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Department of Occupational Therapy

VOCATIONAL REHABILITATION FOR YOUNG STROKE SURVIVORS IN GAUTENG PUBLIC HEALTHCARE: OCCUPATIONAL THERAPISTS' ATTITUDES AND PERCEPTIONS.

A research report submitted in partial fulfilment of the requirements for the degree Master of Science in Occupational Therapy to the Faculty of Health Sciences, School of Therapeutic Sciences, University of the Witwatersrand, Johannesburg

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NOVEMBER 2018

DECLARATION

I, Greea-Laine Dreyer, hereby declare that this research report titled, "VOCATIONAL REHABILITATION FOR YOUNG STROKE SURVIVORS IN GAUTENG PUBLIC HEALTHCARE: OCCUPATIONAL THERAPISTS' ATTITUDES AND PERCEPTIONS" is my own work and that any assistance obtained has been only in the form of professional guidance and supervision. No part of this research report has previously been submitted to any other research institution of higher learning or university. Where someone else's work was used, due acknowledgment has been given and references have been made accordingly to the requirements of Faculty of Health Sciences at Wits University. I claim complete responsibility for the conclusions drawn in this research study.

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Abstract

Introduction / Rationale: The prevalence of young stroke survivors is increasing yearly, which is causing occupational therapists to move their focus away from basic activities of daily living, such as eating and grooming, to rehabilitating work. The cost burden of stroke is high, especially to the government, the family and caregivers of the patient, thus making it imperative for young stroke survivors to work to remain financially independent.

Objectives: This research study aimed to determine the perceptions and attitudes of occupational therapists working with younger stroke survivors in Gauteng hospitals and clinics regarding rehabilitation for work. Ethical clearance was granted by the University of the Witwatersrand Human Research Ethics committee (Medical).

Method: A qualitative research design was used to obtain narrative, descriptive data from focus groups. Therapists from public health care settings, who have more than six months' experience and have worked in neurological rehabilitation within the last six months, were invited to participate in the focus groups, which were audio recorded and transcribed. Data were analysed by inductive coding based.

Results: The study found that few OTs are involved in rehabilitating younger stroke survivors' work ability and facilitating return to work. The study identified perceived barriers and enablers to rendering OT services that meet the needs of working aged stroke survivors.

Conclusion: Despite Employment equity laws that encourage the employment of a diverse group of people in South Africa, occupational therapists working in the public sector often experience a sense of futility when trying to rehabilitate young stroke survivors to return to work. Fragmentation of the public sector, as well as limited resources impede successful return to work for young stroke survivors.

Keywords: Occupational Therapy, Vocational rehabilitation, Attitudes and Perceptions, Young Stroke Survivors

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List of Abbreviations

AAC – Augmented and Alternative Communication

ADL – Activities of Daily Living

AIDS – Acquired Immunodeficiency Syndrome

BADL – Basic Activities of Daily Living

CEO – Chief Executive Officer

CT – Computed Tomography

CV – Curriculum Vitae

DPO – Organisations of Persons with Disability

FCE – Functional Capacity Evaluation

FIM – Functional Independence Measure

GDoH – Gauteng Department of Health

GP – General Practitioner

HIV – Human Immunodeficiency Virus

HOD – Head Of Department

HPCSA – Health Professions Council of South Africa

HR – Human Resources

HREC – Human Research Ethics Committee

IADL – Instrumental Activities of Daily Living

MDT – Multi-Disciplinary Team

MEC – Member of the Executive Council

MODAPTS – Modular Arrangements of Predetermined Time Standards

MRI – Magnetic Resonance Imaging

NDT – Neuro Developmental Theory

NGO – Non-Governmental Organisation

NHI – National Health Insurance

NIHSS – National Institutes Stroke Scale

OPA – Occupational Performance Area

OT – Occupational Therapist

OTPF – Occupational Therapy Practice Framework

OTT – Occupational Therapy Technician

PHC – Primary Health Care

PhD – Doctor of Philosophy

PILAR – Policy and Procedure on Incapacity Leave and Ill-health Retirement

PNF – Proprioceptive Neuromuscular Facilitation

PWD – People With Disability

RTW – Return To Work

SCOM – Selective Control Of Movement

TO – Task-orientated

UNICEF – United Nations International Children's Emergency Fund

USB – Universal Serial Bus

VRTT – Vocational Rehabilitation Task Team

WFOT – World Federation of Occupational Therapists

WHO – World Health Organization

Operational Definitions

Attitude: For the purposes of this research, the attitudes of the occupational therapists will be how they feel and what they think about vocational rehabilitation with young stroke survivors.

Gauteng public healthcare: In South Africa, 68% of the population depends entirely on public healthcare [1]. This research study will encompass all hospitals and clinics in Gauteng Province, from all levels of care, who offer rehabilitation services.

Perceptions: Perceptions for the purpose of this study will be what the research participants understand vocational rehabilitation to be and what it should consist of related to young stroke survivors.

Vocational rehabilitation: Is a rehabilitative strategy which focuses on enabling persons with work disability who are experiencing or are likely to experience problems in achieving and maintaining optimal vocational functioning and work participation [2]. For the purposes of this research, it entails all the aspects of vocational rehabilitation: the assessment, rehabilitation and return to work implementation necessary.

Youth: While the UN defines youth as people aged 15–24 years, for the purposes of this study, the South African demarcation of the age group 14 to 35 years [3] is preferred. However, when discussing young stroke survivors, individuals between 18 and 55 years old (working age) are considered.

Young Stroke Survivors: For this study young adults were considered below the age of 55 years whose acute onset of a focal or global neurologic deficit, presumably of vascular origin [4].

CHAPTER 1: INTRODUCTION

1. Introduction

In 2006 it was estimated that 20% of stroke victims in South Africa were younger than 65, thus in the economically active phase of life [5]. Rehabilitation of younger economically active stroke survivors is reported to be a challenging and complicated process [5], as they have more diverse and complex ways of spending their time. Their time use may be influenced by their responsibility for taking care of family members and being an active part of the work force [5]. However, it seems that rehabilitation services do not reflect the complexity of younger people's life roles [6]. Rather, the hospital-based rehabilitation of younger people who had a stroke appears to have focused primarily on the initial areas of occupation such as basic activities of daily living (BADL), e.g. dressing and grooming. From there the rehabilitation focus moves onto leisure and social participation, with very little time (if any) spent on rehabilitating these patients' work ability [5]. With an average admission of 12 days in public sector hospitals, the medical treatment (i.e. getting the patients' blood pressure under control and treating secondary symptoms) takes preference and rehabilitation a back step [5].

Researchers suggest that whenever possible, return to work should be prioritised during the rehabilitation of young stroke survivors, because work and the ability to earn an income is an especially important occupation during the economically active years (18 – 60 years) of one's life [6]. Return to work, in spite of the disability, will allow stroke survivors to continue earning an income and have a positive effect on their self-efficacy and self-worth [6,7]. It will also reduce the dependence on the family or social support such as a disability grant, thereby creating financial independence for the younger stroke survivor.

Rehabilitation professionals have been found to be pre-occupied with acute treatment, thus tending to neglect the all-important later phases of rehabilitation, especially community integration [8], which includes return to work. Approximately 68% of the South African population use the public healthcare sector [1]. In the private sector there are not necessarily more resources for rehabilitation, as managed health care limits resources available for such rehabilitation [9]. Once the National Health Insurance (NHI) is fully implemented, this may also curtail rehabilitation services. Currently, the NHI

does not describe rehabilitation services, [10] however it does speak of the most cost-effective evidence-based strategies which will be implemented for all health-related services. It also speaks about the need to prevent inappropriate and excessive use of health services and implementing strict gate keeping in terms of referrals, which could negatively impact rehabilitation services, resulting in premature discharge and an influx of patients needing rehabilitation or patients getting lost within the system [10].

1.1 Problem statement

The factors which influence stroke survivors' return to work, such as survivors' support systems, stroke survivors' perceptions and attitudes with regard to return to work as well as employer involvement have been researched extensively [11]. However, there is little information on how the therapists' perceptions and attitudes towards the vocational rehabilitation of young stroke survivors influence their return to work. Previous research used self-report questionnaires which rendered little valuable information [11]. Therapists' perceptions and attitudes are important as they may impact the type of rehabilitation offered, as well as the rehabilitation outcomes which may have a direct bearing on the young stroke survivors' motivation, competence and confidence to return to work within the open labour market.

1.2 Research question

What are the perceptions and attitudes of occupational therapists working in Gauteng public healthcare regarding vocational rehabilitation for young stroke survivors?

1.3 Research aim

To explore the perceptions and attitudes of occupational therapists' working in Gauteng public healthcare regarding vocational rehabilitation for young stroke survivors.

1.4 Research objectives

To describe Gauteng public healthcare occupational therapists' perceptions regarding vocational rehabilitation with young stroke survivors.

To describe Gauteng public healthcare occupational therapists' attitudes regarding vocational rehabilitation with young stroke survivors.

1.5 Significance of the study

The patients' needs always should be considered first when providing healthcare services. For young stroke survivors the rehabilitation services being delivered are reportedly not meeting the patients' needs and life-roles [12]. Work is an important area of occupation for adults, and this study could contribute to establishing its importance in occupational therapy rehabilitation of young stroke survivors by identifying occupational therapists' attitudes and perceptions towards implementing services aimed at rehabilitating patients' ability to work.

Very few public hospitals in Gauteng employ occupational therapists purely for vocational rehabilitation purposes, as opposed to hospitals in the Western Cape which have dedicated units to vocational rehabilitation [13] which are fully functional. Thus, in Gauteng, these services must be carried out by occupational therapists as part of run-of-the-mill services rendered to all patients. Having regard for the shortened hospital stay of patients in public hospitals [5], the outcome of this study could be used to lobby for similar units to those in other provinces of the country.

It is unclear what Gauteng occupational therapists' attitudes towards and perceptions of vocational rehabilitation are, and how these two variables contribute to its absence in rehabilitation programs of young stroke survivors. The study will assist occupational therapy heads of department to address and/or use these perceptions and attitudes within their departments to assist public healthcare users, gain access to vocational rehabilitation thereby facilitating return to work.

CHAPTER 2: LITERATURE REVIEW

2. Literature review

2.1 Introduction

This chapter highlights the increase of stroke in people of working age. As a result, there is an increase in disability directly influencing the workability of younger adults. Stroke has been known to have high costs involved, however when also considering the economic burden, stroke has an even higher cost burden. Therefore, vocational rehabilitation with young stroke survivors is essential in order to assist with curbing some of the financial implications.

The relevant literature that informed this chapter was obtained by accessing numerous databases including, EBSCO, PubMed and Google Scholar. Journals and textbooks were also accessed. The South African Government, World Federation of Occupational Therapists (WFOT), Health Professions Council of South Africa (HPCSA) and Occupational Therapy Association of South Africa (OTASA) websites were also accessed. Two PhD theses were also accessed.

Keywords for the literature search included: ‘Vocational rehabilitation’, ‘stroke’, ‘attitudes’, ‘perceptions’, ‘South Africa public healthcare’, ‘Gauteng public healthcare’, ‘occupational therapy’, ‘rehabilitation’, ‘stroke survivors’, ‘youth’, ‘young’, ‘employment’, ‘unemployment’, ‘burden of stroke’.

The prevalence of young strokes in South Africa is escalating; The Heart and Stroke Foundation predict that by 2030, 41% of South Africans of working age will suffer from premature death as a direct result of Cardiovascular disease [14]. These individuals are within the working age group and therefore their return to work and employability is gravely affected by their poor health. This review of literature provides a brief overview of the prevalence and morbidity around stroke, highlighting the financial impact thereof. Thereafter follows a brief overview of the stroke statistics, unemployment in

South Africa, with specific reference to people with disabilities, current rehabilitation practice, return to work programmes and future employability of young stroke survivors.

2.2 Morbidity, prevalence and incidence of stroke

Stroke is a common cause of premature death and disability, the latter results in an extensive global public health challenge worldwide [15]. Despite advances in medical prevention and a reduction of the risk factors associated with it, stroke remains a major health care problem [8]. Stroke is already known as one of the leading causes of death and adult disability and is fast approaching being classified as the leading cause [4,16–18]. It is estimated that annually approximately 15 million people all over the world suffer from a stroke. Of these, approximately five million remain permanently disabled, despite intensive rehabilitation programs [19]. Adeloye's [16] meta-analysis of stroke data for Africa found that although data is limited, in 2010, stroke was responsible for 5.3 million deaths worldwide and the number of people affected and/or disabled from stroke, since 1990 has been increasing yearly. He estimates that by 2030, if current trends continue, there will be 20 million annual stroke deaths and 70 million disabled stroke survivors worldwide [16]. There is limited data available for South Africa specifically, but Mamabolo, Mudzi, Stewart, Olorunju and Singh [20] reported 300 out of 100 000 individuals suffered from stroke in 2004.

The prevalence of HIV has also impacted the employment rate in South Africa, resulting in increased unemployment [21]. In 2001, it was estimated that 13% of the population was affected by HIV/AIDS and was expected to increase in years to come [21]. The majority of individuals affected are adults who fall within the working age group [21]. Over the last decade the unemployment figures within the unskilled labour division who were affected with AIDS increased drastically [21]. Since the number of new HIV infections among children and young people in Africa, is not expected to decrease substantially until 2030. This is due to an anticipated doubling of the number of adolescent populations being infected [22]. At the 22nd International AIDS Conference in Amsterdam, UNICEF reported that the number of young people aged 15 to 24 years old living with HIV will double by 2050 [22].

A 2007 systematic literature review found that between 1975 and 1980, stroke was responsible for 8% of all deaths in the 15-64-year-old age group, however in 2001 was only 3%. This indicates that while the number of people suffering strokes increased, the mortality rate is declining, resulting in a rise in disability acquired from stroke [23]. The mortality rate as a result of strokes and other chronic and degenerative diseases is lower than in the past, resulting in increased life expectancy due to

improved availability of medical care and constant research to improve services. However, the number of stroke survivors who are permanently disabled and functionally dependent on others is increasing [8,24]. Although medical services have improved worldwide, Africa still is lacking the adequate resources needed to improve the functional outcome of stroke. A lack of functional stroke units, neurologists, health workers, cranial computed tomography (CT) scans, magnetic resonance imaging (MRI) machines and echo-doppler machines, among many others, has negatively affected stroke outcomes [16]. This subsequently results in more disabled persons from stroke. One meta-analysis of nine randomised controlled trials and a sample size of 1258 participants, found that approximately half the individuals who do survive a stroke are dependent on others, usually family members, for assistance in activities of daily living for at least a period of six months after the incident [25].

An estimated 20% of stroke victims in South Africa in 2006 were younger than 65 [5]. In Tanzania, stroke incidence in younger age groups, 15 to 64 years of age, was found to be three to ten times greater than in developing countries. Factors including limited access to health care, transport difficulties, non-biomedical interpretation of symptoms of stroke for example, bewitchment, and the use of traditional and alternative healers before seeking western medicine were found to contribute to the disparity in stroke incidence between Tanzania and England and Wales [23]. Due to recent economic crises, government has responded by tightening health policies used in public hospitals by adapting them to stretch funding as far as possible [26]. These policies are responsible for reducing access to health services and shifting the financial burden of health costs to the individuals [26]. These policies should rather be aimed at health equity and health promotion [27]. In 2008, the World Health Organisation Commission on Social Determinants of Health concluded that “social injustice is killing people on a grand scale” due to a “toxic combination of poor social policies and programs and unfair economic arrangements” [27]. By maintaining adequate investment in the health and social domains, economic recovery has a chance to take place [28], but social policies should not stretch funding too thin which could lead to a health and social crisis. With the Life Esidimeni tragedy, there appears to be evidence of the catastrophic impact of inadequate funding [29,30]. South Africa is in dire need of sustainable development, which in turn is reliant on a functional health system [31]. In the case of Life Esidimeni, what appeared to be an appropriate, ‘simple’, cost-saving strategy ended with tragic results, ironically ending up costing far more than would have been spent by maintaining the status quo [31]. Issues facing developing countries, such as significant population growth, industrialisation, as well as lifestyle factors causing a high prevalence of hypertension, diabetes and obesity such as increased consumption of western diets, use of cigarettes, consuming copious

amounts of alcohol and physical inactivity, result in an increase in younger people being affected by stroke [16].

2.3 High costs of stroke

The cost data [32], which are the data found on patients' bills and to medical insurance companies, do not accurately describe the actual cost as hospitals tend to inflate and maximise their profits. Economic cost is the actual value paid by the healthcare institution for resources depleted, which is also a challenge since investments, supplies, equipment and donations have to be considered and this makes the sum appear greater [32]. Accounting cost is determined by applying department-specific charge-to-cost ratios, which consider overhead and capital expenditures, to charge data. Most health care institutions use this method as it is the most accurate [32].

Discovery Health Medical Aid in 2013 reported that South Africa has a high disease burden, with lifestyle diseases such as heart attack, diabetes and stroke are constantly rising each year. From a cost perspective, the chronic medications most frequently covered by Discovery, are for high blood pressure, high cholesterol and type 2 diabetes [33]. It is estimated that of the number of people having strokes worldwide each year, approximately five million remain permanently disabled and are no longer capable of caring for themselves despite being involved in intensive rehabilitation programs [32]. The costing of stroke can be divided into the direct costs and the indirect costs involved afterwards, however the data available regarding the cost of stroke can be misleading due to the numerous ways in which the costs are calculated.

The public health care sector in South Africa supports approximately 80% of the population and is therefore overburdened. It also has a notorious lack of available resources, despite this, only 3.2 per cent of the national budget is allocated to health care provision [34]. Without adequate funding, there will be a continuous struggle with available resources which will continuously have a spiral effect leading to inadequate service delivery. Accurate data regarding the cost would allow resources to be allocated effectively and medical treatment and rehabilitation to more specific and to the point and unnecessary inefficiencies can be eliminated, as specific areas which cost more can be identified [32]. Diringer et al, [32] report that further reductions in the financial burden of stroke are not likely.

2.3.1 Direct costs of stroke

The severity and types of stroke, length of stay in hospital, pre-existing comorbid factors and intensity of care that was needed for the patient, could increase the financial burden to the individual

responsible for the account [32]. Length of stay has already been reduced significantly by introducing specialised stroke teams and units to an average ranging from 8 to 11.6 days abroad and an average of 12 days in South Africa [5].

2.3.2 Indirect costs of stroke

Health care costs associated with stroke are considerable, particularly due to the high cost of disability. However, there is no consensus as to how the actual cost in monetary terms should be calculated [35–37]. Another factor that may contribute to the cost to the State is survivors not returning to work post-stroke as it results in a dependence on disability grants. There is little accurate information available on the exact direct cost of stroke as there are several factors which have been found to affect the numbers. It is estimated that the average total cost of stroke ranges from $7220 to $13 149 in The United States of America [32]. There is no comparable data available for the South African context.

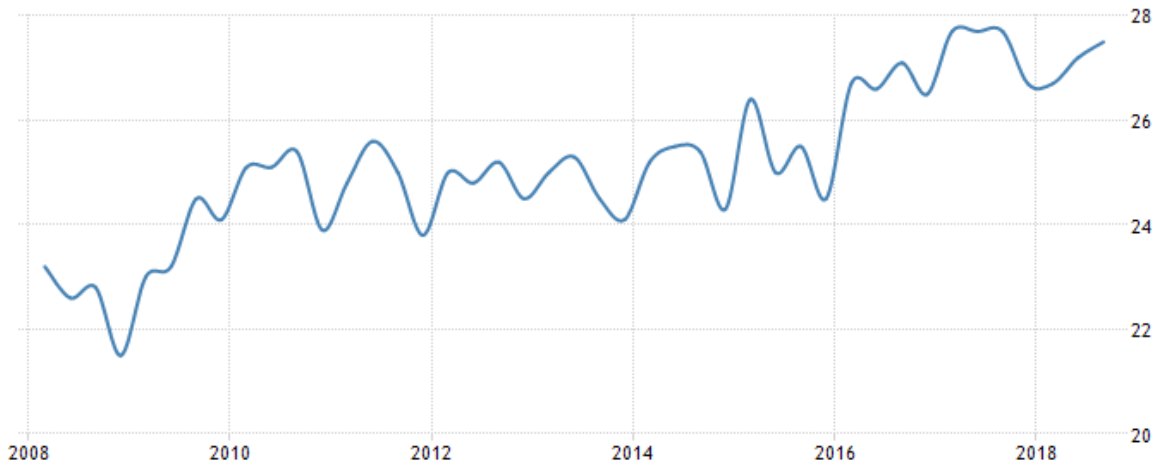
The State is not alone in carrying the burden of stroke survivors not returning to work. When stroke survivors choose early retirement and medical boarding rather than returning to work, company retirement and annuity funds are drained [38]. Employers have additional financial costs in the form of extended sick and incapacity leave and the concomitant loss of productivity. Not returning to work impacts stroke survivors' income, which in turn places a burden on the family [38].

Stroke survivors who do not return to work have a substantially decreased income than pre-stroke, thus impacting on their caregiver and provider roles [5], causing a financial burden on their families [38]. Additionally, stroke can result in decreased cognitive and physical ability, necessitating long-term care. This care is often provided by the family. Long-term care can cause negative feelings and emotions from the care-giver, due to the burden of taking physical and financial care of the stroke survivor. Eventually these negative emotions could lead to care-givers experiencing burn-out [39], thus contributing to an emotional burden on the family.

2.4 Factors related to unemployment

Work or employment, is a rising concern, all over the world and including in South Africa [40]. South Africa has one of the highest unemployment rates in the world. In 1997, the unemployment rate in South Africa was 24% using the narrow definition (i.e. including individuals who are willing to work and actively searching for employment opportunities), and 38% using the broad definition (i.e.

including those who are willing to work but not actively searching for employment) [41]. Statistics South Africa in 2019, reported that the official unemployment rate increased to 27.1% in the third quarter of 2018 [42].



From: https://tradingeconomics.com/south-africa/unemployment-rate Accessed 21-11-2018.

Figure 2.1: South African unemployment rate 2008-2018.

Traditionally, older people suffered strokes. With the increase in strokes among younger people, work, and its rehabilitation, becomes an important consideration. Approximately 70% of the unemployed individuals in South Africa are youth; i.e. people aged 14 to 35 years [3]. Since 1994, a significant amount has changed for the youth of South Africa, however, the motivation of the top ages of the youth has not changed over the years [3]. All over the world, unemployment of the youth is a rife. The youth are also at risk for partial employment or employment at lower wages than their adult colleagues. Youth with disability are therefore even more disadvantaged and the unemployment rates, on average, globally vary from 40-60% higher than adults without disability [3].

2.5 Factors facilitating employment

With the new democratic constitution that was implemented in 1996, several laws were applied in order to promote the employment of, among others, people with disability. Some of these laws include: The Labour Relations Act (1996) (prohibiting unfair dismissal on the basis of disability) and the Employment Equity Act (1998) [43]. These laws act as encouragement for employers to employ, or maintain the employment of people with disabilities, including stroke survivors.

The white paper on, 'An Integrated National Disability Strategy' was issued in 1997. This policy stressed the need for people with disabilities to join the workforce and to offer social grants to

individuals who are unable to become financially independent and earning an income [3]. Several barriers still exist, despite the South African government's commitment for inclusion in the work force for people with disability. Misconceptions, predispositions and stereotypes about people with disability as well as societal attitudes and beliefs, have continued to create major barriers for integration to the work place.

2.6 Effects of socioeconomic status

Disability impacts individuals' access to education and employment negatively, which then leads to economic and social inequality and segregation. Poverty among people with disability is high. Due to lack of equal access to education and employment, people with disabilities, including young stroke survivors, are stuck in a continuous negative cycle, as poverty and disability worsen the effects of each other. Therefore, their needs must be identified, and not only should government strive towards improving employment opportunity but also addressing existing barriers which exist [3].

The informal labour sector has not grown in South Africa, unlike countries like India, where the informal sector makes up 90% of employment figures [44]. This is attributed to high start-up costs as well as high crime rates which hinder small business from succeeding [45].

Although, the White Paper of 1997: An Integrated National Disability Strategy, had good intention to uplift the injustices of the past and improve poverty, the social grant system has also contributed to unemployment in South Africa as this is often used to support an entire household making finding a job unnecessary [45]. In an interesting study investigating whether the 'welfare system' automatically excludes young disabled people from the open labour market, participants felt that not participating in paid employment, resulted in dependency on the social system for financial support. This in turn made participants feel vulnerable, excluded from society and socially isolated; inevitably making them feel as though they had no contribution to add and ultimately no control over their lives [46]. However, paid employment did not automatically result in social inclusion [46].

The prevalence of HIV has also impacted the employment rate in South Africa, resulting in increased unemployment [21]. In 2001, it was estimated that 13% of the population was affected by HIV/AIDS and was expected to increase in years to come [21]. The majority of individuals affected are adults who fall within the working age group [21]. Over the last decade the unemployment figures within the unskilled labour division who were affected with AIDS increased drastically [21]. Since the number of

new HIV infections among children and young people in Africa, is not expected to decrease substantially until 2030. This is due to an anticipated doubling of the number of adolescent populations being infected [22,29]. At the 22nd International AIDS Conference in Amsterdam, UNICEF reported that the number of young people aged 15 to 24 years old living with HIV will double by 2050 [22].

In South Africa, the there is a lack of formal tertiary education graduates, which results in high numbers of individuals seeking employment in the unskilled and semi-skilled labour sectors [3]. In the past, the farming sector was a labour-intensive sector, requiring unskilled workers. However, in modern times, these workers are slowly being replaced by machinery, resulting in higher unemployment in rural areas [3]. Even for individuals without disability finding employment in these unstable economic times proves to be a challenge. For individuals with a disability, access to employment and education is frustrating and disheartening and leads to social isolation and lowered self-esteem.

Disability impacts a number of different sources; the person-level, socioeconomic impact, the additional burden on the family, co-workers and the healthcare system, therefore work disability management, i.e. vocational rehabilitation is essential in order to reduce this burden [2]. Despite positive strides in the late '90s, unemployment among people with disabilities, especially disabled youth, remains high.

2.7 The importance of engagement in work

A pertinent component of the World Federation of Occupational therapists' (WFOT), statement on occupational therapy is the notion that OTs enable participation in activities of everyday life, by enhancing recipients' "ability to engage in the occupations they want to, need to, or are expected to do...." whether by rehabilitating the individual, or facilitating modifications to the task and/or environment [44 page 1]. Mendin et al. [5] found that the hospital-based rehabilitation of younger people who had a stroke has focused primarily on the initial areas of occupation such as basic activities of daily living (BADL), e.g. dressing and grooming, from which the rehabilitation focus then moves onto leisure and social participation [5]. The Bobath Concept (NDT Approach) is the most used treatment techniques in Europe currently and aims to inhibit spasticity in the muscles, discourage synergies and reflexes and encourages normal movement [48]. It has not been found to be superior to other therapy approaches [48] but there is evidence to suggest that when the Bobath

and Motor relearning treatment approaches are used in combination, stroke survivors have the most significant amount of improvement, when assessed using the FIM (Functional Independent Measure) scale [49]. However, by not placing emphasis on vocational rehabilitation in treatment goals and only on treating client factors, occupational therapists are supporting and therefore, worsening occupational depriva1tion of a population who are already at risk.

The deficit-specific or bottom-up approach places emphasis the impairments and deficits such as, disturbances of movement, poor postural control, muscle strength, abnormal muscle tone, and poor range of motion, and makes these client factors the goals for treatment [48,50]. Standardised assessments, with reliability and validity, can be used to identify the specific deficits which are impairing the function and measure the progress, for example, a dynamometer to assess grip strength [51,52]. The assumption is that improvement in client factors can generalise into functional tasks, however these assessments, are unable to provide information or evidence regarding the impact on engagement in occupation, and therefore using this approach alone is flawed [52].

Evaluation of the client should begin with a profile and analysis of occupational performance, where the improvement of performance skills is just a coincidental benefit [52]. However, there are limited standardised outcome measures available to record the effectiveness of this approach and the impact rehabilitation has on improving occupations and those that exist are not sensitive to change [52].

The most promising example of this approach is the task-orientated (TO) or task-specific approach, using repetitive, intense task-orientated rehabilitation, facilitating motor recovery [50], with the aim of enabling the stroke survivor to carry out their tasks, activities and roles which are meaningful to them [53]. The task-orientated approach is customised to the stroke survivor's individual needs, using a functional task as intervention [54]. When using a functional activity, the stroke survivor can become independent in occupations, especially ADLs, and performance patterns [53]. The task-orientated approach is effective, well-perceived and is client-centred [54] and in contrast to the compensatory approach, the it incorporates unilateral and bilateral tasks, and can be used to retrain hand dominance, thus making provision for the use of the impaired limb [53]. It has been found that greater neuroplastic changes occurred when the task was meaningful and significant to the individual [55].

The task-orientated approach is best suited to individuals with slight to moderate motor impairment and when used in conjunction with motor relearning principles, promoting intensive training, repetitive

movements, variable practice and regular feedback better results are achieved [50,54]. By using the upper limb in meaningful tasks which the stroke survivor has ultimately chosen as a goal, neuroplasticity principles of saliency, specificity and transference are being reinforced [56].

The use of only functional activities in rehabilitation of the upper limb requires adequate cognitive and perceptual skills [53]. The ability to use feedback constructively and adapt the method in which they carry out certain activities is essential in this approach and therefore, for stroke survivors with severe strokes, especially affecting cognition and executive functioning, this can be challenging. Chaining can be incorporated to make the tasks more manageable, as it breaks up the task into manageable steps [57]. Forward chaining is when the stroke survivor carries out the first step of the task and the treating occupational therapist does the rest. After grasping this step, the next step is tackled, and so forth, until the whole task can be carried out independently; backward chaining is the opposite [57].

Therefore, despite some of these challenges mentioned above, engagement in occupation remains of great importance for clients treated in occupational therapy and should be prioritised as such in treatment.

2.8 Vocational rehabilitation

Work is one of the main occupations for young adults, making up the majority of their day, therefore vocational rehabilitation is essential for young stroke survivors.

2.8.1 The importance of vocational rehabilitation

According to a South African study, some stroke survivors reported that rehabilitation was only aimed at restoring bodily functions and this did not assist the individual in returning to work [58]. Therefore, there is a need for (occupational) therapists to think of their patient holistically when planning treatment sessions and carrying out intervention to place more emphasis on the needs and desires and of the individual in order for the stroke survivor to thrive after rehabilitation has concluded.

Vocational rehabilitation is of great importance, and there is a grave need for it to be addressed as part of the rehabilitation process, as an in-patient as well as on an out-patient basis, so that by the time the individual is required to return to work, they are confident and adequately prepared to embark on the new challenges which will most certainly be encountered [11]. Healthcare is usually the first-

place people go to when they are injured, disabled or ill. Therefore, it makes sense for vocational rehabilitation services to be based within the healthcare system, as this will allow for speedy intervention [1]. It should therefore not be left for the end of the rehabilitation process but be included as part of rehabilitation from the get-go.

Occupational therapy intervention acts as a support system for the individual to identify job opportunities and act as a mediator with the potential employer which may require work visits and job analysis to identify accommodations and assistive devices or technology which may improve productivity of the potential or returning employee [59]. Vocational rehabilitation usually takes place within the community and integrates into mainstream services [59]. This can, therefore, be a tedious, time-consuming and sometimes relentless job for the treating occupational therapist.

Attitudes from the employer and colleagues are an important challenge for people with disability entering or re-entering the workplace; it may be even more of barrier to return to work than work readiness from the prospective employees' side [46]. Morris found that the policies which are ultimately aimed at promoting and encouraging return to work for people with disabilities tended to focus of the individual's limitations and did nothing to change attitudes but at the same time only promoted reasonable accommodations for minimally disabled individuals [46]. People with severe disabilities had very little available opportunities to find gainful employment [46]. She also felt that sheltered and protected employment, encourages segregation for people with disability [46].

Research suggests that individuals who do not return to work are prone to developing psychosocial dysfunction [11]. Coetzee, et al [13] have found evidence which shows that the sooner one returns to work after the injury or disability has occurred, the more cost-effective on the economy, employer and individual and the more beneficial to the individual financially, as well as, mentally. The result of no or poor vocational rehabilitation facilities or processes, especially in the public healthcare system has a negative impact on the commerce and industry of South Africa [60]. Therefore, the sooner intervention can take place the better holistically it will be for all involved.

When vocational rehabilitation started in the Western Cape, the main area of focus was on assessments for disability grants instead on doing return to work rehabilitation [13] it is therefore of great importance that more emphasis is placed on vocational rehabilitation during both the acute and chronic phases of rehabilitation. Work and the satisfaction of earning a living, being part of the working

class of the country and supporting oneself and family can contribute to self-esteem, self-worth and give a sense of meaning and purpose to life after stroke [11]. Being employed and work as a whole, provide any member of society much more than financial gain. This contributes to self-esteem, social interaction, sense of purpose, identity within society and fulfilment of social needs [13]. This also gives individuals a sense of status and pride. Returning to work may also allow individuals to feel independent again [11].

2.8.2 Resource allocation

Occupational therapy is receiving more and more referrals specifically aimed at assisting the patients return to work as it is known to benefit individual with chronic conditions [61–63], this could be due to decreased hospitals stays and better intervention leading to better prognosis and survival after injury or illness [61]. The available staff numbers are affecting the quality of intervention and the treatment meeting the patients' individual needs [61]. Therefore, it is essential that facilities which provide vocational rehabilitative services, or occupational therapy in general, employ enough staff as to provide an effective service. Compensating staff well or including benefits, such as training, etc, will result in better staff experiences and therefore better staff retention [64], ultimately lowering overall cost to company as training new staff is costly.

Ntsiea, et al, [58] acknowledge that there are barriers to vocational rehabilitation which are out of the (occupational) therapists' control. Architectural barriers can hinder the stroke survivor from getting into the building at work [58]. It would be unreasonable to expect a small company to adapt the building for one individual. Lack of accessible transport is also a barrier which the treating (occupational) therapist encounter [58]. If the stroke survivor was using public transport before admission, then it would not be reasonable to expect him or her to start using private transport.

An economy which has a high unemployment rate also is a barrier which hinders the placement of stroke survivors [58]. Realistically speaking, a company; especially a small business, would rather retrench an individual who has a disability than implement some of the reasonable accommodations needed to support the individual in achieving his or her work goals [65]. Stereotypes, preconceived ideas and past experiences about stroke survivors as well as the employer and/or individual's motivation and available support from family and friends can play a role in the success of the stroke survivors returning to work [58,66]. The nature of the work is also a limiting factor; a study by Van Velzen, et al [66] confirmed that routine or easier types of work allowed stroke survivors to experience success at work, post-stroke.

Government policies do exist to ensure that people with disabilities go back to work and are not discriminated against and are assisted to return to work. However, it was found that practitioners felt that they were not part of implementing and facilitating these policies which led to negativity or lack of understanding. Using action research, the practitioners were allowed to be a part of the process and development of certain tools and policies which created better buy-in from the practitioners [60]. This also created more comprehensive and contextually relevant tools and policies; not only did practitioners help identify problems but they were able to assist in looking or implementing solutions [60].

Problems with vocational rehabilitation in Gauteng public healthcare systems were identified by Van Biljon [26], who found that vocational rehabilitation services should be offered at all levels of healthcare and not only in tertiary or central hospitals [1]. This allows for easy access for all clients who will be using the service [1]. She also found that vocational rehabilitation is a specialised service and therefore needs dedicated spaces, posts and a multi-professional approach [1]. Other problems that were identified were with referrals, service efficiency and communication breakdown between health care professionals and healthcare facilities, as well as the practitioners' interest in vocational rehabilitation which was vital for making vocational rehabilitation a success [1]. Return to work and vocational rehabilitation are considered as remediation and therefore not part of the scope of an occupational therapist working in the community. This contradicts international literature, which sees vocational rehabilitation as a continuum of services from hospital to community-based intervention [67]. Furthermore, there is evidence that chronic conditions benefit from community-based vocational rehabilitation services [62,63,67,68]. Community reintegration is problematic for anyone with a neurological condition, thus making vocational rehabilitation services at community level imperative [69].

2.8.3 The vocational rehabilitation process

Vocational rehabilitation is a dynamic process which involves a number of steps ultimately achieving the successful return to work or employment of the referred individual. This process takes place parallel to the rehabilitation process and sometimes overlaps. Generally, assessment takes place, which assists in matching the needs of the individual to the appropriate job, with or without accommodations, as well as the abilities of the patient. Skills and information on additional qualification acquirement, knowledge, basic education and functional capacity-building interventions

are carried out, as necessary, to develop competence and job seeking skills for individuals who are not employed at the time or injury or illness [59], especially for people with low education levels.

Vocational rehabilitation has been described as a vocational strategy, which assists people with a disability to retain their current occupation and company of employment and promotes growth, progress and development within their employment [13]. The aim of vocational rehabilitation is to enhance participation in work despite illness, injury, disability or limitations which individuals may have [60]. The services offered by occupational therapists as part of vocational rehabilitation should include vocational guidance, vocational training, placement at various facilities, employment and similar services [13]. These services need to bridge the gap between healthcare institutions and the open labour market in order to ensure that the transition from injury, disability or illness back to the work environment is smooth and carefree for all parties involved [60].

2.9 Return to work for people with disability

Work is an important part of the adult life. Not only do we gain financial compensation for work but it also contributes to self-esteem, identity and status as well as promoting us to fulfil our roles as part of a greater community [70]. The sense of belonging and the sense of pride and feeling of importance that we gain from work in the knowing that we belong within society and contribute to the economy of our countries boost our confidence and psychological well-being [70]. If an individual can no longer perform their occupation due to illness, disease or disability, this can cause the individual to lose their sense of purpose and feel useless, over and above the financial burden [70]. These feelings can also result in depression and reduced or no participation in activities of daily living which can negatively impact relationships with friends and family [70].

With the unemployment rate being so high in South Africa, jobs are not readily available and consequently it is necessary for individuals who have had a stroke to fight to keep the jobs they already have. Stroke survivors are already at risk of having a poorer quality of life, post stroke, due to the permanent disability caused by increased muscle tone and spasticity, decreased balance, limited upper and/or lower limb function, impaired gait and cognitive deficits which affect the individual's activities of daily living, instrumental activities of daily living, social participation and especially work [11].

Returning to work may be a fearful and dreaded step after having a stroke, especially because having a stroke often leads to some form of physical or cognitive disability and usually results in dependence on others. This may dissolve an individual's confidence and drive and make them insecure about the abilities which are still intact [11]. Some employers are known to take advantage of employees [11] and so individuals need occupational therapists to provide support and to assist them in retaining their place of employment if possible, as well as ensuring that they are ready to go back and are able to cope with the demands of their work load expectations. By becoming involved, the occupational therapist can ensure that both the employer and employee benefit from the arrangement. It is therefore imperative for rehabilitation programmes to be planned and carried out in order to meet each stroke survivors' individual needs [11].

In 2014, it was estimated that between 22 and 53% of stroke survivors successfully return to work six to 12 months post-stroke, however there is limited information available regarding the sustainability of the work they went back to [71]. It was found that return to work was dependent on the job specifications and what the stroke survivor was capable of doing post-recovery, therefore rehabilitation should be aimed at remediating rather than managing and maintaining function [71].

Early return to work is extremely important for stroke survivors, especially when considering the neural plasticity principles [56], but also for self-esteem and confidence, as it reduces long periods of inactivity [61]. If done correctly, with support as the early stages, this can prevent bigger problems and difficulties later on, and result in success and also encourages active participation during the rehabilitation program [72]. Main and Haig, found that many of the patients who participated in their research, prioritised return to work as the most important goal of rehabilitation [61].

Functional prognosis is an important indicator of return to work and the potential success of rehabilitation. Kwakkel, et. al. [73], developed some predictors for poor functional outcome, specifically to be used with stroke survivors. There are five characteristics which, if present, direct the rehabilitation team towards a more compensatory and maintenance approach in intervention. These five characteristics are, severe disability on admission which can be determined using the National Institutes Stroke Scale (NIHSS), urinary and bowel incomitance upon admission (determined either by the treating doctor or nurse), history of a previous stroke, the stroke survivor being above 75 years of age and the presence of visio-spatial deficits or fallouts [73].

Having a good medical and functional prognosis alone is not always enough in the treatment of motor control in the stroke survivor. Motivation and buy-in from the individual and their family and agreement from all involved that they are willing to put in the time and effort required, is essential. It is important to consider the prognosis when educating the family and setting goals together. Establishing an accurate functional prognosis, will help to achieve realistic, obtainable, practical goals for occupational therapy intervention. It is also important to take these prognostic factors into consideration as our efforts can be in vain, should the prognosis be poor; time and money is wasted trying to achieve the impossible and unrealistic.

2.10 Challenges with traditional occupational therapy and young stroke survivors

Occupational therapists are supposed to look at all areas of occupation when doing rehabilitation with all types of patients. Categories of occupation are activities of daily living (ADLs), instrumental activities of daily living (IADLs), rest and sleep, education, work, play, leisure and social participation [74]. The ultimate goal for rehabilitation with all patients, not just for stroke survivors, is to assist the patient to achieve their highest possible level of functioning with the most amount of independence as possible [73]. The occupational therapist must consider physical and psychological performance and consider the needs and goals of the patient during the rehabilitation phase [73]. However, it appears that occupational therapy literature, especially text books, emphasise isolating client factors and performance skills in intervention. If these are integrated with occupations, it seems that ADLs are favoured [75].

For the majority of young stroke survivors, their greatest need is to reintegrate into society and re-join their communities, especially with regards to work [73]. If occupational therapists include the patients' needs and use the occupation-based intervention type as stipulated in the occupational therapy practice framework [76], the patient will be motivated to participate maximally in rehabilitation making the rehabilitation process quicker and more cost effective. Motivation plays a vital role in the rehabilitation process and is used to indicate the outcome, success or failure, of rehabilitation [77]. "*Work plays an important role in an individual's life, contributing to the development of self-esteem, volition, a sense of belonging, and a sense of competence.*" [77 page 679] Work can improve morale, dignity and discipline and therefore is important to be included in rehabilitation [78]. Motivation acts as the patients' driving force which results in a desire for mastery of the environment or the task [78], therefore incorporating their needs and goals into rehabilitation can guarantee achieve our goals, which are maximal level of independence and function possible.

Rehabilitation of younger economically active stroke survivors is reported to be a challenging and complicated process [5], as they have more diverse and complex ways of spending their time. Their time use may be influenced by their responsibility for taking care of family members as well as being an active part of the work force [5]. Research conducted by Kvam, Vik and Eide [6] shows that rehabilitation does not take the needs of the young, employed or seeking employment, stroke survivors' needs into account and particularly with short hospital stays, rehabilitation, especially vocational rehabilitation is the least concerning factor which needs to be addressed [5].

Most stroke survivors have some form of physical and/or cognitive deficit which already puts them at a disadvantage in all areas of occupation [78]. Self-esteem and confidence may be affected due to the disabilities the acquired. These fallouts can impede performance within the environment; therefore, it is the occupational therapists' role is to act as facilitator and assist the patient to overcome the barriers created by their disability [44].

Intervention programmes which strive toward providing greater access to rehabilitation services where occupational therapists create the opportunity for skill acquisition and development in order to promote economic development [3] are very important. Without adequate intervention, these stroke survivors will go home independent in ADLs, which is noteworthy, but will remain financially dependent on family and caregivers, thus continuing to be a burden. This will magnify their low self-esteem and decreased confidence and cause deterioration in motivation. These patients will become stuck in a rut, from which it will be very difficult to get out.

2.11 Conclusion

This literature study showed that there is a rise in younger strokes, due to the influence of HIV and AIDS. Literature shows that stroke is a costly disease, placing both a burden on the family and the State. Stroke results in unemployment, which adds an additional burden to employers due to loss of trained workers and again placing a burden on social services. Because of the residual disabilities related to stroke, finding work is often difficult, especially for people who used to have manual type jobs. This makes vocational rehabilitation of younger stroke survivors important. Nonetheless, there is a dearth of research on the attitudes and perceptions of occupational therapists regarding vocational rehabilitation of stroke survivors. Interestingly, one South African study found that while occupational therapists believe that vocational rehabilitation services must be rendered in the public

health sector, they could not agree as to which level of care it belongs [1]. Traditionally, rehabilitation focused on client factors and performance skills, which may be appropriate for older stroke survivors. It appears, therefore, that occupational therapists have not adapted to the changing population of stroke survivors.

CHAPTER 3: METHODOLOGY

3. Methodology

3.1 Introduction

In this chapter the methodology will be discussed, including the study design, population selection and sampling and data collection and analysis. The credibility of the study and ethical considerations will also be discussed.

3.2 Study design

A qualitative, descriptive research design was used to carry out the research, through the use of focus groups [79]. This method was used to collect data as it allows the researcher to collect information-rich data, making it less structured and more descriptive than a quantitative study [80]. This type of research design was useful in allowing the researcher to strategically inquire and probe for information from the research participants [79] regarding their attitudes and perceptions of vocational rehabilitation. This method allowed for gaining rich data in order to understand occupational therapists' attitudes and perceptions of vocational rehabilitation of young stroke survivors [81].

Qualitative focus groups were used as this allowed the researcher to obtain information about the perceptions of each occupational therapist, how they felt about vocational rehabilitation and what they perceived their roles and responsibilities to be when it comes to vocational rehabilitation with young stroke survivors [82] in a time-efficient way. It also allowed personal values [79] and attitudes to come to light within the group which brought to light valuable information. The researcher facilitated all the focus groups.

Open-ended, semi-structured questions with subtle prompting and steering [79] were used, as necessary, to draw out the needed information and encourage discussion from the research participants. See APPENDIX L for examples of the proposed, open-ended questions which were used to prod the flow of the discussion during the groups [80]. The intent of obtaining the information was to find themes and categories within the data [79].

3.3 Population

The research population consisted of occupational therapists working in neurological and vocational rehabilitation in and around Johannesburg and Pretoria in the Gauteng province of South Africa. Due to inconclusive statistics, the number of hospitals and clinics which offer occupational therapy services is unclear [83].

3.3.1 Inclusion criteria

Occupational therapists who work at the academic and rehabilitation hospitals in Pretoria and Johannesburg as well as a number of clinics which fall within their catchment areas were invited to participate in the study. Only participants who met the following inclusion criteria were included in the focus groups:

Occupational therapists from tertiary, secondary hospitals and primary health care facilities which offer rehabilitation services to young patients diagnosed with stroke

Occupational therapists who were working with neurological patients or had worked with neurological patients for the last six months in the field of neurological rehabilitation

3.3.2 Exclusion criteria

Community service practitioners who rotate between fields of rehabilitation at their respective placements were excluded from the study, as they either did not have enough clinical experience in neurorehabilitation or their experience was not recent enough.

3.3.3 Sampling

Convenience sampling was used by selecting hospitals and clinics in the Johannesburg and Pretoria areas of Gauteng, such as Charlotte Maxeke Johannesburg Academic Hospital, Natalspruit Hospital, Tambo Memorial Hospital, Hillbrow Clinic, Dr George Mukhari Academic Hospital and Odi Hospital. Maximum variation or heterogeneous, purposive sampling was used, once willing participants were identified [84], to ensure a diverse sample. To avoid member influence, managers and junior staff were not included in the same groups, thus avoiding member influence.

In order to minimise bias due to purposive and convenience sampling, the researcher obtained a heterogeneous sample [85] by including therapists who worked in a variety of settings, i.e. primary,

secondary and tertiary health care settings. This includes a wide sample of occupational therapists who worked with patients from the acute phase of rehabilitation through to the chronic phase. These occupational therapists had differing experience, based on diverse resources, patient types and procedures which added valuable and varied information to the data. The broader population also gave a more accurate and reliable cluster of information due to these differences in experience and stages of rehabilitation and in so doing, limited bias introduced to the study by the sampling techniques.

3.3.4 Research Instrument

The demographic questionnaire was developed by the researcher through information from literature [79] as well as from personal experience. It was administered to the research participants after they had signed consent and before the focus group started. This information was collected in order to get a better idea about whether the age, gender and experience of occupational therapists may influence their attitudes and perceptions, as well as whether their favourite areas of treatment may also sway the finding.

The research schedule was developed by the researcher and her supervisor in order to optimise the richness of the information derived from the focus groups. This was based on the experiences of both the researcher as well as her supervisor.

3.3.5 Research procedure

Figure 3.1 below illustrates the data collection process, starting with obtaining permission from University and then Hospital structures to conduct the research.

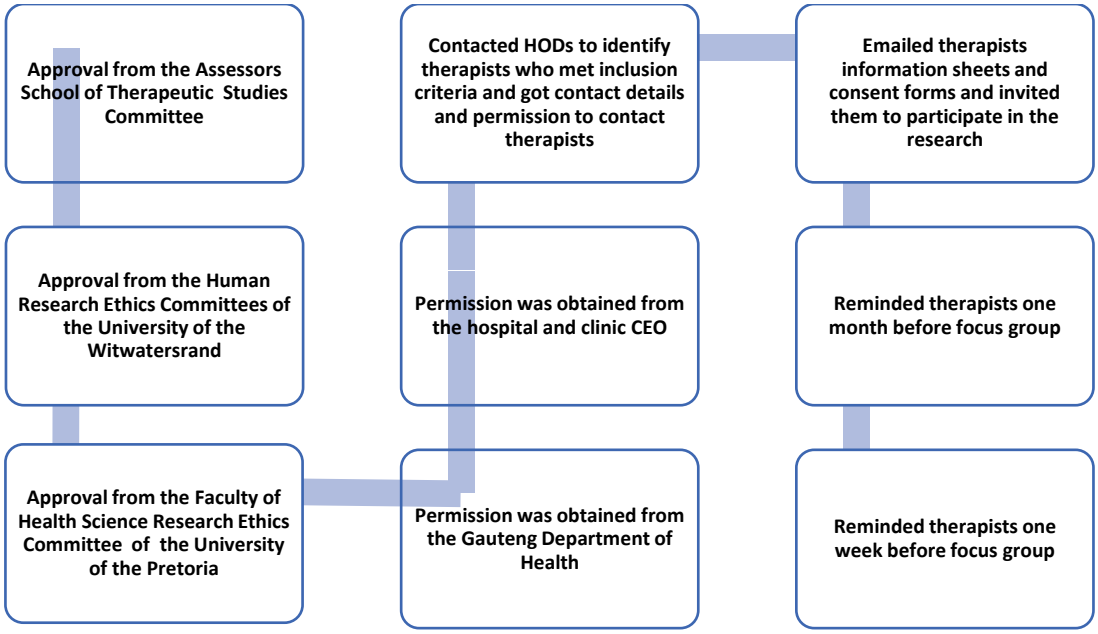


Figure 3.1 Data collection process

Occupational therapists, among other allied health professionals, from all the clinics and hospitals within a catchment area attend a bi-monthly sub-cluster meeting at an agreed upon date, time and venue. The researcher invited purposively selected participants to stay behind for the focus group after their specific sub-cluster meeting. All the participants were acquainted with each other from previous meetings; thus, the groups were more relaxed and comfortable. Conducting the focus groups after the sub-cluster meetings ensured that the inconvenience to practitioners (due to travel time and loss of work time) was minimised as they attended the sub-cluster meetings anyway and usually went home at the conclusion of the meeting. This ensured that they did not have to take patient treatment time out of their schedules to attend the focus groups. It also did not add an additional cost for occupational therapists to attend, as they would have made the trip for the meeting and usually use government transport. However due to the cluster meetings being multidisciplinary, team members from the same hospital used the same transport, this resulted in potential research participants being unable to stay for the group as their colleagues were unwilling to wait for them after the meeting. As a result, some of the groups ended up being small or with participants from the same institution.

According to De Vos, Strydom, Fouché and Delport [80], the most, new information is collected in the first two groups but there is no rule as to how many groups should take place. Six groups, approximately an hour each and on different days with different therapists, took place until the data became saturated [86]. This means that no new or different information was being discussed by

subsequent focus groups [79,80]. Also, according to Guest, Bunce and Johnson [86], data saturation occurs after six groups and it is therefore unnecessary to squander resources conducting more than this as the result will inevitably be similar.

Before the focus group started, the researcher asked each participant to read through and sign the consent form should they be willing to participate. Once consent was obtained, the researcher asked all the group members to complete the demographics questionnaire (See APPENDIX M). Once everyone had done so, the focus group commenced by explaining the purpose of the focus group and reason for conducting the research. The focus groups were conducted by the researcher alone, usually in a room which the hosting hospital or clinic was able to provide. Most of the venues were already booked for the meeting and therefore people were aware that they should not disturb. Each focus group was audio-recorded using two recording devices to ensure that none of the valuable information was lost due to technology faults. The audio-recordings were then transcribed *ex post facto.* During and immediately after the focus groups, the researcher made field notes. Field notes were invaluable during transcription to ensure accuracy.

Of the six focus groups conducted, four groups contained 3 participants, one group contained 15 participants and one group contained 5 participants.

3.4 Rigour

As reliability and validity is important in quantitative research, so rigour in qualitative research is established by ensuring trustworthiness. This study considered a number of parameters of trustworthiness, as described by Krefting [87] and Elo, et. al. [88].

3.4.1 Transferability

By describing the content and detail of the research process clearly and in great detail, transferability can be enforced. The sampling and other methods of the study are described in detail in this chapter and chapter 4 also describes the characteristics of the study sample [88].

3.4.2 Dependability

Dependability of the research study can be achieved by giving a clear description of the method of selection of participants and by including the inclusion and exclusion criteria [88]. The researcher additionally also used rich descriptions of the data in the results chapter [88].

3.4.3 Credibility

By conducting six focus groups with a duration ranging from one hour to ninety minutes ensured that the researcher spent a lot of time in the field and therefore the credibility of the research study is ensured [87,89]. Immediately after each group, the researcher noted down her field notes, as well as thoughts, observations, and interesting ideas in a journal; this demonstrates reflexivity also safeguarding credibility [87,89]. By debriefing with her supervisor approximately three times after conducting the groups, peer debriefing was carried out, thus ensuring credibility of the study [87,89].

To further ensure credibility the researcher checked the transcriptions for any errors before coding. Once coded, the researcher's supervisor and a colleague checked the codes to remove any bias [79] which the researcher may have imposed onto the coding.

3.4.4 Confirmability

Confirmability was ensured by reflexivity [87] and using a reflective journal. This also aids in discouraging bias as the researcher made a note of all the group interactions; upon scrutiny, it will become obvious whether the researcher was being biased with regards to her observations [85]. The researcher was further transparent about strengths and weaknesses of the study [89].

3.5 Ethical considerations

Because this research was carried out in hospitals under the authority of two different universities, ethical clearance was sought from both universities' human research ethics committees (APPENDICES A and B). The ethics clearance numbers for University of the Witwatersrand and University of Pretoria are M150937 and 519/2015, respectively. Research only commenced once the respective committees granted approval. Permission was also sought from each hospital CEO where the focus groups were to be held (APPENDIX E for informed consent and APPENDIX F, G and H for signed consent). The HOD's were also contacted and emailed a consent form, granting approval for the occupational therapists working within their departments to attend the focus groups (APPENDIX I for informed consent and APPENDIX J and K for signed consent). Some HOD's felt that their consent was unnecessary they felt that they had no authority over participants who wish to participate and give consent to do so.

The following ethical issues were considered in conducting the study: confidentiality, voluntariness and informed consent [87,88].

3.5.1 Confidentiality

While absolute confidentiality of the participants could not be ensured, the identity of the participants was not made known to the transcribers or in the research report and will be withheld from any future publication. While participants in any one focus group were known to each other, their identities were not known to people outside of the respective focus groups.

The information will be stored electronically in the occupational therapy departmental database and at a later stage the university librarian will archive it. The audio files of the focus groups will be stored in MP3 format and the transcription in Microsoft word format on a USB drive. Hard copies of the consent forms will be available.

3.5.2 Voluntary participation

Participation was voluntary and participants we allowed to withdraw prior to and during the focus groups. This was made clear in the consent and information sheets (APPENDICES C, D and E). However, once the focus groups were completed, it was not possible to withdraw a specific participant's contribution any longer.

3.5.3 Informed consent from each participant

Each potential participant was invited to participate [10,90]. They were given an information sheet to read which detailed the research project and explained what the expectations were around their participation. See APPENDIX D for participant information and informed consent letter. It explained that their participation was voluntary and they were able to withdraw at any stage during the study, without consequence. In the consent forms, it was highlighted that the confidentiality of the group members could not be ensured due to the number of group participants but during the data analysis and within the discussion of the research study their anonymity would be maintained. Members of one group would not be known to another. Occupational therapists also consented to audio recording the groups.

3.6 Data analysis

All audio-recordings were transcribed verbatim, by means of a line-by-line analysis [80], and anonymised. The audio recordings were transcribed by iAfrica, a company specialising in transcriptions. The researcher checked the transcription for accuracy and made corrections, where necessary, using her field notes. This ensured that the transcriptions of the focus groups were accurate.

3.6.1 Coding

Saldaña describes coding as the researcher-formulated construct that translates the data [91]. Inductive, *in vivo* and descriptive coding techniques were used, rather than predetermined deductive coding [91]. The researcher read the transcripts and assigned a label, for example, a word or phrase, (i.e. a code) to a section of data, in the margin of the transcriptions to identify ideas and/or concepts of interest [81]. The labels were reviewed and groups of similar ideas, resemblances, connections and concepts were collated. Using *in vivo* coding gave the most accurate idea about participants' perceptions and attitudes, as it used their own words [79].

Once all the transcripts were coded, a vertical analysis was carried out within each transcription, as well as between transcriptions and field notes in order to find themes which emerged from the discussions during the focus groups. The researcher also was on the lookout for any relationships that existed between the categories. Codes were grouped into categories, and categories were grouped into themes.

3.7 Conclusion

In summary, a qualitative research design was used to obtain narrative, descriptive data from six focus groups. Therapists from public health care settings, who had more than six months' experience and had worked in neurological rehabilitation six months prior to the group, were invited to participate in the focus groups. Groups were audio recorded and transcribed. Data were analysed by inductive coding and these codes analysed for themes to gain an understanding of participants attitudes, perceptions and any other important information which was derived.

CHAPTER 4: RESULTS

4. Results

4.1. Introduction

This chapter describes the analysis of the data collected. These findings relate to the research questions which guided the study. Demographic data from the focus group interviews were analysed quantitatively. The results of the interviews were analysed qualitatively, using inductive analysis. The data were coded using *in vivo* and descriptive coding and categorised and arranged thematically [79]. These categories are presented in a table for ease of reference and discussed according to three themes which arose from the focus group data.

4.2. Demographic results

This data was collected using the demographics questionnaire (See APPENDIX M). This information was plotted in excel and tabulated. Figure 4.1 below shows that of the 26 participants, 12 (46%) were in the 21-25-year age group, nine (35%) were in the 26-30-year age group and four (15%) in the 31-35-year age group. Only one (4%) of the participants were in the 36-40-year age group.

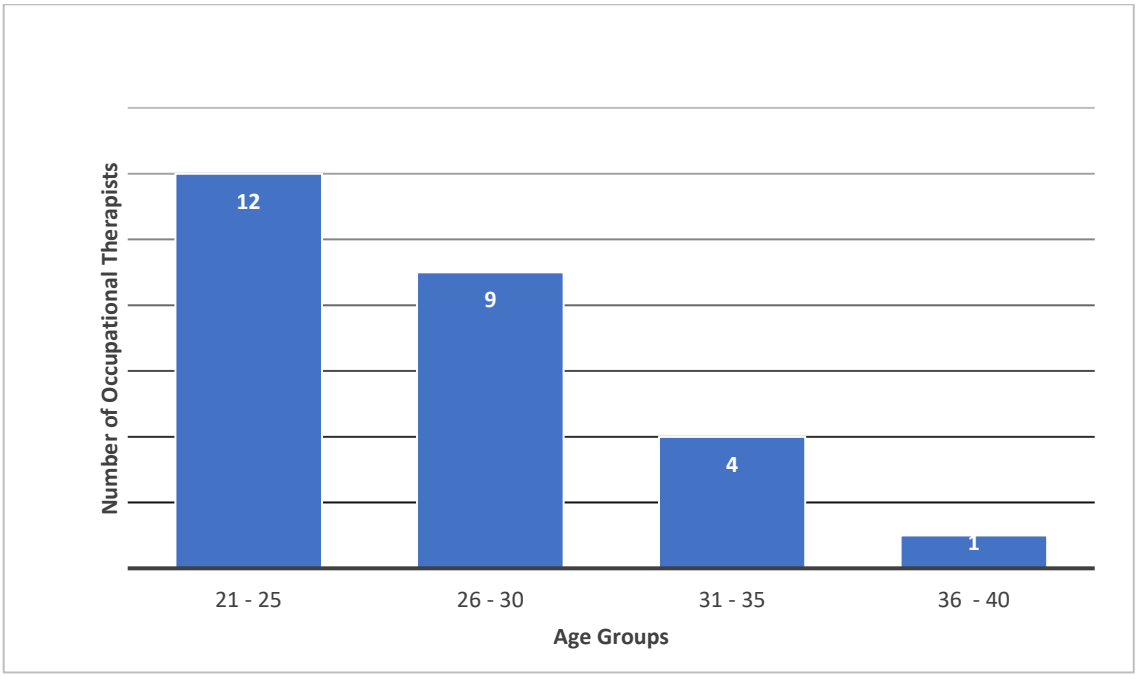


Figure 4.1: Number of occupational therapists per age group

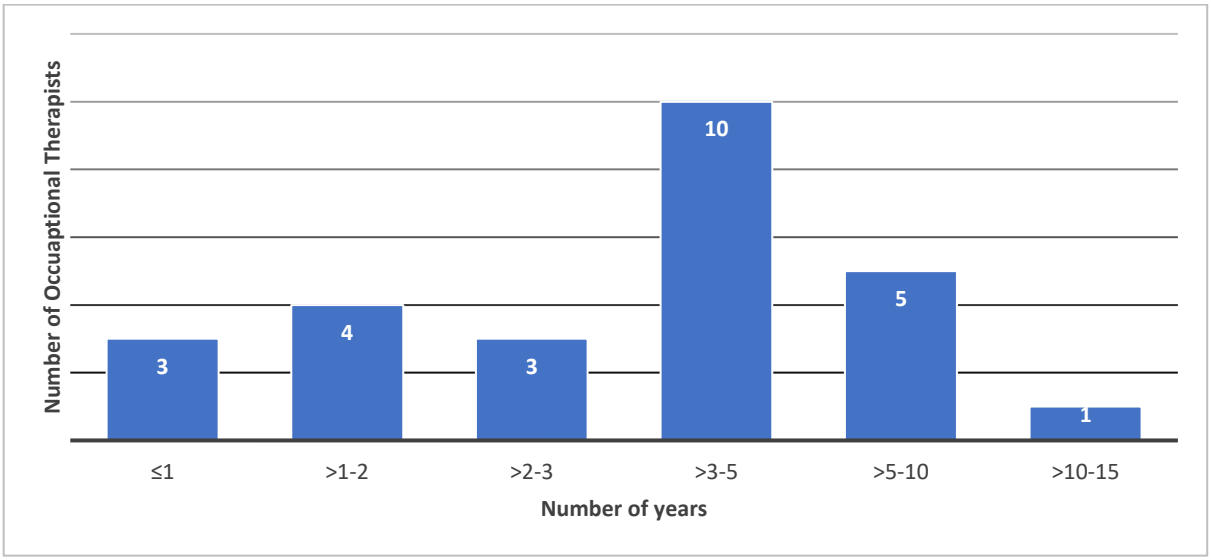


Figure 4.2: Number of years' experience of the occupational therapists in this study

Figure 4.3 below illustrates the number of years of experience the occupational therapists who participated in this study have at their current place of employment. The majority, 22 of the 26 participants (85%) have been at their current place of employment for less than five years. Five participants (19%) had been at their current place of employment for less than one year. Seven participants (27%) had between there for one and two years, four (15%) for between two and three years, six research participants (23%) for between three and five years, three of them (12%) had been employed at their current places of employment for between five and 10 years and only one of the occupational therapists (4%) have been there more than 10 years.

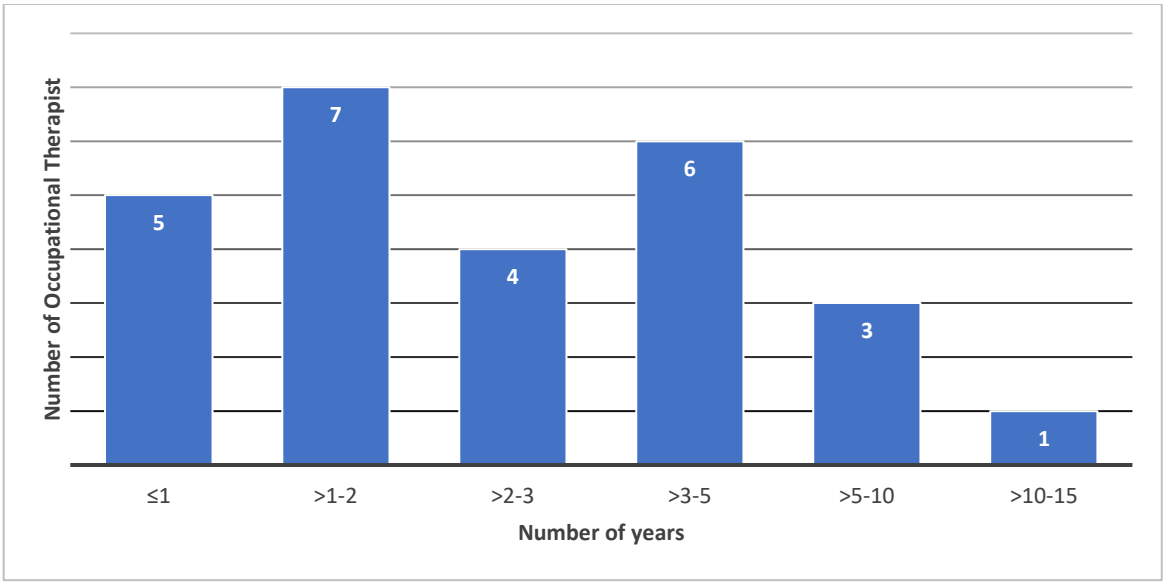


Figure 4.3: Number of years' experience at their current place of employment

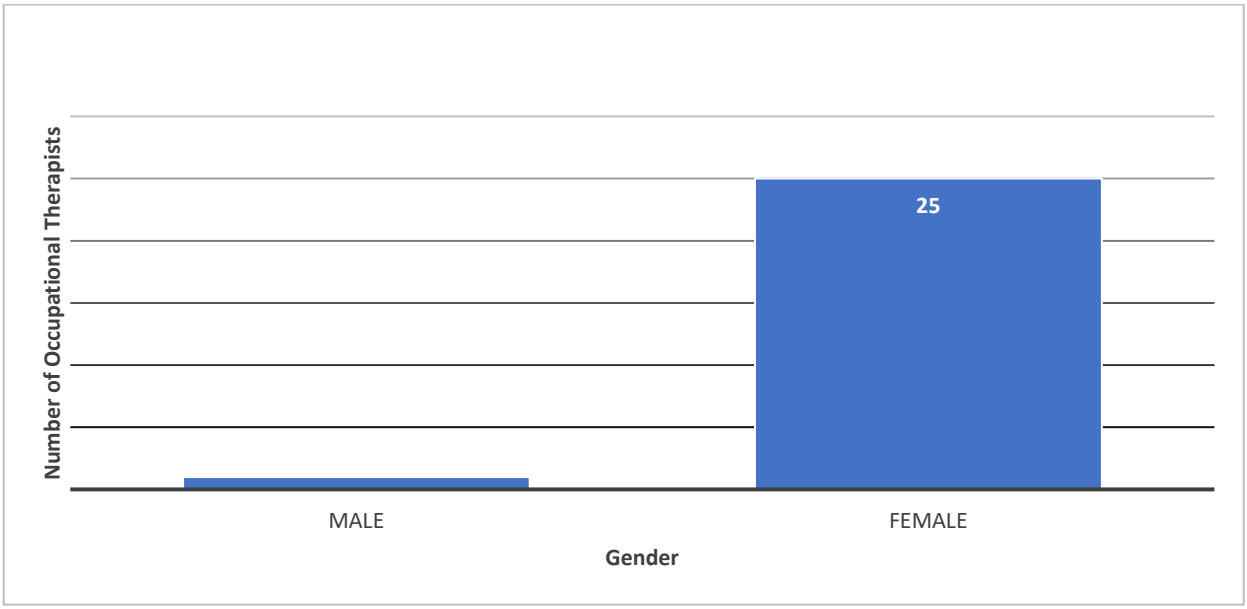


Figure 4.4: Gender of occupational therapists in this study

Figure 4.5 below describes the additional qualifications of the participants in this study. Eighteen of the occupational therapists in this study (72%) had no additional qualifications. The other 8 occupational therapists had a variety of additional courses. Some of the occupational therapists had two or three additional courses. Only two (7%) had additional tertiary qualifications; one (4%) completed a master's degree in occupational therapy applied to neurological conditions and one (4%) completed a postgraduate diploma in hand therapy. Five of the research participants (19%) had completed further wheelchair seating course; three (12%) completed the basic wheelchair seating course, one (4%) completed the intermediate wheelchair seating and one (4%) completed the advanced wheelchair seating. Three of the participants (12%) completed additional paediatric related

courses; one (4%) completed the novice clinical educator programme, one (4%) completed the Sensory Integration course and one (4%) completed the tiny hands, baby sign language course. Two of the research participants (7%) completed neuro-related courses; one (4%) completed the introduction to NDT and one (4%) completed the Neurodevelopmental Theory (Bobath) course. One research participant (4%) completed the aquatic therapy in occupational therapy course.

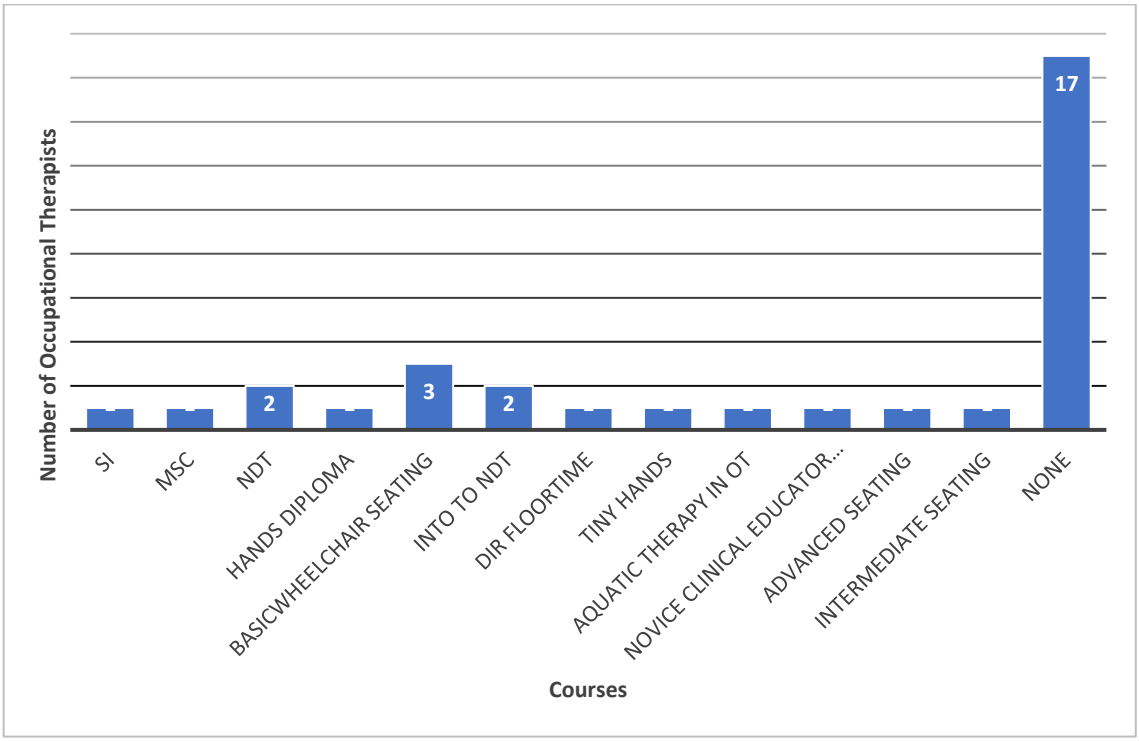


Figure 4.5: Additional courses attended by occupational therapists in this study

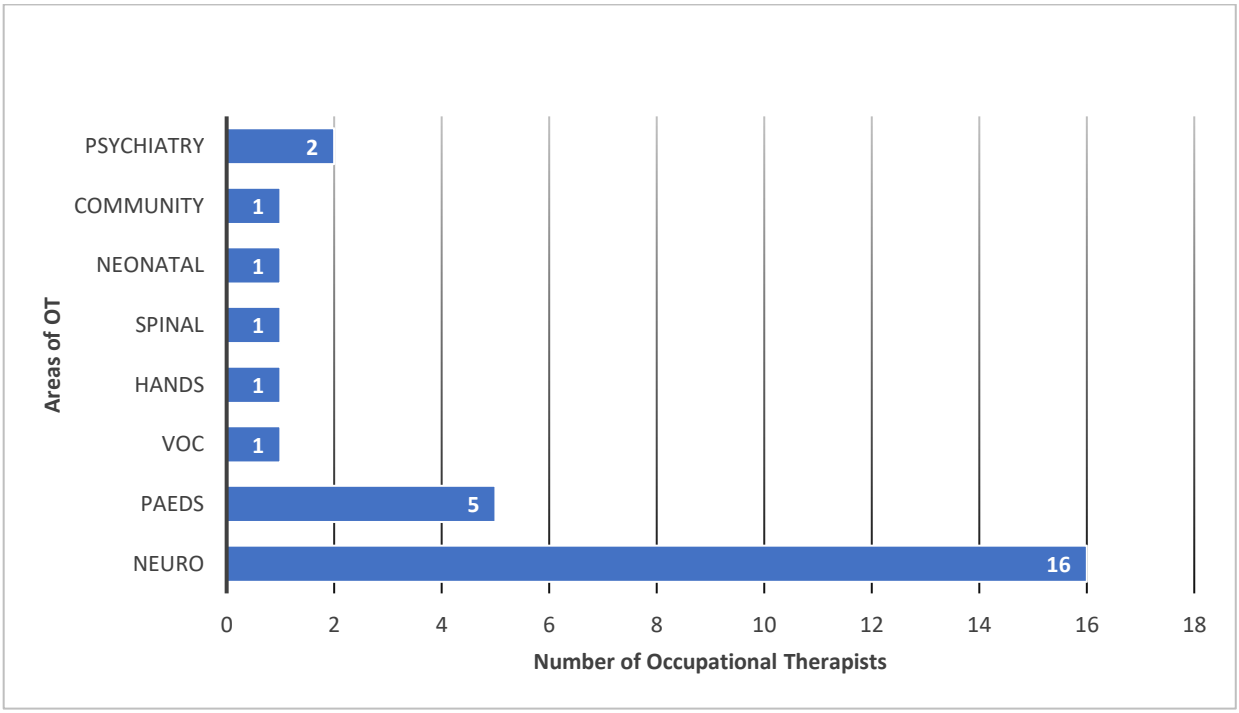


Figure 4.6: Favourite area of occupational therapy of the occupational therapists in this study

The findings above therefore show that the majority of the participants were female. More than half of the participants did not have additional qualifications and most of the participants had been at their current workplace five years or less. The most significant demographic finding was that only one of the 26 participants indicated vocational rehabilitation as a favoured area of practice.

4.3. Qualitative Data

Three main themes emerged from the data. The first theme expresses attitudes towards vocational rehabilitation and has five categories. The second theme describes barriers to vocational rehabilitation and has three categories. The third theme defines the facilitators towards vocational rehabilitation with stroke survivors and is made up of three categories. Each of the themes will be described below.

4.3.1. Theme One: Attitudes towards vocational rehabilitation

Table 4.1 provides an overview of theme one. It has four categories. Each of the categories are described below.

Table 4.1: Overview of Theme One

Category	Sub-category	Codes
Vocational rehabilitation is a complex process	Lack of knowledge	Don't have the skills Scared of actual legalities around work At university level, not enough focus on *voc*
	The vocational rehabilitation process is not established	The *voc rehab* system is not in place No work hardening program
We already have too much work	Vocational rehabilitation takes too much time	*Voc rehab* is very time consuming The clinics are not coping with basic functions Can't always give them what they want

Category	Sub-category	Codes
	It's not my job	Working in the community therefore only rehabilitate, not remediate I want to do my neuro, I must focus on my neuro
Priorities of treatment	Hierarchical nature of OT	Start with personal management and work from there First work on the physical, then basic cognition, then RTW Very, very end of rehab Once they've reached level 4
	Patient's needs drive priorities	Don't express the need/want to work
The nature of the stroke impacts vocational rehabilitation	Young/acute strokes	Rehab is more aggressive Push for independence Usually married and have children Pressure on them to RTW Younger and stronger More motivated
	Old/chronic strokes	Want to sleep during the day Everything is much slower Just want to be left alone

4.3.1.1 Vocational rehabilitation is a complex process

This category had two sub-categories: lack of knowledge and the vocational rehabilitation process is not established. They are described below.

4.3.1.1.1 Lack of knowledge

Some of the occupational therapists felt that they were not confident enough to carry out certain aspects of the vocational rehabilitation process such as the report writing or making recommendations about reasonable accommodations. Some of them felt that they were inexperienced in this field and had not had much exposure to it since undergraduate training. One participant stated:

"*So, I know in my varsity I never, we never had voc exposure we never even had a voc block. So, the first time I realised was even anything voc related was when I came back and started working independent practice…*" 6B

Another research participant agreed:

"*when we study at University level there isn't focus really on work in voc because in fourth year I get one or two lectures and got trained on MODAPTS, we had a look at like the standardized assessments that you do and that was it.*" 1B

Some research participants felt that the legal aspects and technicalities involved with vocational rehabilitation are complex and therefore intimidating. One example is gaining consent and advising patients on their rights and responsibilities. One of the participants stated:

"*it's just knowledge in terms of legislation, 'cause many times I have to go ask our voc therapist, are they allowed to do this, are they allowed to know, should their employer wait, how long must they wait before incapacity leave, so I think things like that also can ja – I think it's just knowledge on how it works*." 4B

4.3.1.1.2 Vocational rehabilitation process is not established

A few of the occupational therapists felt that, had the vocational rehabilitation process and work hardening program already been established at their hospital or clinic setting, carrying out vocational rehabilitation with their younger stroke survivors would be easier. If it was easier, it would be carried out more regularly in their daily treatment or rehabilitation of stroke survivors. One participant in the research study reported:

"*We do not actually have a like, work, there is no, …, no work hardening program*." 3A

Another participant stated:

"*I think the voc rehab process itself at this hospital isn't established, it isn't, we are currently … in the beginning stages of doing research to benchmark and to establish a more evidence based voc rehab… If there was a set voc rehab program ABC then it would be easier. Much easier*." 5B

4.3.1.2 We already have too much work

This theme is sub-categorised into two: Vocational rehabilitation takes too much time and It's not my job. They are described as follows.

4.3.1.2.1 Vocational rehabilitation takes too much time

The process of vocational rehabilitation is time consuming and labour intensive. Participants felt that a dedicated vocational rehabilitation team would better suited to carrying out this role. There are a lot of logistics involved with contacting the employers, staying in contact with employers, carrying out work visits, doing the assessment and re-assessment, writing the reports, following up on a continuous basis, arranging work hardening/conditioning programmes, researching specific cases, such as job descriptions, prognosis, etc.

The occupational therapists who participated in this study felt that there was an unclear demarcation as to who should carry out vocational rehabilitation. The clinics are short-staffed and therefore not coping with the workloads which have already been placed on them such as basic ADLs and functioning, let alone what they perceive as the additional 'burden' of carrying out the vocational rehabilitation process. One research participant stated:

"*We want to down refer for clinics and catchment areas to continue with the good work we've done, but then you look at how understaffed clinics are you realise that they are not even coping with helping people with their basic functions.*" 6A

4.3.1.2.2 It's not my job

The functional capacity assessments take place at tertiary hospitals which are situated far from patients' homes. Patients then must travel between tertiary hospitals and clinics or district hospitals

and get lost in the system. Some patients are treated at clinic level, which is a free service and then are referred to a tertiary hospital for the vocational assessment for which the patient then needs to pay. Consequently, patients do not go for the assessment. One participant commented:

> "*You see, myself, I work in the clinic,* ne*, the patients do not pay and nobody with their companies they need to pay for you to assess the patient. I can say okay, you know I did not want to patient to go up and down that is why I did that assessment, because sometimes you refer a patient and then you know they go up and down, at the end they do not get what they want. So I just said okay, because I received the patient let me do the assessment and then… ja. Because that one it was easy, it was closer to my workplace. So I am not supposed to do that because firstly there are no charge, the patients are not paying. So it means we will do the assessment for free whereas if it was a private company they have to pay*." 2C

Some of the occupational therapists agreed that vocational rehabilitation is not their area of interest. They prefer to treat the neurological client factors rather than the performance areas using neurological techniques. They agreed that work is important but are grateful to pass it on to someone else when the time is right. One participant stated:

> "*It also depends who's the other… who'll do it, but I don't want it, I want to do my Neuro, I must focus on my Neuro, so if there's somebody who loves voc, they must do voc. I don't mind doing the screening tool to see if he needs an assessment, that's not a problem, but I don't want to do the hardening…*" 4A

One participant stated that:

> "*There is definitely the perception that voc rehab is a specialised therapy and that someone else does it, not, ja, us.*" 5A

It was agreed by the majority of the occupational therapists in this study that the work hardening should be carried out at clinic level as this is closer to patients' homes and therefore reduces the financial burden of the patient. However, it was agreed that clinics are understaffed and therefore it is unrealistic to expect this to happen. One of the participants in this study stated:

> "*They are not equipped. Ja, and they don't have the man power – they will never have the manpower.*" 4A

Another agreed that:

> "*We want to down refer for clinics and catchment areas to continue with the good work we've done, but then you look at how understaffed clinics are and you realise that are not even coping with helping people with their basic functions.*" 6A

This leaves a gap in the healthcare system and an unclear demarcation as to where the vocational rehabilitation services should occur and whose responsibility it is.

4.3.1.3 Priorities of treatment

This category consists of two sub-categories: Hierarchical nature of OT and patients' needs drive priorities. They are described below.

4.3.1.3.1 Hierarchical nature of OT

Several occupational therapists who participated in this study agreed that before addressing work as an occupational performance area, it is necessary to first address what they perceive to be more important areas such as personal management, then instrumental activities of daily living and then only once these have been fully established, work. One research participant stated and several other agreed that:

> "*When it comes to specific voc rehab tasks like work simulation or work condition tasks, then that happens after your normal rehab.*" 5A "*And the patient does sort of need to*

dress themselves and brush their teeth before they can get to work in the open labour market anyway…" 5B

4.3.1.3.2 Patient's needs drive priorities

Some of the occupational therapists felt that since it is a difficult, time consuming process, if the patient did not express the need to return to work or want to start working, they do not start any vocational rehabilitation. Most of the occupational therapists in this study agreed that they treat according to the patients' aims and goals. As a result, if the individual does not prioritise work as a goal, then it is simply ignored. They agreed that most stroke survivors do not express wanting to work. One research participant stated:

"*like normally what the policy encourages us to do. They say you must treat according to the patient's goals*." 2C

Another said:

"*If they express a need and they want to return to work we could do that*." 3E

Another participant in this research study said:

"*If a patient does not want to return to work well there is very little we can do besides motivate as to why you need to go back to work*." 3J

Participants mentioned that many patients default treatment and therefore they stop coming for occupational therapy intervention before work can be addressed as an aim or objective of treatment. One research participant stated:

"*A lot of them default from the treatment*." 3D

4.3.1.4 The nature of the stroke impacts vocational rehabilitation

This category consists of two sub-categories: young/acute strokes and old/chronic strokes. They are described below.

4.3.1.4.1 Young/acute strokes

Practitioners in this study perceived younger stroke survivors as more motivated to participate in rehabilitation and therefore, they fight to get better. Younger stroke survivors are perceived to have incentive to participate in occupational therapy rehabilitation as they are usually married and/or have children and are the breadwinner and therefore have a lot of responsibility placed on them to continue working. Having the stroke puts a significant amount of pressure on the family and support systems. One of the participants reported the following way:

> "*So, with the younger ones they… they tend to come in and you know, we take it well this is the program, this is what we are going to do, and we get going. So we also find with them, there is always a lot of pressure there, they will be married, they will have children, you know work is often like a problem either they weren't working, so they already had a lot of stress, and now that they have a disability then how are they going to find a job and that puts a lot of pressure on their… their support system even, the wives tend to*" 1C

Another participant stated the following:

> "*Ja, they are also naturally motivated when they are younger to get better, like they are willing to go the extra mile. They do their exercises. We never have to check up on them, there's never a problem with them in the ward. They are like willing to… you know, fight basically, to get better, the young ones*." 1B

Due to the difference in motivation to participate and investment in treatment, the goals and focus of occupational therapy intervention also changes. Research participants in this study suggested that occupational therapy intervention is broader and more diverse with younger stroke survivors. They further elaborated that younger stroke survivors participate in group therapy where skills such as budgeting, CV writing, interview skills and social participation are the focus and instrumental activities

of daily living such as food preparation are addressed. Assisting patients to apply for learnership programmes is also done during therapy. The participants agreed that independence is the biggest aim of occupational therapy treatment with younger patients. One participant stated:

> "*the younger ones we really push for, you know like independence. You need to be able to do this, you are young, you need to be able to go home, do things and look after yourself. So, we really focus on all of that*." 1C

4.3.1.4.2 Old/chronic strokes

Participants in this study agreed that older stroke survivors are usually very tired and want to sleep most of the day. The participants perceived older stroke survivors to not participate effectively and actively in rehabilitation and mostly want to be left alone. They usually stick to themselves and do not socialise with other patients in hospital. Participants reported that older stroke survivors appear unmotivated to get well and want to be taken care of by family members. Participants perceived that older patients would rather have therapy done *to* them than take responsibility for their own recovery. One of the participants reported:

> "*Very often an old stroke they come… they are referred for rehab so over the age of usually 60, we will give a two-week trial where we explain to the family because very often once they are over the age of 60, they just don't cope with the intensity of rehab. They get tired, they want to sleep during the day, so they're automatically given a two-week trial period where we explain to the family if they could… if they actually have the energy to manage and… often I would say probably about 60% of the time they don't…*" 1C

Another participant reports:

> "*They* (older stroke survivors) *don't want to be in rehab*." 1A

With older stroke survivors the focus of treatment also changes. The participants in this study revealed that occupational therapy treatment with older patients focuses on teaching adapted

methods to carry out basic activities of daily living. Participants also reported the importance of finding alternative methods of communicating patients' needs to a caregiver, including improving patients' assertiveness so that they can explain to a caregiver how they want to be helped. They also reported that intervention mostly includes stretches and sitting up as well as a lot of caregiver training. One participant reported:

> "*And just in terms of like what we have, what we do in therapy for the older patients, it tends to be more like hmm… you know stretches and sitting up and basic ADL's and caregiver training and sort of that basic self-care stuff… the actual rehab is more basic and more like caregiver focused*." 1A

4.3.2 Theme Two: Perceived barriers to vocational rehabilitation

Table 4.2 provides an overview of the second theme. It will be expanded below.

Table 4.2: Overview of Theme Two

Category	Sub-category	Codes
The rehabilitation environment	Resources	Space Staff Variety of tasks Transport to do work visits Cost of the equipment Lost resources/facilities Government has delineated services, it's not our decision Unclear demarcation between levels of care

Category	Sub-category	Codes
	Communication	Poor communication between OT staff at various levels Poor communication between patient and employer Lack of knowledge of other professionals – not referring/promising too much Patients get lost in the system Operational procedures Rotation on a quarterly basis Departmental structure inhibits *voc reha*b Hospital politics
Characteristics of the stroke survivor	Severity of the stroke	Aphasia Perceptual issues Number of previous strokes Incontinence Poor SCOM
	Socioeconomic status	Unreliable public transport If you have a Grant you don't want to work Motivation Patients' level of education It is costly maintaining a healthy lifestyle
	Employment status	Unemployment within RSA; finding work regardless of capabilities is already difficult Youth don't have jobs Decreased incentives for employers
Nature of the work	Executive functioning is difficult to assess	Higher functioning patients Complex jobs requiring higher order cognition, e.g. Advocate
	Manual Labour	Doing physical work Informal, contract work

Category	Sub-category	Codes
	Specialist skills are difficult to assess and simulate	Miners Forklift drivers Taxi drivers Truck drivers
Our employer is not supporting us		Hospital management needs to invest in their staff Therapist training is costly – little motivation to specialize

4.3.2.1 The rehabilitation environment

This category had two sub-categories: resources and communication. They are described below.

4.3.2.1.1 Resources

Occupational therapists from all three levels of the healthcare sector mentioned that lack of resources and available facilities is a big problem, in general, but especially for vocational rehabilitation. The financial resources and budgets allocated to the public healthcare system affects the tools and equipment, the buildings and amount of space available as well as the number of occupational therapists working at each level of healthcare. The cost implications involved in purchasing the assessment tools take a substantial portion of the budget which would be better spent elsewhere. Lack of human resources is also a barrier, as there is not enough staff to cover all patients' general rehabilitation and perform vocational rehabilitation-related tasks that are not part of general rehabilitation. A few of the participants stated, and several others agreed, in some cases interrupting each other, that in summary the barriers are:

> "*resources… and to some degree voc training… jobs*" 1A, *"Staff, human… and… skills… time"* 1C, *"equipment… resources"* 1B

Another participant agreed:

> *"… in terms of resources we have and the amount of time we have…"* 3G

Some of the occupational therapists who are attempting to carry out work hardening, reported that there are no resources in order to carry it out successfully. In order to do so they bring tools and equipment from home. One participant stated that:

> "*I think resource wise we try push back on that because we keep using our own stuff for it*." 3B

Another participant in this study agreed, and stated:

> "… *but in terms of therapy, we don't have any kind of work simulation or work hardening, we got none. Work simulation that I've done in the past have been things that I bring personally from home, like my own sewing supply and my own bar tending supplies*." 5B

The inability to simulate certain jobs also acts as a barrier to vocational rehabilitation. In the long-established Occupational Therapy departments, there were workshops and tools which were used for work simulation and work hardening. However, this has fallen away over the years. One participant stated:

> "… *you know we don't have like tools like we did with the old OT departments had a workshop with tools. It's fallen away that thing 'çause you're not seeing that therapy…doing woodwork*." 4A

Another agreed that:

> "*We want to down refer for clinics and catchment areas to continue with the good work we've done, but then you look at how understaffed clinics are and you realise that are not even coping with helping people with their basic functions*." 6A

The occupational therapist participants in this research study report that primary health care, district, rehabilitation hospitals and clinics do not have access to the tools and equipment needed to carry out vocational and functional assessments, therefore patients needing these services are required to go to tertiary hospitals. They (the research participants) have access to the Gauteng Vocational Screening Tool which they do report using. The occupational therapists from these hospitals and clinics, who participated in this research study, complained that the Government policies have restricted them. One participant reported that:

> "*We are unable to simulate anything that they are going to have, and they work environment from it so, the patient was a welder, you know he's has to work a little bit on the hand function, the coordination, that kind of stuff…*" 1C

Another participant reported:

> "*You know like for me, like for in a hospital really it is not a realistic setting to do the work, because I just feel in the community you are able to you know work with, you know the NGO's. Like there is a lot of variety of opportunities that you can use in community. So, okay I know maybe we (clinic occupational therapists) may have a challenge in terms of resources, space for instance, but when I say space I mean like you guys have assessment tools that you use, but for me it does not have to be a formal assessment like for a person to be returned back to, or placed into the job, ja to do a job placement. Like you can use anything in the community, you can use anything like even their home environment you can go and see like how they perform in their realistic environment and then out of that you can try and place them where they can benefit most.*" 2C

Another research participant stated:

> "*Now the challenge that we have when work hardening needs to be done and this needs to be the focus, we don't have the skills to do that at our hospital, so now we try send them back to the hospital that did the voc screening.*" 1C

Primary health care level and some district and rehabilitation hospital occupational therapists reported that the way in which government has structured the vocational rehabilitation process is hindering their ability to carry out vocational rehabilitation. Especially primary health care settings and district hospitals only have access to the vocational rehabilitation screening tool and therefore that is the most they are able to do in terms of vocational rehabilitation. One participant stated:

> "*For Government has kind of done it like that… from head office they have said that Bara will do it, Jo'burg General will do it and Dr. George will do it and all the other hospitals will refer to them, because they have trained therapists*." 1C

Another also commented:

> "*I think also the policy is restricting us*." 2C

Many stroke survivors that are foreign patients, have no legal work permits and/or documentation for South Africa and therefore this proves to be a challenge in terms of treating vocational rehabilitation aspects. One of the research participants explained that:

> "*The one patient was from outside the country and then he did not have the requirements. So, all I could do, like I was limited, I was restricted to take the vocationary* (sic) *further because of the legal documents*." 2C

Occupational therapists report that the policy of the majority of the hospitals, tertiary and district, is they are not allowed to do work visits. This is perceived to be the role of community-based occupational therapists. One participant in this study stated:

> "*Ja, so work visits, we unfortunately unable to, due to staffing so our voc unit has only 3 staff members and 1 has been away for some time, so it's two people in the*

department and so work visits are limited to PILAR cases, which are referred to us by the CEO and we do in-house." 6B

4.3.2.1.2 Communication

There is poor communication between the business/employer and the patient. Usually the employer is not even aware that the individual has been admitted and usually think that the patient has absconded from work. Usually the employer has made alternative arrangements and employed someone else in their place. Trying to get the patient back to work after this has happened makes return to work even more challenging.

Communication between the different level of healthcare is also poor. The occupational therapists between the various levels do not relay information about assessments and do not give feedback or follow up with each other.

The knowledge of other professionals working within the hospital or clinic setting is also lacking as they do not know when to refer the stroke survivors for vocational rehabilitation and then tend to medically board the individual despite them having the potential to work with reasonable accommodations. One participant stated:

"*It has to be, it has to include other disciplines as well, other like your doctors, your social workers. They should know that okay fine, if I have this particular patient, I can refer them to OT, I can refer because it is only now, because now I am part of the PILAR committee, that is when we sit around and so, but still, even during those meeting you can sense they are not so much clued up. He is a doctor, he is a GP, knows by he thinks that he can make that judgement that the patient can return to work, whereas it is not."* 2A

One research participant reported that due to the structure in her department, she is required to rotate on a quarterly basis and therefore is not around long enough to start or see through the vocational rehabilitation process. She stated:

> "*By the time I stretch my legs, my feet towards such a patient, we rotate. We rotate on a quarterly basis, so I never went out to assess*." 2B

4.3.2.2 Characteristics of the stroke survivor

This category has three sub-categories: severity of the stroke, socioeconomic status and employment status. They are described below.

4.3.2.2.1 Severity of the stroke

The prognosis of the stroke survivor plays an important role in the rehabilitation, and more especially, on the vocational rehabilitation. If the individual has a poor prognosis then vocational rehabilitation is realistically not a priority aim or objective to be treated. One research participant sated:

> "*A big aspect that we look at is cognitive, so the cognitive impairment – if they are coupled with cognitive impairment, aphasia and poor selective control of movement then we know that their prognosis, functioning wise, is going to be quite poor*." 6D

One research participant gave the following example:

> "*A few that I am struggling with is with aphasia. If they have aphasia to go back its quite difficult 'cause they don't have AAC yet or anything like that to really help them, so like one of my patients, he's a chef and now there is no active movement in the arm and he is aphasic, like he can't say anything so I think to really go and promote yourself if you are aphasic its quite difficult. And he wants to work so it's quite bad*." 4B

4.3.2.2.2 Socioeconomic status

The socioeconomic background from which the majority of the stroke survivors come make vocational rehabilitation challenging. Participants felt that there is an alarmingly high unemployment rate in this country so to find work, let alone keep work with a disability is already a challenge. A significant number of younger stroke survivors are unemployed and have been unemployed since they left school. The youth struggle to find employment. The youth that are employed are usually doing piece

jobs or contract work or are self-employed. Very few patients have formal employment. One participant reported that:

> "*Firstly, we don't get a lot of formally employed people, candidates, so now they were already unemployed when they got here so you can't really think they can go back to work if they were never employed. Honestly, I think it is hard enough for an able-bodied person to find competitive work in the open labour market, if you have any kind of disability, even though you are protected by the Employment Equity Act and you are protected by the Labour Relations Act, in reality, the chances are slim of getting back to work*." 5C

The financial resources available to the stroke survivors were reported to be limited. Getting to rehabilitation is challenging as transport to and from the hospital or clinic on such regular basis is expensive and using public transport is a challenge. Lack of public transport for people with disability is a factor which impacts negatively on vocational rehabilitation. Some of the taxi drivers do not stop for people with disabilities and this makes getting to work and back a challenge, thus these individuals may not be able work. Participants expressed that were government resources and funding better, including the public transport set-up, people with disabilities would be better accommodated. One research participant lamented:

> "*And public transport. The taxis don't want to always take people with wheelchairs*." 3B

Another research participant agreed and added that:

> "*Hmm, I had a patient who, with an employer that was going to take him back and he said I can't get on the train, I can't, it's too expensive to take the taxi, they charge extra for wheelchairs and that it's not worth going back to work*." 3G

Most of the participants stated that patients are not often motivated to work. The majority of the patients do not want to return to work after suffering a stroke. They are perceived to prefer receiving an insurance pay-out, or a government disability grant. In the majority of cases, eligibility for a grant

acts as a deterrent, resulting in stroke survivors refusing to even attempt returning to work. One research participant stated:

> "*I had another case that this lady was working and then had a stroke, but she refused to return to work. So even though she was able to work when she came to see me and she was able to carry out her job again, she refused. Then all she wanted was just the disability grant to be given to her*." 3B

Several of the occupational therapists in this study agreed that similar situations happen on a regular basis. There are several young patients' who would rather rely on a disability grant than work, even though they are able to work. One research participant in this study reported that:

> "*So that is the motivation that I am talking about, because if it is a young client and then they are having to rely on a disability grant, then there is a problem with the mind-set. That is where we have to bring in the counselling so that you can uplift the motivation*." 2C

4.3.2.2.3 Employment status

Most of the stroke survivors who are motivated to work end up in the informal employment sector running their own businesses such as tuckshops. One research participant said:

> "*It is often self-employment. I had a patient yesterday, she makes hmm, 'magwinya', those vetkoek and so the rehab has, specifically voc, assisted her just to be able to do that skill… it's not really like proper work, formal sort of work hardening and stuff to go back to formal employments*." 1A

The patients that are employed are usually doing piece jobs or contract work and many did not have a formal employment contract. These individuals are usually easily replaced, therefore there is decreased incentives for the employers to keep them on, so before occupational therapy intervention can take place, the person's job is taken by another (usually able-bodied) worker.

4.3.2.3 Nature of the work

This category had three sub-categories: executive functioning is difficult to assess; manual labour and specialist skills are difficult to assess and stimulate. They are described below.

4.3.2.3.1 Executive functioning is difficult to assess

A few of the participants in this study mentioned that assessing stroke survivors with white collar employment who have jobs that require executive functioning, was extremely challenging, especially the simulation of the actual work environment. One participant gave an example:

> "*Like I have a lawyer now, so he like can do the admin things you know, filing, and that with MODAPTS and maybe computer work, but the actual executive functioning at the practice or if he's in court, shew, it's just I think higher functioning*…" 4B

4.3.2.3.2 Manual labour

The majority of the stroke survivors who were working were carrying out hard, manual labour with no other skills or education/qualifications, such as construction work, packers and bricklayers according to the study participants. There are usually physical deficits which make carrying out these types of work challenging thus making to return to work difficult.

4.3.2.3.3 Specialist skills are difficult to assess and simulate

Participants reported that rehabilitation of some jobs requiring specialist skills are difficult for two reasons: firstly, because occupational therapists need additional skills to assess these, and secondly because in some industries the jobs are not available after suffering a stroke.

One example that was mentioned repeatedly was that of taxi drivers. After suffering a stroke, an on-road driving test is required before they are allowed to continue driving *per se*, let alone meet the requirements to obtain a Public Driver's Permit. These services are only offered in the private occupational therapy sector. One participant reported that:

"*So, we do the driving screening here and then if they need an assessment, we refer to Caroline, but that's only in the private sector, patients can't pay for that so then their driving gets halted*." 5B

Another reported, and several of the participants in this study agreed that:

"*a lot of them work in like taxi drivers, they do not have like, it is formal employment but not formal employment so the taxi drivers are not going to take them back…*" 3I

It was also reported to be difficult to assess and treat specialist skills such as a forklift driver or an individual who operates heavy mining machinery, especially with regards to work simulations, not only from an equipment perspective as highlighted above, but also from the perspective of knowledge of the job:

"*… if it is like specific things, like they were operating a forklift or something, I think we don't have the resources for that. So, if it is something simple like cognitive stuff, they had to improve in memory yes, then we can do that or budget thing, maybe we can do it if it's like that… But when it comes to … they need work hardening in order to return as a miner, then… maybe the… I don't know. We don't have enough exposure to see what they do*." 1A

4.3.2.4 Our employer is not supporting us

The research participants in this study felt that their employer, the Gauteng Department of Health, does not support them enough to carry out vocational rehabilitation with stroke survivors. One of the most important areas where practitioners felt they need better support was in relation to further education and training. One practitioner felt that additional vocational rehabilitation training is pricy and therefore with the perceived poor salaries government employees are earning, there is little reason or incentive to pay the high course fees from her own pocket. She reported:

> *"At the end of the day, if I were in private, I will make let us say R15 000 from that particular report, whereas in Government I am still going to get my salary that I get each and every single month. So, I think that and I think also, there has to be avenues."* 2A

Because all the additional training in vocational rehabilitation, whether it be a post-graduate diploma or other courses such as WorkWell™ or Ergoscience™ are costly, it was felt by one of the research participants that government should invest in staff training. She felt that, should an occupational therapist working in government, invest in her own additional training, there is no incentive to remain in government as she could earn a significantly better salary in private practice. However, should government pay for, or subsidise, these courses, or promote vocational rehabilitation occupational therapists to higher levels on the pay scale, there would be incentive to continue working in government. She stated that:

> "*I think also they need to take the therapist for training, because you need to be trained in work where, in Ergosciences™ and so and that is costly, because I have approached them as well and then, because I got a quotation it was around for work where, for the job analysis at the FCE and so forth, it was around R60 000 or R70 000. I told them and then they like, they are not interested and so now also I told them like if I may to pay for that, what will make me stay, whereas I could just go into private?*" 2A

Others felt that they had not been properly trained by the Gauteng Health Department on how to use resources such as the screening tools, which are available and therefore felt incompetent in their skills to carry out the vocational rehabilitation process. They felt that better training would enhance their confidence in their skills and would enable them to start carrying out more of the vocational rehabilitation process at their respective hospitals and clinics.

Thus, practitioners expressed a number of barriers which they seem to feel inhibited their ability to render vocational rehabilitation services.

4.3.3 Theme Three: Perceived facilitators to vocational rehabilitation

Occupational therapists who participated in this research study felt there were limited facilitators. This theme has two categories: External resources and policy and legislation, as illustrated in Table 4.3. This theme is described in greater detail below.

Table 4.3: Overview of Theme Three

Category	Codes
External resources	NGOs assist with placement Private initiatives which assist people with disability to find employment Learnership programs Workshops: sheltered and protected take PWD Accommodating families
Policy and legislation	There are some policies that foster *voc rehab* Temporary grant acts as motivation to improve faster and allows for stroke survivors get off their feet Access to VRTT mentoring has increased my confidence & skill Screening tool has made *voc rehab* more accessible and possible

4.3.3.1 External resources

The occupational therapists in this study felt that external resources which are not a part of the Gauteng government structure acted as facilitators to vocational rehabilitation. The reported that NGOs, protected and sheltered workshops assisted in taking participants that were unable to work within the open labour market. One participant stated:

> "*Like I was saying, in the meeting that we had, on OTT who doing research on disabled that is not working, so we ended up with an organization. It is called Thusanang, where they are now doing a lot of activities, a lot of items that they have to say to the*

community, then get money out of that. Because the only resource in Tshwane that we have is Employments Solutions né*, and then they have long waiting list. You cannot place everybody there. So, we need to come up with, you know, smaller organizations where they can benefit from. So, I think the Thusanang organization that we have promulgated* (sic)*, it is benefiting the community."* 2C

Some participants also felt that some of the stroke survivors' family members, caregivers and social support structures facilitated the vocational rehabilitation process and made it easier. The more accommodating the family was the better for the individual.

4.3.3.2 Policy and legislation

The occupational therapists who participated in this study felt that although some of the policies and legislation can be seen as a barrier to vocational rehabilitation, other policies and legislation can act as facilitators. Current legislation such as the Labour Relations Act and Employment Equity Act aid people with disabilities, including stroke survivors, in gaining and retaining employment.

Stroke patients' disability grants are usually temporary due to the possibility of recovery. Some research participants felt that because stroke survivors only receive a temporary grant, this could act as a motivator for these individuals to participate in vocational rehabilitation as they will be forced to support their families once the grant ends. Compliance to treatment is one of the criteria which is considered when renewing the disability grant, should the person need extended rehabilitation or should adequate recovery to RTW not be possible.

Several of the occupational therapists who participated in this study, felt that having unlimited access to Gauteng Vocational Rehabilitation Task Team (VRTT) and their mentoring services, assisted in making the vocational rehabilitation easier and smoother.

All occupational therapists working in the public sector in Gauteng have access to the VRTT screening tool. Some of the participants felt that this tool was a facilitator towards achieving vocational rehabilitation with stroke survivors.

4.4 Conclusion

In conclusion, this chapter discussed three themes that emerged from the data, namely attitudes, barriers and facilitators. Some quotes of codes were presented to illustrate the participants' attitudes, and their views on barriers and facilitators to the vocational rehabilitation process for young stroke survivors in the Gauteng public health sector.

Several attitudes where identified from the research interpretation. Occupational therapists felt overwhelmed by the vocational rehabilitation process and felt their knowledge was lacking. It was also felt to be a timeous process which was not always part of the role they were currently fulfilling or the priority of the rehabilitation they were currently providing. They also reported that departmental rules and regulations as well as policies made it challenging. The research participants mostly agreed that lack of resources and the severity of the stroke were some of the biggest barriers to vocational rehabilitation with stroke survivors. They also mentioned the socioeconomic background and employment status and type of work the stroke survivors was carrying out prior to stroke as negatively affecting the vocational rehabilitation process. Some occupational therapists felt that more financial support or incentive from their employer would also smoothen the vocational rehabilitation process.

A number of facilitators were also identified such as external resources and policy and legislation, which assisted in the process. In the following chapter, the results will be interpreted and discussed in the context of the existing literature.

CHAPTER 5: DISCUSSION

5. Discussion

5.1 Introduction

In this chapter, the results will be discussed thematically in relation to the research objectives and placed in context of the existing literature.

The objectives of the study were to determine the attitudes and perceptions of occupational therapists working in Gauteng Healthcare with regards to carrying out vocational rehabilitation with young stroke survivors. First, the demographics of the research participants will be discussed followed by a discussion of the qualitative themes. The first theme relates to the objective determining the attitudes of participants and the last two themes relate to the participants' perceptions of vocational rehabilitation.

5.2 Demographics

The ratio of the participants in this study of male to female was 1:25, therefore demonstrating a majority of females in the occupational therapy occupation in South Africa. This is slightly more disparate than statistics received from the Health Professions Council of South Africa (HPCSA), which has a total of 5209 registered occupational therapists, as of the 2nd of August 2018; 4942 females and 267 males, a ratio of 1:19 [92].

The graphs displaying the number of years the occupational therapists were working at their current place of employment, brings into question the retention of staff as the majority of the staff had been at their current place of employment less than a year.

When considering the number of years of experience practicing in occupational therapy (Figure 4.2) and the ages of the occupational therapists (Figure 4.1), it is evident that the participants were mostly young with limited experience. This could explain their reluctance to challenge Gauteng public health

policies and procedures, and their perceived lack of confidence to engage with employers and other occupational therapists within their referral areas in relation to implementing new services and challenging the *status quo*. The fact that more than half of the participants had five years or less experience at their current workplace, suggests a lack of institutional memory in that practitioners may not know what procedures to follow to institute change and that there is likely nobody with sufficient institutional memory to guide them. Although statistics from the NHI 2030 HR document reported that approximately seventy percent of new graduates over the last 10 years, were absorbed into the public sector [93], the results of this study suggest that they are not necessarily retained beyond 5 years of employment.

It was notable that Neurological rehabilitation was by far the participants' favourite field of practice (see Figure 4.6). Interestingly, however when considering the additional postgraduate courses participants had completed, only a handful of therapists had further training which could be applied to neurological intervention and treatment.

Only one occupational therapist indicated that vocational rehabilitation was her favourite area of occupational therapy intervention and none of the occupational therapists had done any further training or courses in vocational rehabilitation. As vocational rehabilitation is not a favourite area for most occupational therapists in Gauteng public health, it is not surprising that participants prioritised other interventions above return to work. No research could be found to support or reject these findings. Since the HPCSA does not gather detailed data about the employment of practitioners, it is not possible to evaluate the representivity of this sample in the greater population of South African occupational therapists.

In South Africa, similar to Australia, the majority (70%) of vocational rehabilitation is being carried out by the private sector with very little happening in the public sector [94]. Despite work being an imperative aspect of occupational therapy, there has been limited involvement from occupational therapists in previous decades in this aspect which has been as a result of the profession following the medical model [94]. In Gauteng public healthcare, vocational rehabilitation services could be found at the various levels of healthcare, however, with the restructuring of health services that happened after the 1994 elections, these services fell by the way side [1]. Currently screening, referral and follow-up is happening at primary health care setting, as well as district hospitals and the assessment, placement and follow-up is taking place at central or tertiary hospitals [1].

5.3 Attitudes towards vocational rehabilitation

This theme describes the attitudes of occupational therapists with regards to carrying out the vocational rehabilitation process with young stroke survivors in Gauteng public healthcare and the aspects which influence this process. There are four categories in this theme, namely, vocational rehabilitation is a complex process, we already have too much work, priorities of treatment and the nature of the stroke impacts vocational rehabilitation.

5.3.1 Vocational rehabilitation is a complex process

It this category there are two sub-categories. They are, lack of knowledge and the vocational rehabilitation process is not established.

5.3.1.1 Lack of knowledge

Lack of confidence and insecurity in their skills and abilities with regards to carrying out the vocational rehabilitation process was a recurring attitude which came through in the focus groups carried out with occupational therapists. Many participants in this study felt that they were ill-equipped, especially in terms of knowledge, to excel at vocational rehabilitation. The majority of the occupational therapists in this study felt that their insecurity regarding knowledge and skills place them at a disadvantage. With the general population's increased awareness regarding the law and individuals' rights, participants felt that getting involved with vocational rehabilitation was risky and intimidating. Buys [43] reports that competency in vocational rehabilitation require basic skills which any occupational therapist should have the ability to carry out, an attitude that was not shared by participants in this study.

The research participants in this study who trained at the University of Pretoria were more confident in their skills to carry out functional capacity evaluations (FCE). Some of the participants who trained at various universities in the Western Cape Province, for example, believed that their knowledge lagged behind that of their Pretoria-trained counterparts and therefore would rather not even attempt carrying out any of the parts of the vocational rehabilitation process. This also translated into a reluctance to set any goals around acquiring more equipment or implementing a specific process. This confirms Van Biljon, et. al.'s [1], findings that the level of knowledge and skills of occupational therapists working in the various Gauteng public healthcare settings differed greatly. She also found

that level of knowledge and skill was related to the undergraduate academic institution where the individual was trained [26].

Even those participants who reported that their undergraduate knowledge equipped them to carry out assessments felt less confident about their skills to simulate work or implement a work-hardening program and thus their belief that these programs must only take place after other rehabilitation has been completed. The literature describes work hardening and conditioning programs as relevant and effective as a treatment strategy even with challenging clients [95]. Importantly, the literature does not describe a hierarchical approach to rehabilitation, and describes work hardening and conditioning programs as graded therapeutic programs [95]. It is therefore possible that participants may have a misconception of these terms. South African practitioners' understanding of work hardening and work conditioning programs needs to be further explored in future research.

Interestingly, depending on the institution at which they studied, not all participants were familiar with all the cost-effective tools available to them to use in order to carry out the assessment part of the vocational rehabilitation process, such as MODAPTS. A previous study also found the lack of knowledge in terms of MODAPTS to be a practice problem in terms of knowledge, skills and confidence [26]. Despite annual VRTT training in MODAPTS and a readily available manual, the results of this study seem to suggest that participants still feel inadequately empowered.

Newly qualified practitioners graduating from any university in South Africa should be able to reason clinically, think critically and solve problems well [43]. Since clinicians have expressed lack of confidence regarding treating work, University programs may need to consider ways of improving students' confidence in treating work, particularly in view of the importance of work in the 2016 Revised Minimum Standards of the Education of Occupational Therapists of the World Federation of Occupational Therapy [96].

5.3.1.2 The vocational rehabilitation process is not established

Several of participants reported that there was no vocational rehabilitation service at their settings. Participants noted that they were not experienced or confident enough to start vocational rehabilitation services at their institutions. Many also reported not having the time to spare in order to take on what they perceived to be an enormous task, especially with already high work- and caseloads.

Despite vocational rehabilitation not being a favoured area of practice, many of the participants indicated that had these services already been established at their institutions, they would have been more inclined to carry out vocational rehabilitation. This was especially true for primary and secondary levels of care, as the tertiary, academic hospitals were fairly well-equipped with some sort of vocational rehabilitation process already established. Practice at the coal face therefore does not seem to reflect Gauteng Department of Health Circular number 12 of 2016, which held that vocational rehabilitation screening must be rendered by all occupational therapists at all levels of care [97] and to refer for FCEs to tertiary hospitals. Furthermore, a study attempting to simplify and standardise work assessments for the Gauteng Public Health setting to enable practitioners to (re-)establish vocational rehabilitation services does not seem to have been taken up beyond the tertiary hospital settings, despite the process being documented and distributed to all Gauteng public health occupational therapy departments [26]. International results correspond with South Africa, where the majority of vocational rehabilitation is taking place through the private sector [94] and because occupational therapists' specialising in vocational rehabilitation are few and far between, delays in returning back to work are likely to occur [61].

The 2016 WFOT updated minimum standards of training of occupational therapists' places greater emphasis on work than previously [96]. Work has been incorporated in the HPCSA's minimum standards of training of occupational therapists for longer, as both the 2009 [98] and 2012 [99] versions refer to work. However, it seems that this has, for the most part, not translated into undergraduate training that produces practitioners who are confident and can integrate the occupational area of work seamlessly into assessment and treatment, when considering the views expressed by participants in this study and to a lesser extent Van Biljon, et. al.'s [1] earlier study.

Lack of confidence is not limited to participants in this study. In Australia and New Zealand, newly qualified occupational therapists felt somewhat prepared for practice and only a fraction felt very well prepared. They felt less prepared specifically in terms of evidence-based practice [100]. No standardised method of assessment for return to work exists in Australia and therefore assessment methods used comes down to experience. For newly qualified occupational therapists, this can be a challenge [101]. As the majority of the occupational therapists who participated in this research, were community service occupational therapists, it is understandable that they felt ill-equipped to carry out vocational rehabilitation; confirming that perceived insufficient undergraduate training is not solely a South African challenge.

5.3.2 We already have too much work

This category is sub-divided into two sub-categories: vocational rehabilitation takes too much time and it's not my job.

5.3.2.1 Vocational rehabilitation takes too much time

Occupational therapists working in the public health sector report having a high patient to staff ratio, which is a reality for all the levels of public healthcare. Thus, participants felt that adding the vocational rehabilitation process to the mix, over and above their day-to-day rehabilitation, increases their ever-growing workload.

While participants acknowledged the importance of vocational rehabilitation, they felt that the process is too time-consuming, especially with regards to carrying out the assessments and writing the reports. It is interesting to note that participants seem to believe that only the assessment of the occupational area of work requires extensive reporting. This seems to suggest that participants perceive a rigidity in the vocational rehabilitation process and are unable to make the process "fit for purpose" and adapt it to their particular circumstances.

Vocational rehabilitation as part of occupational therapy also includes working with individuals who are unemployed or those who are not able to return to their current job due to the severity of their impairments. Participants felt that this creates an added responsibility for the occupational therapist to include job seekers' groups or explore alternative employment opportunities, thus potentially contributing to therapists' workload and therefore reinforces their view that vocational rehabilitation is time-consuming. This confirms the findings of an earlier study in Gauteng [26], that occupational therapists feel obliged to investigate alternatives such as entrepreneurial, sheltered or protected workshop options or to assist patients with actual job seeking. However, the findings seem to show that participants view vocational rehabilitation as an add-on service increasing their day-to-day workloads. Research suggest making better use of the MDT such as social work or assistants to make vocational rehabilitation a more efficient process and free up some of the occupational therapists' time and work load [61]. Thus, the programs developed in Van Biljon, et. al.'s [1] study aimed at standardising and streamlining vocational rehabilitation services, have not had the desired result. The uptake of Van Biljon's programs should be investigated. Future studies should also focus on placement-specific solutions to better integrate vocational rehabilitation services so as to ensure

equitable workloads of practitioners, especially in the future NHI context [10]. It should be clarified whether Functional Capacity Evaluations and Vocational Rehabilitation services will be included in the basket of services to be available under the NHI, since medical aid does not cover it. In the Framework and Strategy for Disability and Rehabilitation Services in South Africa, 2015-2020, document, no mention of FCEs are made but rather the broad term, vocational rehabilitation is used and very vaguely [10].

5.3.2.2 It's not my job

Participants working in the community, in the primary health care (PHC) sector, expressed the belief that the PHC occupational therapist is expected to rehabilitate patients and not remediate them. Return to work and vocational rehabilitation are considered as remediation and therefore not part of the scope of an occupational therapist working in the community. This contradicts international literature, which sees vocational rehabilitation as a continuum of services from hospital to community-based intervention [67]. Furthermore, there is evidence that chronic conditions benefit from community-based vocational rehabilitation services [67,68]. Community reintegration is problematic for anyone with a neurological condition, thus making vocational rehabilitation services at community level imperative [69]. Further investigation into the hidden and delivered curriculum of undergraduate training as well as occupational therapists' perception of rehabilitation and remediation is necessary to enable the occupational therapy profession in South Africa to better integrate the treatment of the occupational area of work at all levels of care, in accordance with both HPCSA and WFOT standards.

In summary, participants in this study perceive vocational rehabilitation as a time-consuming process which should not form part of every OT's workload, despite resources to make the processes smoother and more efficient at all levels of care. There is limited literature available that speaks to the duration of vocational rehabilitation services, but international literature is clear that vocational rehabilitation should occur at every level of healthcare [67] .

5.3.3 Priorities of treatment

Two factors contributed to practitioner's attitude regarding the priorities of treatment: firstly, the hierarchical nature of occupational therapy, and secondly the patient's needs drive priorities.

5.3.3.1 Hierarchical nature of OT

The participants all felt that the occupational performance area (OPA) of work (and specifically RTW) was the final stage of rehabilitation and could only be addressed once all the other OPAs are in place. The stroke clinical practice guidelines for the management of adult stroke rehabilitation, by Duncan, et. al., seem to concur with this train of thought [102]. The guideline was developed in order to ensure that maximal function and independence of the stroke survivor is established in order to achieve quality of life [102].

Participants also agreed that most of their treatment hardly ever gets to a stage, where work or vocational rehabilitation could be carried out. This is as a result of persisting physical limitations or poor compliance from the patient with following up or carrying out their home programs.

Research shows that the majority of patients referred to for out-patient occupational therapy needed some sort of intervention with regards to returning to work, which included training to improve work skills, gradual return to work programme and changes to the work environment. Occupational therapists are also involved with liaising with the prospective employer [61]. Despite being exceptionally important, vocational rehabilitation is often perceived to be less important than interventions aimed at improving other occupational performance areas [61]. This was confirmed in this study.

Hierarchy in the occupational therapy treatment process seems to belie clinical reasoning [103,104] and client-centred [105,106], evidence-based practice [107]. Further research is needed to better understand the concept of hierarchy-based intervention.

The Gauteng Health Circular [96 page 1], states that, “All patients referred [for a functional capacity evaluation] must be medically stable and the rehabilitation process must have been completed.” This implies that occupational therapy patients are treated in a bottom-up approach rather than a top-down approach. This implies that we firstly need to address the impairments before we can strive for treating function. It also reinforces the current mindset that vocational rehabilitation is an afterthought once ‘normal’ rehabilitation is complete, which the occupational therapists in this study report to hardly ever be the case; decreased endurance and residual impairments usually remain and therefore patients need to continue with exercise therapy home programs [102]. In keeping with client-centred practice, vocational rehabilitation should be addressed throughout the whole rehabilitation process, being the

ultimate goal for the end of intervention and thus taken into consideration from the beginning. This is likely to change the goals therapists set with patients.

In summary, occupational therapists participating in this study felt that vocational rehabilitation is not a priority of treatment at the outset. This notion seems to be reinforced by policies such as Circular 12 of 2016 [97] and literature [102]. It is possible that the way in which the occupational therapy curricula in South Africa are designed covertly introduce and reinforce such beliefs, having regard for the age and experience level of a large proportion of participants in this study who qualified relatively recently. Strong South African occupational therapy evidence-based literature is needed to enforce better clinical reasoning and treatment practices among therapists, particularly novices who formed a large proportion of participants in this study.

5.3.3.2 Patient's needs drive priorities

Occupational therapists reported that they set goals based on patient priorities, and, should the stroke survivor not prioritise return to work or finding meaningful or gainful employment as a goal or aim of treatment, then they simply ignore it or prioritise other OPAs. This is likely to be reflective of the relatively high unemployment rate in South Africa which contradicts international research where approximately two thirds of the patients in occupational therapy treatment, identified work as a priority [61]. In another study despite identifying returning to work as important, stroke survivors were reluctant to return to work as they perceived the stress related to their work the cause of their stroke [108], this was not the case in South Africa. Setting goals with the patient's stated priorities in mind is in keeping with the principle of client-centred practice in occupational therapy literature [67,69].

5.3.4 The nature of stroke survivor impacts vocational rehabilitation

Participants felt that the nature of the stroke survivors played an important role in the ease of making return to work a priority goal or aim of occupational therapy intervention. This category consists of two sub-categories, namely, young/acute strokes and old/chronic strokes.

5.3.4.1 Young/acute stroke survivors

The occupational therapists who participated in this study felt that it was easier to carry out vocational rehabilitation with young stroke survivors, as they were found to be more motivated to participate in rehabilitation and push themselves in order to be independent in and return to, their previous life roles. The general consensus among participants was that because young stroke survivors had responsibilities and people depending on them, they were expected to return to work and earning an

income in order to continue fulfilling their responsibilities. This acted as their drive to achieve success in rehabilitation.

Participants in this study felt that for young stroke survivors, maintaining their level of independence is extremely important. This can be achieved by adapting either their functioning or environment so that the two correlates in order to maintain the roles that the young stroke survivors were fulfilling prior to their stroke and therefore make the job of the occupational therapist treating them, much easier as they are motivated. In turn, making it more likely that the vocational rehabilitation process be carried out. The occupational therapists in this study are likely disregarding the neural plasticity principle, age matters, when looking at the progress of the younger stroke survivors. Younger brains have a better chance of neural plasticity taking place and thus could account for the differences seen [56]. Also, younger people are more likely to have been employed at the time of the stroke and therefore more likely to try return to work afterwards [102].

5.3.4.2 Old/chronic stroke survivors

Participants agreed that carrying out the vocational rehabilitation process with older, more chronic stroke survivors was a challenge. Participants felt that older survivors were usually demotivated and preferred to be taken care of, rather than working hard in rehabilitation to return to work. This is supported by some literature, as older individuals are more likely to have a number of medical issues and chronic illnesses [109,110] and contradicted by other literature which found that older stroke patients were able to participate and successfully return to the community, in comparison to their younger counterparts [111]. They are, usually already experience functional limitations and difficulty in carrying out activities of daily living before the stroke; and sometimes are dependent on others [110]. These difficulties are then exacerbated by the individual having a stroke, impacting negatively on the individuals' ability to overcome environmental demands [110]. A reduction in independence in carrying out activities of daily living is considered a marker of decline and fragility in the elderly and is usually associated with an increase in health care use [112]. Furthermore, elderly individuals have an increased risk of suffering from dementia, with the prevalence increasing as the age of the individual increases [109]. All of these factors inevitably affect the focus of occupational therapy intervention, the potential of the patient to RTW and the feasibility of vocational rehabilitation. Cultural beliefs or customs could also play a role in older people wanting to be taken care of and use of religious coping strategies [11,113].

It was agreed by most of the participants that older, chronic patients preferred a more passive role in rehabilitation as well as post-discharge. Furthermore, participants reported that some elderly stroke survivors often just wanted to be left alone and thus refuse to participate in rehabilitation. These attitudes are supported in the literature that found that most individuals who decline rehabilitation are content with their existing situations or did not believe that they needed rehabilitation and also lacked the volition to participate actively; some individuals also expressed not wanting to receive any adaptations or modifications to their homes as that would ruin the tranquillity of their homes [110]. Participation not only relates to the individuals' participation in rehabilitation but also to all life activities and situations. By participating or not participating, the individual may or may not continue living a valued and meaningful life full of activities including domestic tasks, family and social roles, employment, leisure pursuits and social interaction [109]. This will in turn affect the individuals' sense of quality of life [109].

In summary, occupational therapists in Gauteng public healthcare appear have a number of negative attitudes regarding vocational rehabilitation with stroke survivors, especially older, more chronic stroke survivors. They seem to be preoccupied with the negative aspects which influence rehabilitation such as limited skills, the amount of effort and logistics involved in the process which dims the joy and success which comes from getting a stroke survivor back to work; joy from the individual, their families as well as the occupational therapist. By overcoming these attitudes, victory can be achieved resulting in better quality of life and job satisfaction, all round.

5.4 Perceived barriers to vocational rehabilitation

The second theme relates to the perceptions of the occupational therapists in Gauteng public healthcare of carrying out vocational rehabilitation, specifically with young stroke survivors. This theme relates specifically to the perceived barriers towards the vocational rehabilitation process and limitations thereof. There are four categories in this theme: the rehabilitation environment, characteristics of the stroke survivor, nature of work and our employer is not supporting us. According to the occupational therapists who participated in this study, these are barriers to vocational rehabilitation.

5.4.1 The rehabilitation environment

Two sub-categories or aspects which affected vocational rehabilitation, according to the occupational therapists who participated in this study, were the available resources within the rehabilitation environment and communication. The latter includes communication between employers and the

stroke survivor, the stroke survivor and occupational therapist and between the occupational therapist and the employer. These aspects can all impact the success or failure of the vocational rehabilitation process.

5.4.1.1 Resources

All the occupational therapists in this research study, irrespective of the level of healthcare in which they were working or their qualifications or number years of experience, indicated that the lack of available resources were the main reasons for not carrying out vocational rehabilitation with stroke survivors. The reported lack of financial resources as the most influential, as this then affected human resources, physical resources and space available. These factors have a negative effect on occupational therapy rehabilitation in general, but especially vocational rehabilitation, due to the variety of equipment and space required.

Lack of financial resources has a domino effect on all other resources and services offered. The public health care system in South Africa is notorious for being poorly funded [1]. Gauteng Member of the Executive Committee (MEC) with the portfolio Finance, Barbara Creecy has cautioned that the financial situation of the Gauteng Department of Health is of major concern. The province faces an increase in burden of disease, population, medical inflation, budget growth and immigration. This, together with the number of medico-legal claims and internal management of resources has led to the public health care sector being underfunded [114], making acquisition of additional, usually costly, vocational rehabilitation equipment and resources nearly impossible. This study reinforces the challenges practitioners face when trying to provide vocational rehabilitation services to stroke survivors of South Africa highlighted by a prior study, namely underfunding, insufficient therapist to patient ratios and high staff turnover in public hospitals [1]. This results in long waiting times for patients to obtain vocational rehabilitation services, inadequate vocational rehabilitation services and/or programs due to lack of resources available to carry them out efficiently and long distances for patients to travel in order to access these services. By the time the young stroke survivor has overcome all these challenges, the employer has made alternative arrangements and the job is no longer available. This is not a problem South Africa alone faces, international research also suggest that dedicated resources are required in order to carry out vocational rehabilitation effectively, especially in terms of time. It has therefore been suggested that a post specifically vocational rehabilitation be created. Some dedicated resources are required, principally in terms of an increase in the therapy time available [61].

The burden of stroke is costly and adds to the financial crisis in which the Gauteng Department of Health finds itself. It is estimated that loss of earning will be one of the highest cost contributors between 2005 and 2050 [115]. By assisting young stroke survivors to find formal or informal employment if they were unemployed or by assisting them to return to their previous work place, will benefit the national economy of South Africa, in turn decreasing the burden on the health care system [1]. Occupational therapy has been found to be the only medical profession which actually saves the health department costs [116], however it is imperative that vocational rehabilitation be carried out timeously.

All the occupational therapists in this study, reported that the Gauteng Health policy states that tertiary/central hospitals would carry out the functional capacity evaluation's (FCE) and then refer the patient back to the original referring hospital or clinic. They also all agreed that the screening tool was to be completed and sent with the patient and referral letter in order for the occupational therapist to carry out the FCE at the tertiary hospital. All the participants were confused as to which level of care was responsible for the work-hardening or work-conditioning and actually that vocational rehabilitation consisted of more than just carrying out an FCE. This is confirmed by Van Biljon who found that there was misunderstanding and some confusion as to what exactly vocational rehabilitation entails and what the role of the occupational therapists is, at each of the various levels of healthcare within the public sector. As there was no framework or guidelines available at the time, no vocational rehabilitation was being rendered [1]. Due to the constant referring up and down, it is understandable that patients give up on the process and end up defaulting treatment; if they are not working then they have limited funds available to keep 'wasting' on services which may or may not assist them in returning to work or finding employment. International vocational rehabilitation users also agreed that lack of access to these services can be detrimental to finding and maintaining employment [117]. The occupational therapists also agreed that by the time that this whole process has taken place, most of the employers have already employed someone else to do the job and therefore are no longer willing to take the stroke survivors back. Therefore, starting the services early on in the intervention plan is essential.

Participants feel burdened by departmental structures, policies that keep changing and the politics inherent to the department of health. Services such as work visits, which play an important role in reintegration of the patient in the workplace [118], are prohibited at most Gauteng tertiary hospitals, where policy dictates the bulk of the services should happen. In the absence of a properly integrated health system, this ties the hands of participants who want to offer good vocational rehabilitation

services and leaves them feeling deflated and demotivated. Van Biljon [1], similarly found that occupational therapists feel hopeless about this circumstance and as a result, vocational rehabilitation services are suffering.

In summary, there is a vicious, repetitive cycle between lack of financial resources leading to an increase in the cost of treatment due to the knock-on effect of lack of available resources and service delivery, leading to less financial resources available for treatment.

5.4.1.2 Communication

Another barrier that the occupational therapists in this study reported was communication. They felt that firstly the communication between the stroke survivor and their employer was poor. The stroke survivors tend to not inform their employers that they are ill and have been admitted to hospital. The employer then usually feels that individual has absconded from work and usually initiates the process of replacing him/her.

Communication between the treating occupational therapist and the employer is usually compromised due to lack of resources; occupational therapists usually are forced to use their personal cell phones or email addresses. The back and forth communication between the occupational therapist and the employer can also be time-consuming and responses can get delayed, or lost in translation, leaving the employer frustrated and unwilling to compromise or react reasonably. Research confirms that negative employer attitudes can be detrimental to these individuals and is the most concerning factor for people with disability when returning to work post injury [117,119].

Communication between the various levels of healthcare is also notoriously poor according to the occupational therapists who participated in this study. They report that the stroke survivors usually get referred back and forth several times leading to occupational therapists getting frustrated, the stroke survivor losing hope and faith in the system and the employer giving up and employing someone else in the position. Therefore, efficient referral systems are necessary for stroke survivors to get timeous vocational rehabilitation services as the onset of disability of an adult of working age may result in social exclusion [59]. In Hong Kong the majority of referrals came from medical doctors, whereas in Australia they came from employers [94]. In this study, the referrals came from both employers and doctors and occasionally from the client themselves.

Rather than facilitate vocational rehabilitation, participants felt that the process of referring up and down between different levels created by Circular 12 of 2016 [97], lead to patients getting lost in the system. Vocational rehabilitation services are mostly offered at a tertiary level; few patients have easy, affordable access to these services, putting them at a disadvantage when returning to work after surviving a stroke. The referral of patients in Gauteng public health happens between various levels of the healthcare system, usually, but not exclusively, from a lower level of health care to a higher level [120]. The referral system ideally involves a two-way movement of the patient and clinical information, as well as necessary documentation moves between the levels of health care. This referral system is intended to make up a continuum of care to meet all individuals in South Africa's health care needs [120]. By structuring the referral pathway as such, the Department of Health aims to enable vulnerable communities and populations to access healthcare services easily and cost effectively [120], in accordance with the World Health Organisation Workforce 2030 policy [121]. However, these participants found the referral system to impede access rather than enhance it, because patients often are not in the financial position to reach tertiary hospitals and patients often get "lost" in the system.

Practitioners feel hamstrung by the referral system between the levels of healthcare in Gauteng, which often results in patients getting lost in the system. PHC occupational therapists refer patients to higher levels for FCEs or further intervention and these patients do not show up. Some patients show up months later at the tertiary institute, with a referral letter from the PHC therapist, but which time, the FCE is no longer necessary. Sometimes they return to the PHC therapists and when asked about the outcome of the assessments, the therapists realise that the individual never went or therapists see each other at workshops or meetings and enquire about certain patients. If there was a better system in place then therapists would find out timeously about referrals and act on them sooner, reducing the chances of the patients getting lost in the system. For example, if there was a centralised documentation system that allowed the lower hospital to alert the higher hospital that someone was referred or that allowed the lower hospital to follow up with the patient, or the higher hospital. When patients get lost in the system, it becomes near impossible for occupational therapists to render appropriate vocational rehabilitation services. Rather than being forced by policy decisions to render specific services, practitioners should be allowed greater clinical autonomy regarding decision-making about a patient's care, treatment and rehabilitation which would enable practitioners to render client-centred treatment as demanded by the WHO [121]. Patients getting lost in the system is not an unfamiliar phenomenon, locally, [107] or internationally [122]. Better integration of services between the levels of care is needed [118], which should go a long way to ensure that patients do

not get lost. Centralised electronic patient records, while it has pitfalls [123] could assist in better tracking of patients.

Participants reported that due to the structure of their departments, they are required to rotate on a quarterly basis. This makes the vocational rehabilitation process with stroke survivors is difficult because by the time they start the process, they are required to rotate. Participants indicated that the handover process is insufficient more often than not, due to a variety of logistical obstacles, including inadequate training for community service practitioners, too little time and patients getting lost in the system. It is well known in the literature that clinician turnover affects continuity of care [67] and very recent findings also indicate a link between client non-attendance and clinician turnover [106], thus the findings of its impact on vocational rehabilitation services are unsurprising.

In summary, lack of resources negatively affects the vocational rehabilitation process. With efficient management and administration of funding, these barriers can be overcome. Communication systems need to be strengthened at various points in order to make the vocational rehabilitation process a success with a happy ending.

5.4.2 Characteristics of the stroke survivor

The research participants agreed that there are several features with regards to the actual stroke survivor as an individual which affect the process of vocational rehabilitation. Features such as the severity of the stroke, their socioeconomic status and employment status prior to the stroke all impact upon the success or failure of the vocational rehabilitation process.

5.4.2.1 Severity of the stroke

The consensus among occupational therapists who participated in this study, was that the severity of the stroke impacted their ability to carry out the vocational rehabilitation process as well as the triumph thereof. They felt that deficits such as aphasia and severe upper limb and/or lower limb impairment were poor prognostic indicators for return to work; research confirms this [61]. Research in Australia found that disorders of cognitive processing are the most influential in determining the loss of paid employment [101]. Recovery, where there is functional movement take approximately eight to 20 weeks from the date of onset, however usually half of stroke survivors have lasting movement deficits and hemiparesis. One study found that an inequality exists whereby workers who have a physical disability, are viewed more positively than with an intellectual or psychiatric disability and therefore

are more likely to be accepted back into the workplace [119]. Only a very small proportion of stroke survivors are able to return to work after the onset of a stroke due to the functional limitations they face [71,108].

Factors which facilitated return to work in young stroke survivors were found to be a shorter duration in hospital, a milder stroke, mild cognitive and physical impairments, better participation in activities of daily living and a supportive home and work environment [71] .

A detailed investigation of the reasons for this was not possible, but it was felt that it related principally to the severity of the individual's disability. Inevitably, a proportion of patients with impairments resulting from conditions such as acquired brain injury or stroke will be unable to return to employment, even with a change of role or working conditions. Some patients appropriately opt for retirement on medical grounds and the occupational therapist's task then alters to focus on recreational or other interests as part of their programme. There were also individuals who were long-term unemployed which, when coupled with their newly acquired cognitive and /or physical problems, made the task of finding employment extremely difficult in the service currently provided.

5.4.2.2 Socioeconomic status

Occupational therapists in the study agreed that the stroke survivors who come from very poor socioeconomic backgrounds, despite getting health services for free, still experience several challenges with accessing these services. Factors such as access to public or private transportation, gaining employment and completing a formal education negatively impact upon young stroke survivors' motivation, self-esteem and self-worth. They also acknowledged that despite Governmental policies being in place to promote social upliftment, they were not always successful in doing so.

The research study participants reported that getting to and from the hospital or clinic remained one of the challenges facing young stroke survivors. In one study, from the perception of people with disability, they confirm that transport was one of the greatest barriers when returning to work, especially those with mobility impairments [119]. Occupational therapists also confirmed that the socioeconomic status of the stroke survivor usually has a direct relationship to their level of education and motivation to find employment rather than receive a disability grant. South Africa has a high level of social support. The White Paper on An Integrated National Disability Strategy, illustrates the necessity of integrating people with disability into the workplace, as well as providing grants to

individuals who are unable to work and become financially independent [3]. Factors such as the low educational levels, social attitudes, beliefs and misconceptions about people with disability are hindering the youth from securing and maintain gainful employment [3]. Hernandez, et. al. [119] confirms this. They found that there is a need for advanced education in order to obtain gainful, meaningful and satisfying employment that is well paid [119]. However, although the social grant system is aimed at aiding the poor it also acts as a reason not to find employment and as an incentive not to regain functionality after an injury or illness.

In summary, all the occupational therapists agreed that the motivation of the individual plays the biggest and most important role in the participation and compliance in rehabilitation as well as the stroke survivor returning to work [124]. When an individual suffers a stroke, self-esteem and self-worth are affected negatively. This is further exacerbated by poor access to health care services, stigmas and stereotypes and growing up in low income backgrounds.

5.4.2.3 Employment status

All the participants noted that the majority of the younger stroke survivors were unemployed at the commencement of rehabilitation. Occupational therapists in Gauteng public healthcare felt that if the stroke survivor was unemployed before the stroke then there was little reason to place work as a priority aim or goal of occupational therapy intervention and thus focused on other performance areas such as personal management, instead. This is supported by the literature; South Africa has high unemployment and therefore even able-bodied individuals experience challenges with finding work and therefore people with disability who have higher levels of education are more likely to get jobs [3]. Importantly, individuals who would return to white collar work of a professional nature were more likely to successfully return to work [71]. It was also found that stroke survivors who were self-employed or part of a family business, returned to work more successfully than those employed for small companies, as they could accommodate themselves more easily and did not have to deal with the perceived negative attitudes of employers [108].

In summary, the background and socioeconomic status of the stroke survivor and severity of the stroke plays an important role in vocational rehabilitation and needs to be considered when initiating rehabilitation. Rather than viewing these factors as negative and reasons not to carry out vocational rehabilitation, occupational therapists can rather use them as plans to establish treatment goals and counter occupational deprivation and occupational injustice.

5.4.3 Nature of the work

It was a general consensus by the occupational therapists that the type of work which the stroke survivor was carrying out before the stroke also impacted the vocational rehabilitation process and ultimately their return to work.

Three main cub-categories were found in this category. Very physical, manual labour was a challenge to return to, especially if the stroke survivor had residual physical deficits. If they had deficits in executive functioning, it was difficult to return to work which had executive functioning as a main component of the job. Work which require specialist assessment and simulation also proved to be problematic for occupational therapists, as these services are not available in the public healthcare setting.

5.4.3.1 Executive functioning is difficult to assess

As cognitive functioning, for example, reduced efficiency, pace and persistence of thinking, being unable to adapt to new and difficult situations [101], is likely to be affected after suffering a stroke, some of the occupational therapists felt that stroke survivors who held white-collar jobs in the open labour market were difficult to assess and treat, primarily due to the executive functioning requirements of their work. Participants found simulation of these types of work, such as, legal advocates, difficult and the occupational therapists felt limited in their ability to do so. Bootes and Chapparo, [101] found that, despite the current trend in carrying out evidence-based practice, there are limited cognitive assessments available or suitable for assessment tools that are reliable and valid, readily available to specifically assess the cognitive ability and behaviour suited in a workplace environment [101]. Therapists in that study also felt that the limitations of the assessments were far greater than the benefit thereof, and felt that the assessments that exist are better suited to in-patient rehabilitation and were not sensitive to change [101]. Some of the occupational therapists in this study, voiced feeling intimidated and insecure in their abilities when carrying out these assessments and intervention.

5.4.3.2 Manual Labour

There was agreement between the majority of the participants that most of the stroke survivors who were employed prior to the stroke where a part of the informal labour market and carried out hard,

physical labour. These individuals usually had no other experience or qualifications to drive their employment in an alternative direction. This resulted in the end of the road in terms of return-to-work.

Since 1994, much has changed for the youth of South Africa for the better, however research shows that the motivation of the youth has remained poor and that the youth who live with disability are still met with negative attitudes by society, plunging their motivation even further [3]. Individuals with disability are subject to stereotypes in which they are believed to be incompetent and unable to carry out constructive work therefore employers are not usually willing to implement adaptations or make special arrangements within the workplace to accommodate them [125].

Most of the available work in the South African context is of a hard, manual nature, such as construction work, general workers, domestic workers and it therefore becomes near impossible for individuals with a physical disability to continue working within this type of open labour market employment. Usually this type of work is contractual and there is an oversupply of labourers, therefore, if an individual cannot keep up with the demands of the job, the contract can easily be terminated and he or she is quickly replaced [126].

5.4.3.3 Specialist skills are difficult to assess and simulate

A number of occupational therapists reported that some of the stroke survivors that needed a functional capacity evaluation and/or vocational rehabilitation services had jobs requiring specialist skills, such as forklift operators, bus and truck drivers and operators of heavy mining machinery. Participants expressed discomfort and an inability to assess these jobs, despite Van Biljon's [26], Screening Ability to Drive in Occupational Therapy manual which includes a screening tool available throughout Gauteng Health occupational therapy. This is further complicated by the fact that ordinary on-road driving assessments are complex and only available in the private sector [127,128].

5.4.4 Our employer is not supporting us

One of the occupational therapists in the research study felt that hospitals should invest in their staff as additional training in terms of courses/workshops or post graduate degrees/ diplomas, especially in vocational rehabilitation, are very expensive. This could be achieved by subsidising the training, improving salaries or creating higher level posts for vocational rehabilitation occupational therapists, so that occupational therapists will feel willing to invest in providing a better public service. Providing incentive bonus' could also allow public healthcare workers to feel more appreciated and supported.

Should they pay for this, it would act as an incentive for occupational therapists in public health to stay in the public health care system, as opposed to moving into the private sector. Literature confirms the benefits of vocational therapy in terms of social benefits, work place performance and community re-integration [116,129] thus, the South African government should invest in vocational rehabilitation, not only in the health sector, in order to save costs in the long-term.

In summary, practitioners felt hamstrung by a variety of barriers to vocational rehabilitation, including lack of funding, difficulties in assessing specialist manual work as well as work on the higher cognitive end of the spectrum.

5.5 Perceived facilitators to vocational rehabilitation

The third theme discusses the perceived facilitators to vocational rehabilitation with stroke survivors within the healthcare system. Occupational therapists felt that there were a limited number or facilitators and only spoke of some of the policies and South African legislation and other non-governmental, non-profit resources as enablers.

5.5.1 External resources

The research participants felt that non-governmental resources were readily available to assist with young stroke survivors finding employment. This is in alignment with the WHO which encourages occupational therapists to make use of DPOs (Organisations of Persons with Disability) and other available community-based resources to provide effective rehabilitation and support to stroke survivors [130]. Participants mentioned that Learnerships are willing to take individuals with disability below the age of 35 and therefore provide a solution for young stroke survivors that are not able to return to their previous employment or for those who were not formally employed prior to their stroke. As the formation of learnerships is a South Africa initiative to redress the past discriminations, there is limited research available to confirm or contradict whether international occupational therapists find themselves in the same situation [131]. The Skills Development Act of 1998, aimed at improving shortages of skills of artisans and reduce the high levels of unemployment [131].

5.5.2 Policy and legislation

The occupational therapists in this study felt that the South African constitution and other laws and policies encourage companies to employ people with disability. These laws can assist occupational therapists working in the public and private setting to advocate for their patients to return to work and

facilitate the vocational rehabilitation process. Kleintjies, et. al. [132], reiterate that the users should be involved in the development of policies to prevent disempowerment and marginalisation, at both service and strategic levels.

An important impediment to strategic use of these enabling policies, as discussed above, was the limited level of familiarity and comfort of some participants regarding these policies, as well as their own rights. While the WHO makes provision for including people with disability in the workplace and suggests that each community can do so by changing policies and laws [130] participants in this study seem to feel that in South Africa, it has 'back fired' because the occupational therapists in this study felt intimidated rather than confident about their own knowledge of the laws and policies.

In summary, the South African law system has ensured that the vulnerable population, i.e. people with disability, gain meaningful employment and these are resources that are readily available to occupational therapists to use, which is in keeping with international trends. With some training and education, occupational therapy practitioners can overcome their insecurities and use alternative resources to their advantage to make up for the lack of resources in other areas.

5.6 Conclusion

South African experiences the effects of Stroke on work and vocational rehabilitation are similar to the rest of the world, although this study particularly presents some unique barriers, e.g. practitioners' perceived lack of skill. Another unique factor is the perception of a hierarchical approach to rehabilitation, as well as the perception that primary healthcare excludes vocational rehabilitation and return to work services.

This study, like Van Biljon's [26] research, found that South Africa, like the rest of the world, experiences difficulties with resources, especially financial, policies which are put in place by politicians who do not understand the logistics, negative attitudes from employers and from the stroke survivor themselves, rotation of practitioners and the impact this has on continuity of care as well as the expense of post-graduate or additional training. Differences found were that despite FCEs being carried out in Gauteng public health, waiting lists are long and few dedicated vocational rehabilitation units exist. The logistics involved with referring patients also becomes difficult as well as where the later stages of vocational rehabilitation will be carried out after the initial assessment is done.

In addition, the findings of this study seem to indicate that a study evaluating the uptake, successes and barriers of Van Biljon's programmes is needed to enhance delivery of vocational rehabilitation services in the public sector.

CHAPTER 6: CONCLUSION

6. Conclusion

6.1 Introduction

The aim of this research study was to explore the perceptions and attitudes of occupational therapists' working in Gauteng public health regarding vocational rehabilitation for young stroke survivors.

6.2 Implications for practice

Participants highlighted concerns with policy, both the development and implementation thereof. In the context of concepts such as Occupational Justice and Occupational Deprivation occupational therapy practitioners are encouraged to get involved with policy makers in order to give on-the-ground, first-hand, practical input and feedback. This will allow practitioners to become a part of the process and therefore will be able to use these policies to the advantage of both patients and themselves, when providing vocational rehabilitation services in Gauteng public health. By becoming involved, they will also be able to have a say in allocation of resources and therefore ensure that funding is allocated specifically to vocational rehabilitation, which in the long run will enable patients to contribute to the economy or something along those lines.

Participants raised worries about their own lack of skill in relation to vocational rehabilitation. Occupational therapy structures, such as the Gauteng Rehabilitation Forum and the two branches of the Occupational Therapy Association of South Africa located in Gauteng, should provide training courses for practitioners that are financially viable. This training should be aimed at skills development in order to gain better knowledge of the vocational rehabilitation process and enhancing practitioners' confidence regarding the legal aspects around vocational rehabilitation. Where possible, funding should be sourced to enable employees to improve their knowledge and skills and to prevent the attrition of practitioners from the public sector in an attempt to off-set personal expenditure regarding professional development.

6.3 Limitations of the study

Some of the focus groups had occupational therapists from the same healthcare setting and therefore did not have a variety of information to share as they shared experiences and clients from the same background and also worked under the same departmental or hospital-based policies. Some of the groups had only two or three participants which limited the discussions and flow of information for those specific focus groups, therefore prompting was necessary.

To ensure greater diversity, Occupational therapists working in vocational rehabilitation posts should have also been included in the population and not only occupational therapists working in neuro.

While the data collection over a period of two years allowed for diversity in the participants, the time frame coincided with the completion of a participatory action study aimed at improving vocational rehabilitation services in public health [26]. One of the focus groups was conducted prior to the finalisation of the afore-mentioned study and practitioners from this focus group had subsequently implemented vocational rehabilitation services. Had the focus group been conducted later, different information may have emerged. The afore-mentioned study is also likely to have created more awareness of vocational rehabilitation services in the Gauteng public sector. Interestingly a number of participants expressed frustration regarding training available on the tools that study created for the GDoH, thus rather than inadvertently causing a bias in favour of vocational rehabilitation, the opposite could have occurred.

A large proportion of newly qualified practitioners participated in this study, which would also necessarily affect the depth and richness of the data, due to their limited experience.

6.4 Future research

The study highlighted the need for further research, in relation to the following:

- Uptake of the tools and processes implemented during Van Biljon's study as the programs developed aimed at standardising and streamlining vocational rehabilitation services has not had the desired result. Future studies should also focus on placement-specific solutions to better integrate vocational rehabilitation services so as to ensure equitable workloads of practitioners, especially in the future NHI context [10].
- Occupational therapy curricula:
    - Investigating the hidden and delivered curriculum relating to the perceived hierarchy of occupational therapy intervention,

- Vocational rehabilitation content across undergraduate curricula in view of the HPCSA and WFOT minimum standards for the training of occupational therapists

6.5 Conclusion

The occupational therapists mentioned a number of barriers to vocational rehabilitation which are contributing to them not carrying out these services at their prospective work places. Most of the occupational therapists felt resigned and seemed to have a negative attitude, especially with the lack of available resources, time and insufficient staff numbers to assist with carrying out the workload. The nature and severity of the stroke as well as the motivation of the individual patients, impacted their ability to return to work. The high unemployment statistics and nature of employment of the South African workforce makes returning to hard, manual labour with a physical impairment more challenging.

A few facilitators to vocational rehabilitation were also mentioned. Practitioners mentioned a number of private NGOs were very accommodating and there were a number of learnerships available for young people with disability. They also mentioned that the legislation regarding the employment of people with disability was a strong enabler and gave stroke survivors the upper hand in returning to paid employment, despite the participants' decided lack of confidence and knowledge regarding the legislation.

In this chapter, the study is concluded, with specific reference to implications for practice, limitations of the study and possible further research that is necessary to better understand vocational rehabilitation service-delivery in South Africa.

7. References

[1] van Biljon HM, Casteljien D, J du Toit SH, Soulsby L. Opinions of occupational therapists on the positioning of vocational rehabilitation services in Gauteng Public Healthcare. South African J Occup Ther 2016;46:45–52. doi:10.17159/2310-3833/2016/v46n1a10.

[2] Escorpizo R, Reneman MF, Ekholm J, Fritz J, Krupa T, Marnetoft SU, et al. A conceptual definition of vocational rehabilitation based on the ICF: Building a shared global model. J Occup Rehabil 2011;21:126–33. doi:10.1007/s10926-011-9292-6.

[3] Cramm JM, Nieboer AP, Finkenflügel H, Lorenzo T. Comparison of barriers to employment among youth with and without disabilities in South Africa. Work 2013;46:19–24. doi:10.3233/WOR-121521.

[4] Bonita R, Beaglehole R. Recovery of Motor Function After Stroke. Stroke 1988;19:1497–500.

[5] Medin J, Barajas J, Ekberg K. Stroke patients' experiences of return to work. Disabil Rehabil 2006;28:1051–60. doi:10.1080/09638280500494819.

[6] Kvam L, Vik K, Eide AH. Importance of Participation in Major Life Areas Matters for Return to Work. J Occup Rehabil 2015;25:368–77. doi:10.1007/s10926-014-9545-2.

[7] Martin CT, Keswick JL, Crayton D, LeVeck P. Perceptions of Self-Esteem in a Welfare-To-Wellness-To-Work Program. Public Health Nurs 2012;29:19–26. doi:10.111/j.1525-1446.2011.00968.x.

[8] Treger I, Shames J, Giaquinto S, Ring H. Return to work in stroke patients. Disabil Rehabil 2007;29:1397–403. doi:10.1080/09638280701314923.

[9] Norrving B, Kissela B. The global burden of stroke and need for a continuum of care. Neurology 2013;15:5–12. doi:10.1212/WNL.0b013e3182762397.

[10] National Department of Health. White Paper on National Health Insurance for South Africa: Towards Universal Health Coverage. 2015.

[11] Ntsiea V. THE EFFECT OF A WORKPLACE INTERVENTION PROGRAMME ON RETURN TO WORK AFTER STROKE. Johannesburg: 2013.

[12] Rotenberg-Shpigelman S, Erez ABH, Nahaloni I, Maeir A. Neurofunctional treatment targeting participation among chronic stroke survivors: A pilot randomised controlled study. Neuropsychol Rehabil 2012;22:532–49. doi:10.1080/09602011.2012.665610.

[13] Coetzee Z, Goliath C, van der Westerhuizen R, Van Niekerk L. Re-conceptualising vocational rehabilitation services towards an inter-sectoral model. South African J Occup Ther

2011;41:32–7.

[14] The Heart and Stroke Foundation South Africa. Cardiovascular disease statistics reference document. Burd Dis 2016. http://www.heartfoundation.co.za/wp-content/uploads/2017/10/CVD-Stats-Reference-Document-2016-FOR-MEDIA-1.pdf (accessed November 8, 2018).

[15] Langhorne P, Berhardt J, Kwakkel G. Stroke Rehabilitation. Lancet 2011;377:1693–702. doi:10.1212/CON.0000000000000423.

[16] Adeloye D. An estimate of the incidence and prevalence of stroke in Africa: A systematic review and meta-analysis. PLoS One 2014;9. doi:10.1371/journal.pone.0100724.

[17] Bertram MY, Katzenellenbogen J, Voz T, Bradshaw D, Hofman KJ. The Disability Adjusted Life Years Due to Stroke in South Africa in 2008. SAGE 2013;8:76–80. doi:10.1111/j.1747-4949.2012.00955.x.

[18] Bonita R. Epidemiology of stroke. Lancet 1992;339:342–4. doi:https://doi.org/10.1016/0140-6736(92)91658-U.

[19] Zimmermann-Schlatter A, Schuster C, Puhan MA, Siekierka E, Steurer J. Efficacy of motor imagery in post-stroke rehabilitation: A systematic review. J Neuroeng Rehabil 2008;5:1–10. doi:10.1186/1743-0003-5-8.

[20] Mamabolo M, Mduzi W, Stewart A, Olorunju S, Singh A. A study to determine post dishcarge functional improvements in patients with stroke. South African J Occup Ther 2009;39:15–8.

[21] Arndt C, Lewis JD. The HIV/AIDS pandemic in South Africa: Sectoral impacts and unemployment. J Int Dev 2001;13:427–49. doi:10.1002/jid.796.

[22] Alcorn K. Progress against HIV in young people lags behind as Africa's youth population grows. Nam Aidsmap 2018. http://www.aidsmap.com/Progress-against-HIV-in-young-people-lags-behind-as-Africas-youth-population-grows/page/3314070/ (accessed November 11, 2018).

[23] Connor MD, Walker R, Modi G, Warlow CP. Burden of stroke in black populations in sub-Saharan Africa. Lancet Neurol 2007;6:269–78. doi:10.1016/S1474-4422(07)70002-9.

[24] Teixeira-Salmela LF, Neto MG, Magalhães LC, Lima RC, Faria CDCM. Content comparisons of stroke-specific quality of life based upon the international classification of functioning, disability, and health. Qual Life Res 2009;18:765–73. doi:10.1007/s11136-009-9488-9.

[25] Legg L, Drummond A, Leonardi-Bee J, Gladman JRF, Corr S, Donkervoort M, et al. Occupational therapy for patients with problems in personal activities of daily living after stroke:

Systematic review of randomised trials. Br Med J 2007;335:922–5. doi:10.1136/bmj.39343.466863.55.

[26] van Biljon HM. Transforming the vocational rehabilitation services of occupational therapists in Gauteng public healthcare through action learning action research. Johannesburg: 2016.

[27] Ruckert A, Labonte R. The global financial crisis and health equity: Early experiences from Canada. Global Health 2014;10:1–10. doi:10.1186/1744-8603-10-2.

[28] Theocharous E. Economic recession and health Thalassemia Reports 2014. Thalass Reports 2014;4:33–6. doi:10.4081/thal.2014.4867.

[29] Shange N. The R159-million Life Esidimeni bill has been paid. Times Live 2018. https://www.timeslive.co.za/news/south-africa/2018-06-13-the-r159-million-life-esidimeni-bill-has-been-paid/ (accessed April 21, 2019).

[30] Dhai A. After Life Esidimeni: True human rights protections or lip service to the Constitution? South African J Bioeth Law 2017;10:2–3. doi:10.7196/sajbl.542.

[31] Stein DJ, Chambers C, Daniels I, Patel B, Sunkel C, White J, et al. Death by maladministration: An important category of patient mortality. South African Med J 2017;107:280. doi:10.7196/samj.2017.v107i4.12389.

[32] Diringer MN, Edwards DF, Mattson DT, Akins PT, Sheedy CW, Hsu CY, et al. Predictors of acute hospital costs for treatment of ischemic stroke in an academic center. Stroke 1999;30:724–8. doi:10.1161/01.STR.30.4.724.

[33] Child K. Sick South Africans bleed medical aids dry. Times Live 2013.

[34] Sanders DL, Bell DC. Worlds apart: training in rural South Africa. Clin Teach 2012;9:99–104. doi:10.1111/j.1743-498x.2011.00503.x.

[35] M. T. Secondary prevention of stroke - Results from the Southern Africa Stroke Prevention Initiative (SASPI) study. Bull World Health Organ 2004;82:503–8.

[36] Sharma S, Gittelsohn J, Rosol R, Beck L. Addressing the public health burden caused by the nutrition transition through the Healthy Foods North nutrition and lifestyle intervention programme. J Hum Nutr Diet 2010;23:120–7. doi:10.1111/j.1365-277X.2010.01107.x.

[37] Rosamond W, Flegal K, Furie K, Go A, Greenlund K, Haase N, et al. Heart Disease and Stroke Statistics—2008 Update. Circulation 2008;117. doi:10.1161/CIRCULATIONAHA.107.187998.

[38] Vestling M, Tufvesson B, Iwarsson S. Indicators for return to work after stroke and the importance of work for subjective well-being and life satisfaction. J Rehabil Med 2003;35:127–

31. doi:10.1080/16501970310010475.

[39] Asiret GD, Verma R, Garg RK, Shama VP, Agarwal M, Aggarwal GG. Care burden of the patient relatives who take care of the patients with stroke. Turkish J Med Sci 2012;2.

[40] Lee J, Kielhofner G. Vocational intervention based on the Model of Human Occupation: a review of evidence. Scand J Occup Ther 2010;17:177–90. doi:10.3109/11038120903082260.

[41] Klasen S, Woolard I. Surviving unemployment without state support: Unemployment and household formation in South Africa. J Afr Econ 2009;18:1–51. doi:10.1093/jae/ejn007.

[42] Statistics South Africa. Employment, unemployment, skills and economic growth. 2014.

[43] Buys T, Casteleijn D. Preparing for work practice: Under- and postgraduate student training at the University of Pretoria (South Africa). Work 2007;29:25–9.

[44] Kingdon GG, Knight J. Unemployment in South Africa: The Nature of the Beast. vol. 271065. 2003.

[45] Banerjee A, Galiani S, Levinsohn J, McLearen Z, Woolard I. Why Has Unemployment Risen in the New South Africa? Econ Transit 2008;16:715–40.

[46] Jenny Morris. 'That kind of life?' Social exclusion and young disabled people with high levels of support needs. 2001.

[47] World Federation of Occupational Therapists. Statement on Occupational Therapy. World Fed Occup Ther 2010. www.wfot.org/portals/0/PDF/statement ON Occupational Therapy 300811.pdf (accessed December 20, 2015).

[48] Belda-Lois JM, Mena-Del Horno S, Bermejo-Bosch I, Moreno JC, Pons JL, Farina D, et al. Rehabilitation of gait after stroke: A review towards a top-down approach. J Neuroeng Rehabil 2011;8:66. doi:10.1186/1743-0003-8-66.

[49] Kannabiran B, Nagarani R, Cathrine S, Raja Senthil K, Shankar Sahayaraj M. A Study on Efficacy of Bobath Technique and Motor Relearning Programme on Functional Activities in Hemiplegic Patients. J Neurorehabilitation 2016;3:1–5. doi:10.4172/2376-0281.1000235.

[50] Tang Q, Tan L, Huang X, Ougang C, Zhan H, Pu Q, et al. Early Sitting, Standing, and Walking in Conjunction With Contemporary Bobath Approach for Stroke Patients With Severe Motor Deficit. Top Stroke Rehabil 2014;21:120–7. doi:10.1310/tsr2102-120.

[51] Toglia JP. Visual Perception of Objects: An Approach to Assessment and Intervention. Am J Occup Ther 1989;43:587–95.

[52] Weinstock-zlotnick G, Hinojosa J. Bottom-Up or Top-Down Evaluation : Is One Better Than the

Other ? Am J Occup Ther 2004;58:594–9.

[53] Bravi L, Stoykov ME. New Directions in Occupational Therapy: Implementation of the Task-Oriented Approach in Conjunction with Cortical Stimulation After Stroke. Top Stroke Rehabil 2007;14:68–73. doi:10.1310/tsr1406-68.

[54] Almhdawi KA, Mathiowetz VG, White M, delMas RC. Efficacy of Occupational Therapy Task-oriented Approach in Upper Extremity Post-stroke Rehabilitation. Occup Ther Int 2016;23:444–56. doi:10.1002/oti.1447.

[55] Arya KN, Verma R, Garg RK, Agarwal M, Aggarwal GG. Meaningful Task-Specific Training (MTST) for Stroke Rehabilitation: A Randomized Controlled Trial. Top Stroke Rehabil 2012;19:193–211. doi:10.1310/tsr1903-193.

[56] Kleim JA, Jones TA. Principles of Experience-Dependent Neural Plasticity: Implications for Rehabilitation After Brain Damage. J Speech, Lang Hear Res 2008;51:225–39. doi:10.1044/1092-4388(2008/018).

[57] Grieve J, Gnanasekaran L. Neuropsychology for Occupational Therapist. Cognitivion in Occupational Performance. 3rd ed. Oxford: Blackwell Publishing Ltd.; 2006.

[58] Ntsiea MV, Van Aswegen H, Lord S, Olorunju S. Return to work services rendered for patients at stroke rehabilitation facilities in Gauteng Province, South Africa. Int J Ther Rehabil 2014;19:130–4. doi:10.12968/ijtr.2012.19.3.130.

[59] McAnaney D, Wynne R. International Good Practice in Vocational Rehabilitation: Lessons for Ireland. Dublin: 2016.

[60] van Biljon H, Casteleijn D, Sanetta HJ, Rabothata S. An action research approach to profile an occupational therapy vocational rehabilitation service in public health care. South African J Occup Ther 2016;45:40–7. doi:10.17159/2310-3833/2015/v45n3/a8.

[61] Main L, Haig J. Occupational therapy and vocational rehabilitation: An audit of an outpatient occupational therapy service. Br J Occup Ther 2006;69:288–92. doi:10.1177/030802260606900607.

[62] Mann DR, Honeycutt T, Bailey MS, O'Neill J. Using administrative data to explore the employment and benefit receipt outcomes of vocational rehabilitation applicants years after program exit. J Vocat Rehabil 2017;46:159–76. doi:10.3233/JVR-160852.

[63] Gruman C, Shugrue NA, Koppelman J, Schimmel J, Porter A, Robison JT. The impact of benefits counseling and vocational rehabilitation on employment and earnings. J Vocat Rehabil 2014;80:21–9.

[64] Selden DR. The effects of staff turnover on psychiatric rehabilitation programs. Psychiatr Rehabil J 2010;34. doi:10.2975/34.1.2010.71.73.

[65] Lovejoy S. What is reasonable accomodation? Monstor Contrib Writ 2018.

[66] Van Velzen JM, Van Bennekom CAM, Van Dormolen M, Sluiter JK, Frings-Dresen MHW. Factors influencing return to work experienced by people with acquired brain injury: A qualitative research study. Disabil Rehabil 2011;33:2237–46. doi:10.3109/09638288.2011.563821.

[67] Buffington AH, Malec JF. The vocational rehabilitation continuum: Maximizing outcomes through bridging the gap from hospital to community-based services. J Head Traume Rehabil 1997;12:1–13. doi:10.1097/00001199-199710000-00002.

[68] Cook JA, Razzano L. Vocational rehabilitation for persons with schizophrenia: Recent research and implications for practice. Schizophr Bull 2000;26:87–103. doi:10.1093/oxfordjournals.schbul.a033448.

[69] Wehman P, Gentry T, West M, Carlos A-LJ. Community integration: current issues in cognitive and vocational rehabilitation for individuals with ABI. J Rehabil Res Dev 2009;46:909-918 10p. doi:10.1682/JRRD/2008.08.0105.

[70] Cook C, Lukersmith S. Work rehabilitation. In: Curtin M, Molineux M, Webb J-A, editors. Occup. Ther. Phys. Dysfunction. Enabling Occup. 6th ed., Edinburgh: 2010, p. 391–408.

[71] Wang Y-C, Kapellusch J, Garg A. Important factors influencing the return to work after stroke. Work 2014;47:553–9. doi:10.3233/WOR-131627.

[72] South African Department of Health. Ideal clinic realisation and maintenance; The district hospital service package. Johannesburg: 2016.

[73] Kwakkel G, Kollen BJ, Wagenaar RC. Therapy Impact on Functional Recovery in Stroke Rehabilitation: A critical review of the literature. Physiotherapy 1999;85:377–91. doi:10.1016/50031-9406(05)67198-2.

[74] American Occupational Therapy Association. OCCUPATIONAL THERAPY PRACTICE FRAMEWORK : Domain & Process. Am J Occup Ther 2014;68:S1–48. doi:http://dx .doi .org/10 .5014/ajot .2014 .682006.

[75] Radomski M V., Trombly Latham CA. Occupational Therapy for Physical Dysfunction. 6th ed. Baltimore: Lippincott Williams & Wilkins; 2008.

[76] American Occupational Therapy Association. Occupational therapy practice framework:

Domain and process. Am J Occup Ther 2002;56:609–39.

[77] Casteleijn D, de Vos H. The Model of Creative Ability in vocational rehabilitation. Work 2007;29:55–61.

[78] King PM, Olson DL. Work. Willard Spackman's Occup. Ther. 11th ed., Philadelphia: Lippincott Williams & Wilkins; 2008, p. 615–32.

[79] Creswell JW. Research Design. Qualitative, Quantitative, and Mixed Methods Approaches. 2nd ed. Thousand Oaks: SAGE Publications; 2003.

[80] De Vos AS, Strydom H, Fouche CB, Delport CS. Research at Grass Roots. 4th ed. Pretoria: Van Schaik Publishers; 2011.

[81] Borhani F, Hosseini SH, Abbaszadeh A. Commitment to care: A qualitative study of intensive care nurses' perspectives of end-of-life care in an Islamic context. Int Nurs Rev 2014;61:140–7. doi:10.1111/inr.12079.

[82] Corbin J, Strauss A. Basics of Qualitative Research. 3rd ed. Los Angeles: SAGE Publications; 2008.

[83] Myezwa H, Van Niekerk M. National Health Insurance implications for rehabilitation professionals and service delivery. South African J Physiother 2017;69:3–9. doi:10.4102/sajp.v69i4.372.

[84] Patton M. Designing Qualitative Studies. Qual. Eval. Res. Methods, Beverly Hills: SAGE Publications; 1990, p. 169–86.

[85] Smochek MR, Oblaczynski C, Lauck DL, Green PT, Early JA, Smith JE. Interventions for Risk for Suicide and Risk for Violence. Int J Nurs Terminol Classif 2008;11:60–8. doi:10.1111/j.1744-618x.2000.tb00391.x.

[86] Guest G, Bunce A, Johnson L. How Many Interviews Are Enough? Field Methods 2005;18:59–82. doi:10.1177/1525822x05279903.

[87] Krefting L. Rigor in Qualitative Rsearch: Assessment of Trustworthiness. Am J Occup Ther 2017;45:214–22. doi:10.5014/ajot.45.3.214.

[88] Elo S, Kaarianinen M, Kanste O, Polkki T, Utriainen K, Kyngas H. Qualitative Content Analysis: A Focus on Trustworthiness. SAGE 2014:1–10. doi:10.1016/S1479-3709(07)11003-7.

[89] Tracy SJ. Qualitative quality: Eight a"big-tent" criteria for excellent qualitative research. Qual Inq 2010;16:837–51. doi:10.1177/1077800410383121.

[90] Patton M. Qualitative evaluation and research methods. 2nd ed. Beverly Hills: SAGE

Publications; 1990. doi:10.1002/nur.4770140111.

[91] Saldaña J. An Introduction to Codes and Coding. Coding Man. Qual. Res. 2nd ed., SAGE Publications; 2008, p. 1–31.

[92] Health Professions Council of South Africa. Number of registered occupational therapists. Pretoria: n.d.

[93] South African Department of Health. Human Resources for Health. South Africa 2030. Pretoria: 2011.

[94] Deen M, Gibson L, Strong J. A survey of occupational therapy in Australian work practice. Work 2001;19:219–30.

[95] Johnson LS, Archer-Heese G, Caron-Powels DL, Dowson TM. Work hardening: Outdated fad or effective intervention? Work 2001;16:235–43.

[96] World Federation of Occupational Therapists. Minimum Standards for the Education of Occupational Therapists. Sydney: 2016.

[97] Lebethe LR. Circular Letter 12 of 2016. Vocational Rehabilitation Services in Gauteng. Johannesburg: n.d.

[98] Health Professions Council of South Africa. Minimum Standard for the Education of Occupational Therapists. Pretoria: 2009.

[99] Health Professions Council of South Africa. Minimum Standards for the Education of Occupational Therapists. Pretoria: 2012.

[100] Gray M, Clark M, Penman M, Smith J, Bell J, Thomas Y, et al. New graduate occupational therapists feelings of preparedness for practice in Australia and Aotearoa/New Zealand. Aust Occup Ther J 2012;59:445–55. doi:10.1111/j.1440-1630.2012.01029.x.

[101] Bootes K, Chapparo C. Cognitive and behavioural assessment of people with traumatic brain injury in the work place: Occupational therapists' perceptions. Work 2002;19:255–68.

[102] Duncan PW, Zorowitz R, Bates B, Choi JY, Glasberg JJ, Graham GD, et al. Management of Adult Stroke Rehabilitation Care. vol. 36. 2005. doi:10.1161/01.str.0000180861.54180.ff.

[103] Mattingly C. The Narrative Natllre of Clinical Reasoning 2017;45.

[104] Rogers JC, Holm MB. Occupational Therapy Diagnostic Reasoning: A Component of Clinical. Am J Occup Ther 1991;45:1045–53. doi:doi:10.5014/ajot.45.11.1045.

[105] Wressle E, Eeg-Olofsson AM, Marcusson J, Henriksson C. Improved client participation in the

rehabilitation process using a client-centred goal formulation structure. J Rehabil Med 2002;34:5–11. doi:10.1080/165019702317242640.

[106] Babbar S, Adams D, Becker-Haimes E, Skinner L, Kratz H, Cliggitt L, et al. Therapist turnover and client non-attendance. Child Youth Serv Rev 2018;93:12–6. doi:10.1016/j.childyouth.2018.06.026.

[107] Fox MP, Brennan A, Maskew M, MacPhail P, Sanne I. Using vital registration data to update mortality among patients lost to follow-up from ART programmes: Evidence from the Themba Lethu Clinic, South Africa. Trop Med Int Heal 2010;15:405–13. doi:10.1111/j.1365-3156.2010.02473.x.

[108] Alaszewski A, Alaszewski H, Potter J, Penhale B. Working after stroke : Survivors ' experiences and perceptions of barriers to and facilitators of the return to paid employment Working after a stroke : Survivors ' experiences and perceptions of barriers to and facilitators of the return to paid employme 2008. doi:10.1080/09638280601143356.

[109] Graven C, Brock K, Hill K, Ames D, Cotton S, Joubert L. From rehabilitation to recovery: Protocol for a randomised controlled trial evaluating a goal-based intervention to reduce depression and facilitate participation post-stroke. BMC Neurol 2011;11:1–10. doi:10.1186/1471-2377-11-73.

[110] Lilja M, Bergh A, Johansson L, Nygård L. Attitudes towards rehabilitation needs and support from assistive technology and the social environment among elderly people with disability. Occup Ther Int 2003;10:75–93. doi:10.1002/oti.178.

[111] Ergeletzis D, Kevorkian GC, Rintala D. Rehabilitation of the Older Stroke Patient: Functional Outcome and Comparison with Younger Patients. J Phys Med Rehabil 2002;81:881–9.

[112] Greiner PA, Snowdon DA, Schmitt FA. The loss of independence in activities of daily living: The role of low normal cognitive function in elderly nuns. Am J Public Health 1996;86:62–6. doi:10.2105/AJPH.86.1.62.

[113] Dilorio C, Steenland K, Goodman M, Liff J, Roberts P. Differences in Treatment-Based Beliefs and Coping Between African American and White Men with Prostate Cancer. J Community Med 2011;36:505–12.

[114] Mailovich C, Dlamini P. Gauteng Health Department is in a parlous state, despite intervention. Bus Day 2017.

[115] Hannerz H, Pedersen BH, Poulsen OM, Humle F, Andersen LL. A nationwide prospective cohort study on return to gainful occupation after stroke in Denmark 1996-2006. BMJ Open

2011;1:1–6. doi:10.1136/bmjopen-2011-000180.

[116] Rogers AT, Bai G, Lavin RA, Anderson GF. Higher Hospital Spending on Occupational Therapy Is Associated with Lower Readmission Rates. Med Care Res Rev 2017;74:668–86. doi:10.1177/1077558716666981.

[117] Garske GG, Stewart JR. Stigmatic and Mythical Thinking: Barriers to Vocational Rehabilitation Services for Persons with Severe Mental Illness. J Rehabil 1999;65:4–8.

[118] Plsek PE, Wilson T. Complexity, leadership, and management in healthcare organisations. BMJ 2001;323:746–9.

[119] Hernandez B, Cometa MJ, Velcoff J, Rosen J, Schober D, Luna RD. Perspectives of people with disabilities on employment, vocational rehabilitation, and the Ticket to Work program. J Vocat Rehabil 2007;27:191–201.

[120] National Department of Health (South Africa). Framework and Strategy for Disability and Rehabilitation Services in South Africa 2015-2020. Pretoria: 2015.

[121] World Health Organization. Global strategy on human resources for health: Workforce 2030. Who 2016:64.

[122] Sangwan RS, Qiu RG, Jessen D. Using RFID tags for tracking patients, charts and medical equipment within an integrated health delivery network. IEEE Xplore Digit. Libr., Proceedings; 2005. doi:10.1109/ICNSC.2005.1461346.

[123] Dent M, Eason K. Electronic information in health and social care – promises and pitfalls. Health Informatics J 2014;20:165–7. doi:10.1177/1460458213505245.

[124] Goršič M, Cikajlo I, Novak D. Competitive and cooperative arm rehabilitation games played by a patient and unimpaired person: effects on motivation and exercise intensity. J Neuroeng Rehabil 2017;14:1–18. doi:10.1186/s12984-017-0231-4.

[125] Hamzat TK, Seyi-adeyemo OR. Health Status, Self-esteem and Participation: A Comparison Between Young Adults with Mobility Disability and Those Without Disability in a Nigerian Community. Scand J Occup Ther 2007;10:166–78. doi:10.1080/15017410802120964.

[126] Netswera FG, Rankhumise EM, Mavundala TR. EMPLOYEE RETENTION FACTORS FOR SOUTH AFRICAN HIGHER EDUCATION INSTITUTIONS : A CASE STUDY. SA J Hum Resour Manag 2005;3:36–40.

[127] City of Tshwane. Vechile Licensing FAQs. City Tshwane 2015. http://www.tshwane.gov.za/sites/Departments/Metro-

Police/DriverLicenses/Pages/Vehicle_Licensing_FAQs.aspx (accessed November 11, 2018).

[128] Auto-mobility. Licensing Procedures. Auto-Mobility n.d. https://www.auto-mobility.co.za/getting-started/licence/ (accessed November 4, 2018).

[129] Kenyon P, Koshy P, Wills-Johnson N. A Cost Benefit Analysis of Vocational Rehabilitation Services Provided by CRS Australia. 2003.

[130] International Labour Office, United Nations Educational S and CO, World Health Organsization. CBR. A strategy for Rehabilitation, Equalization of Opportunities, Poverty Reduction and Social Inclusion of People with Disabilities. 2004. doi:10.1093/annhyg/5.1.47.

[131] Chisholm L. Apartheid education legacies and new directions in post-apartheid South Africa. Stor Delle Donne 2012;8:81–103.

[132] Kleintjes S, Lund C, Swartz L, Flisher A. Mental health care user participation in mental health policy development and implementation in South Africa. Int Rev Psychiatry 2010;22:568–77. doi:10.3109/09540261.2010.536153.

APPENDIX A: University of the Witwatersrand ethics approval

R14/49 Ms Greea-Laine Muller

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)

CLEARANCE CERTIFICATE NO. M150937

NAME: (Principal Investigator)	Ms Greea-Laine Muller
DEPARTMENT:	Occupational Therapy Chris Hani Baragwanath Academic Hospital Tshwane Health District: Dr George Mukhari, Odi, Jubilee, Tshwane Rehabilitation, Kalafong, Steve Biko Academic Hospitals and Laudium Clinic
PROJECT TITLE:	Vocational Rehabilitation for Young Stroke Survivors in Gauteng Public Hospitals: Occupational Therapists' Attitudes and Perceptions
DATE CONSIDERED:	02/10/2015
DECISION:	Approved unconditionally
CONDITIONS:	It will be prudent to get written permission to conduct the study from the CEO/Relevant Authorities of each study site approved by the Tshwane District
SUPERVISOR:	Matty van Niekerk

APPROVED BY: Professor P Cleaton-Jones, Chairperson, HREC (Medical)

DATE OF APPROVAL: 17/10/2016

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 Administrators in Room 301 , 302,304, Third floor, Faculty of Health Sciences, Phillip Tobias Building, 29 Princess of Wales Terrace,

Parktown, 2193,University of the Witwatersrand.

I/we fully understand the conditions under which I am/we are authorized 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 the application to the Committee. I agree to submit a yearly progress report. The date for annual re-certification will be one year after the date of convened meeting where the study was initially reviewed. In this case, the study was initially reviewed in September and will therefore be due in the month September each year.

11 August 2018

Principal Investigator Signature Date

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

APPENDIX B: University of Pretoria ethics approval

The Research Ethics Committee, Faculty Health Sciences, University of Pretoria complies with ICH-GCP guidelines and has US Federal wide Assurance.

- FWA 00002567, Approved dd 22 May 2002 and Expires 20 Oct 2016.
- IRB 0000 2235 IORG0001762 Approved dd 22/04/2014 and Expires 22/04/2017.

UNIVERS I TEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI VA PRETORIA

Faculty of Health Sciences Research Ethics Committee

26/11/2015

Approval Certificate

New Application

Ethics Reference No.: 519/2015

Title: Vocational rehabilitation for young stroke survivors in Gauteng public health care: Occupational therapists' attitudes and perceptions.

Dear Greea Muller

The New Application as supported by documents specified in your cover letter dated 26/10/2015 for your research received on the 26/10/2015, was approved by the Faculty of Health Sciences Research Ethics Committee on its quorate meeting of 25/11/2015.

Please note the following about your ethics approval:

- Ethics Approval is valid for 1 year
- Please remember to use your protocol number (519/2015) on any documents or correspondence with the Research Ethics Committee regarding your research.
- Please note that the Research Ethics Committee may ask further questions, seek additional information, require further modification, or monitor the conduct of your research.

Ethics approval is subject to the following:

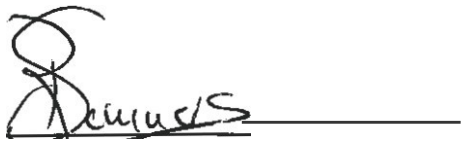
- The ethics approval is conditional on the receipt of 6 monthly written Progress Reports, and
- The ethics approval is conditional on the research being conducted as stipulated by the details of all documents submitted to the Committee. In the event that a further need arises to change who the investigators are, the methods or any other aspect, such changes must be submitted a:; an Amendment for approval by the Committee.

Additional Conditions:

- Conditional Approval, pending permission from Dept of Health

and Facilities. We wish you the best with your research.

Yours sincerely



Dr ers; MBChB; MMed (Int); MPharMed.
eputy Chairperson of the Faculty of Health Sciences Research Ethics Committee, University of Pretoria

The Faculty of Health Sciences Research Ethics Committee complies with the SA National Act 61 of 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 and 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health).

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http://www.healthethics-uo.CQ.za
121 Private Bag X323, Arcadia ,0007 - 31 Bophelo Road, HW Snyman South Building, Level 2, Room 2.33, Gezina, Pretoria

APPENDIX C: Approval of research by the Gauteng Provincial Protocol Review Committee (PPRC)

GAUTENG PROVINCE

HEALTH

REPUBLIC OF SOUTH AFRICA

OUTCOME OF PROVINCIAL PROTOCOL REVIEW COMMITTEE (PPRC

Researcher's Name (Principal investigator)	Ms Greea Muller
Organization / Institution	Wits
Research Title	Vocational rehabilitation for young stroke survivors in Gauteng public healthcare: Occupational therapists' attitudes and perceptions.
Contact number	Address: Contact no: Cell: 083 320 8578 Email: Greea.muller@gmail.com
Protocol number	GP_ 2016RP30 _459
Date submitted	2016/03122
Date reviewed	28/04/2016
Outcome	Approved

It is a pleasure to inform that the Gauteng Health Department has approved your research on "Vocational rehabilitation for young stroke survivors in Gauteng public healthcare: Occupational therapists' attitudes and perceptions".

Study sites: Multi districts: Helen Joseph, Kalafong, Mamelodi and Natalspruit Hospitals.

The Provincial Protocol Review Committee kindly requests that you to submit a report after completion of your study and present your findings to the Gauteng Health Department.

Approved/Not approved

Dr. Julia Moorman
Chairperson - PPRC

APPENDIX D: Participant information and informed consent

Department of Occupational Therapy

7 York Road,Parktown, 2193 South Africa • Telegrams 'Witsmed' • Tel: +27-11-717-3701 • Fax: +27-11-717-3709

e-mail: Leilane.Bogoshi@wits.ac.za

RESEARCH PARTICIPANTS' INFORMATION LEAFLET FOR ATTENDING FOCUS GROUPS

Title: Vocational rehabilitation for young stroke survivors in Gauteng public health care services: Occupational therapists' attitudes and perceptions

Good day

I am an Occupational Therapist registered for my Masters in Occupational Therapy at the University of the Witwatersrand I invite you to volunteer to take part in my research study.

The Human Research Ethics Committee of the University of the Witwatersrand (medical) has granted written approval for this study, as well as The Research Ethics Committee of the University of Pretoria, Faculty of Health Sciences to carry out the research.

The purpose of this study is to determine what the attitudes and perceptions of therapists working in Gauteng public hospital and clinics are regarding return to work and vocational rehabilitation with stroke patients.

This letter serves to inform you exactly what the study entails and help you decide whether you would be willing to partake in the study.

Few public hospitals in Gauteng employ occupational therapists purely for vocational rehabilitation purposes, as opposed to hospitals in the Western Cape which have dedicated units to vocational rehabilitation which are fully functional. Thus, in Gauteng, these services must be carried out by occupational therapists as part of run-of-the-mill services rendered to all patients. Having regard for the shortened hospital stay of patients in public hospitals, the outcome of this study could be used to identify the value of similar units to those in other provinces of the country.

It is unclear what Gauteng occupational therapists' attitudes towards and perceptions of vocational rehabilitation are, and how these two variables contribute to its absence in rehabilitation programs of young stroke survivors. The study will assist occupational therapy heads of department to address and/or use these perceptions and attitudes within their departments to ensure the young stroke survivors get the best treatment available.

I am inviting you to be part of a focus group with other occupational therapists in your hospital or clinic. The focus groups will last for approximately one hour and a half to two hours and will happen after a sub-cluster meeting. The groups will be arranged telephonically and a date and time which is convenient for all will be arranged.

During the focus group, you and the other therapists will discuss your perceptions and attitudes regarding vocational rehabilitation with young stroke patients at your hospital or clinic. I am asking your permission to record the focus groups in order to make data analysis easier. A research assistant will also be present in the group to take notes for the duration of the group.

The information from the recordings will be transcribed by a computer program. After the data are transcribed, I will differentiate between the participants in the group by allocating numbers to them and adding that to the transcription. Confidentiality cannot be assured however due to the nature of focus groups. Audio data will be stored in a secured location for 6 years according to HPCSA regulations and will then be destroyed.

Your participation in this study is voluntary and you may stop at any given time throughout the two (2) year period without consequence. Feedback will be available on request.

<u>Note:</u> The implication of completing the consent letter is that any information derived from the study may be used for e.g. publication, by the researcher.

If you have any queries or require more information, please do not hesitate to contact me on 0833208578. If you would like to partake in the research, please read and sign the attached consent form.

If you have any ethical concerns please contact the chairperson of the Wits Human Research Ethics Committee, Prof P Cleaton-Jones on 011 7171234 or at zanele.ndlovu@wits.ac.za

I sincerely appreciate your help.

Yours truly,
Greea-Laine Muller
Cell number: 0833208578

Statement of Consent:

I_____ (*print full name*) have read the foregoing information and I agree to participate in the research study: Vocational rehabilitation for young stroke survivors in Gauteng public health care services: Occupational therapists' attitudes and perceptions.

I have been given an opportunity to ask questions and all my questions have been answered. I have received a copy of this form.

_____
Research Participant's Signature

_____
Date

Permission to be Audio Recorded:

I_____ (*print full name*) have read the foregoing information and I agree to be audio recorded in the research study: Vocational rehabilitation for young stroke survivors in Gauteng public health care services: Occupational therapists' attitudes and perceptions.

_____
Research Participant's Signature

_____
Date

APPENDIX E: CEO information and informed consent

Department of Occupational Therapy

7 York Road,Parktown, 2193 South Africa • Telegrams 'Witsmed' • Tel: +27-11-717-3701 • Fax: +27-11-717-3709

e-mail: Leilane.Bogoshi@wits.ac.za

CEO PERMISSION LETTER FOR FOCUS GROUP TO TAKE PLACE AT YOUR HOSPITAL

Title: Vocational rehabilitation for young stroke survivors in Gauteng public health care services: Occupational therapists' attitudes and perceptions

Dear Chief Executive Officer

I am an Occupational Therapist registered for my Masters in Occupational Therapy at the University of the Witwatersrand I request permission to use your hospital as a venue to conduct a focus group, as well as for your occupational therapy staff to participate in the focus group.

The Human Research Ethics Committee of the University of the Witwatersrand (medical) has granted written approval for this study, as well as The Research Ethics Committee of the University of Pretoria, Faculty of Health Sciences to carry out the research.

This letter serves to inform you exactly what the study entails and help you decide whether you would be willing to allow your hospital to partake in the study.

Your hospital's participation in this study is voluntary and you may withdraw at any given time throughout the two (2) year period. Once all the data is collected, is the only time you can no longer recall consent as we will not be able to undo the focus groups which have already taken place. Your hospital will remain anonymous and will not be identified in any publication that comes from this study.

My research topic is as follows:

Vocational rehabilitation for young stroke survivors in Gauteng public health care services: Occupational therapists' attitudes and perceptions.

The purpose of this study is to determine what the attitudes and perceptions of therapists working in Gauteng public hospital and clinics are regarding return to work and vocational rehabilitation with stroke patients. The perceived barriers and opportunities regarding return to work and vocational rehabilitation will also be determined.

Very few public hospitals in Gauteng employ occupational therapists purely for vocational rehabilitation purposes, as opposed to hospitals in the Western Cape which have dedicated units to vocational rehabilitation which are fully functional. Thus, in Gauteng, these services must be carried out by occupational therapists as part of run-of-the-mill services rendered to all patients. Having regard for the shortened hospital stay of patients in public hospitals, the outcome of this study could be used to determine the value of similar units to those in other provinces of the country.

It is unclear what Gauteng occupational therapists' attitudes towards and perceptions of vocational rehabilitation are, and how these two variables contribute to its absence in rehabilitation programs of young stroke survivors. The study will assist occupational therapy heads of department to address and/or use these perceptions and attitudes within their departments to ensure the young stroke survivors get the best treatment available.
Your consent entails allowing all the occupational therapists in your hospital or clinic to be part of focus groups held at your hospital or clinic. The focus groups will last for approximately one and a half hours to two hours and will happen after a sub-cluster meeting. The groups will be arranged telephonically and a date and time which is convenient for all will be arranged.

During the focus group, therapists will discuss their perceptions, attitudes regarding vocational rehabilitation with young stroke patients at your hospital or clinic. The groups will be recorded in order to make data analysis easier. The information from the recordings will be transcribed by a computer program, thus it will not be possible to identify the hospitals, clinics and therapists. After the data are transcribed, I will

differentiate between the participants in the group by allocating numbers to them and adding that to the transcription. This will ensure that you remain anonymous.

<u>Note:</u> The implication of completing the consent letter is that any information derived from the study may be used for e.g. publication, by the researcher.

I sincerely appreciate your help.

Yours truly,
Greea-Laine Muller
Cell number: 0833208578

PERMISSION TO CARRY OUT RESEARCH:

I_____ (*print full name*) have read the foregoing information and give permission for the occupational therapy department of the hospital/clinic to participate in the research study: Vocational rehabilitation for young stroke survivors in Gauteng public health care services: Occupational therapists' attitudes and perceptions.

I have been given an opportunity to ask questions and all my questions have been answered. I have received a copy of this form.

_____
CEOs Signature

_____
Date

APPENDIX F: Letter received from CEO at DGMAH

Dr. Goerge Mukhari Academic Hospital

GAUTENG PROVINCE

HEALTH

REPUBLIC OF SOUTH AFRICA

Office of the Director Clinical Services

Enquires: Dr. PMT. Mabusela

Tel: (012) 529 3880

Fax: (012) 560 0099

Email: philly.mabusela@gauteng.gov.za

Kedibone.matsimel@gauteng.gov.za

To : Ms. Greea-Laine Muller

: Department of Occupational Therapy

: University of the Witwatersrand

: 7 York Road,

: Parktown

: 2193 South Africa

Date: 25th August 2016

PERMISSION TO CONDUCT RESEARCH

The Dr. George Mukhari Academic Hospital hereby grants you permission to conduct research on: "Vocational rehabilitation for young stroke survivors in Gauteng public healthcare: Occupational therapists' attitudes and perceptions" at Dr. George Mukhari Academic Hospital.

This permission is granted subject to the following conditions:

- That you obtain Ethical Clearance from the Human Research Ethics Committee of the relevant University
- That the hospital incurs no cost in the course of your research
-

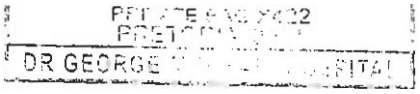
The access to the staff and patients at the Dr. George Mukhari Academic Hospital will not interrupt daily provision of services

☐ That prior to conducting research you will liaise with the supervisors of the relevant sections to introduce yourself (with this letter) and make arrangements with them in a manner convenient to the sections.

Yours sincerely

GAUTENG PROVINCIAL GOVERNMENT
DIRECTOR CLINICAL SERVICES
2016 -03- 25

DR. ME SITHOLE
ACTING DIRECTOR: CLINICAL SERVICES


DR GEORGE

APPENDIX G: Letter received from CEO at CHBAH

GAUTENG PROVINCE

HEALTH

REPUBLIC OFSOUTH AFRICA

MEDICAL ADVISORY COMMITTEE

CHRIS HANI BARAGWANATH ACADEMIC HOSPITAL

PERMISSION TO CONDUCT RESEARCH

Date: 22nd March 2016

TITLE OF PROJECT:

Vocational Rehabilitation for Young Stroke Survivors in Gauteng Public Healthcare: Occupational Therapists' Attitudes and Perceptions.

UNIVERSITY: Witwatersrand

Principal Investigator: Ms. G Muller

Department: Occupational Therapy Supervisor: Matty van Niekerk

Permission Head Department (where research conducted): Yes

The Medical Advisory Committee recommends that the said research be conducted at Chris Hani Baragwanath Academic Hospital. The CEO / management of Chris Hani Baragwanath Academic Hospitals accordingly informed and the study is subject to:

- Permission having been granted by the Committee for Research on Human Subjects of the University of the Witwatersrand.
- The Hospital will not incur extra costs as a result of the research being conducted on its patients within the hospital
- The MAC will be informed of any serious adverse events as soon as they occur
- Permission is granted for the duration of the Ethics Committee Approval.

Recommended
(On behalf of the MAC)
Date: 22/03/2016

Approved/Not Approved
Hospital Management
Date: 23/04/16

APPENDIX H: Letter received from CEO at TRC

Kuyasheshwa! Gauteng Working Better

GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

427 Hilda Street, 4th floor, The Fields Building, Hatfield Pretoria 0001 South Africa. Tel: +27 12 4519036
Enquiries: Dr. Molapane Chueu-Shabangu

e-mail: Molapane.Shabangu@gauteng.gov.za

TSHWANE RESEARCH COMMITTEE

CLEARANCE CERTIFICATE

Meeting: N/A

PROJECT NUMBER: 13/2016

Title: Vocational rehabilitation for young stroke survivors in Gauteng public healthcare: Occupational therapists' attitudes and perceptions.

Researcher: Muller Greea-Laine

Supervisor: Matty van Niekerk

Department: Occupational Therapy, University of the Witwatersrand

DECISION OF THE COMMITTEE

Approved

NB: THIS OFFICE REQUESTED A FULL REPORT ON THE OUTCOME OF THE RESEARCH DONE

Date: 13/06/2016

.....

Dr. Molapane Chueu-Shabangu
Chairperson Tshwane
Research Committee
Tshwane Health
District

.....

Mr. Pitsi Mothomone

Chief Director: Tshwane District
Health Tshwane District

NOTE: Resubmission of the protocol by researcher(s) is required if there is departure from the protocol procedures as approved by the committee.

APPENDIX I: HOD information and informed consent

Department of Occupational Therapy

7 York Road,Parktown, 2193 South Africa • Telegrams 'Witsmed' • Tel: +27-11-717-3701 • Fax: +27-11-717-3709

e-mail: Leilane.Bogoshi@wits.ac.za

PERMISSION FOR RESEARCH TO TAKE PLACE WITH THERAPISTS WORKING WITHIN YOUR DEPARTMENT

Title: Vocational rehabilitation for young stroke survivors in Gauteng public health care services: Occupational therapists' attitudes and perceptions

Dear Head of Department

I am an Occupational Therapist registered for my Masters in Occupational Therapy at the University of the Witwatersrand I invite your hospital to volunteer to participate in my research study.

The Human Research Ethics Committee of the University of the Witwatersrand (medical) has granted written approval for this study, as well as The Research Ethics Committee of the University of Pretoria, Faculty of Health Sciences to carry out the research.

This letter serves to inform you exactly what the study entails and help you decide whether you would be willing to allow the therapists working within your department to partake in the study.

Your hospitals participation in this study is voluntary and you may withdraw at any given time throughout the two (2) year period. Once all the data is collected, is the only time you can no longer recall consent as we will not be able to undo the focus groups which have already taken place. Your hospital and department will remain anonymous and will not be identified in any publication that comes from this study.

My research topic is as follows:
Vocational rehabilitation for young stroke survivors in Gauteng public health care services: Occupational therapists' attitudes and perceptions.

The purpose of this study is to determine what the attitudes and perceptions of therapists working in Gauteng public hospital and clinics are regarding return to work and vocational rehabilitation with stroke patients. The perceived barriers and opportunities regarding return to work and vocational rehabilitation will also be determined.

Very few public hospitals in Gauteng employ occupational therapists purely for vocational rehabilitation purposes, as opposed to hospitals in the Western Cape which have dedicated units to vocational rehabilitation which are fully functional. Thus, in Gauteng, these services must be carried out by occupational therapists as part of run-of-the-mill services rendered to all patients. Having regard for the shortened hospital stay of patients in public hospitals, the outcome of this study could be used to lobby for similar units to those in other provinces of the country.

It is unclear what Gauteng occupational therapists' attitudes towards and perceptions of vocational rehabilitation are, and how these two variables contribute to its absence in rehabilitation programs of young stroke survivors. The study will assist occupational therapy heads of department to address and/or use these perceptions and attitudes within their departments to ensure the young stroke survivors get the best treatment available.

Your consent entails allowing all the occupational therapists in your hospital or clinic to be part of focus groups held at your hospital or clinic. The focus groups will last for approximately one and a half hours to two hours and will happen after a sub-cluster meeting. The groups will be arranged telephonically and a date and time which is convenient for all will be arranged.

During the focus group, therapists will discuss their perceptions, attitudes, barriers and opportunities regarding vocational rehabilitation with stroke patients at your hospital or clinic. The groups will be recorded in order to make data analysis easier. A research assistant will also be present in the group to take notes for the duration of the group. The information from the recordings will be transcribed by a computer program, thus it will not be possible to identify the hospitals, clinics and therapists. After the data are transcribed, I will differentiate between the participants in the group by allocating numbers to them and adding that to the transcription. This will ensure that you remain anonymous.

Note: The implication of completing the consent letter is that any information derived from the study may be used for e.g. publication, by the researcher.

If you have any queries or require more information, please do not hesitate to contact me on 0833208578. If you would like to partake in the research, please read and sign the attached consent form.

If you have any ethical concerns please contact the chairperson of the Wits Human Research Ethics Committee, Prof P Cleaton-Jones on 011 7171234 or at zanele.ndlovu@wits.ac.za

I sincerely appreciate your help.

Yours truly,
Greea-Laine Muller
Cell number: 0833208578
PERMISSION TO CARRY OUT RESEARCH:

I_____ (*print full name***) have read the foregoing information and give permission for the occupational therapy department of the hospital/clinic to participate in the research study: Vocational rehabilitation for young stroke survivors in Gauteng public health care services: Occupational therapists' attitudes and perceptions.**

I have been given an opportunity to ask questions and all my questions have been answered. I have received a copy of this form.

_____
HOD's Signature

_____
Date

APPENDIX J: Completed consent from the HOD at DGMAH

Maria Magdalena Best *(print full name)* have read the foregoing information and give permission for the occupational therapy department of the hospital/clinic to participate in the research study: Vocational rehabilitation for young stroke survivors in Gauteng public health care services: Occupational therapists' attitudes and perceptions.

I have been given an opportunity to ask questions and all my questions have been answered. I have received a copy of this form.

APPENDIX K: Completed consent from the HOD at CHBAH

PERMISSION TO CARRY OUT RESEARCH:

Lynn Soulsby (print name) have read the foregoing information and give permission for the occupational therapy department of the hospital/clinic to participate in the research study: Vocational rehabilitation for young stroke survivors in Gauteng public health care services: Occupational therapists, attitudes and perceptions.

I have been given an opportunity to ask questions and all my questions have been answered. I have received a copy of this form.

HOD's Signature

31/8/16.

APPENDIX L: Proposed list of questions and prompting

1. What do you feel is your role in the rehabilitation of a younger stroke patient?
2. What does your treatment typically consist of with younger stroke patients?
3. What do you perceive your role in to be in relation to treating the younger stroke patient's ability to work?
4. Do you feel stroke patients, especially younger stroke patients, should work again? Why/why not?
5. What do you feel the barriers are regarding the rehabilitation of the younger stroke patient's ability to work?
6. What do you think the opportunities you have during the rehabilitation process regarding the patient's ability to work?
7. What is your perception of contacting the employer of a stroke patient you are treating? Do you contact the employer during rehab? Why/why not? What is the purpose of contacting the employer?
8. How do you feel about vocational rehabilitation? Explain whether you think it is different from treating the patient's ability to work and how so?
9. At which stage of rehabilitation process do you feel that treating a patient's ability to work/vocational rehabilitation should be included?
10. Do you offer vocational rehabilitation or services related to patients' ability to work? Why/Why not?
11. What is your perception of the value of a postgraduate qualification in vocational rehabilitation in relation to the rehabilitation of younger stroke patients? Do you have a postgraduate qualification in vocational rehabilitation or do you intend to pursue that in future?
12. What aspects of treatment of the patient's ability to work/voc rehab do you include in treatment?
13. When do you feel is the right time to start addressing the patient's ability to work/voc rehab? Why?

APPENDIX M: Demographics questionnaire

Demographic Questionnaire

Number (for data capture purposes):

Age:

Gender:

Please list all your occupational therapy-related qualifications:

Number of years of experience in the field of neurological occupational therapy:

Number of years in public health care:

Number of years at current place of employment:

Which area of occupational therapy do you enjoy the most?