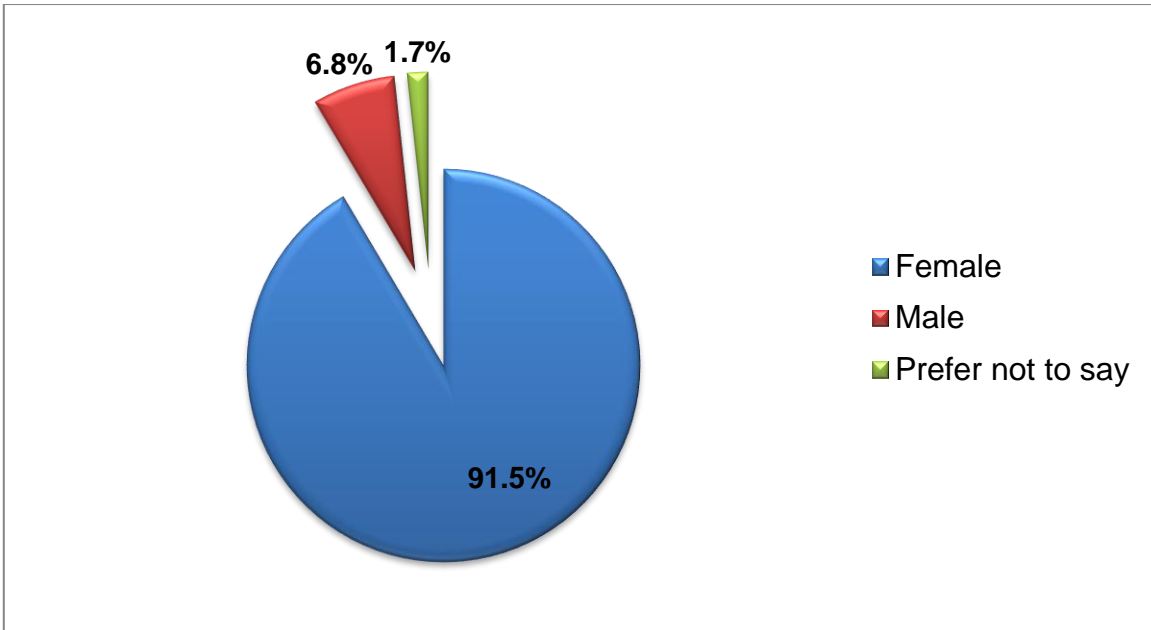


Figure 4.1: Gender distribution of participants (n = 59)

The participants' ages ranged between 23.0 years to 67.0 years, with more than half of the participants being below 40.0 years. Mean age = 35.92 (S.D 11.29) and median age of 34 years as presented in Figure 4.2.

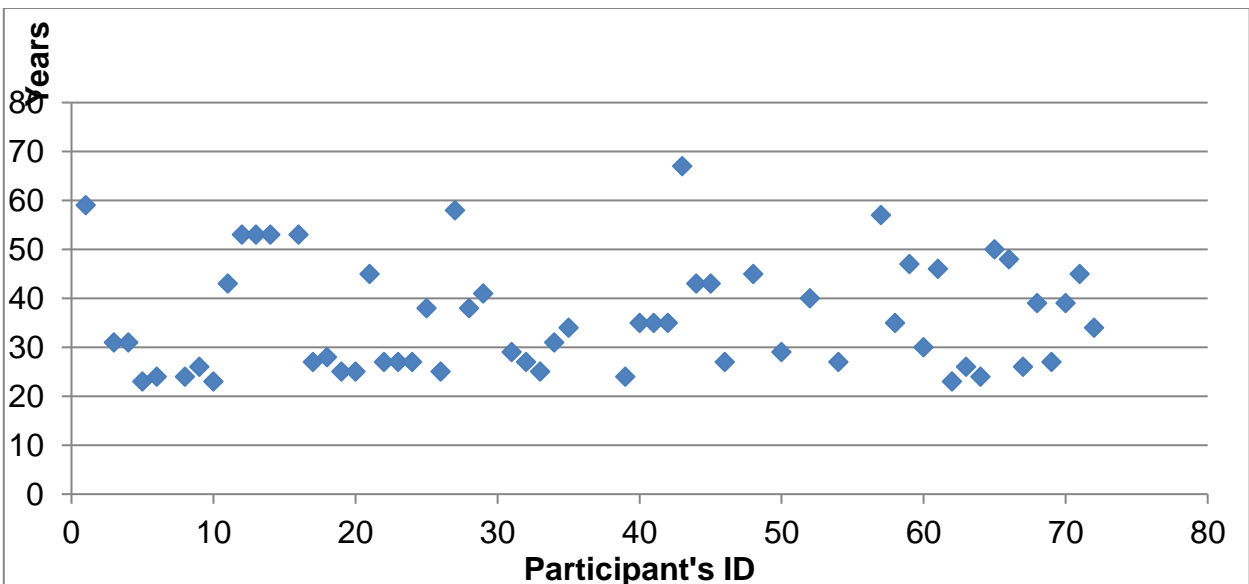


Figure 4.2: Age distribution of participants (n = 59)

4.2.2 Professional education, Experience, and Employment Type

While most participants (21, 36.8%) had no further Education (Apart from the Entry-Level Bachelor's Degree) (13, 22.8%), had a master's degree. Table 4.1 shows that the other (23, 40.3%) participants had other postgraduate training, a postgraduate diploma or a doctoral qualification.

Table 4.1: Participants' level of education (n = 57)

Further Education	n%
PhD	(2, 3.5%)
OTD (Doctor of Occupational Therapy)	(2, 3.5%)
Masters	(13, 22.8%)
Postgraduate Diploma	(9, 15.8%)
Other	(10, 17.5%)
None	(21, 36.8%)

Other was Continuing Professional Development (CPD) courses and workshops were specified by 10 (17.5%) participants as further education while two participants are currently enrolled for master's study.

Majority (67.8%) of the participants have job with permanent salary, a few were employed on contract/locum basis (11.9%). Of these, 8.5% were involved in fee-for-service, 1.7% was volunteering, and 10.2% reported other job categories which included running school based private practice, currently unemployed, community Service, and private practice as depicted in Figure 4.3.

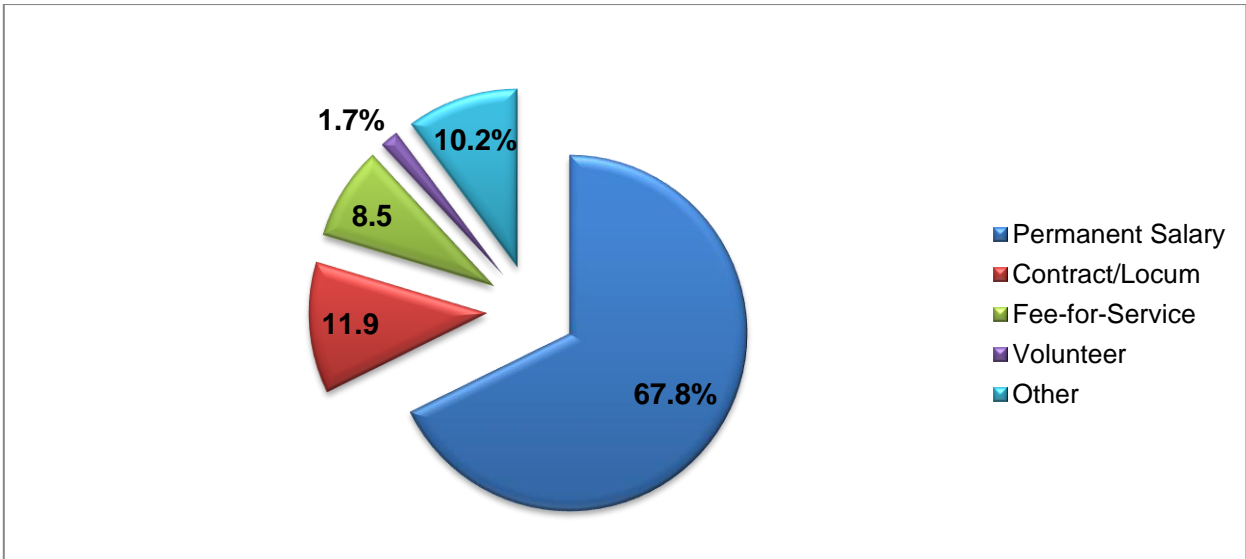


Figure 4.3: Employment distribution of participants (n = 59)

Figure 4.4 shows that majority of the participants have been occupational therapists for one to five years. 1-5 years (21, 35.6%), with the percentage decreasing as age increased. Those with 31-35 years (4, 6.8%) were represented by the lowest percentage.

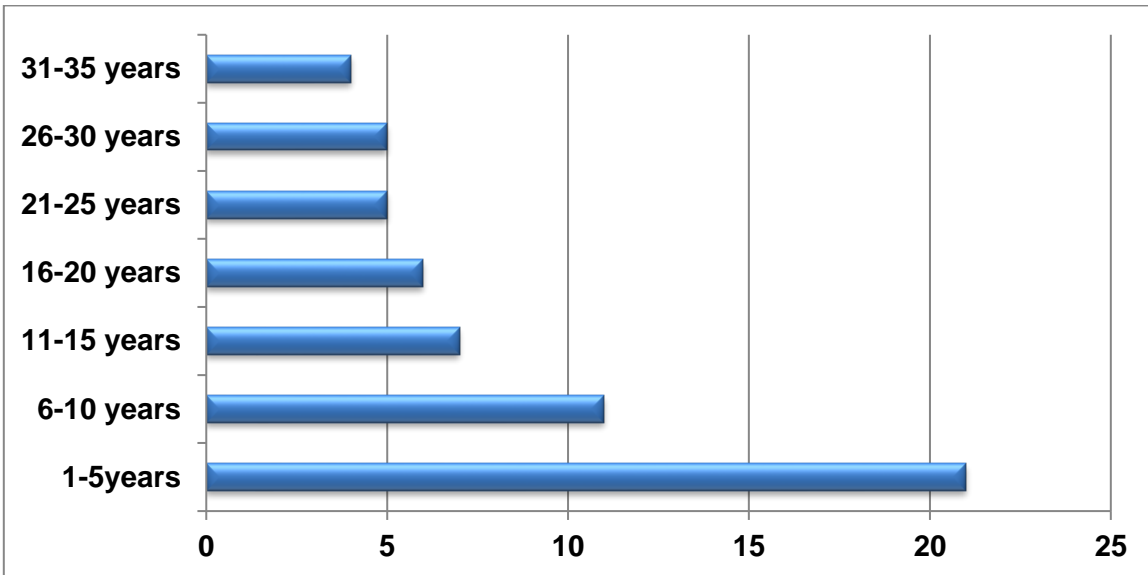


Figure 4.4: Participants' years of experience (n = 59)

The participants' years of experience in primary healthcare ranged from one to 35 years, with many of them having between one to five years of experience in the PHC setting which is clearly shown in Figure 4.5.

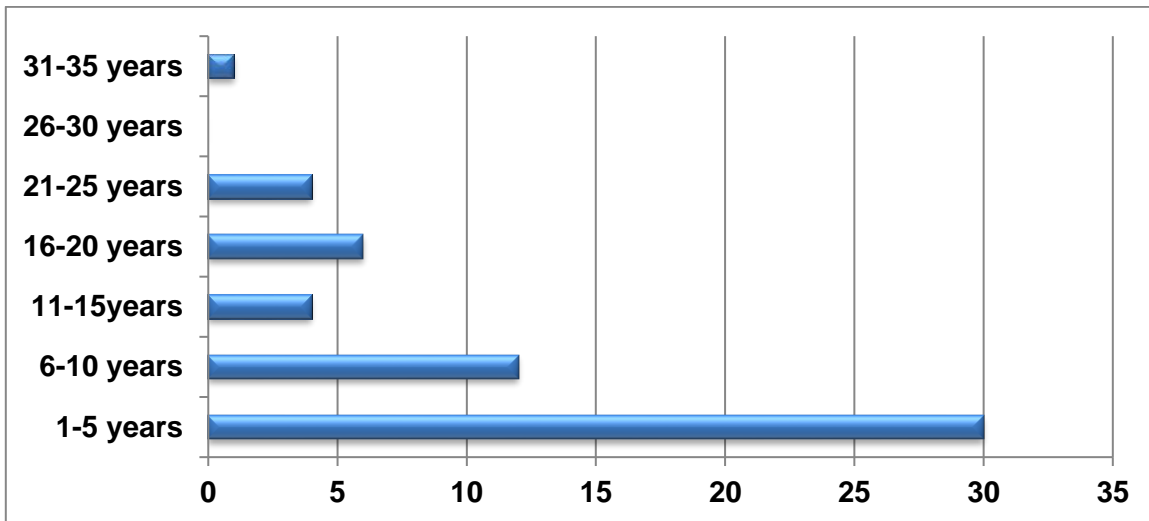


Figure 4.5: Participants' years of experience in Primary Healthcare (n = 57)

4.2.3 Current Role and Practice Setting

Most of the participants (41, 82.0%) indicated their role as direct care providers or clinicians and none of them is involved with policy making (Table 4.2). Researchers, educator and administrator managers each made up 12% with one participant indicating other. Some participants (n = 10) had more than one role

Table 4.2: Participants' current role (n = 50)

Role	n%
Direct Care Provider (Clinician)	(41, 82.0%)
Researcher	(6, 12.0%)
Educator	(6, 12.0%)
Policy Maker	(0, 0.0%)
Administrator/Manager	(6, 12.0%)
Other	(1, 2.0%)

Most of the participants work in urban locations as shown in Table 4.3. While 32% of participants worked in a rural town or village with a population of between 5000-30 000; 12% worked in small urban location with populations between 30 001-80 000; and 14.3 % worked in very large urban centres with populations of 150 001+.

Table 4.3: Participants' practice setting (n = 50)

Practice Setting	n%
Rural setting/Town/Village (5 000-30 000)	(16, 32.0%)
Small urban location (30 001-80 000)	(6, 12.0%)
Large urban location (80 001-150 000)	(14, 28.0%)
Very large urban centre (150 001 +)	(14, 28.0%)

The participants are majorly hospital based and private practitioners. Very few of them work in the clinics, nursing facilities, and community organizations as shown in Table 4.4. Only 16% of participants worked in Community Health Centres (CHC), community organizations and NGOs, while 8% worked in nursing/residential facilities and clinics. Thirty two percent of participants worked private practice while 42% worked in hospitals. Some participants (n = 23) worked in more than one setting

Table 4.4: Participants' work setting (n = 50)

Work Setting	n%
Community Health Centre (CHC)	(8, 16.0%)
Nursing/residential facility	(4, 8.0%)
Private Practice	(16, 32.0%)
NGO/NPO	(8, 16.0%)
Clinic	(4, 8.0%)
Community organization	(4, 8.0%)
Hospital	(21, 42.0%)
Other	(8, 16.0%)

The other work settings enumerated by 16% of participants included: school, special needs school, university, insurance agency, and intermediate care facility.

4.2.4 Service Delivery Model

4.2.4.1 Service Delivery Model Usage

Figure 5.6 indicates that CBR and medical model are the most frequently used, followed by social model and ICF. The moral model is the least used model with the social model being used about half the time.

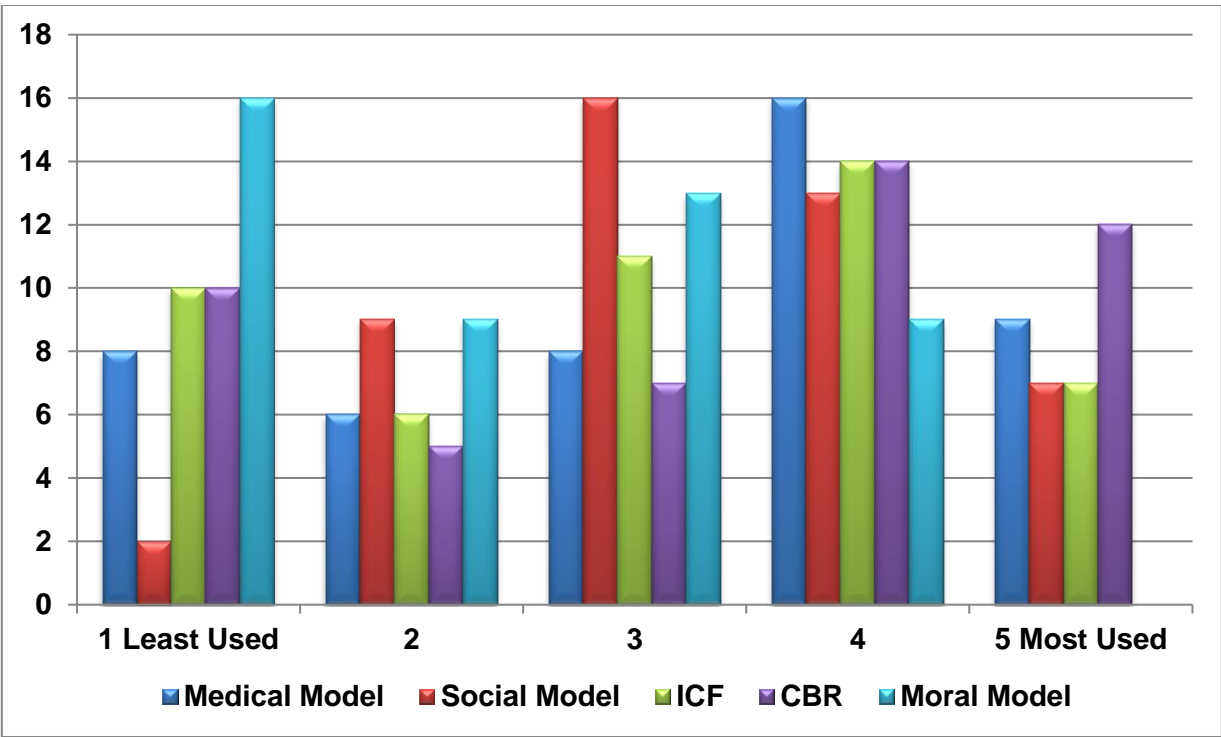


Figure 4.6: Service delivery model usage

4.2.4.2 Intervention Strategies

The intervention strategies as shown in Figure 4.7 indicates self-management, case management, and community-based management as the mostly used while the least used interventions are shared care, outreaches to neighbouring communities and home visit to clients’ home.

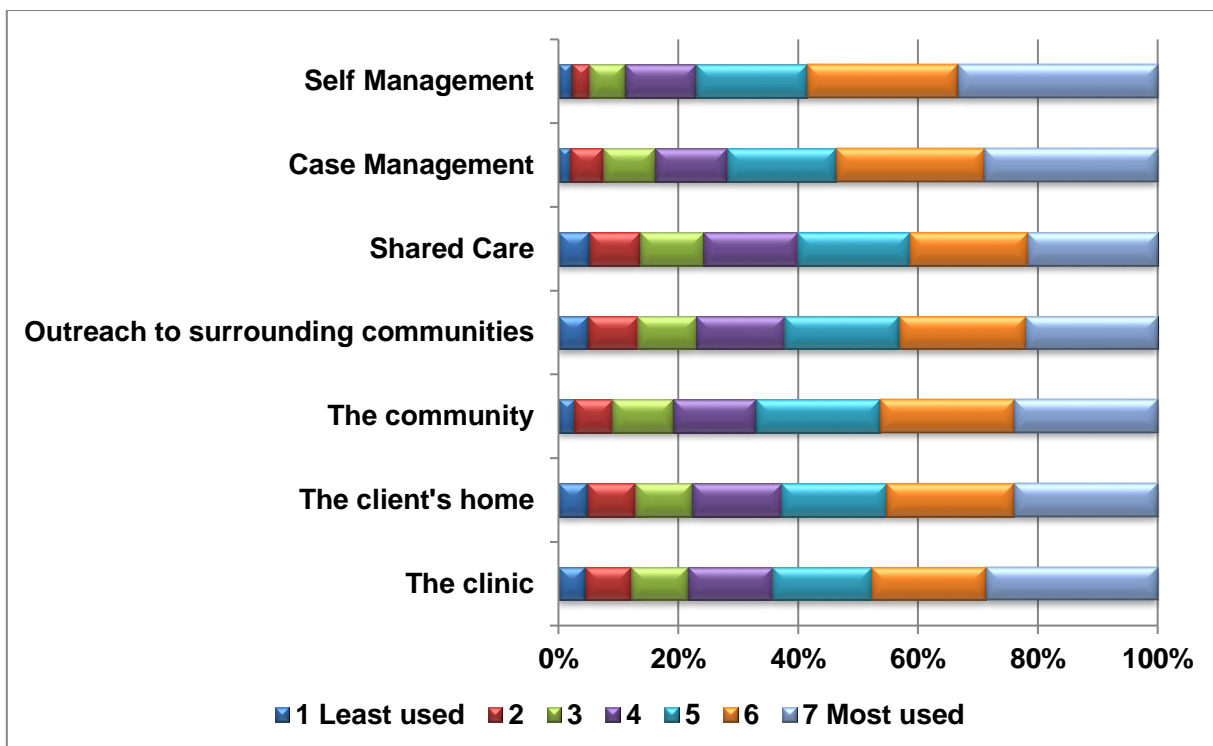


Figure 4.7: Intervention approach used by participants

4.2.5 Multidisciplinary Team Work

Majority (42, 95.5%) of the participants who answered questions about the multidisciplinary team (n=44) work in a MDT team.

Figure 4.8 shows the disciplines who are frequently on the same MDT as the participants. This includes physiotherapy, social worker, nurse, dietitian, doctor, speech-language pathologist, psychologist and audiologist. The other identified disciplines (n = 10) include: mid-level workers, community-based rehabilitation workers, orientation and mobility practitioner, psychometrist, community health workers, dual-trained occupational therapy assistants/physiotherapy assistants (OTA/PTA), health promoters, occupational therapy technicians (OTT), orthotist, teacher (interdisciplinary team), home based carers, orientation and mobility therapist, housemothers and caregivers

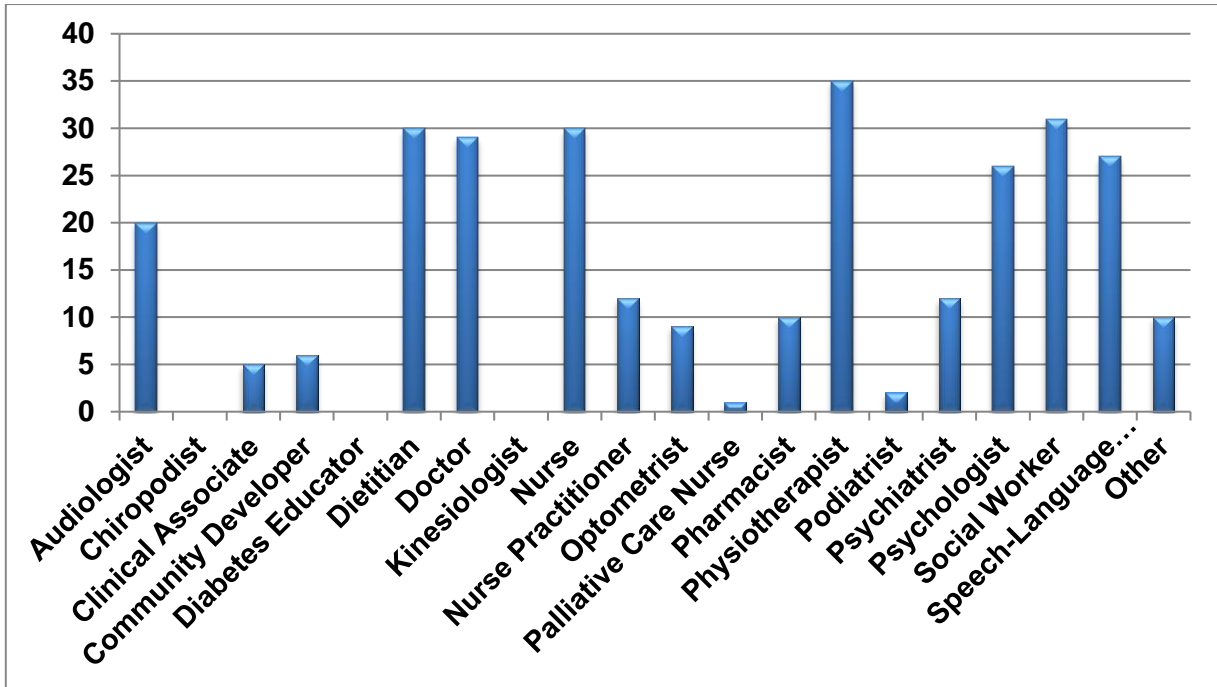


Figure 4.8: Distribution of disciplines in Multi-Disciplinary Team (n = 44)

4.2.5.1 Collaboration with the Multi-Disciplinary Team

There is a very good collaboration between the participants and their MDTs as shown in Figure 4.9. with 78.7% of participants indicating a score of 7 or above.

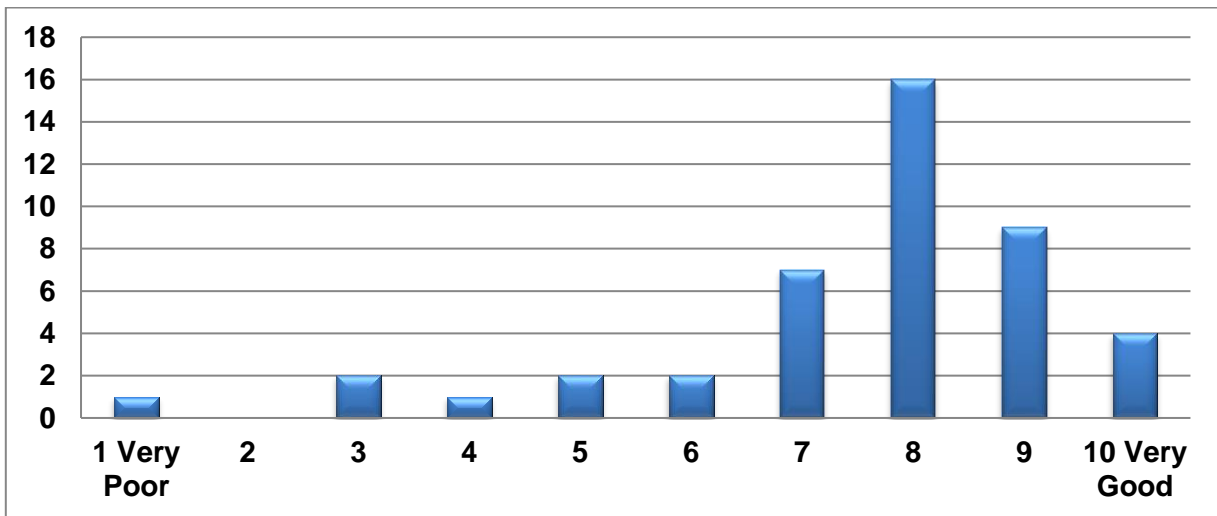


Figure 4.9: Extent of collaboration with Multi-Disciplinary Team (n = 44)

4.2.5.1.1 Support for collaboration/working with multi-disciplinary team

Collaboration in multidisciplinary team was supported by

Proximity/co-location various MDT members especially OT, PT, Speech Pathologist, Audiologist, Orientation & Mobility Instructor and Psychometrist have offices in same building, unit or treatment space (19, 43.2%)

Understanding of one other's roles collaboration was facilitated among MDT professionals when they have knowledge of one another's role and scope of practice and this was respected (5, 11.4%)

Good communication channels - participants reported that regular formal and informal meetings facilitated this (20, 45.5%)

4.2.5.1.2 Challenges to collaboration/working with multi-disciplinary team

Participants (44) reported that the barriers they faced when working in a multidisciplinary team were:

Role conflict among team members this was due to different treatment goals and approaches, poor work ethics among some staff and some role ambiguity among occupational therapists and other team members (11, 25.0%)

Lack of collaboration between different hospitals and healthcare facilities difficulty working with other professionals who are not in the same hospital or clinic (4, 9.1%)

Time and communication constraints irregular meeting schedules and limited time available for service delivery (10, 22.7%)

Low rehabilitation staffing - work overload irregular representation of personnel on MDT (5, 11.4%)

Poor knowledge about role of occupational therapy by doctors and managers occupational therapy being misconstrued as physiotherapy (n = 17, 38.6%)

4.2.5.2 Extent of shared patient treatment/intervention goals in the MDT

Figure 4.10 shows that up to half of the patient treatment/intervention goals are shared among most MDT members. Only 18.2% of participants indicated a score of 4 or below indicating poor shared views on treatment goals for patients.

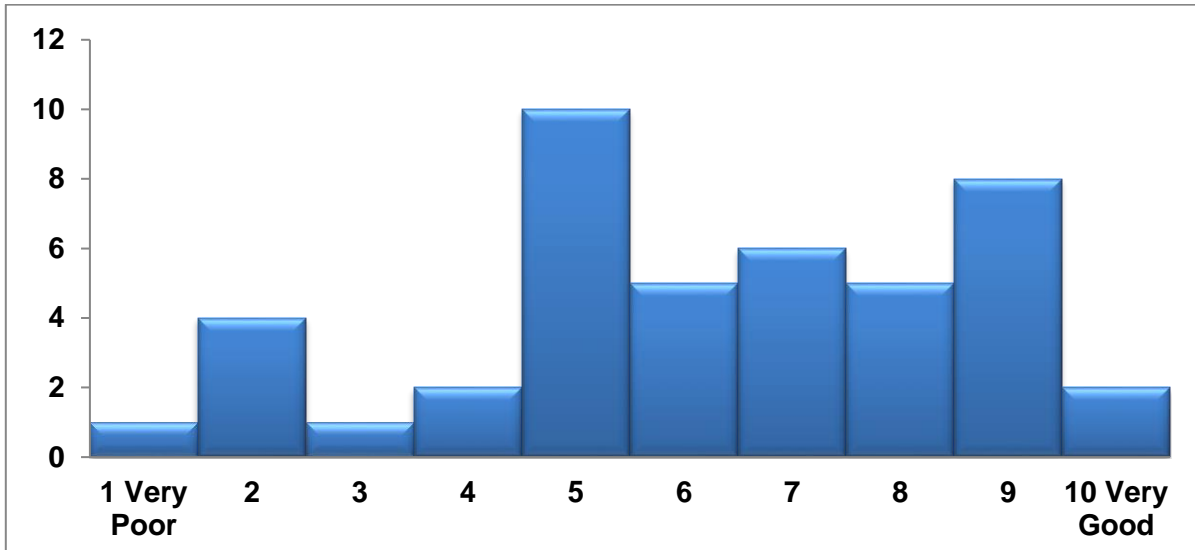


Figure 4.10: Extent of shared patient goals within Multi-Disciplinary Team (n = 44)

4.2.6 Primary Healthcare Reengineering

4.2.6.1 Knowledge of the Primary Healthcare Reengineering Streams

Figure 4.11 indicates that more participants are familiar with school health services (27, 62.8%) and have little knowledge about the other PHC reengineering streams. Although 39.5% were aware of clinical specialist support teams just over 10% were aware of municipal ward-based PHC outreach teams and contract-based private health practitioner at non-specialist level. While 13.2% indicated they had no knowledge, 4.7% indicated other. However, no answer was given for the “other” response.

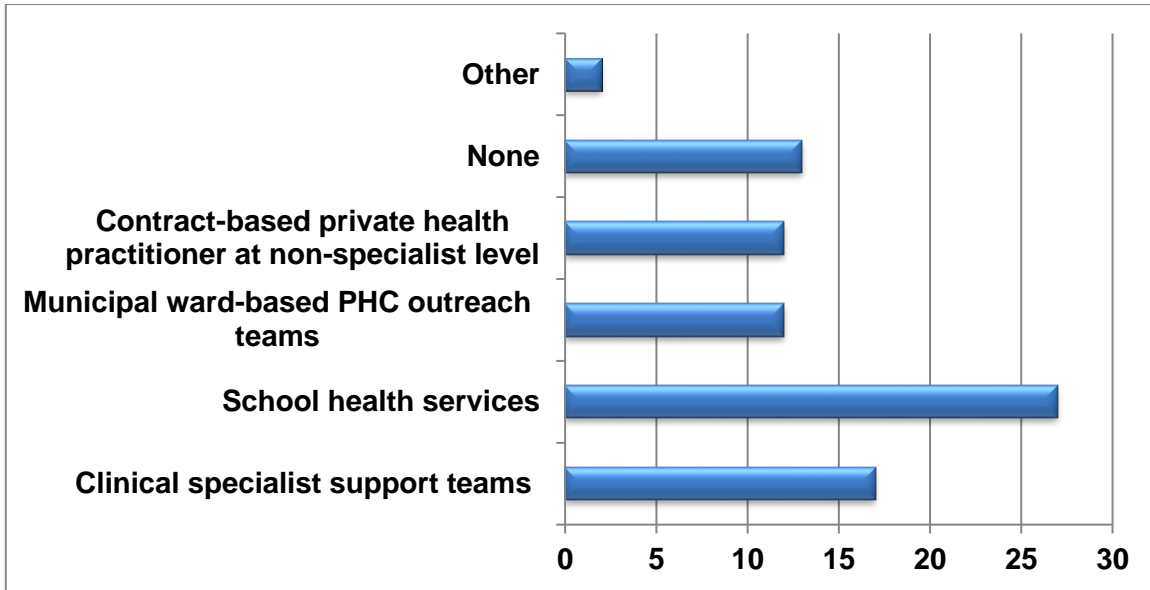


Figure 4.11: Knowledge of the Four Primary Healthcare Reengineering Streams (n = 43)

There is poor knowledge of the PHC reengineering proposals of the NHI among the participants as shown in Figure 4.12 that this was poor with 73.1% scoring 4 or below. Only 19.6% of participants indicated knowledge above a score of 7.

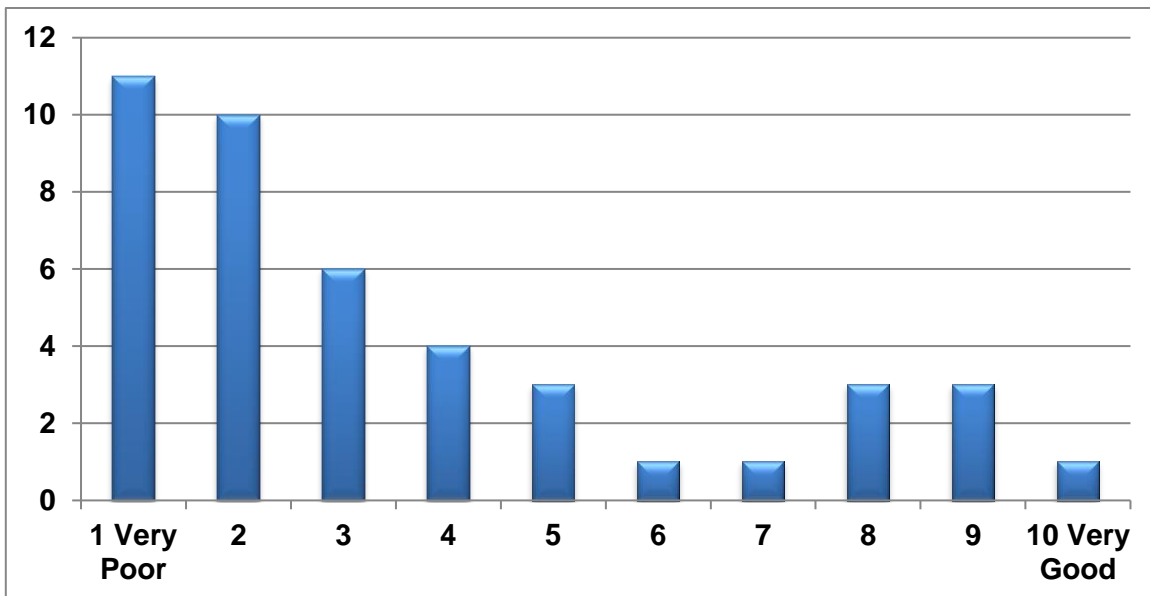


Figure 4.12: Extent of knowledge of the PHC Reengineering Proposals (n = 32)

Only 32 participants indicated factors influencing their knowledge of PHC Reengineering and these were:

Being involved in PHC and feeling the need to make things better these participants were involved with problems with disability specific PHC service delivery (10, 31.3%)

Lack of information especially from the top structures to the ground level staff working in PHC as either therapist or management (10, 31.3%)

Some form of formal training - related to being involving in PHC related postgraduate research study course (5, 15.6%)

Some form of informal interactions/discussions this was because of information gained from social media and inter-professional discussions especially among rural therapists (8, 25.0%)

4.3 THE PERCEPTIONS OF OCCUPATIONAL THERAPISTS ON THE INTEGRATION OF OCCUPATIONAL THERAPY SERVICES IN THE PRIMARY HEALTHCARE (PHASE 1 AND PHASE 2)

Participants were asked to provide their perceptions about the current integration of occupational therapy in PHC services in South Africa and what facilitated or prevented this. These results presented below were further explored in in-depth interviews with 5 occupational therapists to determine their perception on the integration of occupational therapy services in the primary healthcare reengineering streams of the National Health Insurance.

4.3.1 Current Integration of Occupational Therapy Services in Primary Healthcare (Phase 1)

Of the answers analysed, 41 participants on the survey provided their perceptions about the integration of occupational therapy services in the PHC reengineering streams of the National Health Insurance for Persons with Disabilities; however, 14 (34.1%) of them reported lacking enough knowledge to comment. The following points were made:

It is highly essential for the benefit of service users - especially in PHC for persons with disabilities (17, 41.5%)

Concerns about underrepresentation and undervaluing of occupational therapy's role in PHC by department of health participants feel occupational therapy has been forgotten by the National Department of Health, and a dearth of data on occupational therapy service delivery results in the services being considered as not essential (6, 14.6%)

Concerns about implementation of policy and programs implementation may be a challenge even if policy supports integration of occupational therapy services (4, 9.8%)

Concerns about lack of distinct role of occupational therapy two participants feel occupational therapy should be seen as a distinct profession – all the rehabilitation professions should not be seen as just one (2, 4.8%)

4.3.1.1 Current Barriers to Integration of Occupational Therapy Services

Participants' opinion about the biggest barriers to integrating occupational therapy services in PHC reengineering streams of the National Health Insurance (N = 41)

Dearth of financial and human resources this included the extremely high patient-therapist ratio and the absence or low funding for rehabilitation and quality of life issues (11, 26.8%)

Lack of understanding of the role of occupational therapy among policy makers, managers, and the public poor awareness and understanding of the contribution of occupational therapy to healthcare by decision and policy makers (21, 51.2%)

Occupational therapists themselves poor knowledge and interest in NHI by rehabilitation professionals and a lack of data on rehabilitation service provision. Participants also indicated they were concerned about the unpreparedness of some rehabilitation professionals to engage on this level of health care and the use of the medical model by some occupational therapists (9, 22.0%)

4.3.1.2 Current Facilitators to Integration of Occupational Therapy Services

Participants indicated that the greatest support (structures/procedures/role players/stake holders) in integrating occupational therapy services in PHC reengineering streams of the National Health Insurance (n = 37) were as follows:

Advocacy groups it was felt that groups such as RuReSA, Rural Doctors SA, Rural Health Advocacy Group, global partners and NGOs were facilitators of the integration process. (4, 10.8%)

Occupational Therapists, other allied professionals, and other facilitators were OTASA, individual occupational therapists' engagement with their institutions, PWD, their families and communities and some managers, hospitals and government. (21, 56.8%). The others (12, 32.4%) reported either not having support structures currently or inadequate knowledge to comment.

4.3.2 The Perceptions of Occupational Therapists on the Integration of Occupational Therapy Services in the Primary Healthcare Reengineering Streams of the National Health Insurance (Phase 2)

Five occupational therapists who participated in the in-depth interviews gave their opinions on the current state of occupational therapy in PHC and their perceptions on the integration of occupational therapy services in PHC reengineering streams of the NHI. Their demographic information is presented in Table 4.5

Table 4.5 Demographics of participants

Code	Gender	Work Experience	Education	Practice Setting
R01	Female	3 years	M.OT (in view)	Clinic, CHC, and Private Practice
R02	Female	5 years	M.OT (in view)	PHC and District Hospital (Government)
R03	Female	3 years	B. OT	Community Clinic (CHC)
R04	Female	2 years	B. OT	CHC and Hospital
R05	Female	4 years	B. OT	School and District Hospital

Data saturation was achieved after these five interviews and two themes emerged from the data. A summary of the themes and sub-themes/categories is visually presented in the diagram below (Figure 4.13) and each theme is elaborated upon individually in Table 4.6 and Table 4.7.

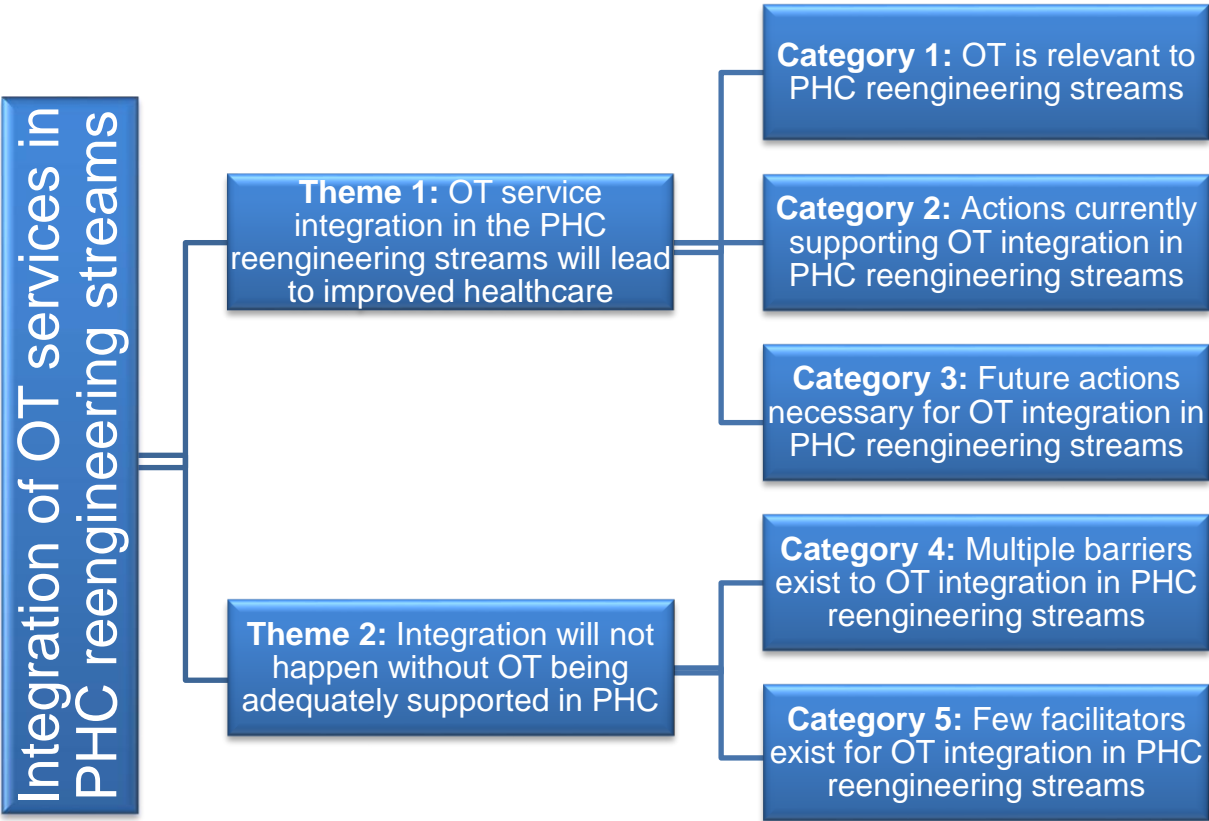


Figure 4.13: Summary of the themes and sub-themes/categories

4.3.2.1 Theme 1: Occupational therapy service integration in the PHC reengineering streams will lead to improved healthcare

Table 4.6: Perceptions of occupational therapists on the integration of occupational therapy services in the PHC reengineering streams of the NHI

Theme	Categories/sub-themes	Codes
Occupational therapy service integration in the PHC reengineering streams will lead to improved healthcare	Category 1: Occupational therapy is relevant to PHC reengineering streams	<ul style="list-style-type: none"> Occupational therapy is essential in PHC Occupational therapy is versatile Health outcomes for PWDs Occupational therapy connects with and involves the community
	Category 2: Actions currently supporting OT integration in PHC reengineering streams	<ul style="list-style-type: none"> Occupational therapy is involved in school Home visit, health centres visit, awareness, and enlighten others about occupational therapy Occupational therapy information dissemination and statistics on PHC OT Occupational therapy posts and service continuity in PHC
	Category 3: Future actions necessary for OT integration in PHC reengineering streams	<ul style="list-style-type: none"> Rehab not dynamic Absent occupational therapy -Policy makers link Decision making occupational therapy involvement Statistics on PHC occupational therapy Occupational therapy service continuity Occupational therapy information dissemination Occupational therapy posts in PHC Outreach, awareness, screening, and health promotion

Category 1: Occupational Therapy is relevant to Primary Healthcare Reengineering Streams

The view that **occupational therapy is an essential part of PHC** emerged strongly among the participants. They felt that the profession is holistic in outlook and therefore capable of improving the health outcomes of the populace despite not being currently seen as an important profession in the PHC reengineering streams.

- R01: “[...], there a vital role that an occupational therapist can play in providing health care services on a very ground level (claps hands), first line of care practitioner.”
- R02: “[...], we’ve got a big role to play. I think we are capable of so much more and providing services to the benefit of patient as well as the overall healthcare system.”

The participants mentioned that **occupational therapy is versatile** and thus well suited to be integrated in the PHC reengineering streams. They reported that occupational therapy is able to treat diverse conditions across the life span and not just hand conditions and stroke as people currently perceive it.

- R05: “[...], we can be involved with many ranges of adults and some children to adults to elderly and we should be involved way more in all four of those streams”
- R03: “It has been a struggle for me personally to make my mark on my community and not only to be seen as an OT that treats strokes or an OT that treats hands.”
- R04: “[...], I think our profession, because we look at people holistically, if you look at doctors and things like that who are treating people almost from a medical model perspective. I think OT’s are a massive asset treating from a biopsychosocial model.”

The participants recounted the importance of occupational therapy services towards the **Health outcomes for PWDs**. They believe that the unique role of occupational therapy to facilitate engagement in desired occupations and activities by PWDs and the community is too important to be underrepresented in the PHC reengineering streams.

The participants felt that the absence of OT in the PHC reengineering streams causes engagement in detrimental occupations and increased poverty level among PWDs.

- R03: “People underestimate occupational therapy; the knowledge that occupational therapists have with regards to pathologies and how to empower people with use of occupations.”
- R05: “[...], not just going to the doctor when you’re small but also seeing OT’s and physios and things like that to make sure that your developmental milestones are reached.”

Although occupational therapy services could be individually based; participants further elaborated that occupational therapy has a natural tendency to **connect with the community and involve them** in promoting their health. The participants were of the opinion that the ability of occupational therapy to involve the community in decision regarding their health makes the profession very relevant to the PHC reengineering streams.

- R04: “[...], we just have a way for connecting with the people and so if we build relationships, that’s kind of like our basis for any treatment.”
- R04: “[...], move to a more population-based where you get the community to buy in or the population that you are working with, to buy into what you want to do, and I think coming up with goals and treatment together instead of a one on one treatment.”
- R03: “[...], the occupational therapist at least can just motivate the people. Get the people to come to the clinic to get assistance from the occupational therapist.”

Category 2: Actions currently supporting Integrating Occupational Therapy Services in the Primary Healthcare Reengineering Streams

Occupational therapists are currently involved in the following activities to improve rehabilitation accessibility for PWDs despite not being explicitly captured in the NHI policy document.

The participants said that **occupational therapists are currently involved in school health service**; however, occupational therapy services is not explicitly stated in the NHI document among those services that are meant be involved in the integrated school health program of the PHC reengineering.

- R01: “With regards to the school health where we worked, there was more of the SIAS policies, screening identification system and support. We did that to go and visit the schools to see where we can help the children and alleviate the barriers to learning.”
- R05: “[...], OT’s are quite involved when it comes to school and when it comes to children outreaches. They really try and get involved very well and a lot.”

The participants are also engaged in patients’ **home visits, health centre visits, awareness, and enlightening others about occupational therapy** services. The participants saw these strategies to be important avenues to integrate occupational therapy services in PHC reengineering, although it appears that they are focused only on the outreach teams out of the four streams of the PHC reengineering.

- R02: “[...], and the other way that we are trying to do it is to visit centres within the community be it adult centres, disability centres, centres for children. So that is how we are trying to implement reengineering.”
- R01: “[...], if I don’t establish that good understanding and relationship then the community at large also won’t welcome this new professional person coming in and doing home visits.”
- R03: “[...], personally I have been in many cases called into situations that had nothing to do with occupational therapy but also had to deal with management and it just describes us [occupational therapy] in whatever, we were able to sit down and talk about it.”

The participants reported being involved with **information dissemination** and providing **statistics on PHC occupational therapy** service provision. The participants realized that there was need to provide data on the occupational therapy services

provided in the PHC setting to ensure their visibility and progressive integration in the overall structure of the PHC reengineering streams.

- R01: “[...], so one of the things that I did and implemented at the facility that I worked was an allied health tick register, something similar to what the nurses at the clinic did as a patient tick register to be able to show our visibility of the services we did deliver. Even just on a monthly outreach basis. Because they kind of had this attitude of, we come in and we unsettle the rhythm for one day, and of course we can only deliver that service again the next month when there’s an outreach.”
- R02: “[...], we’ve got a district occupational therapy forum where we give our feedback to and we also have a multidisciplinary rehabilitation forum where we ...can give our inputs to, which is on district level.”

Finally, they strive to ensure **occupational therapy service continuity** whenever they are opportune to get **occupational therapy posts in PHC**. The participants mentioned that occupational therapists – fresh graduates or experienced occupational therapists – need to be available at the PHC level for patients and stakeholders to be able to relate to their services.

- R01: “[...], as a community service person, you have this big choice between am I going to go out there and deliver service even though it hasn’t yet been established and it has had many faces over the last 10 years that nobody, the community kind of loses path because there’s no continuation.”
- R03: “[...], like in my case I was a com serve that got absorbed so I was a very lucky but if I wasn’t absorbed there would probably not have been an occupational therapist in my post and in my role.”

Category 3: Future Actions Necessary for Integrating Occupational Therapy in the Primary Healthcare Reengineering Streams

Participants enumerated procedures necessary for a comprehensive integration of occupational therapy services in PHC in the ideal future, similar with the current actions being taken to integrate occupational therapy services in PHC reengineering.

They emphasized **awareness, outreach, screening, and health promotion** as pertinent for occupational therapy service integration in PHC reengineering streams. These strategies are important to educate the community as well as the other multidisciplinary team members and policy makers on what the role of occupational therapy in PHC is, and how occupational therapy services can improve the health of the population.

- R5: “[...], because maybe they feel that OT’s are just there to help sustain and rehab, they don’t really understand that we could also be part of eliminating, trying to make sure that something [disease] does not occur”.
- R04: “[...], so really getting out into the community. Going from door to door or having events at a field somewhere where people can come and get screened where health promotions talks. I think that would be ideal rather than sitting in an office and waiting for people to come to you, I think that would be ideal.”

Rehabilitation professions should be flexible to fit into the National Department of Health’s mainstream programs as **rehabilitation professions appear rigid**, provide more **statistics on PHC occupational therapy**, and improve on **occupational therapy information dissemination**. Although, not a commonly expressed view, it was felt that the rehabilitation professions have not been flexible enough to dovetail the mainstream health programs leading to their services being neglected. Therefore, majority of the participants strongly advocate for more data gathering and dissemination on the services provided by occupational therapists to the MDT members, management, and policy makers.

- P01: “[...], we need to align because for so long I got the feeling that somewhere along the line the allied health just said we’re not going to transform or become

integrated in the new system and all these new programmes and they get left behind.”

- P02: “My personal experience is, unless the data represents the impact that we have. If we don’t support the services that we do with data, it won’t ever become a respected or a recognisable service that’s needed in primary healthcare.”
- R03: “[...], I would say to the facilitators and the people whose making all the decisions. I would say that they must get sufficient training in what occupational therapy is, what we can do.”

The participants also emphasized the importance of having **occupational therapy posts in PHC** and **occupational therapy service continuity** to ensure integration of occupational therapy services in PHC reengineering. The participants strongly lamented the shortage of occupational therapists at CHC clinics and that majority of the occupational therapists who provide service at this level of care are usually district hospital based with seldom outreaches to surrounding communities.

- R03: “[...], personally I would think to integrate OT services would definitely be to get an occupational therapist in every clinic in every hospital or two or three or four of them.”
- R01: “[...], it’s just sad that you have to first fight for that recognition and then get integrated and then for the last three months you are stressed about who’s going to continue the services because another com service isn’t coming.”

Finally, the participants proposed for occupational therapists to be actively **involved in decision making on** health-related matters at the highest levels and bridging the **absent occupational therapists-policy makers link**. The participants acknowledged that policy drives structure, resource allocation, and service delivery; hence occupational therapists need to be active at the highest level of policy and decision-making meetings to foster the integration of occupational therapy services in PHC.

- R02: “[...], but on ground level we are actually cut off from the policy makers as such so our only way to give information is to give it to our district level managers and to ask them to take up to the higher levels.
- R03: “I believe that if occupational therapists could sit in every meeting and on the higher levels even where parliament or whatever where we would be able to go and sit in meetings with the minister and speak to them and talk to them about what we believe is good for south Africa and for the south African community in terms of occupation, what is the next step and on what level these people are functioning.”

4.3.2.2 Theme 2: Integration will not happen without OT being adequately supported in PHC

Occupational therapists who participated in the in-depth interview gave their perceived barriers and facilitators to integration of occupational therapy services in the PHC reengineering streams of the NHI. The codes, categories and theme are presented in Table 6.7 and subsequently elaborated upon.

Table 4.7: The Perceived Barriers and Facilitators to Integration of Occupational Therapy Services in the Primary Healthcare Reengineering Streams of The National Health Service

Theme	Categories/sub-themes	Codes
Integration will not happen without occupational therapy being adequately supported in PHC	Category 4: Multiple barriers exist to occupational therapy integration in PHC reengineering streams	<ul style="list-style-type: none"> • Occupational therapy lacks policy support • Occupational therapy lacks resources (financial, transportation, and space) • PWDs face rehabilitation challenges • Research shortage on occupational therapy • OT shortage and lack of integration in PHC • Occupational therapy lacks role clarity, recognition and respect • Community service program is not sustained • Occupational therapy challenges vary in the provinces • Poor statistics on PHC occupational therapy
	Category 5: Few facilitators exist for OT integration in PHC reengineering streams	<ul style="list-style-type: none"> • Community service program • Occupational therapy - Management support • Occupational therapists are committed and resourceful • Occupational therapy knowledge among occupational therapists and others • Community healthcare workers and community stakeholders • Good occupational therapists-multidisciplinary team relationship • Study on PHC Occupational therapy • Word of mouth and Awareness

Category 4: Barriers to Occupational Therapy Services Integration in Primary Healthcare Reengineering Streams

All the interviewees mentioned several barriers to the integration of occupational therapy services in the PHC reengineering streams and they are presented below:

The participants identified **lack of policy support for occupational therapy services** as a major hindrance to service integration. Policy is said to be the driver of any system and currently occupational therapy is not adequately captured by the policy documents. Also, the participants strongly felt that implementation of policies concerning occupational therapy in PHC is yet to be seen at ground level.

- R02: “[...], I find it quite challenging that we are such an essential part of primary healthcare, but we are not recognised in the official documents [...], because look at the primary healthcare reengineering policy of 2010 that we have. We are not stated in that policy so that influences where your services go.”
- R05: “[...], awareness should not just be made unto the people but also unto the people that create these policies. That they can understand the importance of OT’s as well with regards to primary healthcare, with regards to community health care.”

The participants lamented the significant lack of resources to provide occupational therapy services for PWDs in PHC such as **financial resources, transportation resources, office and treatment space** for the provision of occupational therapy services in PHC. The participants strongly expressed their opinion that the importance of resources in providing occupational therapy services cannot be overemphasized as the absence of which often lead to frustration and inadequate service provision.

- R03: “Lack of resources; sometimes there is a point where you can’t treat anymore, you need more resources and that’s also been a very big problem.”
- R01: “I did a lot of home visits, but they weren’t always cars. Those were the logistical challenges that we had”

The participants felt that **PWDs face rehabilitation challenges**, especially the lack of transportation resources in accessing services. They felt that these challenges are more prominent in the rural areas where the poverty level is high and more population of PWDs.

- R02: “I think our patients have got quite a challenge in accessing our services even though we try to render at primary health care clinics. It’s still not necessarily feasible. In our area a patient can pay up to R200.00 to hire a private car to transport, for example, a stroke patient from their home to the local clinic which is about within 5km radius.”

On the part of occupational therapists themselves, participants noted that **research shortage on occupational therapy services in PHC** is a barrier to integration of the services in PHC reengineering. There was a strong feeling among the participants that dearth of statistics to show the evidence of occupational therapy service effectiveness is detrimental to the integration of the services in PHC reengineering.

- R04: “[...], the second thing (barrier) would probably be lack of research within the OT field so just proving the benefit of our profession?”
- R01: “[...], so we never get the recognition of the services we provide even though we are the persons that have identified the patient that needs a wheelchair and has done the whole case management and all the telephone calls and all the logistical arrangements to get them transport to go to the tertiary hospital in Bloemfontein to get a wheelchair issued and they collect the data and they can show that their services are crucial but nowhere it’s been recorded that I was the person sitting in the corridor doing OT at PHC level.”

The **shortage of occupational therapists at the PHC level** was described by the participants as disturbing and a barrier to service integration. The participants strongly felt that the occupational therapists’ shortage in turn leads to work overload for the few

occupational therapists working at the PHC level. The shortage of occupational therapists is evident both in the rural and urban areas across the provinces.

- R04: “There’s definitely not enough OTs out in primary health care places. And I think it such a crucial part that’s being missed.”
- R01: “[...], but, I think that was the case with the other districts here in Gauteng as well they have one therapist to represent the whole district and the community and that is just, ...(sounds frustrated) I mean, my heart breaks because it’s a lot of people for one OT and she’s doing her best or she can hide away.”

Participants expressed their feelings about the **role of occupational therapy being unclear** which causes **lack of occupational therapy knowledge among other stakeholders, lack of recognition, and respect for occupational therapy**. A common view that emerged was that a clearly defined occupational therapy role helps the profession to be seen for what it can do by patients, MTD members, and government. This will ensure that occupational therapy is accorded the recognition and respect it rightly deserves in the health sector.

- R02: “I think it’s because we are not recognised. When primary health care reengineering is done and especially if you look at that NHI, one of the districts where we had a private visit, and they haven’t heard anything of rehab, not OT, not physio not speech nothing.”
- R04: “[...], lack of knowledge all around, from people receiving the service, even for other MDT members, doctors, nurses, people don’t understand the role of OT.”
- R05: “When you go on your campaigns and you do workshops, explaining what OT does, then most doctors actually say oh that’s what they thought physios do; which is just sad.”

The participants felt that **lack of community service program sustainability** also serves as a barrier for integration of services as there is lack of continuity. Although, not a commonly expressed view, it was felt that the inconsistency in posting community

service occupational therapists to PHC settings often lead to service discontinuity and hindrance to integrating occupational therapy services in PHC reengineering streams of the NHI.

- R04: “[...], the problem is there’s no sustainability after that (end of community service year) so that set up projects then they leave so there’s no sustainability.”

Finally, a less common view expressed by the participants was that **occupational therapy challenges vary in the provinces** as the more urban provinces face less barriers compared to others. More developed provinces like Gauteng and Northern Cape were reported to have more structure and enabling environment for PHC occupational therapy to thrive.

- R01: “[...], I’ve sign bordered with some of my friends who are also working in the Gauteng area and they are not struggling with the same problems that we necessarily had to face in the Free State.”

Category 5: Facilitators to Occupational Therapy Services Integration in Primary Healthcare Reengineering Streams

The participants had only a few facilitators to name regarding the integration of occupational therapy services in PHC reengineering streams and they are presented below:

The participants named the **community service program** as a major facilitator for occupational therapy service integration in PHC. This program places new occupational therapy graduates at different health facilities especially in the rural areas, where these graduates can provide occupational therapy service at the PHC level.

- R03: “[...], currently I think a lot of the support comes from the fact that we have com serves here in South Africa. And that we have this com serve system.”
- R04: “I think com serve also is a great support structure. Community service - where OTs are kind of forced into primary healthcare settings.”

Mutual support between occupational therapists and management was reported by the participants as a facilitator for occupational therapy service integration in PHC reengineering. The participants felt that it is easier to be supported by those who perceive you to support their activities; hence some of the participants who have gotten some form of resources from management attribute it to the mutual support that exist between them.

- R03: “[...], usually when you make sure that you are known and as an occupational therapist and you support management, management tends to support you, so it has like this, feed forward feedback thing.”

Occupational therapists themselves were reported as facilitators because they are well trained, **committed and resourceful**. The participants strongly felt that occupational therapists are dedicated to service and can provide quality service even with limited resources currently available to them.

- R02: “[...], if you’ve got occupational therapists that are already so much motivated and committed to the process, what the outcome can be like if we get more support.”
- R01: “[...], when I even offered my service to say, I’ll even come and work for free, I just need to work at these facilities so that I can take this thing further so that I can...I’m passionate about PHC and passionate about the impact that OT’s can have they said thank you and they’ll contact me again and never did and even though I followed up they’d say no we might have a position opening up soon we’ll let you know.”

A less popular view among the participants was that once **others become knowledgeable about occupational therapy**, they serve as facilitators for the integration of occupational therapy services in PHC reengineering. Their knowledge of

occupational therapy roles makes it possible for them to relate to the services and how it can best be integrated in the PHC streams.

- R02: “[...], once they understand what occupational therapy can do to patients, they really try to accommodate you and really try to help you integrate your service into primary healthcare.”
- R02: “[...], so, I think once we get policy makers to acknowledge the role of our profession and rehabilitation as a whole we will be able to achieve so much more.”

The **community healthcare workers and community stake holders** were reported as support structures for the occupational therapists in the PHC level. CHWs within the ward-based outreach teams are often the ones at the first line to get to patients and a cordial relationship with them fosters integration of occupational therapy services through referral. Stakeholders including the university, special needs teachers and community members were identified as support structures for the PHC occupational therapist.

- R01: “[...], and stakeholder: that was a good facilitator as well. Stakeholders in the community and I mean, teachers and special needs teachers at the schools that we can liaison with. Stakeholders from other facilities.”
- R02: “[...], your community healthcare workers who are part of the ward-based outreach teams, they are the people who most of the times meet your patients first. And if they know that the service is available and if there’s a referral pathway that they are aware of, they can easily transfer patients.”

The participants strongly expressed their opinion that having **good occupational therapists – multidisciplinary team relationship** helps to facilitate the integration of occupational therapy services in PHC reengineering streams. A clear communication channel and rapport between the occupational therapist and other members of the MDT facilitates integration of occupational therapy services in PHC reengineering streams.

- R02: “[...], once our colleagues and our other member of the multidisciplinary team understand the value, that will also help to integrate OT into the system because more people will understand what we do, how we do it and what are the benefits.”
- R04: “[...], I think if we can get our role, get other MDT members to understand our role would be a massive support structure.”

Study/Statistics on PHC occupational therapy was also reported as a facilitator for the integration of occupational therapy services in PHC reengineering streams. For example, it was reported that the allied health tick register developed by an occupational therapist to capture data of services provided in line with the National Department of Health’s mainstream health programs in PHC facilitated the employment of physiotherapist and occupational therapist as the data was visible enough to bring about a change.

- R01: “[...], the payoff from this register (Allied Health Tick Register) is already that another OT is being placed in the [...] district with an audiologist because the services was just so visible that they said we need to place one there again.”

Finally, the participants strongly expressed their feeling that **word of mouth and awareness** of occupational therapy services helps to facilitate the integration of occupational therapy services in PHC reengineering streams. Continuous awareness campaigns through pamphlets, word of mouth, and establishing a professional identity in the community helps to promote the image of occupational therapy as recounted by the participants.

- R02: “[...], so if the people are aware of you and you are aware of them and you help them they would have a bigger tendency to look into your things.”
- R03: “[...], having somebody who has been in the community. So, an occupational therapist that has been in the community before so just exposing the people to the occupational therapist, even if it’s like once a month that the occupational therapist does outreaches to the far-off communities.”

4.4 SUMMARY

The aim of this study was to determine the services currently provided by occupational therapists in PHC and the occupational therapists' opinion regarding the current integration of occupational therapy services in PHC as well as within the proposed streams of PHC re-engineering in South Africa. The descriptive analysis of the quantitative phase of the study showed that occupational therapists at PHC level work more in the urban than rural areas, the majority are hospital based, and work in multidisciplinary team. Their model of service delivery was shown to be through a combination of models, with CBR and medical model being the most used and moral model the least used. Their intervention frequently employed included self-management, case management and clinic-based management while the least used interventions were shared care, outreach to neighbouring communities and home visit to clients' home.

The perceptions of the participants on the integration of current occupational therapy services showed that they felt occupational therapy services is highly essential in PHC for the good of PWDs and were concerned about policy implementation and the present state of occupational therapy underestimation by the National Department of Health. Further exploration in the in-depth interview showed that occupational therapy is community inclined and versatile and thus supports them being essential in PHC reengineering streams as shown in the open-ended section of the first phase.

Their perceptions on barriers and facilitators to integration of occupational therapy services in the PHC reengineering streams of the NHI showed lack of resources, lack of occupational therapy knowledge among policy makers, managers, other MDT members, patients, and the community at large. Lack of policy support and data regarding PHC occupational therapy services was also reported. The current facilitators enumerated by participants included advocacy groups, allied health professionals, while those supporting integration in PHC reengineering streams of the NHI also included community service program, stakeholders, and awareness among others.

CHAPTER 5: DISCUSSION

5.1 INTRODUCTION

This chapter discusses the findings of the study and the interpretation of the results. The first part discusses the demographic characteristics of the participants; the three subsequent parts discuss the results in relation to the objectives of the study, and the final part presents the strengths and limitations of the study.

The purpose of this study was to explore how services are currently provided by occupational therapists in PHC and their perceptions of the integration of occupational therapy services within the PHC reengineering streams. The results of this study provide evidence for the services provided by occupational therapists in PHC in South Africa and how occupational therapy services could be integrated in the primary healthcare reengineering streams in the NHI in relation to the current facilitators and barriers.

5.2 DEMOGRAPHICS OF SURVEY AND IN-DEPTH INTERVIEW PARTICIPANTS

The study participants were occupational therapists mostly in their 20s and 30s. The age distribution of the participants is consistent with the findings from other studies which indicate a noticeable increase in the number of students training as occupational therapists (Plastow, 2016). Similarly, other studies in South Africa indicate that most occupational therapists are younger than 40 years of age (Pitout, 2013; Van Stormbroek, 2015). Due to this age distribution, the current study found that the majority of the occupational therapists had less than 15 years of experience, which is in keeping with the predominance of younger occupational therapists involved in clinical practice at a PHC level.

The majority of the participants in the current study have 5 years or less of work experience. This finding is supported by several other studies carried out in South Africa among occupational therapists which showed the majority of their participants had 5 years of work experience (Vermaak and Nel 2016; Monareng, Franzsen, and Van Biljon, 2018). This result suggests that since the most occupational therapists are

young, the proportion of less experienced therapists that are available to participate in research in South Africa is higher than the older and more experienced occupational therapists.

The participants were also predominantly female (91%). This gender distribution is supported by the WFOT human resource project of 2018 which indicates that 72% of occupational therapists in South Africa are female. The large number of female participants have also been supported in other South African studies by Pitout (2013) who reported 90% of the occupational therapist participants were female, Van Stormbroek and Buchanan (2016) who reported female participants at 97%, and Naidoo, Van Wyk and Waggie (2017b) who reported a figure of 95%.

The current study found that the majority of the participants have had further training after completing their entry level bachelor's degree, a finding similar to that of Vermaak and Nel (2016). The further training reported by the participants in this study include continuing professional development courses, workshops, and formal postgraduate degree qualifications such as masters, postgraduate diploma, and doctoral degree. However, very few (3.5%) had a doctoral degree, possibly due to their age. Finally, majority of the participants have salaried jobs either in the public or private health sectors as similarly reported in other South African studies involving occupational therapists (Vermaak and Nel, 2016).

Therefore, the demographics of the participants in this study can be accepted as reflective of occupational therapists working in South Africa.

5.3 CURRENT OCCUPATIONAL THERAPY SERVICE PROVISION IN PRIMARY HEALTHCARE

The questions answered on the survey used in the study were analysed to address the first objective to establish the extent to which occupational therapy services are currently delivered in PHC in South Africa from the perspective of the occupational therapists.

The occupational therapists working in the PHC platform reported using various disability models to guide their intervention. They also indicated a plethora of intervention strategies for their service provision usually as part of multidisciplinary

team practice with a high level of shared patient care in treatment planning. Many (68%) of them work in the urban areas primarily in the hospital setting (42%).

The larger proportion of the participants providing occupational therapy services in urban areas was supported by several other studies (Van Stormbroek and Buchanan, 2016; Monareng, Franzsen and Van Biljon, 2018). Although the majority of participants had worked in hospital settings (42%) or private practice (32%) with at least some time spent in PHC services, 8% were working in community clinics, 16% at community health centres, and 8% at community organizations. The small percentage of participants involved full time at the PHC level supports the opinions of Naidoo, Van Wyk and Joubert (2016) who felt that occupational therapists show no readiness to abandon the comfort of institution-based rehabilitation services.

None of the participants were involved with policy making, while (12%) of them are at managerial level, and the rest are clinicians providing direct care to patients. This finding is similar to that of Pitout (2013) who found that there are few South African occupational therapists in managerial positions compared to clinicians providing direct care to patients.

5.3.1 Service Delivery Models and Intervention strategies

Regarding the services being provided by occupational therapists in PHC, this study found that CBR and the medical model are the models most utilised by the participants, with CBR being the predominant one. Interestingly, findings from this study are in contrast with majority of evidence regarding the models used by occupational therapists at primary healthcare level in South Africa. Previous studies showed a dominance of the institution-based medical model among therapists with only a few using the CBR model (Naidoo, Van Wyk and Joubert, 2016; Mji, Rhoda, Statham, *et al.*, 2017; Ned, Cloete and Mji, 2017). This may be because the majority of previous studies only focused on a particular district or province, whereas this study involved a nation-wide survey.

The medical model being reported as commonly used in this study may also suggest that although the use of CBR is on the increase, the use of the medical model among occupational therapists in PHC has not waned. The reliance on the medical model by

rehabilitation professionals including occupational therapists limits access to comprehensive disability and rehabilitation services for PWDs at a PHC level (National Department of Health, 2015; Naidoo, Van Wyk and Joubert, 2016). Another reason for the continued use of the medical model among occupational therapist in PHC could be because the other MDT members are still using it at this level of care. However, it is encouraging that an increasing number of PHC occupational therapists are using CBR as found in this study and will probably continue to do so when they are fully integrated in the primary healthcare reengineering streams.

The move by PHC occupational therapists to the use of CBR may also be attributed to the change in emphasis since South Africa ratified the United Nations Convention on the Rights of Persons with Disabilities UNCRPD, which has seen the prioritisation of CBR (2006). The ratification of the UNCRPD introduced the concepts of empowerment, participation and social inclusion for PWD's (Dayal, 2010). Furthermore, it has resulted in a change in emphasis in occupational therapy training in South Africa as more opportunities for training on the PHC platform are being made available. The use of CBR confirms that as suggested by Dayal (2010), efforts are being concentrated on moving away from the individual biomedical approach to biopsychosocial approach. The use of CBR was further strengthened by the introduction of the Framework and Strategy for Disability and Rehabilitation in South Africa (2015-2020) (NDoH, 2015) and may have resulted in the younger, more recently trained therapists using this approach in the therapy they provide at the PHC level.

Participants also reported basing their practice on the ICF and the social model. This is consistent with the findings of M'kumbuzi and Myezwa (2016) that showed that rehabilitation practitioners such as occupational therapists align their practice with the social model of disability by accommodating the environmental factors related to poverty-alleviation strategies in their practice because poverty is closely linked with disability (Lorenzo, 2012). Misbach (2004) also indicated practice towards the social model through networking and involvement in disability forums and support groups by occupational therapists at PHC level.

Dizon, Grimmer, Machingaidze *et al.* (2018) in highlighting the position statement of the Guidelines Intercollegiate Network indicated the importance of the use of the ICF to consider the health-related domains of both the individual and community.

In contrast, the moral model which contradicts the philosophy of occupational therapy, was rarely used by occupational therapists in PHC and is rarely reported in the South African literature (Mji, Chappel, Statham *et al.*, 2013). Although some patients may still believe they are morally responsible for their own disability due to cultural or religious beliefs, most occupational therapists would not support this view (Eerola, 2012). The results of the 2002 South African Department of Health Disability Survey supported this as the survey showed only 3% of PWDs ascribed their disability to spiritual or ancestral causes (National Department of Health, 2002).

In congruence with the models, the current study found that the interventions used by majority of the participants include self-management, case-management, and community-based management. Self-management has been reported by Richardson, Loyola-Sanchez, Sinclair *et al.* (2014) to be a growing intervention utilised by occupational therapists in addressing chronic health conditions. This intervention is used in tandem with the PHC philosophy as it involves health promotion, and the client's participation in their own care (Donnelly, Leclair, Wener *et al.*, 2016).

Although self-management was the most frequently used intervention strategy reported by the participants in the South African PHC setting, there is currently no evidence supporting its use locally. However, evidence supports the use of self-management by occupational therapists in the PHC setting in developed countries (Kennedy, Bower, Reeves *et al.*, 2013; Richardson, Loyola-Sanchez, Sinclair *et al.*, 2014). Self-management enhances quality of life, participation in desired activities, and self-efficacy among PWDs which encompasses the occupational therapy philosophy and process outcomes (Garvey, Connolly, Boland *et al.*, 2015).

Similarly, case-management was reported as the second most utilised intervention strategy by participants, although frequent use of case management among occupational therapists at a PHC level in South Africa has not been previously reported. The single South African study on the role of occupational therapists in case management did not recruit occupational therapists practicing at PHC level as

participants. However the study found that case-management was being used in the South African context to address disability and health incapacities in the workplace (Govender, Christopher, and Lingah, 2018).

The reported use of case-management among the participants in the current study could be attributed to this intervention requiring few resources, the influence of the multidisciplinary team on the provision of occupational therapy services in PHC. Occupational therapists serve as a link between PWDs and appropriate points where they can get required services. Similarly, community-based management through the CBR model is utilised in occupational therapy service provision for promoting health outcomes on a long-term basis to a set of scheduled patients in the community (McColl, Shortt, Godwin *et al.*, 2009; Garvey, Connolly, Boland *et al.*, 2015).

Conversely, the least used intervention strategies are shared care, outreach, and home visits. This could be due to the lack of resources for occupational therapists working in PHC for the implementation of these interventions. The place of community caregivers to improve access to health care and support has been researched (Caregivers Action Network, 2013). More so, studies in South Africa have called for an increased collaboration between occupational therapists and community rehabilitation workers (CRWs) (Lorenzo, Van Pletzen, and Booyens, 2015; Naidoo, Van Wyk and Joubert, 2016; Naidoo, Van Wyk, and Waggie, 2017b). Such collaboration could be important to achieve these intervention strategies.

5.3.2 Multidisciplinary Team Work

The presence of occupational therapists working as an essential member of the inter-professional PHC team has been documented both locally and internationally to result in increased access to immediate and collaborative needs-based care for PWDs while also saving cost (Donnelly, Leclair, Wener *et al.*, 2016; Dahl-Popolizio, Rogers, Muir, *et al.*, 2017; Ned, Cloete and Mji, 2017). This view is supported by the findings from this study.

The majority of the participants reported working in multidisciplinary teams and that there is good collaboration and information sharing about patients in their teams. The majority of the team members were reported by the participants to be rehabilitation

professionals and nurses. Thus, the teams as described by the participants did not include all the suggested team members, confirming the statement of the National Department of Health that the “ideal core rehabilitation team, comprising physiotherapist, occupational therapist, speech therapist, audiologist, medical orthotist and prosthetist, and related mid-level health workers” remains an issue to be dealt with (National Department of Health, 2015: p.10).

The role of the CRW in the multidisciplinary team currently is not well represented. Although the training of CRWs has previously been done in South Africa, it has not been sustained. Hence, posts and a career projection for these mid-level workers have not been formalised (Chappell and Johannsmeier, 2009). However, the National Department of Health has now formed a plan to train community health workers (CHWs) in the field of rehabilitation as part of the 2020 Health Plan to improve PHC in South Africa (NDoH, 2000). Mji, Rhoda, Statham, *et al.* (2017) have reported the presence of a full multi-disciplinary rehabilitation team at the four centres for their study in the Western Cape after a pilot project was initiated in 2012 to train rehabilitation care workers (RCWs) in line with the National Rehabilitation Policy (Rehabilitation Care Worker Second Quarterly Report DoH, 2013).

5.4 THE PERCEPTIONS OF OCCUPATIONAL THERAPISTS ON THE INTEGRATION OF OCCUPATIONAL THERAPY SERVICES IN THE PHC REENGINEERING STREAMS OF THE NHI

The open-ended questions on the survey used in the study and the in-depth interview responses were analysed to address the second objective to determine the perceptions held by occupational therapists on the integration of occupational therapy services in the PHC reengineering streams of the NHI. Similar to other studies (Metzler, Hartmann and Lowenthal, 2012; Mulumba, Nantaba, Brolan *et al.*, 2014; Wade, 2016a; Hanass-Hancock, Nene, Deghaye, *et al.*, 2017; Leland, Fogelberg, Halle *et al.*, 2017), the first theme which emerged from this study indicates that integration of occupational therapy service in the PHC will lead to improved healthcare because occupational therapy is versatile, it is essential to improve health outcomes for PWDs, and it connects with, and involves the community. This study reinforces the importance of placing equal priority

on services such as occupational therapy geared towards improving quality of life as well as the current life-saving medication-oriented services for PWDs.

Hence, the findings from this study indicate that occupational therapists believe that it is highly essential that occupational therapy services be integrated in the PHC reengineering streams for the benefit of service users especially PWDs. Although other studies were neither specific to reengineering nor the South African PHC setting, findings from the current study reinforce previous findings on the importance of occupational therapy being an integral part of PHC (Misbach, 2004; Myezwa and Van Niekerk, 2013; Wood, Fortune and Mckinstry, 2013; Donnelly, Brenchley, Crawford *et al.*, 2014; OTASA, 2015; Dahl-Popolizio, Doyle and Wade, 2018).

It is noteworthy to acknowledge that there is a poor level of knowledge about PHC reengineering streams among the participants. This finding is similar to that earlier reported by Maseko, De Witt, Bahm *et al.* (2016) who investigated perceptions of the impact of the National Health Insurance on occupational therapy services. Ned, Cloete and Mji (2017) also indicated lack of policy literacy among rehabilitation professionals including occupational therapists.

Although there was poor knowledge overall, the participants had good knowledge about the integrated school health program, which constitutes one of the four PHC reengineering streams. Many attributed the poor knowledge about the other streams to a lack of information dissemination from the top structures to the therapists at ground level. The lack of top-down information dissemination supports findings from other studies which reported a disconnect between policy making and information usage at the local level in South Africa (Dayal, 2010; Rispel, 2016). The participants that were found to have good policy knowledge attributed it to their zeal and interest in making things better at the PHC level where they practice. Others attributed their good knowledge to being involved in some formal training on the NHI and informal interactions.

5.4.1 Actions Currently Supporting the Integration of Occupational Therapy Services in PHC Reengineering

Findings from this study highlight the various ways that occupational therapists in PHC are currently integrating their services in PHC in line with the proposed reengineering streams of the NHI. One of the actions enumerated by the participants is the involvement of occupational therapists in the provision of school health services in line with the Policy on Screening, Identification, Assessment and Support (SIAS) 2014 (Department of Basic Education, 2014). This finding is in keeping with those of Stevens (2018) who found that occupational therapists are involved in provision of school based occupational therapy services. Similarly, Sunday, Anderson, Flack *et al.* (2012) reported that a large number of occupational therapists work in special schools and mainstream schools under the employment of the Department of Education nationwide. Home visits and health centre visits are also among the current activities being undertaken by occupational therapists at the PHC level. The inclusion of these components of practice is supported by Donnelly, Brenchley, Crawford *et al.* (2014) in their study on the emerging role of occupational therapy in primary care which advocates for the continued role of occupational therapists in providing services for members of the community at their homes particularly for PWDs who are immobile and aged. Similarly, a South African report by Sherry (2015) posits that home visits are capable of preventing disability through early intervention and are in congruence with the philosophy of occupational therapy and PHC.

In keeping with other studies, the awareness and enlightenment of other members of the MDT, managers, government and community members about occupational therapy has been reported to be important for integrating occupational therapy services in PHC (Letts, 2011; Metzler, Hartmann and Lowenthal, 2012).

Furthermore, participants also reported that they are involved in the dissemination of occupational therapy intervention, needs and statistics for services offered at PHC level to managers and other role players at meetings and through documentation. Of note is the novel allied health tick register which was developed by one of the participants as a means to show visibility of services and align occupational therapy services with the existing health programs in PHC. The register developed by the participant captures

services provided under the following areas: mother and child, school health, mental health, HIV, TB, acute, chronic, case management, and assistive devices.

The tick register could be an answer for the national identifier data sets on rehabilitation services in PHC. The use of this register was adopted by the Free State Department of Health in the Xhariep District (Appendix I) and has undergone revision and refinement. It has improved the visibility of services of the occupational therapists in PHC and has thus heralded a few more job opening for these professionals in the Xhariep district. Its effectiveness should be further explored in other areas of the country as it represents a PHC specific measure of service outputs for integrating occupational therapy services at a PHC level. This meets a need emphasised consistently in the literature for such PHC specific measure of service outputs to be developed (Donnelly, Brenchley, Crawford *et al.*, 2014; Wade, 2016a; Koverman, Royeen and Stoykov, 2017).

Additionally, the checklist is in tandem with the findings of McVeigh, MacLachlan, Gilmore *et al.* (2016) who suggest that aligning rehabilitation services with the established National Department of Health programs will improve service sustainability and that efficient dissemination of rehabilitation outcomes is important to influence policy makers.

Finally, the other way that occupational therapists identified as contributing to integrating their services in PHC was by maximising every opportunity they have in creating occupational therapy posts in the clinics and ensuring service continuity. For example, participants indicated embracing their retention at PHC settings to provide occupational therapy services following their completion of the community service program instead of going into private practice which has a more attractive outlook. This strategy is supported by McVeigh, MacLachlan, Gilmore *et al.* (2016) as a realist synthesis of promoting good policy for leadership and governance of health related rehabilitation at a PHC level.

5.4.2 Future Actions Necessary to Support the Integration of Occupational Therapy Services in PHC Reengineering

Similar to the current actions being used by occupational therapists in PHC, there are other strategies which participants proposed as future actions necessary for the integration of occupational therapy services in the PHC reengineering streams.

These actions include reducing inadequate policy literacy amongst occupational therapists so that occupational therapists are more dynamic in understanding, advocating for, and enacting the established and proposed National Department of Health rehabilitation programs at a PHC level (Meyiwa 2010; Sherry 2011). Occupational therapists should establish a strong link with policy makers through associations such as OTASA and RuReSA. Participants felt that occupational therapists themselves need to be involved in and influence policy structures at the highest levels of healthcare decision making as suggested by Dayal (2010). It is important that PHC services be conceptualised and managed by relevant role players such as occupational therapists in the broader health sector. Occupational therapists do not seem to be aware of their obligation in terms of policies as well as their responsibility for the implementation of current policies in rehabilitation in spite of unsatisfactory conditions of service and resource constraints (Ned, Cloete and Mji, 2017).

The resources such as those produced by the National Forum for Occupational Therapy in the Public Sector and the position statement published by OTASA on occupational therapy in PHC should be widely disseminated and used. At the level of clinical practice, these resources can assist occupational therapists in understanding and setting up effective practice at the PHC level (McAdam, 2002; OTASA, 2015). The use of these resources is also capable of promoting uniformity in the occupational therapy practice at PHC nationwide.

The participants strongly expressed that availability of statistics on occupational therapy service can be used to provide evidence for provision of this service in PHC and justify their integration in the PHC reengineering streams. This is in line with suggestions from RuReSA in the submission to the NHI in 2011 where they

emphasized the strengthening of standardized data collection and monitoring and evaluation (RuReSA, 2011). An increase in the postgraduate training of occupational therapists at PHC level could improve their research capacity translating to improved research evidence for the role of occupational therapy in PHC. The improved statistics is important for making sure that there is occupational service continuity at this level of health care wherever it currently exists to enhance carryover for subsequent occupational therapists going to practice at such settings.

Finally, evidence for the need for occupational therapy services needs to be disseminated to the MDT and managers, to systematically justify more occupational therapy positions at PHC level. Occupational therapists also need to justify engaging in outreach programs, awareness creation, population-based screening and health promotion activities which were identified by the participants as necessary services. All these services as well as raising awareness of disability issues and improving access to care were identified by RuReSA (2011) and Naidoo et al (2017) in their report on the NHI. This supports the perceptions of the participants in this study as to the future actions necessary by occupational therapists if the integration of occupational therapy services in PHC reengineering streams of the NHI in South Africa is to be achieved.

5.5 THE PERCEIVED BARRIERS TO THE INTEGRATION OF OCCUPATIONAL THERAPY SERVICES IN THE PHC REENGINEERING STREAMS OF THE NHI

Barriers to integrating occupational therapy services in the PHC reengineering streams of the NHI were identified from the perspectives of the participants in the in-depth interviews of this study. These barriers indicate that the integration of occupational therapy into PHC reengineering will not happen without adequate support in the PHC structures despite the current actions being taken by occupational therapists in trying to integrate their services. Participants enumerated barriers which limit the integration of occupational therapy services in the PHC reengineering streams of the NHI. This includes a lack of policy support for occupational therapy services in PHC both with policy formulation and more importantly policy implementation, which has been confirmed in a number of studies (Misbach, 2004; Dayal, 2010; Naidoo, Van Wyk, and

Waggie, 2017b). Improving knowledge and awareness of the role of occupational therapy in the PHC setting for occupational therapists themselves and other stakeholders such as nurses, doctors, managers, policy makers, and government will enable the appropriate distribution of funding for services including occupational therapy and integration within the PHC reengineering streams.

A major challenge reported by participants in the current study for the integration of occupational therapy services in PHC is the lack of resources, including financial, transportation, and space since occupational therapy is not captured in the NHI policy which drives resource allocation. Transportation and other logistical challenges limit the extent of services occupational therapists are capable of providing. For example, one of the occupational therapists reported carrying out home visits by foot since there was no transportation available for this service. Similarly, office space and treatment space for occupational therapy are relatively non-existent at the PHC level which also limits the quality and extent of services provided. These challenges are consistent with the findings of various other South African studies (Misbach, 2004; Naidoo, Van Wyk, and Waggie, 2017b; Ned, Cloete and Mji, 2017). In keeping with the above resource deficits, RuReSA (2011) calls for the availability of resources for the prompt provision of assistive devices by therapists at the PHC level.

The shortage of occupational therapists in the PHC level due to unavailability of posts and work positions is another barrier to integrating occupation therapy services in PHC. This finding has also been reported in other studies (Misbach, 2004; Naidoo, Van Wyk and Waggie, 2017b; Ned, Cloete and Mji, 2017). Participants reported that staff shortages often mean that the few occupational therapists working at PHC level are overworked, with the majority of them being responsible for providing services to more than one district. This high workload is a discouragement irrespective of the level of commitment of the occupational therapists which was earlier identified as a facilitator.

Furthermore, the lack of recognition and respect for occupational therapy by managers, policy makers, government, and other health professionals at the PHC level, due to their inadequate knowledge of the role of occupational therapy in PHC settings is a barrier identified by the occupational therapists. Many members of the MDT

misconstrue the role and identity of occupational therapists as that of physiotherapists. Previous studies found that occupational therapists reported that names by other health professionals for the various rehabilitation professions included physio- and speech therapy but not occupational therapy (Metzler, Hartmann and Lowenthal, 2012; Dizon, Grimmer, Machingaidze *et al.*, 2018; Naidoo, Van Wyk and Joubert, 2016; Naidoo, Van Wyk and Joubert, 2017a; Van Stormbroek and Buchanan, 2016).

The lack of a statistics data base and research evidence on the provision of occupational therapy services in PHC has also been identified as a major challenge for integrating occupational therapy services in the PHC reengineering streams. Participants felt that the poor statistics related to occupational therapy in PHC in the provincial and national data sets hampered the recognition of this profession with policy makers. Dizon, Grimmer, Machingaidze *et al.* (2016, 2018) confirmed that there is a lack of evidence for rehabilitation service outcomes to inform government decisions and disability services related policy at the PHC level of care. Other studies have also reported the dearth of strong research evidence for the integration of occupational therapy services in PHC (Letts, 2011; Metzler, Hartmann and Lowenthal, 2012; Myezwa and Van Niekerk, 2013; Pitout, 2013; McVeigh, MacLachlan, Gilmore *et al.*, 2016). With more PHC occupational therapists completing post graduate studies and engaging in PHC related research studies, this barrier of limited research evidence can be adequately addressed.

Although the community service program has been identified as an auspicious avenue to integrate occupational therapy services in PHC, the program does not always ensure continuity of occupational therapy services in terms of placement. In instances where the community service occupational therapist was the sole practitioner, the time lapse from the departure of the community service occupational therapist to the arrival of another community service occupational therapist usually leads to the reversal of whatever programs that may have been earlier instituted by the occupational therapist at such community. Not all community service occupational therapist will ensure continuity of the programs in PHC due to lack of awareness of the clinical practice guidelines for use at this setting, lack of adequate supervision, and their novice status. Furthermore, community service has been criticised for lacking an efficient retention

strategy with occupational therapists moving away as soon as their community service year is complete (Van Stormbroek and Buchanan, 2016) .

Finally, this study found that occupational therapists encounter challenges in the provision of rehabilitation services. Similarly, a less commonly expressed view by the participants was that PWDs face rehabilitation challenges especially in terms of accessing occupational therapy services due to transportation challenges and a shortage of available services. This finding was supported by Burger and Christian (2018) who studied access to health care in post-apartheid South Africa including availability, affordability, and acceptability. It is also consistent with the lack of accessibility of essential services for PWDs as reported by Hanass-Hancock, Nene, Deghaye, *et al.* (2017).

Although a less commonly expressed perception, it was noted by the participants that occupational therapy challenges vary from one province to the other. It was reported that although the challenges exist nationwide, occupational therapy services are more recognized in the Gauteng and Western Cape provinces of the country. This may be because occupational therapists are more concentrated in the urban areas which was earlier noted by the demographic distribution of occupational therapists in this and other studies (Van Stormbroek and Buchanan, 2016; Monareng, Franzsen and Van Biljon, 2018). Results from Fusheini and Eyles (2016) on universal health coverage in South Africa through a district health system approach suggests that in implementing the NHI, a positive bias towards the underserved districts should be adopted in order to achieve equity as the health disparity for these less-resourced districts is high.

5.6 THE PERCEIVED FACILITATORS TO THE INTEGRATION OF OCCUPATIONAL THERAPY SERVICES IN THE PHC REENGINEERING STREAMS OF THE NHI

The perceived facilitators to current practice and for integration of occupational therapy services in the PHC reengineering streams of the NHI from the perspective of the occupational therapists was established in the questions answered on the open-ended section of the survey and the in-depth interview responses.

The findings from the current study indicate that there are very few facilitators which are currently supporting the integration of occupational therapy services in the PHC reengineering streams. One major support structure identified by most of the participants is compulsory community service. This program mandatorily posts new graduates from all the health professions across South Africa including rural and urban areas. Community service has been identified to increase the availability of occupational therapy services at PHC level especially for the underserved populations including PWDs. This facilitator is in tandem with findings from van Stormbroek and Buchanan (2016) who indicated a high percentage of community service occupational therapists have exposure to practice at the PHC level, even those placed in urban areas. They reported that of the 73% of community service occupational therapists allocated to hospitals many may have provided outreach services to lower level facilities or communities, although it would appear mental health services are under-serviced as are rural areas (Van Stormbroek and Buchanan, 2016).

The commitment and resourcefulness of occupational therapists themselves is seen as a major facilitator for integration into PHC reengineering. Participants indicated their preparedness to judiciously utilise the opportunity of being an important role player in the context of the PHC reengineering streams. The participants said that occupational therapists are well trained to practice within the PHC setting and deliver quality service despite the limited resources. This finding contrasts what has been reported earlier in literature where knowledge deficits, the unwillingness of occupational therapists to work in PHC exclusively and the provision of inappropriate services at the community and home based context were identified as barriers to integrating occupational therapy services in PHC (Burch and Reid, 2011; Van Stormbroek, 2015; Naidoo, Van Wyk and Waggie, 2017b; Ned, Cloete and Mji, 2017; Halle *et al.*, 2018).

The participants mentioned that evidence-based research output on occupational therapy in PHC would also increase awareness of the role and effectiveness of occupational therapy in the PHC setting. Word of mouth, effective services providing care for PWDs and their families, and awareness programs will also facilitate the integration of occupational therapy services in PHC. The place of awareness building

and research evidence in integrating occupational therapy service in PHC has been researched and confirmed previously (Koverman, Royeen and Stoykov, 2017; Leland, Fogelberg, Halle *et al.*, 2017).

Finally, stake holders including DPOs, special needs teachers, community healthcare workers, RuReSA, Rural Doctors SA, Rural Health Advocacy Group, global partners, NGOs, OTASA, individual occupational therapists, PWD, their families, community members, managers, hospitals, and government can be facilitators for the integration of occupational therapy services in PHC. However, this takes positive relationships between occupational therapists and members of the multidisciplinary team even though it is not explicitly captured by policy at this time. Once the other members of the PHC reengineering streams see the effectiveness of services rendered by occupational therapists in this setting, they may be willing to support and accommodate the occupational therapist in the teams. Likewise, establishing a mutual support between the occupational therapists and the health care facility management has also been shown to facilitate integration of occupational therapy services in PHC (Restall, Leclair and Fricke, 2005; Donnelly, Brenchley, Crawford *et al.*, 2013, 2016; Dahl-Popolizio, Muir, Davis, *et al.*, 2017).

5.7 STRENGTHS AND LIMITATIONS OF THE STUDY

The methodology employed in this study using both the quantitative and qualitative methods of inquiry is one of the strengths of the study as they complement each other to give a comprehensive investigation of the construct under study. Another strength of this study is the rigor which was demonstrated in carrying out the study especially with the measures employed to ensure trustworthiness of the qualitative findings and triangulation of the data from both phases of the study. The generalization of the study findings is possible as the findings are representative of the occupational therapists practicing nationwide at the PHC level in South Africa.

The limitations of this study include the restriction of study participants to occupational therapists who practice in PHC. Expanding the participants to include other role players in PHC such as members of the existing PHC reengineering streams, district health managers, policy makers, PWDs and community members would have ensured a more

holistic investigation. However, this was beyond the scope of this study given the time constraints associated with completing a dissertation. Furthermore, there is a possibility that some of the participants to the survey practice in other settings apart from PHC because one of the databases utilized for the survey distribution (OTASA) was not exclusive to occupational therapists practicing in PHC. Although the survey asked for only occupational therapists who have experience with PHC to comment, which in the view of the author was able to address such possible limitation.

Furthermore, the use of an electronic survey to gather data in the first phase of this study may have limited the participation of occupational therapists in PHC who may not readily have access to the internet, particularly in the more remote areas of South Africa. Also, although the survey was nation-wide, the survey did not capture the specific province of each respondent which may reduce the generalization of the findings. Finally, although the exact number of occupational therapists practicing at the PHC level in South Africa is unknown, the fact that only 72 survey responses (completely filled and partially filled responses) were received despite the assumption that 200 occupational therapists are practicing at the PHC level is a limitation of the study.

CHAPTER 6: CONCLUSION

6.1 CONCLUSION

The purpose of this study was to explore how the current occupational therapy services are provided by occupational therapists in PHC and their perceptions on the integration of occupational therapy services within the PHC reengineering streams of the NHI in South Africa. There is growing research on the integration of occupational therapy services in PHC in the developed countries (Donnelly, Brenchley, Crawford *et al.*, 2013, Donnelly, Leclair, Wener 2016; Roberts, Farmer, Lamb *et al.*, 2014), but little evidence is available in the South African context. This study therefore sought to fill this gap in knowledge especially with the implementation of policies on PHC reengineering in South Africa. This study serves to provide evidence to help position occupational therapy and by extension other rehabilitation professions in the PHC reengineering streams of the NHI. The integration of occupational therapy services in the PHC reengineering streams of the NHI is essential to improve the health outcomes of the population and reduce the overall healthcare cost and growing burden of non-communicable diseases in the country.

A nationwide cross-sectional survey was utilized in the first phase of the study to explore how the current occupational therapy services are provided across the country at the PHC level. However, the generalization of the survey findings might be limited as the geographical data to show the provinces of the participants was not captured. The findings from the survey informed the subsequent phase which explored participant occupational therapists' perceptions on the integration of occupational therapy services in the PHC reengineering streams of the NHI through in-depth interviews. The demographics of the study participants were representative of the occupational therapists in South Africa (Pitout, 2013; Van Stormbroek, 2015). Findings from this study showed an increasing alignment of occupational therapy services in PHC with the CBR approach, biopsychosocial model and the ICF.

However, the use of the medical model remains high among occupational therapists in PHC as majority of them practice in district hospitals with limited PHC exposure. The

district hospital based multidisciplinary teams in which the participants practice use approaches currently biased towards the medical model. Majority of the multidisciplinary team members at the PHC level are other rehabilitation professionals and nurses. Client self-management and case-management are the main intervention strategies currently used by the occupational therapists in PHC. The use of intervention strategies such as shared care, outreach, and home visits were reported as limited which may be because of the lack of availability of resources necessary to carry out these interventions.

The occupational therapists strongly emphasised the perception of their relevance in the PHC reengineering streams because occupational therapy is versatile, it is essential to improve health outcomes especially for PWDs, and it connects with and involves the community. This finding reinforces the existing literature on the importance of occupational therapy as a major role player in PHC (Metzler, Hartmann and Lowenthal, 2012; Muir, 2012; CAOT, 2013; AOTA, 2014). This study showed that occupational therapists in PHC are familiar with the integrated school health program reengineering stream despite having poor knowledge about the other three PHC reengineering streams. This is analogous to the South African literature which indicates a general lack of policy awareness among occupational therapists.

The current actions being engaged in by occupational therapists at the PHC level to integrate their services in the PHC reengineering streams include: involvement in school health service provision in line with the Policy on Screening, Identification, Assessment and Support (SIAS) 2014; home visits and health centre visits; awareness and enlightenment of other members of the MDT, managers, government, and community members about occupational therapy. They are also involved in the dissemination of occupational therapy intervention, needs and statistics in PHC to managers and other role players at meetings and through documentation. The allied health tick register which was developed by one of the occupational therapists who participated in this study has the potential of answering the call for a PHC specific measure of service outputs to show the visibility and relevance of occupational therapy services in PHC. This register is the type of initiative that will ultimately support the integration of occupational therapy services with the existing PHC services.

The participants in the current study further recommended the following as future requirements for integrating occupational therapy services in the PHC reengineering streams. They felt occupational therapy should be more dynamic in lobbying for the established National Department of Health programs and recognition of the profession at the PHC level. Associations such as OTASA and RuReSA should establish a strong link with policymakers, occupational therapists should strive to be among the high-level healthcare decision making structure. There should be availability of statistics on occupational therapy service provision in PHC to enhance the evidence available to occupational therapy to motivate their place in the PHC reengineering streams, making sure that there is occupational service continuity in PHC wherever they currently exist which will enhance carryover for subsequent occupational therapists going to practice at such settings. More so, continuous awareness, outreaches and health promotion activities should be done.

The participants also enumerated the challenges and support structures for the integration of occupational therapy services in the PHC reengineering streams. The few facilitators which currently exist includes the community service program for recent graduates of health professions in South Africa, which increasingly make available occupational therapy services to underserved populations. The commitment and resourcefulness of occupational therapists themselves to provide quality service despite poor support in terms of policy and resources was also seen as a facilitator as well as the knowledge of occupational therapy roles in the PHC setting by occupational therapists and other stakeholders such as nurses, doctors, managers, policy makers where occupational therapy services exist. In these areas, there is increased awareness of what occupational therapy is and what occupational therapists do at the PHC setting through evidence-based research output on PHC occupational therapy, word of mouth, awareness programs. This support is facilitated by, continued occupational therapy engagement with stakeholders and a cordial relationship between the occupational therapists and the MDT, and establishing mutual support between the occupational therapists and the management structures.

Finally, the barriers to integration of occupational therapy into the NHI PHC reengineering streams enumerated by the occupational therapists include: lack of

policy support for occupational therapy services in PHC especially with policy implementation as well as a lack of financial, space, and transportation resources. There is also a shortage of occupational therapists employed at PHC leading to work overload and lack of recognition. There is a lack of respect for occupational therapy by other health professionals at the PHC level, due to their inadequate knowledge of the occupational therapist's role in PHC settings.

A dearth of clinical practice guidelines, research evidence on occupational therapy services provided in PHC (Pitout, 2013; Dizon, Grimmer, Machingaidze *et al.*, 2018), and ineffective management of services provided by PHC occupational therapists (Misbach, 2004; Dayal, 2010; Moosa, Derese and Peersman, 2017) leading to poor statistics in the provincial and national identifier data sets were also seen as barriers. Although community service has provided more access to occupational therapy services, it lacks an effective retention strategy (Van Stormbroek and Buchanan, 2016). People with disabilities also face rehabilitation challenges which affect service delivery by occupational therapists. These challenges include accessing occupational therapy services and transportation challenges. The challenges differ from one province to the other as it was reported that although the challenges exist nationwide, occupational therapy services are more organized and exist in the Gauteng and Northern Cape provinces of the country.

6.2 RECOMMENDATIONS

Findings from this study expose areas requiring further investigation. It also provides avenue for drawing recommendations relating to occupational therapy practice in PHC and policy.

6.2.1 Further Studies

- The effectiveness of the allied health tick register as a PHC specific measure of service outputs should be explored.
- Future research should focus on improving the current dearth of clinical practice guidelines and research evidence on occupational therapy at PHC level in South Africa.

- Further nationwide studies should be conducted on the integration of occupational therapy services in PHC having all stakeholders including occupational therapists, other members of the existing PHC reengineering streams, managers, PWDs, community stakeholders, and policy makers. This will give rise to more comprehensive evidence from the perspective of all involved. It may also strengthen the existing evidence on the call for integrating occupational therapy services in the PHC reengineering streams.
- The integration of interprofessional practice and care as part of the education system should also be researched.

6.2.2 Recommendations for Policy

- Policy makers should have a positive disposition to rehabilitation and disability issues. The lives saved through the medical services without optimal quality of life achievable through occupational therapy will eventually lead to financial burden on the state and reduced life span among the population.
- Adequate engagement of all the pertinent health professions during policy drafting and implementation is required of policy makers.
- Occupational therapy is an essential component of PHC as indicated by local and international literature. Hence, integration of occupational therapy services in the PHC reengineering streams of the NHI will be auspicious for all by reducing cost of healthcare and improving quality of life of the South African population.
- Occupational therapists through associations such as OTASA and RuReSA should strive to establish a strong presence within the health policy making and decision-making sphere.

6.2.3 Recommendations for Practice

- Occupational therapists should continue to utilise the CBR, the ICF, and the social model to drive therapy at a PHC level.
- There is a need for updated clinical practice guidelines for occupational therapy practice in PHC. This will ensure uniformity in service delivery, role clarification

and assist in aligning occupational therapy services with the existing PHC services.

- Occupational therapists in PHC should strive to update their knowledge about policies that are relevant to their practice such as the FSDRSA (2015-2020), the NHI, among others to better provide services that are appropriately aligned to the existing programs. Hence, occupational therapy may lose relevance soon.
- Occupational therapists should be more dynamic to align their practice with the National Department of Health programs in PHC.
- Continuous awareness, outreaches and health promotion activities should be done by occupational therapists in PHC to improve the recognition of occupational therapy within the community and provide primary prevention avenue for conditions before they develop or aggravate.

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APPENDIX A: INTEGRATION OF OCCUPATIONAL THERAPY SERVICES AT PRIMARY HEALTHCARE LEVEL IN SOUTH AFRICA SURVEY

DEMOGRAPHICS

1. What best describes your gender?

(a) Female

(b) Male

(c) Prefer not to say

(d) Prefer to self-describe

2. What is your age (in years)?

3. My employment is:

(a) Permanent Salary

(b) Contract/Locum

(c) Demonstration/Research project

(d) Fee-for-service

(e) Volunteer

(f) Other, please specify

4. How long have you worked as an occupational therapist (in years)?

(a) 1-5 years

(b) 6-10 years

(c) 11-15 years

(d) 16-20 years

(e) 21-25 years

(f) 26-30 years

(g) 31-35 years

5. How long have you worked in Primary Healthcare (PHC) (in years)?

(a) 1-5 years

- (b) 6-10 years
- (c) 11-15 years
- (d) 16-20 years
- (e) 21-25 years
- (f) 26-30 years
- (g) 31-35 years

6. Please identify any further education or training you have completed after your entry to practice degree:

- (a) PhD
- (b) OTD (Doctor of Occupational Therapy)
- (c) Diploma
- (d) Other, please specify
- (e) None

CURRENT ROLE AND PRACTICE SETTING

7. I am primarily a/an:

- (a) Direct Care provider
- (b) Researcher
- (c) Educator
- (d) Policy maker
- (e) Administrator Manager
- (f) Other, please specify

8. I work in a:

- Rural setting (Town/village (5000-30 000))
- Small urban location (30 001-80 000)
- Large urban location (80 001- 150 000)
- Very large urban centre (150 001 +)

9. I currently work in a: (please identify all areas if more than one)

- (a) Community Health Centre (CHC)
- (b) Nursing/residential facility
- (c) Private Practice
- (d) NGO/NPO
- (e) Clinic
- (f) Community organization
- (g) Hospital
- (h) Other (Please Specify)

SERVICE DELIVERY MODEL

10. In your work as an OT in PHC, rate the following from 1 to 5 (1 as least used and 5 as mostly used) according to the service delivery model you use?

- (a) Medical Model (Institution Based)
- (b) Social Model
- (c) International Classification of Functioning, Disability, and Health (ICF)
- (d) Community Based Rehabilitation (CBR)
- (e) Moral Model

11. In your work as an OT in PHC, rate the following from 1 to 7 (1 as least used and 7 as mostly used) according to your use of them in your interventions?

- (a) The clinic
- (b) The client's home
- (c) The community
- (d) Outreach to surrounding rural or remote communities
- (e) Shared care
- (f) Case management
- (g) Self-management

MULTIDISCIPLINARY TEAM WORK

12. Do you work within a multi-disciplinary team? Yes No

13. Please identify the disciplines on your team (Please identify all that apply)

- (a) Audiologist
- (b) Chiropracist
- (c) Clinical Associate
- (d) Community Developer
- (e) Diabetes Educator
- (f) Dietitian
- (g) Doctor
- (h) Kinesiologist
- (i) Nurse
- (j) Nurse Practitioner
- (k) Optometrist
- (l) Palliative Care Nurse
- (m) Pharmacist
- (n) Physiotherapist
- (o) Podiatrist
- (p) Psychiatrist
- (q) Psychologist
- (r) Social Worker
- (s) Speech-Language Pathologist
- (t) Other, please specify

14. To what extent do you collaborate with the multi-disciplinary team? 10 9 8 7 6 5 4
3 2 1 0

(Note: 10 equals very good collaboration with multi-disciplinary team and 0 equals lack of collaboration with multi-disciplinary team)

15. What makes it easy or supports your collaboration (working in close proximity

etc.)? _____

16. What do you feel are the challenges to collaboration/working with multi-disciplinary team? _____

17. To what extent does your team have shared patient treatment / intervention goals? 10 9 8 7 6 5 4 3 2 1 0 (Note: 10 equals very good sharing of patient goals among multi-disciplinary team and 0 equals lack of sharing of patient goals among multi-disciplinary)

PHC REENGINEERING

18. Which of the four PHC reengineering streams are you aware of? (Please select all applicable areas, if more than one)

Clinical specialist support teams

School health services

Municipal ward-based PHC outreach teams

Contract-based private health practitioner at non-specialist level

None

Other, please specify

19. How would you rate your knowledge of the PHC reengineering proposals as stated in the NHI? 10 9 8 7 6 5 4 3 2 1 0 (Note: 10 equals very good knowledge of PHC reengineering proposals as stated in the NHI and 0 equals poor knowledge of PHC reengineering proposals as stated in the NHI)

20. What would you say has influenced this knowledge/what led you to being aware? _____

PERCEPTION ON INTEGRATION OF OT SERVICES

21. What is your thought on the integration of occupational therapy services in the PHC reengineering streams of the National Health Insurance for persons with disabilities? _____

BARRIERS TO INTEGRATION OF OT SERVICES

22. What in your opinion are the biggest barriers in integrating occupational therapy services in Primary Healthcare reengineering streams of the National Health Insurance? _____

FACILITATORSTO INTEGRATION OF OT SERVICES

23. What (structures/procedures) or who (role players/stakeholders) are your biggest supports in integrating occupational therapy services in Primary Healthcare reengineering streams of the National Health Insurance? _____

24. What strategies have you used to facilitate the integration of occupational therapy services in the Primary Healthcare reengineering streams of the National Health Insurance? (For example: in-services/seminars to educate clinicians about OT services, use of common case file for report writing, informal conversations)

APPENDIX B: ALLIED HEALTH TICK REGISTER

FREE STATE DEPARTMENT OF HEALTH



health

Department of
Health
FREE STATE PROVINCE

XHARIEP

ALLIED HEALTH TICK REGISTER

SUB-DISTRICT:
FACILITY NAME:
START DATE:
END DATE:

FACILITY NAME: MONTH:
YEAR: SERVICE:

APPENDIX C: CONSENT FORM FOR AUDIO RECORDING OF INTERVIEW

PARTICIPANT'S CODE _____

INTEGRATION OF OCCUPATIONAL THERAPY SERVICES AT PRIMARY HEALTHCARE LEVEL IN SOUTH AFRICA

I hereby consent to audio recording of the interview

I understand that:

- The recording will be stored in a secure location (a locked cupboard or password protected computer) with restricted access to the researcher and the research supervisor.
- The recording will be transcribed and any information that could identify me will be removed,
- The recordings will be erased within five (5) years of the publication of the research findings.
- Anyone wishing to access this information in the future will first have to obtain the approval of the Human Research Ethics Committee (Medical) of the University of the Witwatersrand, Johannesburg
- Direct quotes from my interview, without any information that could identify me, may be cited in the research report or other write-ups of research.

Name of Participant: _____

Date: _____

Place: _____

Signature or mark _____

APPENDIX D: CONTENT VALIDITY INDEX TEMPLATE AND SURVEY ADJUSTMENTS

DEMOGRAPHICS

ITEM 1 (100%)		Relevance	clarity	simplicity	Ambiguity
Gender:					
Female, male, don't know	Y N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
ITEM 2 (100%)		Relevance	clarity	simplicity	Ambiguity
My employment is:					
Permanent salary, contract/locum, Demonstration/research project, Fee-for-service, volunteer, other	Y N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
ITEM 3 (100%)		Relevance	clarity	simplicity	Ambiguity
How long have you worked as an Occupational therapist (in years)?	Y N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
ITEM 4 (67%)		Relevance	clarity	simplicity	Ambiguity
How long have you worked in your? Current position (in years)?	Y N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
ITEM 5 (100%)		Relevance	clarity	simplicity	Ambiguity

How long have you worked in Primary Healthcare (PHC) (in years)?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
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ITEM 6 (100%)		Relevance	clarity	simplicity	Ambiguity
What is your age (in years)?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

ITEM 7 (33%)		Relevance	clarity	simplicity	Ambiguity
Please indicate your entry to practice Degree:					
Bachelor, Masters, Other	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
ITEM 8 (100%)		Relevance	clarity	simplicity	Ambiguity
Please identify any further education or training you have completed after your entry to practice degree:					
PhD, OTD, Diploma, Other, None	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

CURRENT ROLE AND PRACTICE SETTING

ITEM 9 (100%)		Relevance	clarity	simplicity	Ambiguity
---------------	--	-----------	---------	------------	-----------

I am primarily a/an:					
Direct care provider, researcher, Educator, policy maker, Administrator/Manager, Other	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

ITEM 10 (100%)		Relevance	clarity	simplicity	Ambiguity
I work in a:					
Rural setting, Small urban location, Large urban location, Very large urban centre	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

ITEM 11 (100%)		Relevance	clarity	simplicity	Ambiguity
I currently work in:					
Community Health Centre, Nursing/Residential facility Private practice, NGO/NPO, Clinic, Community organization, Other	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

ITEM 12 (67%)		Relevance	clarity	simplicity	Ambiguity
What is the focus area of your work in Primary Healthcare?					
Physical health, Cognitive, Affective, Combination, Other	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

NATURE OF SERVICE PROVIDED

ITEM 13 (67%)	Relevance	clarity	simplicity	Ambiguity
Please identify your area(s) of practice (check all that apply)				

<p>Community development, Health promotion/prevention, Case management, Caregiver support/education, Equipment prescription, Driver screening, Assistive device consultation, Interventions to support life skills maintenance, Palliative care in the home, support of comm. Integration, wheelchair/mobility assessment, Home safety assessment, Cognitive/perceptual screening, Pain management, Mental Health support and counselling/psychotherapy, Consultation on childhood disorders, Ergonomic assessment, Community resource linkage, Counselling regarding ADL, Screening of children with learning problems, Fall prevention, School health liaison, Splinting, Self-management monitoring and support, Functional assessment for RTW, Fitness and recreation counselling and facilitation, Health care team facilitation, Assessment for support supported living, Chronic disease management, Assessment for guardianship, Developmental screening for infants and children, Referrals for educational assessment, Assessment for accommodations requests at school or work, Education to other team health professionals, Community development strategies on determinants of health, other</p>	<p>Y N</p>	<p>1 2 3 4</p>	<p>1 2 3 4</p>	<p>1 2 3 4</p>	<p>1 2 3 4</p>
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SERVICE USERS

ITEM 14(67%)		Relevance	clarity	simplicity	Ambiguity
<p>On average, how many people in your case load per month are older adults (ages 65+)?</p>	<p>Y N</p>	<p>1 2 3 4</p>	<p>1 2 3 4</p>	<p>1 2 3 4</p>	<p>1 2 3 4</p>

ITEM 15(67%)		Relevance	clarity	simplicity	Ambiguity
On average, how many people in your case load per month are adults (ages 18-64)?	Y N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

ITEM 16(67%)		Relevance	clarity	simplicity	Ambiguity
On average, how many people in your case load per month are young adults (ages 12-17)?	Y N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

ITEM 17(67%)		Relevance	clarity	simplicity	Ambiguity
On average, how many people in your case load per month are children (Infant – 11years)?	Y N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

ITEM 18 (33%)		Relevance	clarity	simplicity	Ambiguity
Please describe client populations that you will like to work with in the future In your practice setting	Y N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

SERVICE DELIVERY MODEL

ITEM 19 (100%)		Relevance	clarity	simplicity	Ambiguity
In your work as an OT in PHC, rate the following from 1 to 4 (1 as least used and 4 as mostly used) according to your use of them in your interventions?					
Individual intervention, Family/Caregiver intervention, Community/Group Intervention Consultative information	Y N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

ITEM 20 (100%)		Relevance	clarity	simplicity	Ambiguity
In your work as an OT in PHC, rate the following from 1 to 4 (1 as least used and 4 as mostly used) according to the service delivery model you use?					
Clinic, Client's home, Community, Outreach to surrounding rural or Remote communities	Y N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

MULTIDISCIPLINARY TEAM WORK

ITEM 21 (100%)		Relevance	clarity	simplicity	Ambiguity
Do you work on a multi-disciplinary team?					
Yes					
No	Y N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

ITEM 22 (100%)		Relevance	clarity	simplicity	Ambiguity
Please identify the disciplines on your team (Please identify all that apply)					

Pharmacist, Physiotherapist, Dietitian, Social Worker, Community developer, Clinical associate, Podiatrist, Speech-Language Pathologist, Nurse practitioner, Nurse, Psychologist, Psychiatrist, Chiropodist, Audiologist, Palliative Care Nurse, Diabetes Educator, Kinesiologist, Other	Y N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
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ITEM 23 (100%)		Relevance	clarity	simplicity	Ambiguity
To what extent do you collaborate with the multi-disciplinary team? 10 9 8 7 6 5 4 3 2 1 0					
Note: 10 equals very good collaboration with multi-disciplinary team and 0 equals lack of collaboration with multi-disciplinary team)	Y N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

ITEM 24 (100%)		Relevance	clarity	simplicity	Ambiguity
What supports your collaboration e.g. (working in close proximity etc.)?					
	Y N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

ITEM 25 (100%)		Relevance	clarity	simplicity	Ambiguity
What do you feel are the challenges to collaboration?					
	Y N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

ITEM 26 (100%)		Relevance	clarity	simplicity	Ambiguity
To what extent does your team have shared patient goals? 10 9 8 7 6 5 4 3 2 1					
Note: 10 equals very good sharing of patient goals among multi-disciplinary team and 0 equals lack of sharing of patient goals among multi-disciplinary	Y N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

PHC REENGINEERING

ITEM 27 (100%)		Relevance	clarity	simplicity	Ambiguity
Which of the four PHC reengineering streams are you aware of? (Please identify all areas if more than one)					
Clinical specialist support teams, School health services, Municipal ward-based PHC outreach teams, Contract-based private health practitioner at non-specialist level, None, Other	Y N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

ITEM 28 (100%)		Relevance	clarity	simplicity	Ambiguity
How would you rate your knowledge of the PHC reengineering proposals as stated in the NHI? 10 9 8 7 6 5 4 3 2 1 0					
(Note: 10 equals very good knowledge of PHC reengineering proposals as stated in the NHI and 0 equals poor knowledge of PHC reengineering proposals as stated in the NHI)	Y N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

ITEM 29 (100%)		Relevance	clarity	simplicity	Ambiguity
What would you say has influenced this knowledge?	Y N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

PERCEPTION ON INTEGRATION OF OT SERVICES

ITEM 30 (100%)		Relevance	clarity	simplicity	Ambiguity
What is your thought on the integration of occupational therapy services in the PHC reengineering streams of the National Health Insurance for persons with disabilities?	Y N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

BARRIERS TO INTEGRATION OF OT SERVICES

ITEM 31 (100%)		Relevance	clarity	simplicity	Ambiguity
What in your opinion are the biggest barriers in integrating occupational therapy services in Primary Healthcare reengineering streams of the National Health Insurance?	Y N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

FACILITATORSTO INTEGRATION OF OT SERVICES

ITEM 32 (100%)		Relevance	clarity	simplicity	Ambiguity
What or who are your biggest supports in integrating occupational therapy services in Primary Healthcare reengineering	Y N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

streams of the National Health Insurance?					
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ITEM 33 (100%)		Relevance	clarity	simplicity	Ambiguity
What strategies have you used to facilitate the integration of occupational therapy services in the Primary Healthcare reengineering streams of the National Health Insurance? (For example: in services/seminars to educate clinicians about OT services, use of common case file for report writing, informal conversations)	Y N	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

ADJUSTMENT OF SURVEY ITEMS AS RECOMMENDED BY EXPERTS

N.B:

- Items highlighted in **yellow** (4, 7, 12 – 18) failed to achieve I-CVI of 1.0 each, hence they were deleted.
- Items highlighted in **grey** () were modified after recommendations from the experts

INTEGRATION OF OCCUPATIONAL THERAPY SERVICES AT PRIMARY HEALTHCARE LEVEL FOR PERSONS WITH DISABILITIES IN SOUTH AFRICA

DEMOGRAPHICS

1. I am

(a) Female

(b) Male

(c) Don't know

2. My employment is:

(a) Permanent Salary

(b) Contract/Locum

(c) Demonstration/Research project

(d) Fee-for-service

(e) Volunteer

(f) Other, please specify

3. How long have you worked as an occupational therapist (in years)?

4. How long have you worked in your current position (in years)?

5. How long have you worked in Primary Healthcare (PHC) (in years)?

6. What is your age (in years)?

7. Please indicate your entry to practice degree:

(a) Bachelor

(b) Masters

(c) Other, please specify

8. Please identify any further education or training you have completed after your entry to practice degree

(a) PhD

(b) OTD

(c) Diploma

(d) Other, please specify

(e) None

CURRENT ROLE AND PRACTICE SETTING

9. I am primarily a/an:

(a) Direct Care provider

(b) Researcher

(c) Educator

(d) Policy maker

(e) Administrator Manager

(f) Other, please specify

10. I work in a:

Rural setting (Town/village (5000-30 000))

Small urban location (30 001-80 000)

Large urban location (80 001- 150 000)

Very large urban centre (150 001 +)

11. I currently work in a: (please identify all areas if more than one)

(a) Community Health Center (CHC)

(b) Nursing/residential facility

(c) Private Practice

(d) NGO/NPO

(e) Clinic

(f) Community organization

(g) Other (Please Specify)

12. What is the focus area of your work in Primary Healthcare?

Physical health Cognitive Affective Combination Other, please specify

NATURE OF SERVICE PROVIDED

13. Please identify your area(s) of practice (check all that apply)

Community Development

Health Promotion/prevention

Case management

Caregiver support/education

Equipment Prescription

Driver Screening

Home Safety Assessment

Cognitive/Perceptual Screening

Pain management

Mental health support and counseling/psychotherapy

Consultation on childhood disorders

Ergonomic assessment – consultation to employers

Community resource linkage

Counseling regarding activities of daily living

Screening of children with learning problems

Falls prevention and other safety-related issues

Assistive device consultation

Interventions to support life skills maintenance

Palliative care in the home

Support/facilitation of community integration

- Wheelchair/mobility consultation/assessment
- Self-management monitoring and support
- Functional assessment for return to work
- Fitness and recreation counseling and facilitation
- Health care team facilitation
- Assessment for supported living and/or personal care
- Chronic disease management
- Assessment for guardianship/trusteeship
- Developmental screening for infants and children
- Referrals for educational assessment/school board requirements
- School health liaison
- Assessments for accommodations requests at school or work
- Splinting
- Education/consultation to other team health professionals
- Community development strategies on determinants of health
- Other, please specify

SERVISE USERS

- 14. On average, how many people in your case load per month are older adults (ages 65+)?
- 15. On average, how many people in your case load per month are adults (ages 18-64)?
- 16. On average, how many people in your case load per month young adults (ages 12-17)?
- 17. On average, how many people in your case load per month are children (Infant -11 years)?
- 18. Please describe client populations that you will like to work with in the future in your practice setting. _____

SERVICE DELIVERY MODEL

19. In your work as an OT in PHC, rate the following from 1 to 4 (1 as least used and 4 as mostly used) according to your use of them in your interventions?
- (a) Individual intervention
 - (b) Family/Caregiver intervention
 - (c) Community/ Group intervention
 - (d) Consultative intervention

20. In your work as an OT in PHC, rate the following from 1 to 4 (1 as least used and 4 as mostly used) according to the service delivery model you use?

- (a) The clinic
- (b) The client's home
- (c) The community
- (d) Outreach to surrounding rural or remote communities

MULTIDISCIPLINARY TEAM WORK

21. Do you work on a multi-disciplinary team? Yes No

22. Please identify the disciplines on your team (Please identify all that apply)

- (a) Pharmacist
- (b) Physiotherapist
- (c) Dietitian
- (d) Social Worker
- (e) Community Developer
- (f) Speech-Language Pathologist
- (g) Nurse Practitioner
- (h) Nurse
- (i) Psychologist
- (j) Psychiatrist
- (k) Chiropracist
- (l) Clinical Associate
- (m) Palliative Care Nurse
- (n) Diabetes Educator
- (o) Audiologist
- (p) Kinesiologist
- (q) Podiatrist
- (r) Other, please specify

23. To what extent do you collaborate with the multi-disciplinary team? 10 9 8 7 6 5 4 3 2 1 0

24. What supports your collaboration (working in close proximity etc.)? _____

25. What do you feel are the challenges to collaboration? _____

26. To what extent does your team have shared patient goals? 10 9 8 7 6 5 4 3 2 1 0

PHC REENGINEERING

27. Which of the four PHC reengineering streams are you aware of? (Please identify all areas if more than one)

- Clinical specialist support teams
- School health services
- Municipal ward-based PHC outreach teams
- Contract-based private health practitioner at non-specialist level
- None
- Other, please specify

28. How would you rate your knowledge of the PHC reengineering proposals as stated in the NHI?
10 9 8 7 6 5 4 3 2 1 0

29. What would you says has influenced this knowledge? _____

PERCEPTION ON INTEGRATION OF OT SERVICES

30. What is your thought on the integration of occupational therapy services in the PHC reengineering streams of the National Health Insurance for persons with disabilities?

BARRIERS TO INTEGRATION OF OT SERVICES

31. What in your opinion are the biggest barriers in integrating occupational therapy services in Primary Healthcare reengineering streams of the National Health Insurance? _____

FACILITATORSTO INTEGRATION OF OT SERVICES

32. What or who are your biggest supports in integrating occupational therapy services in Primary Healthcare reengineering streams of the National Health Insurance? _____

33. What strategies have you used to facilitate the integration of occupational therapy services in the Primary Healthcare reengineering streams of the National Health Insurance? (For example: in-services/seminars to educate clinicians about OT services, use of common case file for report writing, informal conversations) _____

APPENDIX E: CONTENT ANALYSIS

THEME: OT service integration in the PHCR streams will lead to improved healthcare		
CONDENSED MEANING UNITS	CODES	CATEGORIES
OT is vital in PHC as first line practitioner	OT is essential in PHC	OT is relevant to the PHCR streams
OT has a big service gap to fill in PHC	OT is essential in PHC	
data indicators were identified for each program, even when treatment couldn't be done due to distance, case management, screening and referral was done	OT is essential in PHC	
data indicators were identified for each program, even when treatment couldn't be done due to distance, case management, screening and referral was done	OT is essential in PHC	
OT is essential in PHC but lacks policy support	OT is essential in PHC	
OT should be integrated in the PHC reengineering streams	OT is essential in PHCR	
OT has a big role in PHC, capable of benefiting patients and overall healthcare system	OT is essential in PHC	
OT become part of the team to meet the important rehabilitation needs of patients	OT is essential in PHC	
OT has a big role in empowering communities to participate in desired occupation	OT is essential in PHC	
OT is very important role player especially with the high poverty and lack of occupation in SA	OT is essential in PHC	
OT must be involved in all stages of health planning	OT is essential in PHCR	
OT has a role to play in the 4 reengineering streams	OT is essential in PHCR	
OT should be involved in decision making at the 4 reengineering streams	OT is essential in PHCR	

people turn to addictive occupations due to lack of productive occupations	OT is essential in PHC	
OT is critical and not nice to have as it is currently being regarded	OT is essential in PHC	
OT is holistic in outlook	OT is essential in PHC	
it is crucial, and it is being missed	OT is essential in PHC	
with the high rate of patients defaulting even in secondary health care, OTs need to get more into the community, and it is currently lacking	OT is essential in PHC	
if OT is excluded from PHC, the relationship pertinent for change in health and progress will be lost	OT is essential in PHC	
OT should be in PHC	OT is essential in PHC	
biopsychosocial model used by OT makes them more appropriate for PHC than the doctors who use medical model	OT is essential in PHC	
OT is the main profession capable of making impact in PHC	OT is essential in PHC	
OT should be more involved in the reengineering streams than they currently are	OT is essential in PHC	
OT does case management and appropriate referral	OT is versatile	
OT assess situations very well	OT is versatile	
OT is involved in all human occupation	OT is versatile	
OT should be more involved in PHC planning because OT scope is diverse, can analyse activities to determine need	OT is versatile	
people ask for help, and OT is able to help	OT is versatile	
personal challenge to establish self not as an OT that just treats stroke or hand	OT is versatile	
OT wants to be involved in various conditions	OT is versatile	

OT is not only involved with children	OT is versatile	
OT can be involved across all life span	OT is versatile	
people turn to addictive occupations due to lack of productive occupations	Health outcomes for PWDs	
OT is involved in all human occupation	Health outcomes for PWDs	
OT become part of the team to meet the important rehabilitation needs of patients	Health outcomes for PWDs	
OT has a big role in empowering communities to participate in desired occupation	Health outcomes for PWDs	
OT is very important role player especially with the high poverty and lack of occupation in SA	Health outcomes for PWDs	
OT can analyse activities to determine needh	Health outcomes for PWDs	
OT should facilitate developmental milestone attainment	Health outcomes for PWDs	
OT role is to the individual and also the community	OT connects with the community	
awareness and relationship building with the community is necessary for their acceptance	OT connects with the community	
basic principle of PHC reengineering is to take OT services closer to the people	OT connects with the community	
patient education leads to secondary prevention	OT connects with the community	
once trained, CHC personnel helped with check-up and follow-up and trained community members facilitated daily home activities for patients	OT involves community	
the non-proactive OT got involved with community activities after data indicators were identified	OT connects with the community	
the visibility of service helped to maintain the community's trust	OT connects with the community	
community stake holders such as special needs teachers and personnel from other facilities are facilitators	OT connects with the community	

liaison with the community stakeholders helped facilitate some community projects	OT involves community	
once trained, CHC personnel helped with check-up and follow-up and trained community members facilitated daily home activities for patients	OT involves community	
the more OT helps people, the more awareness is created	OT connects with the community	
people referred their social network on seeing what OT was doing	OT connects with the community	
community talks to management on behalf of OT after being aware, and management is happy about it as it reflects well on them	OT connects with community	
OT can motivate people to come to clinic	OT connects with community	
people are likely to listen to the professionals who they have relationship with like OTs than to professionals who portray themselves as superior	OT connects with community	
OT can do a lot after building relationship with the community's population	OT connects with community	
OT connects with people to build relationships as a basis for treatment	OT connects with community	
setting goals as a community is essential	OT connects with community	
the population should be involved in goal setting	OT involves community	
we worked in line with SIAS policy in the schools to alleviate their barriers to learning	OT is involved in school	Current actions for OT integration in PHCR streams
case management was done for schools	OT is involved in school	
children with disabilities were helped to resume school	OT is involved in school	
OT conducted home visits to PWDs with CHCs	Home visit	

awareness and relationship building with the community is necessary for their acceptance	Awareness	
OT had to do lots of home visits without transport provision, which is part of logistical challenges faced	Home visits	
patient care and continuation of service improved after the nurses could relate their service with that of OT	OT continuity	
AHTL helped other OTs to present better data to management meeting and get more recognition	OT information dissemination	
after a year, district management approved the ATHL for use of all allied health professionals at all the clinics	OT information dissemination	
the AHTL to show visibility of OT services despite having outreach once a month was similar to the nurses' patients tick register	OT information dissemination	
captured data needs to be reported at management level	OT information dissemination	
OT service stats is being better reported at the clinic management level with positive effect	OT information dissemination	
the data shortage need was identified in FS at management level and it improved OT services	Statistics on PHC OT	
OT did home visits on foot sometimes	Home visit	
data indicators were identified for each program, even when treatment couldn't be done due to distance, case management, screening and referral was done	OT information dissemination	
service provided was recorded and helped to improve OT visibility	OT information dissemination	
previous OTs in PHC were not proactive due to lack of resources	OT continuity	
a com serv OT could choose to be proactive and deliver service in PHC despite not being captured by policy or just stay back doing nothing	OT continuity	
fortunately, data from the AHTL helped place another OT at the clinic to continue the visible service	OT continuity, Data on PHC OT	
OTs make services available in PHC through outreaches from the district hospitals	Outreach	

currently at ground level, communication of needs and activities go to the forums, managers then communicate the information to the provincial level	OT information dissemination	
communicate needs at meetings	OT information dissemination	
at the district level, input/feedback is given to the OT forum and MDT rehab forum	OT information dissemination	
OTs try to integrate their service by visiting various centres to provide service	Health centers visits	
district managers serve as link to higher levels	Managers link higher and ground levels	
OT was lucky to be employed where she did com serv	OT posts in PHC	
OT posts would have been unoccupied if not for luck	OT posts in PHC	
awareness takes time	Awareness	
OT is currently involved with children and school outreaches a lot	OT is involved in school	
after 6 months of consistent role clarification, things got better	Enlighten others about OT	
OT cleared the misconception people had about OT at management meetings	Enlighten others about OT	
therapist felt allied health professions refused to transform and be integrated in the new health system which prompted the therapists to push for alignment of OT services with established ones	Rehab not dynamic	Future actions for OT integration in PHCR streams
ground level is cut off from the policy makers,	Absent OT-Policy makers link	
OT will be at health care decision- making tables in the ideal future	Decision making OT involvement	
OT should sit at high level decision making meetings to enlighten government on the role of OT to improve the population's occupational functioning	Decision making OT involvement	
OT should be involved with decision making	Decision making OT involvement	

statistics help to ensure visibility of service and create job/post for allied health professionals	Statistics on PHC OT	
poor continuation of OT service in PHC	OT service continuity	
lack of treatment space and transport for home visits and outreaches are logistical barriers	Outreach	
the sad part is the possibility of lack of continuity of the established OT service	OT service continuity	
having continuity in OT presence	OT service continuity	
OT needs to show it has a visible footprint and accessible by becoming part of the structure, which is the big need currently	OT information dissemination	
OTs are not included into the PHC setup	OT posts in PHC	
have an OT at every clinic and see what impact will be made	OT posts in PHC	
decision and policy makers need to be enlightened about OT to facilitate integration	OT information dissemination	
monthly outreach is better than nothing	Outreach	
employing OT or com serv OT at in PHC is a facilitator	OT posts in PHC	
OT needs to be at every clinic to enable integration	OT posts in PHC	
community outreach to create awareness is important for integration	Awareness	
OT should be at primary and secondary level of healthcare	OT posts in PHC	
going into the community for awareness and health promotion should be done as against waiting in office	Awareness	
OT should be more population based for awareness and health promotion	Awareness	
going into the community for awareness and health promotion should be done as against waiting in office	Awareness	
home visit is ideal to integrate OT in PHC	Outreach	
a lot of OT screening is required for integration	Screening	
a lot of OT health promotion is required for integration	Health promotion	

population based screening should be focused on	Screening	
OT should be involved with awareness and health promotion	Awareness, health promotion	
OTs should be involved in health promotion and facilitating developmental milestone attainment	Health promotion	
OTs should be involved with rural outreach where they only know about doctors	Outreach	
THEME: Without OT being adequately supported in PHC, integration will not happen		
CONDENSED MEANING UNITS	CODES	CATEGORIES
where is funding going to come from	OT lacks financial resources	Multiple barriers to OT integration in PHCR streams exist
lack of visibility caused lack of funding	OT lacks financial resources	
there is lack of funding for intended OT programs	OT lacks financial resources	
lack of funding and resources due to limited knowledge of OT among people	OT lacks financial resources	
lack of funding is a barrier	OT lacks financial resources	
lack of financial resources	OT lacks financial resources	
lack of financial resources for posts – main barrier	OT lacks financial resources	
lack of finances for OT posts in PHC	OT lacks financial resources	
financial barrier	OT lacks financial resources	
direct me if my thought about reengineering streams is wrong	Unsure of PHCR	
not sure of NHI and Ideal clinic policy	Unsure of policy	

Integration is challenging when there is lack of policy structural support	OT lacks policy support	
OTs are not included in documents and policies	OT lacks policy support	
it is challenging for OTs to implement programs due to lack of policy support	OT lacks policy support	
lack of policy support is a big challenge	OT lacks policy support	
OT is not included in policy	OT lacks policy support	
OT is not stated in reengineering policy, it influences service delivery	OT lacks policy support	
due to lack of policy support	OT lacks policy support	
no changes in policy is noticed	OT lacks policy support	
exclusion from policy and official documents	OT lacks policy support	
due to lack of policy support	OT lacks policy support	
lack of OT research on benefit of OT	Research shortage on OT	
lack of resources is a barrier for integration	OT lacks resources	
OT had to do lots of home visits without transport provision, which is part of logistical challenges faced	OT lacks resources	
OT had limited resources in FS	OT lacks resources	
OT had limited resources in FS which affects service delivery	OT lacks resources	
the assistive devices are sent to the PHC facilities once in a year	OT lacks resources	
previous OTs in PHC were not proactive due to lack of resources	OT lacks resources	
structure and resource allocation depend on policy	OT lacks resources	

lack of human and non-human resources	OT lacks resources	
lack of portable devices and assistive devices	OT lacks resources	
portable equipment	OT lacks resources	
lack of resources	OT lacks resources	
lack of resources for OT	OT lacks resources	
limited resources for OT to empower the community	OT lacks resources	
lack of resources to treat patients	OT lacks resources	
lack of treatment space and transport for home visits and outreaches are logistical barriers	OTs lacks transportation resources	
transport is needed for outreach	OTs lack transportation resources	
there is work overload for the only one OT who is responsible for about 9 towns in FS especially when there is no assistance from other OTs or com serv OTs	OT lacks support	
not sure if it [the communication structure] is effective	OT lacks support	
there are a lot of barriers for integration	OT lacks support	
we currently don't have the capacity to deliver services due to the present barriers	OT lacks support	
OT is currently not in the right place in PHC	OT lacks support	
management fail to make good their promises to OT	OT lacks support	
OT is disappointed of having failed promises from management	OT lacks support	
OT is not supported with resources such as unequipped room	OT lacks support	
OT in PHC not supported enough	OT lack support	
lack of current facilitators	Few facilitators	
not sure about facilitators	Few facilitators	
non-OT friendly infrastructure, barrier	OT lacks support	
not enough facilitators at all	Few facilitators	

expensive cost of transportation for patients	PWDs lack transportation	
transportation challenges for accessing healthcare by patients	PWDs lack transportation	
despite rendering OT services in PHC clinics, patients still face challenges in accessing services	PWDs face rehab challenges	
patients encounter challenges in accessing rehabilitation services	PWDs face rehab challenges	
no office for OT at PHC, just a table in the corridor next to secretaries	OT lacks Rx space	
lack of clinic space to deliver OT services	OT lacks Rx space	
lack of treatment space and transport for home visits and outreaches are logistical barriers	OT lacks Rx space	
and clinic space are required to render OT services, absence of which is challenging	OT lacks Rx space	
lack of clinic space to deliver OT services	OT lacks Rx space	
treatment happens in unequipped room	OT lacks Rx space	
OT doesn't like treating in unequipped space, access to space and resources will improve service provision	OT lacks Rx space	
lack of data may restrict OT to hospital/secondary service only	Research shortage on OT	
OT posts in PHC aren't available in Gauteng	OT shortage in PHC	
OT posts in PHC are being frozen in FS, same as Gauteng	OT shortage in PHC	
having no OT posts available in PHC is a discouragement to the passionate post com serv OTs	OT shortage in PHC	
lack of OT post in PHC to carry over the com serv experience is a barrier to integration	OT shortage in PHC	
also, in Gauteng one therapist is in charge of a whole district, leading to work overload	OT shortage in PHC	
lack of OT posts in PHC has been a personal struggle for the post com serv OT	OT shortage in PHC	

usually there is just one OT for several clinics in a district	OT shortage in PHC	
even when OT offers to practice at PHC for free, the posts never become available despite several promises from NDoH	OT shortage in PHC	
there is work overload for the only one OT who is responsible for about 9 towns in FS especially when there is no assistance from other OTs or com serv OTs	OT shortage in PHC	
OT needs to show it has a visible footprint and accessible by becoming part of the structure, which is the big need currently	OT shortage in PHC	
another motivator of seeking OT post in PHC is to further the work on the AHTL at other PHC facilities	Research shortage on OT	
most OTs in Free State are situated at hospitals from where they do outreaches	OT shortage in PHC	
OT posts do not exist at PHC clinics	OT shortage in PHC	
no posts in PHC clinics at free state unlike some other provinces	OT shortage in PHC	
OTs not enough in PHC	OT shortage in PHC	
lack of human resources due to lack of posts	OT shortage in PHC	
lack of resources for posts	OT shortage in PHC	
currently no community buy-in for OT, OT should be in PHC	OT shortage in PHC	
lack of finances for OT posts in PHC	OT shortage in PHC	
role clarification was the ground work	Unclear OT role	
good communication among stakeholders is necessary to clarify role of OT	Unclear OT role	
OT role is not well articulated from top to bottom	Unclear OT role	
initial experience in PHC was negative	OT lacks recognition	

clinic staff treat OT like any other allied health profession they have been previously exposed to	Unclear OT role	
role clarification is needed by OT	Unclear OT role	
being visible as an allied health professional was important	OT lacks recognition	
after 6 months of consistent role clarification, things got better	Unclear OT role	
there was no structure and OT services wasn't aligned with the clinic's without the AHTL	OT is not integrated	
data on OT services is important to gain recognition and also to support PHC integration	OT lacks recognition	
OT is rarely known or visible regarding data and management level in Free State (FS)	OT lacks recognition	
OT was not properly recognized	OT lacks recognition	
OT is rarely known or visible regarding data and management level in Free State (FS)	Research shortage on OT	
lack of visibility caused lack of funding	Research shortage on OT	
therapist felt allied health professions refused to transform and be integrated in the new health system which prompted the therapists to push for alignment of OT services with established ones	OT is not integrated	
OT in PHC do not get recognized for service rendered to ensure patients get assistive devices	OT lacks recognition	
another OT at a 20-bedded PHC hospital refused to be involved in community service	Unclear OT role	
lack of defined role for OT in PHC especially on data for services rendered	Unclear OT role	
it doesn't speak well for an OT to not follow up on patients with chronic conditions such as stroke	Unclear OT role	

lack of knowledge about OT role in PHC may be responsible for the reduced posts for OT	Others lack OT knowledge	
OT is not integrated in PHC reengineering	OT is not integrated	
OT integration is not being done at her workplace currently	OT is not integrated	
thinks integration is important and needs attention but it is not implemented at her work place	OT is not integrated	
OTs really need to be recognized in PHC	OT lacks recognition	
OT lacks recognition, many districts don't know anything about rehabilitation	OT lacks recognition	
when policy makers acknowledge role of OT and rehabilitation, more will be achieved	OT lacks recognition	
OT is not well known to the communities	Others lack OT knowledge	
only patients with stroke and hand conditions are referred to OTs by doctors and nurses	Others lack OT knowledge	
referral is based on the MDT member's knowledge of OT, many of whom do not understand the role of OT	Others lack OT knowledge	
perception of OT not being necessary is wrong	Others lack OT knowledge	
people's perception and prejudice are a barrier	Others lack OT knowledge	
OT role is not well stated	Unclear OT role	
OT is not currently integrated	OT is not integrated	
OT is very overlooked	OT lacks respect	
people underestimate OT's knowledge of pathologies and empowerment with use of occupation	OT lacks respect	
other role players don't see OT as important in the health sector	OT lacks respect	
lack of knowledge about OT by government, patients, and everyone	Others lack OT knowledge	

lack of knowledge about OT by government, patients, and other MDT members	Others lack OT knowledge	
no sustainability in com serv	Com serv not sustained	
OT lacks respect	OT lacks respect	
OT lacks respect	OT lacks respect	
Unclear OT role	Unclear OT role	
Unclear OT role	Unclear OT role	
Others lack OT knowledge	Others lack OT knowledge	
Unclear OT role	Unclear OT role	
Others lack OT knowledge	Others lack OT knowledge	
Others lack OT knowledge	Others lack OT knowledge	
Policy makers lack OT knowledge	Others lack OT knowledge	
Others lack OT knowledge	Others lack OT knowledge	
OT lacks integration	OT is not integration	
OT lacks integration	OT is not integration	
OT lacks integration	OT is not integration	
OT lacks integration	OT is not integration	
OT is not integrated	OT is not integrated	
OTs in Gauteng don't face the same challenges as those in Free State	OT challenges vary in provinces	
OT has more recognition, structure, and more data support in Gauteng and Northern Cape	OT challenges vary in provinces	

PHC OT in Gauteng and Northern Cape is integrated, has more visibility and better continuation compared to FS	OT challenges vary in provinces	
OT in PHC differ greatly among the provinces	OT challenges vary in provinces	
only amount of issued wheelchairs, walking frames and hearing aids are the captured data in PIDS as the allied health service provision, which is very concerning	Poor Statistics on PHC OT	
OTist doesn't know how it goes in other provinces asides FS where the AHTL was aligned with the established NDoH health programs	OT challenges vary in provinces	
only amount of issued wheelchairs and hearing aids are the captured data in PIDS and NIDS, which is very concerning	Poor Statistics on PHC OT	
com serv is a facilitator	Com serv	Few facilitators exist for OT integration in PHCR streams
com serve is a big facilitator	Com serv	
com serv OT could be placed anywhere, mainly rural areas	Com serv	
com serve is a big facilitator	Com serv	
com serv is a very good idea	Com serv	
com serv is a current facilitator	Com serv	
after a year, district management approved the ATHL for use of all allied health professionals at all the clinics	OT-Management support	
OT's hard work and complaint to management about treatment space made things better	Good OT-Management relationship	
OT service stats is being better reported at the clinic management level with positive effect	OT-Management support	
more budget for needed resources has recently increased at ground level following needs communication to higher structures	OT-Management support	
long standing quarterly meetings between OTs and management	OT-Management support	

more budget for needed resources has recently increased	OT-Management support	
district management is a facilitator	OT-Management support	
having a district team that understands the role of OT, with an established line of communication, facilitates service delivery	OT-Management support	
if management reaches out to OT, it is a facilitator	OT-management support	
supporting management as OT, tend to improve the support gotten from management	OT-management support	
seeing OT as helping the system helps to keep OT included in discussions/system	OT-management support	
management showing interest in OT is a facilitator	OT-management support	
being involved in decision making meetings even those irrelevant to OT helps facilitation	Decision making OT involvement	
a com serv OT could choose to be proactive and deliver service in PHC despite not being captured by policy or just stay back doing nothing	OTs are committed	
OT linked in with already known dietician-led breastfeeding support program in the community	OTs are resourceful	
OT resourcefulness is needed to show visibility of service	OTs are resourceful	
what's the question again OTs resourcefulness is a facilitator	OTs are resourceful	
OT could deliver good service to identified patients despite limited resources	OTs are resourceful	
it was great getting to do OT in the community even with limited resources	OTs are committed	
some PHC OT are proactive	OTs are committed	
OT's resourcefulness is a facilitator	OTs are resourceful	
community service OT training at a program level is a facilitator	OT knowledge	

knowledge of several NDoH central health programs during com serv	OT knowledge	
other MDT members need to be aware of role of OT in community, school system and individual home therapy	Others OT knowledge	
team supported OT more after knowing the role of OT	Others OT knowledge	
increased referral after knowing the role of OT	Others OT knowledge	
CHC are supportive	CHC workers	
CHCs identify vulnerable population in the community and link them with health service	CHC workers	
the nurses could relate to the AHTL as it was similar to what they were used to	Others OT knowledge	
OT implemented an allied health tick list (AHTL) at her PHC clinic	allied health tick list (AHTL)	
AHTL bridged communication gap among the clinic's MDT members	Others OT knowledge	
even when OT offers to practice at PHC for free, the posts never become available despite several promises from NDoH	OTs are committed	
OT did case management without resources but her phone	OTs are resourceful	
OT did home visits on foot sometimes	OTs are committed	
clinic CHC personnel served as direct link into the community and are facilitators	CHC workers	
Patients' houses in the community are hard to locate, good connection with the clinic's CHC personnel is a facilitator	Good OT-MDT relationship	
once trained, CHC personnel helped with check-up and follow-up and trained community members facilitated daily home activities for patients	CHC workers	
once trained, CHC personnel helped with check-up and follow-up and trained community members facilitated daily home activities for patients	CHC workers	
other MDT members need to be aware of OT being part of the team	Good OT-MDT relationship	

OTs are resourceful and doing so much with the little resources currently available	OTs are resourceful	
OTs are committed and motivated about PHC, OTs will do much more if given the required support	OTs are committed	
OTs are very resourceful and innovative	OTs are resourceful	
quality trained OTs can deliver services at PHC clinics even with limited resources	OTs are resourceful	
OTs can deliver services at PHC clinics even with limited resources	OTs are resourceful	
doing study on PHC is good	Study on PHC OT	
explain implication of integrating OT services to the healthcare, such as cost effectiveness	Others OT knowledge	
explain potential benefit of OT to referred patients	Others OT knowledge	
once other MDT members understand the value of OT, integration of OT in PHC will be facilitated	Others OT knowledge	
perspective of other healthcare professionals could be a facilitator	Others OT knowledge	
perspective of MDT in the WBOT and DST on the value of OT could be a facilitator	Others OT knowledge	
once the WBOT and DST understand the role of OT, they accommodate and facilitate integration of OT services in PHC	Others OT knowledge	
open communication line and education of WBOT and DST is the first step	Others OT knowledge	
education and open communication line should start at the bottom levels, to the PHC healthcare staff	Others OT knowledge	
open communication line and education of community health workers in WBOT is needed, for them to know about the service and referral pathway	Others OT knowledge	
educate the DST on role of OT, kinds of patients OTs see in the community, ask for referral of such patient population	Others OT knowledge	
perspective of MDT in the WBOT and DST on the value of OT could be a facilitator	Others OT knowledge	

district teams can include you in the team despite not being listed in policy	Good OT-MDT relationship	
OTs are confident	OTs are confident	
mutual awareness between OT and people improve the likelihood to get support	Others OT knowledge	
word of mouth helped to create awareness	Word of mouth	
building a good relationship between OT and other role players will facilitate support	Good OT-MDT relationship	
continuous study makes me able to help people more	OT knowledge	
enlightening community members who approach the OT helps	Awareness	
distributing pamphlets about OT role and having people meet the OT for clarification helps	Awareness	
making awareness to management and community	Awareness	
encouraging people to approach the OT helped in case management	Awareness	
OT job advertisement by DoH is a facilitator	Awareness	
and awareness at a community is a facilitator even if its once in a month	Awareness	
getting other MDT members to understand role of OT is a future facilitator	Others OT knowledge	
allied health professionals should have the opportunity to educate the team and community about their roles	Others OT knowledge	
awareness should be made to both policy makers and the communities to understand importance of OT in PHC and community health	Awareness	
the university students were helpful during their PHC exposure course	University PHC program	
the university students were helpful as extra hands during their PHC exposure week	University PHC program	
having students aware of allied health role in PHC during undergraduate training is a facilitator	University PHC program	

the university PHC program is unique to FS

University PHC
program

APPENDIX F: ETHICAL CLEARANCE



R14/49 Mr A Jejelaye

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL) CLEARANCE CERTIFICATE NO. M180819

NAME: Mr A Jejelaye
(Principal Investigator)
DEPARTMENT: School of Therapeutic Sciences
Department of Occupational Therapy
Medical School
University

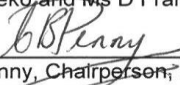
PROJECT TITLE: Integration of occupational therapy services at
primary healthcare level for persons with disabilities in
South Africa

DATE CONSIDERED: 31/08/2018

DECISION: Approved unconditionally

CONDITIONS:

SUPERVISOR: Mr L Maseko and Ms D Franzsen

APPROVED BY: 
Dr CB Penny, Chairperson, HREC (Medical)

DATE OF APPROVAL: 29/10/2018

This clearance certificate is valid for 5 years from date of approval. Extension may be applied for.

DECLARATION OF INVESTIGATORS

To be completed in duplicate and **ONE COPY** returned to the Research Office Secretary on 3rd floor, Phillip V Tobias Building, Parktown, University of the Witwatersrand, Johannesburg.
I/We fully understand the conditions under which I am/we are authorised to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions. Should any departure be contemplated from the research protocol as approved, I/we undertake to resubmit to the Committee. **I agree to submit a yearly progress report.** When a funder requires annual re-certification, the application date will be one year after the date of the meeting when the study was initially reviewed. In this case, the study was initially reviewed in **August** and will therefore reports and re-certification will be due early in the month of **August** each year. Unreported changes to the application may invalidate the clearance given by the HREC (Medical).

Principal Investigator Signature

Date

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

APPENDIX G: INFORMATION SHEET FOR INTERVIEW

INTEGRATION OF OCCUPATIONAL THERAPY SERVICES AT PRIMARY HEALTHCARE LEVEL IN SOUTH AFRICA

Hello,

Thank you for agreeing to be a part of this study. I am Anthony Jejelaye an MSc Occupational Therapy student at University of the Witwatersrand, Johannesburg.

We are inviting you to take part in this research study because you are an Occupational Therapist practicing in the PHC setting of South Africa, and your input is valuable.

The purpose of this study is to explore the roles of occupational therapists in PHC and how the integration of occupational therapy services within the multidisciplinary PHC streams should be done. Findings from this study will add to the emergent body of evidence in highlighting the role of occupational therapy and the importance of integrating OT services at a PHC level to the National Department of Health. The findings from this study could also support the integration of occupational therapy services at PHC level across South Africa.

I and my research assistant will be present during the interview. Notes will be taken by the research assistant during the interview so as to document observed non-verbal communications and ensure our conversation is adequately captured in case the audio-recorder misses some details. The interview will be kept confidential by not mentioning your name or any information that could identify you in the findings of the study. You will be invited to participate in the study. You will be asked if your opinion has been accurately captured after the interview by listening to the audio recording. Audio-recording and notes will be protected and destroyed after five years. The study will also be published. You are free to withdraw from the study at any time without prejudice.

For further information, please contact me on 0730649532 or 1948534@students.wits.ac.za.

This study has been approved by the Human Research Ethics Committee (Medical) of the University of the Witwatersrand, Johannesburg (“Committee”). A principal function

of this committee is to safeguard the rights and dignity of all human subjects who agree to participate in a research project and the integrity of the research.

If you have any concern over the way the study is being conducted, please contact the Chairperson of this Committee who is Professor Clement Penny, who may be contacted on telephone number 011 717 2301, or by e-mail on Clement.Penny@wits.ac.za. The telephone numbers for the Committee secretariat are 011 717 2700/1234 and the e-mail addresses are Zanele.Ndlovu@wits.ac.za and Rhulani.Mukansi@wits.ac.za

Kind Regards,

Anthony Jejelaye

APPENDIX H: INTERVIEW QUESTIONS

INTEGRATION OF OCCUPATIONAL THERAPY SERVICES AT PRIMARY HEALTHCARE LEVEL IN SOUTH AFRICA

PREAMBLE

Based on your experience in PHC, what is your opinion about the current state of occupational therapy in PHC?

1. What is your opinion about Occupational therapy services and PHC reengineering?

PROBE

Can you tell me more about that?

What do you mean by that?

2. How do you see occupational therapy services being integrated in Primary Healthcare reengineering?

PROBE

Can you tell me more about that?

What do you mean by that?

3. What would you say are the barriers and facilitators in integrating occupational therapy services in Primary Healthcare reengineering?

PROBE

Can you tell me more about that?

What do you mean by that?

APPENDIX I: PARTICIPANT CONSENT SHEET

PARTICIPANT'S CODE _____

INTEGRATION OF OCCUPATIONAL THERAPY SERVICES AT PRIMARY HEALTHCARE LEVEL IN SOUTH AFRICA

I have been given a Participant Information Sheet which explains the nature and processes involved in this study, which is attached hereto, I had it read to me, in the language I best understand. I was given time to ask any questions I wanted to and found any answers given to me to be reasonable and satisfactory.

I believe I fully understand why the study is being conducted and what the study hopes to achieve. I understand that there will be no immediate benefit to me, should I agree to participate, nor will I receive any payment; conversely, participation will not cost me anything but my time;

I understand that, even if I initially consent to take part in the study, I may subsequently withdraw at any time and would not be required to give any reasons; if that happened, any data collected about me for the purposes of the study would immediately be destroyed, unless I give consent for it to be retained

I have been given a range of contact details, listed in the information sheet. If I require further information or become concerned about any aspect of this study I am free to speak to any of these contacts.

Name of Participant: _____

Date: _____

Place: _____

Signature or mark _____

APPENDIX J: SURVEY INFORMATION SHEET

Hello,

I am Anthony Jejelaye an MSc Occupational Therapy student at University of the Witwatersrand, Johannesburg. I am carrying out a two-phase study as a requirement for the fulfilment of my degree.

You are invited to participate in the first phase of this research study because you are an Occupational Therapist practicing in PHC level/setting in South Africa and your input is valuable to the information we seek. The first phase of the study is a nationwide survey involving Occupational therapists which will require approximately 15 minutes of your time to complete. The questions include demographic information, service provision, service users, role of occupational therapy, the multi-disciplinary team and perceptions on barriers and facilitators to integration of occupational therapy in the primary healthcare reengineering streams.

The second phase is an in-depth interview to elaborate on the findings from the phase one. It will require approximately 40 to 60 minutes of your time. Skype interviews can be done if a physical interview is not achievable based on your convenient time and location.

If you are willing to participate in the second phase of the study, please indicate your willingness and consent to participate in the second phase of this study by clicking at the bottom of the information page and sending an email to the researcher at the address provided.

The purpose of this two-phase explanatory sequential mixed method study is to establish the services provided by occupational therapists in Primary Healthcare. The perceptions of the integration of occupational therapy services within the PHC reengineering streams will also be explored. The qualitative second phase of the study will explore the responses from the open-ended questions of the survey in depth through interview.

Findings from this study will add to the emergent body of evidence in highlighting the role of occupational therapy and the importance of integrating OT services at a PHC level to the National Department of Health. The findings from this study could also support the integration of occupational therapy services at PHC level across South Africa.

The survey will be kept confidential by not requesting for your name or any information that could identify you in the findings of the study. The study will be published, and results of the study will be made available to you upon request. No risk will come to you for accepting to participate in this study and you are free to withdraw from the study at any time without prejudice.

This study has been approved by the Human Research Ethics Committee (Medical) of the University of the Witwatersrand, Johannesburg (“Committee”). A principal function of this Committee is to safeguard the rights and dignity of all human subjects who agree to participate in a research project and the integrity of the research.

If you have any concern over the way the study is being conducted, please contact the Chairperson of this Committee who is Professor Clement Penny, who may be contacted on telephone number 011 717 2301, or by e-mail on Clement.Penny@wits.ac.za. The telephone numbers for the Committee secretariat are 011 717 2700/1234 and the e-mail addresses are Zanele.Ndlovu@wits.ac.za and Rhulani.Mukansi@wits.ac.za.

By selecting yes, I am indicating that I consent to participate in the first phase of the study.

YES NO

By selecting yes, I am indicating that I consent to participate in the second phase of the study and I am willing to send email to the researcher on 1948534@students.wits.ac.za.

YES NO

APPENDIX K: TURN IT IN REPORT