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REHABILITATION SERVICE IN THE NORTHERN KWAZULU-NATAL, UTHUNGULU AND SERVICE PROVIDERS' KNOWLEDGE AND ATTITUDES TOWARDS PUBLIC PRIVATE PARTNERSHIPS.

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As the candidate's supervisor, I AGREE to the submission of this thesis for examination. The chapters are written as per UKZN guidelines.

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DECLARATION

I, Senzelwe Mazibuko hereby declare that:

i) The following work is my own original work. All work that is not my own has been appropriately cited and referenced.

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ABSTRACT

Rehabilitation assists persons with disabilities attain physical independence and self-determination. In South Africa, the distribution of rehabilitation services is largely poor. Rehabilitation services in uThungulu District, KwaZulu-Natal are covered by the public sector. The uThungulu public health sector provides limited rehabilitation services, with physiotherapists working in multidisciplinary teams. Consequently, achieving rehabilitation goals of functional independence is affected. Public and private rehabilitation service providers working together can help to combat this problem. Furthermore, rehabilitation services are unevenly distributed in rural uThungulu.

This study explores current rehabilitation service provision practices in uThungulu and the possibility of Public Private Partnerships (PPPs). A sample of 50(37 public and 13 private) rehabilitation service providers were interviewed; using a mixed methods exploratory case study. Through the use of focus groups, individual interviews and questionnaires, participants were requested information on their perception of the availability, accessibility and equitability of rehabilitation services in uThungulu district. The knowledge and attitude service providers had towards PPPs were also explored.

Rehabilitation practitioners reported poor rehabilitation service provision in uThungulu due to the poor socio-economic circumstance of uThungulu, limited multidisciplinary rehabilitation service providers and poor delivery of rehabilitation services. Sixty-four percent of the participants reported that their rehabilitation was not sufficient. Ninety-two percent of the participants reported working in a multidisciplinary team however human resource shortages were also reported resulting in institutions being constantly short-staffed. Sixty-nine percent of the participants reported the non-availability of designated rehabilitation units in their institutions. Professionals working at institutions with designated rehabilitation units evaluated the effectiveness of the rehabilitation programme significantly more positively than those working at institutions without such designated units (U= 98.5, p=0.01). Participants stated that they receive an average of 5.37±4.79 rehabilitation referrals per day. Forty percent of the participants stated that rehabilitation sessions occur daily, with 38% of respondents reporting rehabilitation sessions lasting between 30 to 45 minutes. A moderate, positive correlation was found between participants' perceptions of managerial support and perceived rehabilitation programme effectiveness (r_s= 0.45, p=0.01). A weak, positive and statistically significant correlation between perceived effectiveness of rehabilitation programme and ease of administrative process was found (r_s= 0.29, p= 0.04). Two thirds (66%) of the participants did not know about PPP and only a third (34%) knew about it.

Rehabilitation service in uThungulu is provided predominantly in hospital departments and less so at community-based centres such as clinics. UThungulu's rehabilitation services are multidisciplinary, but often with an incomplete quota of rehabilitation practitioners. Rehabilitation services were perceived

negatively by providers in the uThungulu District. These negative perceptions were due to a lack of equipment, the absence of designated rehabilitation units, human resource shortages, a lack of managerial support and cumbersome administrative processes. Furthermore, rehabilitation service providers perceived rehabilitation as insufficient and ineffective. Rehabilitation service providers in uThungulu were not aware of PPPs. The possible utilisation of PPPs as tools for adequate rehabilitation service provision thus could not be ascertained sufficiently. The few providers who were aware of PPPs reported a positive potential for PPPs as vehicles of rehabilitation service provision.

KEY WORDS: Rehabilitation, PPPs, health service

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List of abbreviations and acronyms

BOO	Build, Own, Operate
BOOT	Build, Operate, Own and Transfer
BOT	Build, Operate and Transfer
CBHCCs	Community Based Health Care Centres
CBR	Community Based Rehabilitation
CEOs	Chief Executive Officers
CHCC	Community Health Care Centre
COIDA	Compensation for Occupational Injuries and Diseases Act
DBO	Design, Build, Operate

DBFO	Design, Build, Finance, Operate
DBOT	Design, Build, Operate, Transfer
DHS	District Health System
DoH	Department of Health
FSDRS	Framework and Strategy on Disability and Rehabilitation Services
GAVI	Global Alliance for Vaccines and Immunisation
ICU	Intensive Care Unit
INDS	Integrated National Disability Strategy
KZN	KwaZulu-Natal
LOO	Lease, Own, Operate
MDC	Maputo Development Corridor
MDT	Multidisciplinary Practice
NGOs	Non-Government Organisation(s)
NRP	National Rehabilitation Policy
OECD	Organisation for Economic Co-operation and Development
PFMA	Public Financial Management Act
PHC	Primary Healthcare
PLHIV	People Living with Human Immuno Virus
PPPs	Public Private Partnership(s)
RAF	Road Accident Fund
SASP	South African Society of Physiotherapists
SPAID	Support Programme for Accelerated Infrastructure Development
UN	United Nations
UNCRPD	United Nations Convention for the Rights of People with Disabilities
UNMDG	United Nations Millennium Development Goals
WCRC	Western Cape Rehabilitation Centre
WHO	World Health Organisation

CHAPTER ONE: BACKGROUND INFORMATION

1.1 Introduction

According to the Integrated National Disability Strategy (Mbeki, 1997), rehabilitation is the "process aimed at enabling people with disability to reach and maintain their optimal physical, sensory, intellectual, psychological and social functional level". Furthermore, rehabilitation provides people with disabilities the tools needed to attain independence (National Rehabilitation Policy, 2000; Mji, *et al*., 2013). This is true regardless of whether the impairment is because of a congenital limitation, trauma, acute illness, chronic health condition; and lifestyle or vocational injury or other medical episode.

Rehabilitation services are often rendered in a multi-disciplinary setting, and at various levels of care which involve the following professionals: physiotherapists, occupational therapists, speech and language therapists, psychologists, social workers, dieticians and orthotics in an attempt to alleviate the impact of disability (Kahonde, *et al*, 2010; Roman, 2010; Visagie & Schneider, 2014).

According to the National Disability Survey (Stats, S. A., 1999), the public sector provided a majority (60%) of all rehabilitation services for people with disabilities in South Africa. The South African government is trailed by the private sector which disseminates services through paid medical aid schemes. The Compensation for Occupational Injuries and Diseases Act (COIDA) and the Road Accident Fund (RAF) engage with the private sector by outsourcing services to private rehabilitation service providers. A small portion of rehabilitation is delivered by Non-Government organisation (NGO).

In South Africa, disability and rehabilitation services are largely under-developed and often inaccessible to the majority of the population, especially in rural areas. A situation analysis revealed the lack of intersectional collaboration between departments and sectors that are involved in rehabilitation and the shortage of rehabilitation professionals and resources (National Rehabilitation Policy, 1997). This results in poor service provision at all health care levels.

Discourse on rehabilitation has been characterised by a dynamic environment of constantly changing disability policy (Mji, *et al*., 2013). The effects of the rights movement for people with disabilities and other political changes have led to global health institutions such as the World Health Organisation (WHO) and the United Nations

(UN) creating policy that is more rights-based and rehabilitation being client-centred (Dayal, 2010; Mji, *et al*., 2013; Visagie & Schneider, 2014). The UN Convention for the Rights of People with Disabilities (UNCRPD) has promulgated the South African government to ratify a number of rights-based and client-centred rehabilitation and health provision policies. These are inclusive of the National Rehabilitation Policy (NRP) which is to be implemented under the context of South Africa's planned philosophy of Primary Healthcare (PHC) where important rehabilitation and health provision decision-making is transferred from a central body to local institutions (Kahonde *et al*, 2010; Hussey, *et al.*, 2017).

The influence of the rights movement for people with disabilities and other political changes have, led to new policies being adopted. The UNCRPD, PHC and NRP are to be implemented in symphony with other client-centred policy directives. Primary healthcare recommends that rehabilitation healthcare provision is much more focused on involving the person with disability at all levels of rehabilitation, and that rehabilitation service provision must be conducted with the best practices of Community Based Rehabilitation (CBR) (Dayal, 2010; Visagie & Schneider, 2014; Hussey, *et al.*, 2017).

Wasserman *et al*. (2009) conducted a multi-centre, longitudinal, cohort study in rural KwaZulu-Natal (KZN) (uThungulu District included), with the aim of assessing the discharge planning of patients with strokes, and to evaluate the integration and continuity of stroke care between hospital and the community. The authors concluded that there were no rehabilitation services available to patients after discharge. This study is supported by Hardcastle (2011); who concluded that the only state-owned, but serviced by a private, long-term, multidisciplinary service-provider, rehabilitation facility available in South Africa was in Cape Town, in the Western Cape Rehabilitation Centre (WCRC).

Literature on rehabilitation services revolves mostly around stroke and spinal cord rehabilitation. Rehabilitation occurs in different settings, including at in-patient hospital-based settings, out-patient community-based settings as well as patients' homes. Patients with stroke managed in a stroke-unit in the acute stage have been shown to come up with better long-term outcomes (Trialists' Collaboration, S. U., 2013).

The delivery of rehabilitation services in uThungulu district are in both public and private sectors and are predominantly in rural areas. There are seven public (district) and two private hospitals and the latter are based in the urban uMhlathuze municipality. The

private sector has a competitive advantage compared to the public sector since the former provides all multidisciplinary rehabilitation services. The private sector requires direct payment by the rehabilitation user, which reduces number of patients. This alleviates the possibility of a burdensome patient to doctor ratio.

The uThungulu district public sector has a limited range of rehabilitation service providers and often has no physiotherapists. Hospitals that do have physiotherapists, are often solitary and without assistance from other rehabilitation disciplines. Often, patients are discharged without the comprehensive involvement of all MDT members resulting in limited progress being achieved. Patients consequently present with complications that impact on their functional independence which could have been avoided.

The South African government has set aside funding allocated for rehabilitation to cover various costs, such as the establishment of specialised rehabilitation facilities for spinal and stroke units (National Rehabilitation Policy, 2000). Consequently, there should be progress on designated stroke, spinal or general rehabilitation units across the country if service provision was on par with the rate of stroke attacks and related illnesses. Collaboration of both public and private sectors can be a solution by formulating a structure where available resources could be better utilised and advantage taken of each provider`s inherent strengths (National Rehabilitation Policy 2000).

1.2 Aim of the study

The aim of the study was to explore the current delivery of rehabilitation services at uThungulu District in Northern KwaZulu-Natal. The study further aimed to assess service providers' knowledge and perception of the Public Private Partnership (PPP) as a vehicle to the delivery of rehabilitation services in the uThungulu district, Northern KwaZulu-Natal.

1.3 Objectives of the study

i). Explore the current practices of rehabilitation service providers, managers and policy makers in rendering rehabilitation services in the uThungulu district

ii). Explore rehabilitation service provider`s perception on availability, accessibility, and equitable rehabilitation services provision in the uThungulu district.

iii). Explore the knowledge and attitudes of rehabilitation service providers towards Public Private Partnership (PPP).

1.4 Problem statement

While there is a recognised need for rehabilitation services in KwaZulu-Natal (KZN), delivery of current services is disjointed and unevenly distributed especially with respect to the rural districts of KZN, such as uThungulu district.

The researcher has worked in both the public and private sectors in the uThungulu district and has since witnessed the struggle of patients trying to access the best-known rehabilitation services. The practice in both sectors differs in that private practitioners are less over-burdened by large numbers of patients requiring care. The researcher intends on using the experience gained to contribute to the body of knowledge that could assist in improving the rehabilitation services in the uThungulu district.

In order to assess whether rehabilitation intervention is successful and if rehabilitation programmes are achieving their objectives, it is necessary to perform continuous monitoring and evaluation. Monitoring of the programme will provide feedback to the administrators and warns them when the programme is starting to deviate from its original design, so that corrective measures can be put in place to re-instate it when necessary or consider available alternatives that are proven effective.

The WHO report on disability (Krahn,2011) identified the lack of reliable research and calls for research on rehabilitation programmes and policies. This report specifically mentions a need for evidence on the effectiveness of interventions and programmes since evidence based knowledge can guide policy makers in the development of appropriate programmes and assist service providers to choose the suitable intervention (Krahn, 2011).

The provision of rehabilitation services poses a major challenge in KZN. Rehabilitation services are often lacking or minimal. A need exists to explore the possibility of effective and efficient rehabilitation service in the Northern KZN. This empirical study explores the knowledge and attitudes of service providers about Private-Public Partnership in rendering rehabilitation services in uThungulu District in KwaZulu-Natal, South Africa.

1.5 Significance of study

The researcher has worked in the uThungulu District in both the public and private sectors. Rehabilitation service provision is not equitably provided to the majority of the uThungulu community. Largely rural, uThungulu has rehabilitation services provided for mostly by private sector health practitioners. The majority of patients who require rehabilitation services receive them from the public sector. The current study is significant in that it may illuminate the health services industry on the knowledge and attitudes practitioners have on PPPs assisting in delivering South Africa's rehabilitation health service. More than eighty percent of South Africans rely of the public healthcare system, while 17.4% utilise the private healthcare system (KPMG 2018). However, healthcare spending is equal between the private and public sectors (KPMG, 2018). This results in quality healthcare being more expensive for the majority of citizens and thus inaccessible. This study can explore the viability of Public and Private Partnerships in helping to restructure South Africa's healthcare infrastructure in order to make quality health more equitable.

1.6 Dissertation structure

Chapter 1: This chapter introduces the reader to the study topic. The aims and objectives of the study are presented to illustrate what questions the researcher wishes to answer. The study's problem statement is discussed along with the study's significance and the dissertation's structure.

Chapter 2: In this section of the study relevant literature is overviewed. The literature review focuses on rehabilitation, definition of rehabilitation, rehabilitation policy, epidemiology of disability in South Africa, and rehabilitation practice in South Africa. The literature review chapter also deals with PPPs; their definition, types of PPPs, PPP implementation in South Africa, PPP financing, how PPPs and rehabilitation are related, and the challenges facing PPPs in South Africa.

Chapter 3: The conceptual framework guiding this study is presented in this chapter. The relationship between rehabilitation and the utilisation of Public and Private sector partnerships in assisting to construct or restructure South Africa's healthcare service provision. The conceptual framework guides the study in exploring the viability of PPPs in equitizing rehabilitation healthcare service in South Africa.

Chapter 4: The methodology section explains how the actual research was executed. In this chapter the research setting of uThungulu is discussed, the study design, population from which sample was drawn, sample size, and the description of how sample cases were selected or excluded. The methods of data collection are also discussed along with the methods of data analysis. Finally the methodology chapter discusses ethical clearance considerations faced by the researcher.

Chapter 5: The results section presents the information gained from data collection analysis. This includes the demographic profile of the participants, rehabilitation practices in uThungulu, participants' perceptions of rehabilitation in uThungulu, and participant's knowledge of PPPs.

Chapter 6: The discussion chapter utilises the literature review to explain the data received from the study according to the aims, objectives, and questions the researcher intended on answering. Rehabilitation practice in uThungulu, participants' perceptions of rehabilitation service provision in uThungulu, and the knowledge of PPPs are discussed. This chapter additionally looks at the study's limitations and recommendations.

1.7 Conclusion

Rehabilitation is essential to helping persons with disabilities regain optimal physical independence. The public health sector provides the majority of rehabilitation service, yet spending is on equal par with the private sector which provides a minority of rehabilitation services. Rehabilitation in South Africa is under-developed and inaccessible to the majority of users. International and South African healthcare policy demands the improvement of rehabilitation service provision for most users. This demand calls for a restructuring of South Africa's healthcare provision system in order to insure equity in healthcare. This chapter has shown the study's aims and objectives to explore the current practices of rehabilitation in uThungulu. This study additionally aims to explore rehabilitation service providers' perceptions of rehabilitation availability, accessibility, and equity in uThungulu. Thirdly, this study aims to explore the knowledge or awareness rehabilitation service providers have of PPPs in uThungulu. Significant to the study is assessing the viability of PPPs as vehicles to better-quality and more equitable rehabilitation service provision for all rehabilitation service users. The delineation of this study's chapters was also described in this section. The review of literature follows in Chapter 2.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The literature review covers information relating to the definition of rehabilitation and the patterns of service distribution internationally and nationally. Local and international studies on rehabilitation were reviewed to obtain empirical data to support the rationale and public health importance of the topic. A search on PubMed and Science Direct using the terms/phrases "rehabilitation"; "disability and rehabilitation"; "rehabilitation service providers"; "health service provision in South Africa"; "Public Private Partnership"; "rehabilitation knowledge, attitudes, perceptions and practices" was conducted to acquire relevant literature. The rehabilitation section looked at rehabilitation service provision in the public and private health sectors within the South African context. The health and rehabilitation practise section focuses on the discourse behind patterns of health and rehabilitation distributions in urban and rural South African settings. The administration and management of rehabilitation services is also a core focus of this section. The final part of the literature review looks at the concept of Public Private Partnership (PPP) as a vehicle for the provision of healthcare service infrastructure. A scholarly review of the PPP is included in this section in as far as it has been used as a conceptual guide in the provision of rehabilitation services nationally and globally.

There are 1 billion persons with disabilities in the world, with most of them living in undeveloped countries. In South Africa there are 2.5 million people with disabilities (Mji, *et al*., 2013; Hussey, *et al.*, 2017). Persons with disabilities make up approximately 6% of South Africa's population (Mji, *et al.*, 2013). The National Rehabilitation Policy (NRP) advocates for the full inclusion of people with disabilities in all levels of rehabilitation service evaluation (National Rehabilitation Policy, 2007). Despite the urgency in the need for quality rehabilitation service provision the world over, there is limited research evaluating rehabilitation in the public sector in South Africa. Due to the dynamic discourse of rehabilitation, a dualism between impairment and disability has arisen; global institutions like the UN have provided a theoretical and legislative backdrop for South African rehabilitation underpinnings (Mji, *et al*., 2013).

2.2 Rehabilitation

2.2.1 Rehabilitation definition

As alluded to in the introduction, rehabilitation by definition is ways of assisting people with disabilities to be fully participating members of their societies with access to all the benefits and opportunities of such a society; and to attain for themselves a functional and physically independent life (Mbeki, 1997; Kahonde, *et al.*, 2010;Nanjwan&Plang, 2014). Comprehensive rehabilitation and health service provision is very important not only to retrain physical and functional abilities, but also to assist with psychological and emotional adjustment issues such as social and community integration (Manderson & Warren, 2010).

Social integration can be achieved through the involvement of medical rehabilitation and therapeutic devices. The main purpose is to limit or arrest the effects of physical impairment and disability as far as possible in order to enable rehabilitation clients to regain physical and other functional abilities (National Rehabilitation Policy, 2000). Rehabilitation provides people with disabilities the tools they need to attain independence and self-determination. Rehabilitation seeks to enhance the residual functional abilities of people who have an acquired impairment.

2.2.2 Types of rehabilitation

Rehabilitation is a process that should be applied in a manner that fits an individual user according to the mode of impairment (Nanjwan & Plang, 2014). Physical impairments can be grouped into three primary categories; namely orthopaedic, neurological and health impairments (Nanjwan & Plang, 2014). Rehabilitation practitioners can specialise on a specific body part such as hand, burn and spinal cord (Nanjwan & Plang, 2014).Cratty (1989) (as cited in Nanjwan & Plang, 2014) explains four methods of rehabilitation:

I. Medical Based Rehabilitation: Due to the necessity of early intervention, this is rehabilitation that occurs in the intensive care unit (ICU). Medical based rehabilitation in preventative in ideology and is designed to minimise the duration of the patient's institutional.
II. Day-treatment-day rehabilitation: This kind of rehabilitation involves a multidisciplinary team of rehabilitation practitioners who oversee the user's rehabilitation session in an intensive, day-long, structured setting. The patient is then allowed to return home at the end of the rehabilitation session.

III. Outpatient facilities rehabilitation: Rehabilitation happens after acute rehabilitation, where the patient may require treatment specific to particular impairment like speech or occupational therapy. This kind of rehabilitation can also be provided by a home-based healthcare facility.

IV. Transitional living programmes: These are programmes structured to provide persons with special needs with housing in order to allow them to regain as much independence as possible. This kind of rehabilitation requires intervention from a multidisciplinary team of rehabilitation specialists to assist the patient acquire skills needed for independent living.

2.2.3 Rehabilitation policy

Rehabilitation empiricism in the South African context, and indeed the global context, has been theoretically characterised by the dynamic laws and policies regulating treatment of persons with disabilities (Mji, *et al.*; 2013). Before the 21st century, rehabilitation was characterised by up-down, dictatorial biological conceptions of health for persons with disabilities (Mji, et al.; 2013). Post-1994 democratic change and the United Nations Millennium Development Goals (UNMDG) of 2000 (ratified in 2007 in South Africa) have compelled necessary rehabilitation health policy reform. Using the biopsychosocial model, the UN inspired South Africa to launch the National Rehabilitation Policy (NRP) in 2000. All of this change was on the back of the persons with disabilities rights movement (Dayal, 2010; Mji, *et al*., 2013; Visagie & Schneider, 2014).

Another policy document that is of global rehabilitation importance is the United Nations Convention for the Rights of Persons with Disabilities (UNCRPD). The UNCRPD promotes the message that people with disabilities must be included in all levels of rehabilitation service evaluation; this is to be accompanied with adherence to the dictates of the World Health Organisation's (WHO) principles of Community Based Rehabilitation (CBR) (Mji, *et al*., 2013). Articles in the UNCRPD highlight rehabilitation with regards to accessibility; personal mobility; independent living, and community inclusion. These articles are in alignment with the NRP's best-practice rehabilitation provision to persons with disabilities (Mji, *et al*., 2013). The UNCRPD is a seminal document that has specifically identified and protected the rights of people with disabilities.

As such, rehabilitation must now be conceived within the knowledge that there is a difference between disability and mere impairment. Impairment is a term of pathological health popularised by the biological model of health; whilst disability implies complex and intersectional social artefacts such as discrimination, oppression, and exclusion as a result of physical impairment (Dayal, 2010;Kahonde, *et al.*, 2010; Mji, *et al*., 2013). Rehabilitation service provision has been influenced by historically fluid, contemporaneous societal and legislative zeitgeist.

The people with disabilities' rights movement and the ratification and adoption of the UNMDG and NRP policies have led the South African Department of Health (DoH) to transform its health provision ideology. This ideology is called the Primary Health Care (PHC) philosophy. Primary Health Care as a philosophy of healthcare provision allows practitioners to engage with communities in a bottom-up approach (Ned, *et al.*, 2017). This approach is based upon the UNCRPD, NRP, and CBR policies that have implicitly directed practitioners to be more cognisant of the social determinants of health and ill-health (Ned, *et al.*, 2017). The social determinants of health include access to education, sanitation, adequate housing, and to economic development opportunities (employment) (Cobbing, *et al.*, 2017; Ned, *et al.*, 2017).

Rehabilitation is a pillar of PHC and forms part of a continuum of comprehensive PHC service provision. The principles of PHC and community based rehabilitation (CBR) may be used as a guide to restructured rehabilitation service provision. Ned, *et al.* (2017) found that the CBR service approach filled the gaps in addressing the social determinants of health for persons with disabilities in rural Eastern Cape, South Africa. Rehabilitation forms a central part of the Framework and Strategy on Disability and Rehabilitation Services (FSDRS), which aspires for chronic disease patients to have rehabilitation fully integrated into their treatment plan (Cobbing, *et al*., 2017).

These principles of CBR and PHC have led the global health service community and the South African government to adopt the philosophy of decentralisation. Decentralisation is the process where authority of function moves from a central body to a local body, with a focus on the changing nature of healthcare management, planning, and capacity building (Dayal, 2010). Decentralisation seeks efficiency in rehabilitation service provision that is geared towards health management that supports skills acquisition that is needed by a decentralised health system (Dayal, 2010).

Rehabilitation is no longer a troupe of the biological paradigm that solely seeks to bring people with impairments back within the umbrella of normality (Dayal, 2010;Kahonde, *et al.*, 2010; Mji, *et al*., 2013). The biological paradigm is a theory of health that conceptualises health exclusively from a pathological view (Dayal, 2010;Kahonde, *et al.*, 2010; Mji, et al., 2013). The biological paradigm conceives health as being purely the absence of disease. Rehabilitation is no longer the exclusive responsibility of individual doctors or practitioners dictating to impaired patients, but society is now an involved and equal participant. Likewise an exclusively social model of rehabilitation threatens other aspects of optimal rehabilitation in individuals with disabilities such as mobility (Dayal, 2010; Mji, *et al*.; 2013).

Global rehabilitation policy like the UNMDG and the UNCRPD, has led to national policies such as the NRP, PHC, CBR, FSDRS and decentralisation. Rehabilitation policy is now based on equity and community participation (Visagie & Schneider, 2014). The social and economic developments of persons with disabilities and interventions that deal with the social determinants of health are now core features of rehabilitation policy (Visagie & Schneider, 2014). In this sense, rehabilitation policy in South Africa envisions a public healthcare system that is thoroughly client-cantered. The South African government has accordingly challenged itself to follow international trends of being an adherent of these policies (Kautzy & Tollman, 2008; Dayal, 2010; Kahonde, *et al.*, 2010; Mji, *et al*., 2013; Cobbing, *et al.*, 2017).

2.2.4Rehabilitation practice

The District Health System (DHS) is a move by the South African government to decentralise or localise vital decision-making regarding policy on healthcare provision. Regarding rehabilitation, the intended reformation ideals of social inclusion and equal opportunity have been undermined by the continued prevalence of the biological paradigm. The biological paradigm considers health to be merely the absence of disease and does not consider the non-biological and social determinants of health (Ned, *et al.*, 2017).Rehabilitation practitioners rarely emphasise the importance of active patient participation in the rehabilitation process(Ned, *et al.*, 2017).The current White Paper on the Integrated National Disability Strategy (INDS) is one of the South African government's efforts into ensuring rehabilitation practice is multi-sectoral (Dayal, 2009). The NRP guides rehabilitation providers to do so within rights-based framework when working with people with disabilities. A rights-based framework of rehabilitation service provision deals with issues of political ethics such as social exclusion, economic exclusion and stigmatisation of persons with disabilities.

The disability/impairment dichotomy has been a theme in the scholastic dynamism of rehabilitation; consequently, rehabilitation provision is totally guided by the UNCRPD, principles of PHC, CBR and the NRP (Visagie & Schneider, 2014). The client-centred approach has become the bedrock of South African rehabilitation and health provision. The South African government has aspired to these goals due to contemporary legislative, societal and rights-based reforms within the health department which demand for transformational change in how persons with disabilities are treated by rehabilitation service practitioners. Like most developing nations, South Africa aspires to be a bastion of human rights, social justice and equity in rehabilitation health provision (Dayal, 2010).

The stagnant implementation of proper PHC has undermined optimal CBR. This has led to a gap between NRP goals and actual rehabilitation practices (Mji, *et al.*, 2013). Healthcare providers in a low-resourced urban area reported numerous barriers to providing healthcare according to PHC (Scheffler, Visagie & Schneider, 2015). Ned, *et al*. (2017) reported gaps in the provision of health in rural Eastern Cape. Visagie and Schneider (2014) additionally reported poor implementation of PHC in rural Northern Cape due to shortages of staff, lack of equipment and patients who live in place far from places of healthcare.

Along with the NRP, PHC advocates for rehabilitation service programmes to be provided on an in/outpatient basis and be community or home based. Centres or units can be freestanding or incorporated within the public health sector acute care hospital (tertiary /secondary) as designated beds. Programmes can also be offered by non-hospital based facilities which service the fee-paying sector of the population and patients covered by the Compensation for Occupational Injuries and Diseases Act (COIDA) and the Road Accident Fund (RAF); such as private physiotherapy practice or step down sub-acute stroke and spinal rehabilitation units with skilled nursing facilities (Brainin, *et al*., 2007).

Community based rehabilitation programmes are most sufficient at attaining NRP goals, they are holistic in that they focus on health, education, livelihood, and focus on rehabilitation provision not merely for the sake of it but for empowerment as well (Mji, et al., 2013). The UNCRPD articles which are in synch with CBR are articles 9, 19, 20, 25 and 26. These articles of the UNCRPD deal with the topical areas of accessibility, independent living, personal mobility, health, and rehabilitation respectively (Mji, *et al*., 2013). The DHS is the embodiment of a decentralised health system as it revives an efficient effective and responsive health system. DHS elects a specified local geographical area (urban or rural) to be microcosm of health service provision. Each province has devolved health functions and decentralised hospital management. DHS, NRP and PHC are constructs of rights-based and decentralised rehabilitation provision context (Mji, *et al*., 2013).

Despite these efforts at more client-centred PHC, people with disabilities in South Africa experience poor quality rehabilitation services that are largely under-developed; and often inaccessible to the majority of the population, especially in rural areas (National Rehabilitation Policy 2000; Visagie & Schneider, 2014). Challenges faced by PHC in South Africa include post-natal feeding support, an increase in non-communicable disease risk factors, high incidence of violence and accidents, race and gender inequalities, challenges pertaining to social determinants of health such as low educational levels, poor housing and sanitation, limited PPPs, and insufficient health surveillance and information systems (Visagie & Schneider, 2014; Hussey, *et al.*, 2017). There is an overall shortage of physiotherapists, occupational therapists, speech therapists and audiologists in the public sector; and if available, they are largely based in health facilities in urban areas (Hussey, *et al.*, 2017). This results in the poor attainment of PHC and UNCRPD service provision goals.

Rehabilitation personnel, including physical and occupational therapists and mid-level rehabilitation workers trained to assist patients at a community level in the absence of rehabilitation professionals, have been identified as being well placed to facilitate the prevention of tertiary disability, whereas physicians and nurses are, perhaps, more familiar with primary and secondary prevention (WHO, 1995). However, physiotherapists have a valuable contribution to make across all levels. To only see their role at the tertiary level poses the risk of increasing the number of individuals with this level of disability requiring this type of care, rather than seeking to prevent them via earlier intervention (Bury, 2003).

In South Africa, the NRP states that rehabilitation is an essential service and views it as a unified and integral part of PHC (National Rehabilitation Policy, 2007). This requires the various professions that contribute to rehabilitation services to develop a common identity as rehabilitation service providers with a shift away from the past practices of profession-specific delivery where rehabilitation professionals service patients without considering the multi-disciplinary facet of rehabilitation (Dayal, 2012).

Professional incompetence has been cited as one of several reasons for compromised service delivery for people with disability (Fleminger, *et al*, 2003; Dayal, 2012). When various rehabilitation personnel are managed according to a structure of inter-dependence, common rehabilitation goal identification, and combined inputs; effective outcome monitoring and evaluation becomes easier (Fleminger, *et al*, 2003; Dayal, 2012; Hussey, *et al.*, 2017).

All rehabilitation involves altering the behaviour of people, be they patient, family, carers, or members or the treating team. Behaviour is a goal-directed activity. Goals are therefore central to the process of rehabilitation. Indeed, it could be argued that the identification and setting of appropriate goals is one of the skills that most specifically characterize professionals involved in rehabilitation (Wade, 1998).

In the study conducted on barriers and facilitators of rehabilitation services (Mlenzana *et al.*, 2013), participants were concerned with the lack of resources in the area of psychology, speech therapy and neuropsychology when incorporated in rehabilitation services. The study then concluded that a multi-disciplinary approach characterized by regular communication and common goals resulted in better control of chronic illness and less deterioration in patients with disabilities. Rehabilitation service users faced problems with attaining information, rehabilitation centre access, and a lack of inclusion in the rehabilitation process (Kahonde, *et al.*; 2010).

In their study on PHC provision in a South African rural area, Visagie and Schneider (2014) found no evidence of client participation in PHC. Healthcare provision was not client-centred, it had language barriers, rigid forms of protocol, and attitude (once more) was a constant problem as providers indicate an absence of a client-centred philosophy to care provision. As such, clinical decisions made are inflexible. Though a focus on prevention and cure was visible, rural areas are routinely short of medication (Visagie & Schneider, 2014). Primary healthcare provision in rural areas in South Africa is also plagued by an inability to handle complex ailments due to a lack of specialist human capital, which can lead to delayed diagnosis and possibly even permanent impairment and death (Visagie & Schneider, 2014). Effective rehabilitation requires a well-functioning referral system at all health provision service levels, some rural areas sorely lack this requirement in South Africa (Kahonde, *et al.*, 2010; Visagie & Schneider, 2014).

Primary healthcare principles are not implemented successfully in rural areas and are detrimental to vulnerable individuals such as children, the unemployed, disabled, uneducated, women-headed households, the poor, and those who live far from health care service centres (Kahonde, *et al.*, 2010; Visagie & Schneider, 2014). Health provision is not client-centred with little to no evidence to support the view that quality health promotion or rehabilitation is equitable (Kahonde, *et al.*, 2010; Visagie & Schneider, 2014). Research is required regarding the determinants of illness in rural areas to help facilitate appropriate health promotion and ultimately universal and quality PHC and rehabilitation service provision.

2.2.5 Rehabilitation challenges: equity, accessibility & availability

In South Africa, the implementation of the UNCRPD and all other off-shoot policies has been befuddled by numerous challenges. UNCRPD Articles that are rehabilitation and health related are Article 9 which deals with Accessibility; Article 19, which focuses on Living independently and being included in the community; Article 20 which concerns Personal mobility; Article 25, that deals with Health; and Article 26, which concerns habitation and rehabilitation (Hussey, *et al.*, 2017). Despite this, South African persons with disabilities are more likely to report poor service at healthcare centres and are more likely to even be denied of care (Hussey, *et al.*, 2017).Six main barriers stunt the UNCRPD implementation in SA; all of which stem from an attitudinal problem. These are political, financial, ineffective health systems, physical, and communication barriers (Hussey, *et al.*, 2017).

2.2.5.1 Attitudes towards persons with disabilities.

Attitude is a stumbling block in the implementation of the UNCRPD in South Africa and a change in mind-set is required. Prejudice, stigma and negative perceptions of people with disabilities remain the biggest barriers to UNCRPD implementation. Healthcare providers often display an unwillingness to handle cases with persons with disabilities. Such unwillingness by healthcare workers to attend cases of patients with disabilities may lie with a misconception that persons with disabilities are designated for specialised forms of care, such as rehabilitation practitioners. Culture and treating people with disabilities as "others" can lead to them avoiding or being denied health service (Kahonde, *et al.*, 2010; Hussey, *et al.*, 2017).Studies that measure the attitude that persons without disabilities have towards persons with disabilities have found that the former display (consciously and unconsciously) negative attitudes to the latter (Livneh & Antonak, 1999; Vilchinsky, *et al.*, 2010).

The attitude of political leaders when dealing with rehabilitation is also open to improvement (Kahonde, *et al.*, 2010). In Africa and in developing nations, persons with disabilities are often hidden out of shame (Visagie & Schneider, 2014). This social exclusion leads to exclusion from economic participation, resulting in the double burden of personal impairment and poverty (Visagie & Schneider, 2014). Persons with disabilities are thus at risk of being from poor communities and, additionally, not being equipped with tools to emancipate them from poverty.

2.2.5.2 Rehabilitation equity

Benatar, *et al.*, (2018) argue that equity is not the same as equality, the former is an ethical concept grounded on human rights and distributive justice. They consequently argue that any inequity in healthcare service provision is unfair, preventable, and unnecessary (Benatar, *et al.*, 2018). South Africa as a middle-income country is becoming better-placed in improving the healthcare service as it has introduced the NHI. The NHI will need to factor in economic and political factors to improve healthcare service inequity, because they affect the social determinants of health (Benatar, *et al.*, 2018;Ned, *et al.*, 2017). These factors deserve a long-term focus in order for PHC and community-based rehabilitation service to be successful. Healthcare inequality is illustrated by wide differences between the poor and the rich countries according to maternal mortality, infant mortality, life expectancy, annual per capita healthcare expenditure, the highly uneven ratio between healthcare practitioners and the population, and per capita income (Benatar, *et al*, 2018).

Budgetary decisions are made by politicians, yet provision is constrained, or the total budget is too minimal to attain goals of health and rehabilitation provision for persons with disability (Visagie & Schneider, 2014). The South African government needs to view UNCRPD-related financial expenditure as an investment. Poverty and disability are mutually reinforced by one another. Poverty increases healthcare access disparities making poor people struggle to have rehabilitation service (Ned, *et al.*, 2017).

Even though the South African government provides a care-dependency welfare grant of almost R1500, most vulnerable families end up using it for the entire family not just the individual(s) living with a disability because of the high levels of unemployment and poverty in rural South Africa and South Africa in general (Visagie & Schneider, 2014). Poverty is influenced by physical factors such as transport because without money there is virtually no way of reaching a CHCC or clinic that is far away from a person with a disability.

A model that links chronic impairment care and rehabilitation is required as well as a rehabilitation model of care that is responsive and affordable for areas of poor resources such as uThungulu. Cobbing, *et al.*,(2017) conducted a study to find which model is best-suited for chronic care and rehabilitation in a semi-rural, resource-poor area in KZN. Their study was a culmination of multiple research studies in the same area that ultimately led to the construction of the Chetty Model. The Chetty Model promotes collaboration between institutions and communities; task-shifting through training Community Care Workers (CCWs) (Cobbing, *et al.*, 2017). The Chetty Model was constructed for people living with HIV (PLHIV) who had acquired disabilities and require rehabilitation (Cobbing, *et al.*, 2017). Research has shown that home-based rehabilitation (HBR) intervention adhered to the core principles of the Chetty model of integrated rehabilitation service and care for PLHIV.

Poor rehabilitation service provision equity is additionally hindered by health system barriers. A disparate two-tier system, increasing corruption and endemic mismanagement has compounded health service inequity (Benatar, *et al*, 2018). Financial barriers are linked to inequity experienced by people with disabilities that require assistive devices such as wheelchairs (Dayal, 2010; Hussey, *et al.*, 2017). Most healthcare service spending in South Africa goes to fulfilling the DHS, which makes up 45% of the total budget (Benatar, *et al*, 2018). The South Africa health system is however underfunded due to the high level of demand place on it because 84% of the population uses the public healthcare system (Abuzaineh, *et al.*, 2018).Although 16% of South Africa's healthcare service is provided for by the private sector, the spending is almost equal for the public and private sectors which leads to high inequality in the quality of care received (Abuzaineh, *et al.*, 2018).The high demand for healthcare services in the public sector leads to negative rehabilitation treatment outcomes (Hussey, *et al.*, 2017).

There is a persistent lack of human resources and routine shortage of rehabilitation specialists in rural area facilities (Hussey, *et al.*, 2017). Overburdened facilities are characterised by long ques and overburdened CHCCs(Hussey, *et al.*, 2017).Junior rehabilitation practitioners are often trained by practitioners who are themselves not sufficiently senior on rehabilitation service provision, particularly for persons with and disabilities(Ned, *et al.*, 2017). This may be influenced by the shortages of personnel in rural settings.

2.2.5.3 Rehabilitation accessibility and availability

Rural areas in South Africa are not monolithic, each is subject to its own contextual idiosyncrasies (Visagie & Schneider, 2014). Access to health facilities can be hindered in some rural areas by sheer extreme nature of topography (Visagie & Schneider, 2014). Rural areas are far-flung, isolated, and have low population density; making them economically non-viable (Visagie & Schneider, 2014). This negatively affects attempts at delivering proper implementation of the UNCRPD, CBR, NRP, and undermines the South African government's pursuit of a decentralised healthcare provision system or PHC.

Hussey, *et al.* (2017) investigated the reasons behind this impediment in South Africa. They reported that most of the 3 million people with disabilities in South Africa have minimal or poor access to healthcare services. They further noted that the scarcity of research focused on persons with disabilities has become a double-edged sword, in that difficulties in the implementation of the UNCRPD have not been remedied as there is no adequate scholarship to inform government on what is to be done to affect reliable, functional and effective rehabilitation and health provision for persons with disabilities (Hussey, *et al.*, 2017).

People living with disabilities in rural areas like most of uThungulu may find themselves travelling long distances to attain PHC. Decentralisation connotes a multi-sectorial transformation of rehabilitation service provision; however, this is proving difficult to achieve in South Africa. Physical barriers such as poor, expensive or inadequate transportation negatively affects rehabilitation service provision as clients are often not be able to get to PHC centres on time or at all(Visagie & Schneider, 2014;Hussey, *et al.,* 2017). This challenge is compounded by the fact that public transport in South Africa is neither sensitized nor catered for persons with disabilities (Visagie & Schneider, 2014;Hussey, *et al.,* 2017).

Earlier studies (Fritz, 1995; Hale &Wallner, 1996) conducted elsewhere in South Africa have also highlighted patients with strokes who were discharged from in-patient facilities even though community rehabilitation services have been found to be inadequate for the management of acute and sub-acute patients. A study conducted with patients admitted at a stroke unit indicated that acute care of stroke cases may be the most effective treatment; establishment of these acute stroke care units can be positive for the economy in the future (Indredavik, 1991).

Community based rehabilitation, as advocated for by the WHO, strives to provide rehabilitation services to poor areas in more flexible methods. (Hussey, *et al.*, 2017). Rehabilitation facilities and buildings are out of date, small in size and are often inaccessible to persons with disabilities, to a level which can be described as discriminatory (Hussey, *et al.,* 2017).South African rural communities are conservative, cultural and closely-knit communities where new health professionals or NGO health promoters might not be trusted immediately by patients, which can undermine a person with a disability's right to rehabilitation access (Visagie & Schneider, 2014).

A study benchmarking patients' satisfaction with physical rehabilitation services in various hospitals of Egypt indicated that if health care providers are not fulfilled with the working conditions it could reflect on patients' satisfaction (Devreux*et al.,* 2012). Despite global ratification of UNCRPD in many countries, health and rehabilitation for people with disabilities in South Africa has lagged. Health facility accessibility audits are needed in order to ensure improved rehabilitation service provision equity.

Political, financial, and health system burden were found to also be at the forefront of obstacles to effective and efficient rehabilitation health service provision in South Africa. A lack of coordination reigns as there is confusion about which departments are responsible for disability-related policy. Government departments do not work in cooperation but in isolation from one another which is contrary to what is advised by CBR, PHC and UNCRPD (Kahonde, *et al.*, 2010; Hussey, *et al.*, 2017). Community and political leaders possess poor insight and knowledge about the UNCRPD-motivated rights-based philosophy in the treatment of people with disabilities (Kahonde, *etal.*, 2010; Hussey, *et al.*, 2017). In simple terms it could be argued that government does not take persons with disabilities seriously enough. Government must involve people with disabilities in all CBR-related grassroots activities and disability rehabilitation management must be made mainstream, not just as an isolated matter of hindsight.

A Greater focus is required for THE workplace training of health practitioners on disability (Visagie & Schneider, 2014; Hussey, *et al..*, 2017). Disability should be mainstreamed in order to develop health systems that impact the lives of the poor in South Africa (Visagie & Schneider, 2014; Hussey, *et al.*, 2017). There exists a gap between UNCRPD policy ratification and practice; more disabled-persons-oriented research is required to overcome these implementation hurdles (Hussey, *et al.*, 2017). Government departments must liaise with civil society organisations in order to increase accountability and coordination of services.

Rehabilitation services are not a priority in South Africa when compared to developed countries. However, international experience proves that early rehabilitation services increase the ability to re-establish economically productive employees for work. The majority of South African provinces are dominated by acute in-hospital or long-term clinic-based rehabilitation facilities. Only one province has a formal multidisciplinary rehabilitation service for long-term rehabilitation that is a PPP Mode, the Western Cape Rehabilitation Centre in Cape Town (Hardcastle, 2011).The South African government can make use of the available funds in the disability prevention and rehabilitation budget. This budget should be utilised for provision of disability and rehabilitation facilities, equipment and materials, where such needs are identified (National Rehabilitation Policy, 2007).

2.3 Public Private Partnerships (PPPs)

2.3.1 PPP definition

Internationally defined an agreement concluded between government or an agency and a third party, for the on-going management and the improvement of activities (Bovaird, 2004;Johnston, &Gudergan, 2007). South African National Treasury described PPP as a contract between a public sector organisation and a private sector party; the private party assumes substantial financial, technical, and operational risk in designing, financing, building, and operating the agreements in said contract (National Treasury, 2007). The South African National Treasury (2007, pg. 5) provides a legislated, under the Public Financial Management Act (PFMA), definition of a PPP as a contract between a government institution and private party, where:

- the private party performs an institutional function and/or uses state property in terms of output specifications,
- substantial project risk (financial, technical, operational) is transferred to the private party, and
- the private party benefits through unitary payments from government budgets and/or user fees.

PPPs are made efficient primarily by exchange of risk from public to state hands; private sector expertise on competitive behaviour predisposes them to likely success in the implementation of public services (Bruchez, 2014). Traditional state infrastructural development dictates that government foots the financial risks of public service, PPPs take up this capital risk in order to supply the state with quality risk-free service (National Treasury, 2007). PPPs are defined by three conceptual pillars; 1) the transfer of risk to the private sector, 2) the affordability of the service requested by the government, and 3) that the PPP option is cost-efficient (National Treasury, 2007).

2.3.2 Types of PPPs

There are primarily two types of PPP; one form is where the private sector does an institutional job and a second form where the private sector uses state property for their own bottom line (National Treasury, 2007; Bruchez, 2014). Due to their flexible nature, a third form of PPP can be created which is a hybrid of the former two (Natural Treasury, 2007). The PPP Unit is not responsible for procurement, the responsibility remains with government. PPPs are important to South Africa's ambitions towards economic development, social and infrastructure development; and poverty alleviation (Fombad, 2013).

South Africa's PPP framework is in most aspects on par with global best practice in terms of prioritizing public sectors such as health and infrastructure for PPP's format utilisation and modelling. There are four most common PPP models applied in South Africa (National Treasury, 2007; Abuzaine, *et al*., 2018):

2.3.2.1 Build, Operate, Own, and Transfer (BOOT): in this model, the service provider is responsible for design and construction, finance, operations, maintenance and commercial risks associated with the project. The service provider owns the project throughout the concession period, with asset transferred back to government at the end of the term, often at no cost.

2.3.2.2 Build, Own, Operate (BOO); and Build, Operate, and Transfer (BOT): used mostly for green-field projects. The private sector receives a fee for its service from the users, with the difference that the service provider retains ownership of the asset in perpetuity. The government only agrees to purchase the services produced for a fixed length of time.

2.3.2.3Design, Build, Finance, Operate (DBFO); Design, Build, Operate, Transfer (DBOT); and Design, Build, Operate (DBO): a design and construction contract is linked to an operation and maintenance contract, with government purchasing the asset from the developer for a pre-agreed price prior to commissioning and takes all ownership risks from that time.

2.3.2.4 The Lease, Own, Operate (LOO): is not yet prevalent is South Africa but could emerge as a worthy model, similar to a BOO, where existing asset is leased from the government for a special time. Usually the asset may require refurbishment or expansion.

2.3.3PPP implementation in South Africa

For the PPP project to be implemented it should be affordable and create value for money for the public entity before it can be approved (Bruchez, 2014). The proponent is also seen in the white paper of the National Health Insurance on the service provision by the accredited and contracted private provider to public health (South African Medical Association, 2011). PPP are necessitated by a particular operational need. The private sector is inclined to inherit the risk emanating from such a necessity because there is incentive in that the said private sector player builds and operates the requested product and transfers it back to the state after seeing construction, maintenance and operational expenses (Bruchez, 2014). Parties to PPPs are to have clearly-defined roles in the agreement so as to facilitate effective and efficient service execution.

Public Private Partnerships are not the outsourcing of state activities, or a private donation for a public good, nor are they the privatisation of government property. PPPs involve clearly defined long-term projects that average between five to thirty years to implement, with the private participant included in all stages of the project (National Treasury, 2007). Fiscal structuring within a PPP must be conducted in collaboration between the procuring body and the private participant (National Treasury, 2007; Support Programme for Accelerated Infrastructure Development, 2007; McIntyre, 2010; Bruchez, 2014). Any payments involved in a PPP are to be premised on contract-specific outcome or service infrastructure provision. PPPs are not a shortcut from expensive projects but are an allowance for government to pay for large developmental projects over a lengthy period of time. If the infrastructure involved can provide revenue (such as a toll road), those funds are used to recoup capital risks incurred by the private player (National Treasury, 2007; McIntyre, 2010; Bruchez, 2014). Any and all risks that a participant undertakes must be done within the knowledge that they are indeed manageable. PPPs also ensure that operations that are fixed are adequately maintained over the period of the projects duration (National Treasury, 2007; McIntyre, 2010; Bruchez, 2014).

The South African government is committed to providing infrastructural services that are conducive to equal life-quality improvement (National Treasury, 2007). PPPs are capable of cutting infrastructure development costs, they are long term contracts between a public and private structure to create and run infrastructure (Bruchez, 2014). PPPs have a multitude of advantages compared to classical procurement. PPPs are cheaper and more efficient because of private sector expertise (National Treasury, 2007; Bruchez, 2014). PPPs are not the privatisation of state assets as infrastructural property will belong to government regardless of the private sector's investment in its developmental maintenance (National Treasury, 2007; Bruchez, 2014). PPPs improve the delivery standards due to private sector incentives; and the public sector can gain expertise from private partners (National Treasury, 2007; Bruchez, 2014). Private sector employee performance is higher in the private sector and this can have a positive effect on how society receives health services (National Treasury, 2007; McIntyre, 2010; Bruchez, 2014).

Since the advent of democracy, PPPs have been on the rise in South Africa, propelled by legislative reform at the national, provincial and municipal levels of governance (Bruchez, 2014). PFMA and Treasury Regulation 16 and the Municipal Finance Management Act (MFMA) promulgated and gave effect to PPPs, seeking to ensure transparency, equitability and fairness in state procurement and service delivery such as health (Bruchez, 2014). PPPs in South Africa have focused on infrastructural and service delivery; as one the first PPP projects were in the construction of toll roads, water, hospitals, human settlements, tourism, prisons, rail, and hospitals (Fombad, 2013; Bruchez, 2014).South Africa's changing philosophy of PHC and decentralisation and a well-developed financial services sector have both facilitated easy access to private sector capital. The Gautrain Rapid Rail Link, Inkosi Albert Luthuli Hospital, the WCRC, and the Free State Social Grants Information are examples of PPPs worthy of mention (Fombad, 2013).

An essential component of PPPs is the PPP Unit. This is the central component of PPPs, it holds technical know-how in formulating, developing and promoting PPPs (National Treasury, 2007; Fombad, 2013; Bruchez, 2014).The PPP Unit also ensures global standards of best practice are adhered to. The South African government has identified PPPs as possible funding mechanisms for the country's pursuit of aggressive infrastructural development (National Treasury, 2007; Fombad, 2013; Bruchez, 2014).

The Minister of finance noted that government must complement its budgetary capacity with the wealth of innovation and special skills available in the private sector. The availability of state resources must be used to leverage much-needed private sector investment and involvement in public infrastructure and service provision (National Treasury, 2007). The state of public healthcare infrastructure, along with other structural challenges, such as difficulty in attracting and retaining skills, has also led to a decline in health service. For this reason government is considering a possible role of PPP which is envisaged to mitigate these challenges (National Health Insurance Policy, 2011).

Such arrangements have been witnessed in Lentegeur Psychiatric Hospital in Cape Town and the Western Cape Rehabilitation Centre for Persons with Physical Disabilities partnered with Provincial Government of the Western Cape (Roman, 2010). A case study of the Pelonomi and Universitas Hospital Co-Location Project, which is another successful model of the PPP with Free State Department of Health making use of the underutilized hospitals to partner with the private hospital (Shuping&Kabane, 2007). The Ethembeni care centre was built by the private company BHP Billiton in the Northern KZN, uThungulu District and was initially run as a private step-down facility and later Ngwelezane Hospital (Public Hospital) negotiated to use it by providing salaries for their staff and fee for admission per case. Their services are limited to doctor, nursing, and pharmacy services, with no rehabilitation services e.g physiotherapy, psychologist etc.

Even though government initially identified economic sectors that were ripe for PPPs, implementation has been slow (Fombad, 2013; Bruchez, 2014). Sectors identified as key facilitators of PPPs include tourism, toll roads/gates and transport, head offices, education, health, and IT (information technology) (Fombad, 2013; Bruchez, 2014). The Gautrain Rapid Rail Link, the WCRC, Inkosi Albert Luthuli hospital, the Free State Social Grants Information, and the Maputo Development Corridor (MDC), which is a railway linking of the Maputo port with South African mines are some of the few large-scale infrastructure deals to be completed under the auspices of the PPP mechanism (Fombad, 2013; Bruchez, 2014).

2.3.4. PPP financing

PPP financing is not monolithic but is different for each project in each sector and is influenced by capital sources and nature of PPP contract (National Treasury, 2007). Treasury Regulation 16 provides PPPs with a fair amount of flexibility in terms of how they are financed. PPP funding models are a myriad, but most involve accessing private capital. PPPs in South Africa are usually financed through bond finance, bank finance,

debt, equity, and government funding (Prussing, 2015).The private sector partner shoulders the financing and operation of the deal.

South Africa's developed financial services sector has made private capital accessible to PPP participants (Fombad, 2013). Since the government transfers or leverages the financial risk of long-term infrastructural programmes to the private partner, most PPPs are funded by debt (Prussing, 2015). This debt can only be serviced by the private sector player once the PPP programme has been completed; upon which time revenue generated from the programme will be used as such (National Treasury, 2007; Bruchez,2014; Prussing, 2015).

2.3.5 PPPs and rehabilitation

Health-related global and national policy have reemphasised the importance of equitable healthcare service provision. In South Africa, a majority of healthcare provision is executed by the government; the private sector is responsible for 16% of all healthcare provision (KPMG, 2018; Abuzaineh, 2018). The South African government spends an equal amount of money for its share of healthcare service as the private sector (KPMG, 2018; Abuzaineh, 2018). The South African government is faced with a high public demand for healthcare, but this demand is not met adequately (Dayal, 2010; Mji, *et al*., 2013; Visagie & Schneider, 2014). The South Africa government's shortfall in meeting healthcare demand is due to lack of sufficient funding to satisfy the required quality of healthcare (Dayal, 2010; Mji, *et al*., 2013; Visagie & Schneider, 2014).

Public Private Partnerships are becoming a global and local option to bridging the gap in unequal healthcare service (Thadani, 2014). Rehabilitation is a form of healthcare service provision. The South African government has attempted to follow global trends where fellow developing countries are adopting PPPs as a solution to providing rehabilitation to as many people as possible (Thadani, 2014;Benatar, *et al*., 201). At a global level, the Organisation for Economic Co-operation and Development (OECD) has undertaken public finance initiatives where the private sector takes up the financial risk and responsibility of funding the infrastructural development of middle to low income nations (Thadani, 2014). Healthcare has been identified as an essential domain of infrastructural development and PPPs have additionally been identified as key potential driver economic opportunities for private equity partners (KPMG, 2018; Abuzaineh, 2018).

The Bill and Melinda Gates Foundation has funded health treatment campaigns through vaccination programmes for developing nations (Thadani, 2014). In the Netherlands, the

government has collaborated with Mozambique, Rwanda, Burundi, Indonesia and Mongolia through the Global Alliance for Vaccines and Immunization (GAVI) (Thadani, 2014). Public Private Partnerships in the Dutch government have cost a total of 48.3 million Euros for 54 PPPs, 13 of which were healthcare projects that cost 25.4 million Euros (Thadani, 2014). These PPP projects undertaken by the Dutch government are designed to deal with the social determinants of health such as access to clean water, food security, sanitation and hygiene (Thadani, 2014). In Turkey, the government has adopted the PPP model to build the Adana Hospital Complex (International Finance Corporation, 2015). In Indonesia the public National Family Planning Coordination Board has partnered with private midwives and doctors to provide maternal healthcare (Thadani, 2014). The Indian government has similarly adopted the PPP approach is providing maternal healthcare to non-tax paying women who live below the poverty line in Gujarat through the Chiranjeevi Yojana Scheme (Thadani, 2014).

Public Private Partnerships are structured to operate in an approach that fosters innovation, technical skills transfer through a community-based method (Thadani, 2014; Abuzaineh, *et al*., 2018). In Africa PPPs have been implemented in Lesotho through its new 425-bed National Referral Hospital which included the refurbishment of its adjacent gateway clinic, both of which serve as training institutions for clinical practitioners(Thadani, 2014). The management of these institutions is privately overseen (Thadani, 2014). In Mozambique, the PolanaCanhico Health Facility provides maternal and child health (Thadani, 2014). Additionally, the Mozambican government is testing a relationship with Coca-Cola to use the latter's logics network to distribute medical equipment and supplies (Thadani, 2014). In South Africa, the Inkosi Albert Luthuli Hospital has partnerships with the private sector for the maintenance of its mainly electronic administration system, making access to patient information easier (Thadani, 2014).

With their focus on community-based partnerships that function within decentralised health systems where rehabilitation can be provided within the PHC through the FSDRSA, PPPs hold a realistic potential to rehabilitation service provision in resource-poor contexts like uThungulu (Cobbing, *et al.*, 2017). However in the main, PPP capital and equity are gathered by the private partner, who also must establish the special purpose vehicle (SPV) which is the core business centre responsible for delivering the project.

2.3.6PPP challenges in South Africa

The Support Programme for Accelerated Infrastructure Development (SPAID) reported key challenges to PPPs in South Africa. Chief among these challenges is a lack of policy

clarity from government. Government also has limited commitment to PPPs and there is mistrust of the private sector's involvement in infrastructural service provision (Mlamobo-Ngcuka, 2006). In the pursuit for fairness in service delivery, accountability has proved to one of the central challenges within PPPs (Fombad, 2013). Participants recommended a number of solutions to current PPP setbacks. They include improved communication between the private and public sector regarding deal pipeline; employment of specialised ad-hoc teams to accompany implementation of particular deals; synchronising municipal and PPP legal frameworks and regulatory flexibility for specific transactions (Mlamobo-Ngcuka, 2006).

In a 2007 study by the Support Programme for the Accelerated Infrastructure Development (SPAID), challenges to PPPs in South Africa were summarised. Mistrust among partners in PPPs was among a number of challenges reported (Mlamobo-Ngcuka, 2006). Interviews from 40 PPP senior players who are either in the private sector, implementing agencies or government agencies, were conducted; they also reported challenges such as a lack of policy direction, lax political fortitude, incapacity to execute PPPs, limited resources for PPPs, persistence of classical government procurement methods, minimal financial incentives in PPPs, and aggravated municipal level problems (Mlamobo-Ngcuka, 2006).

For PPPs to play an effective role the infrastructural development and the service delivery improvement agenda of the South African government, they must promote high standards of accountability. PPPs in South Africa are skeletal in describing the accountability aspect of operational, financial, and technical risk transfer (Fombad, 2013). The level to which PPPs are cost-effective or have value-for-money has not been sufficiently interrogated in the South African context (Fombad, 2013).

Fombad (2013) found evidence that there are many accountability challenges associated with PPPs. These included an intersectional network of a lack of public consultation, low transparency, corruption, lack of competition, accounting problems, poor contract management, unsure value-for-money, lack of equitable risk allocation (Fombad, 2013). For PPPs to work optimally, partners to this mechanism are required to employ a number of remedies. Partners to PPPs must improve communication and have high levels public sector political certainty and will (Mlamobo-Ngcuka, 2006). Government must create appropriate structures to deal with accountability shortfalls, stakeholders need to be sufficiently consulted, transparent procurement methods must be adhered to, and constant monitoring of contracts should be done (Fombad, 2015).

2.4Conclusion

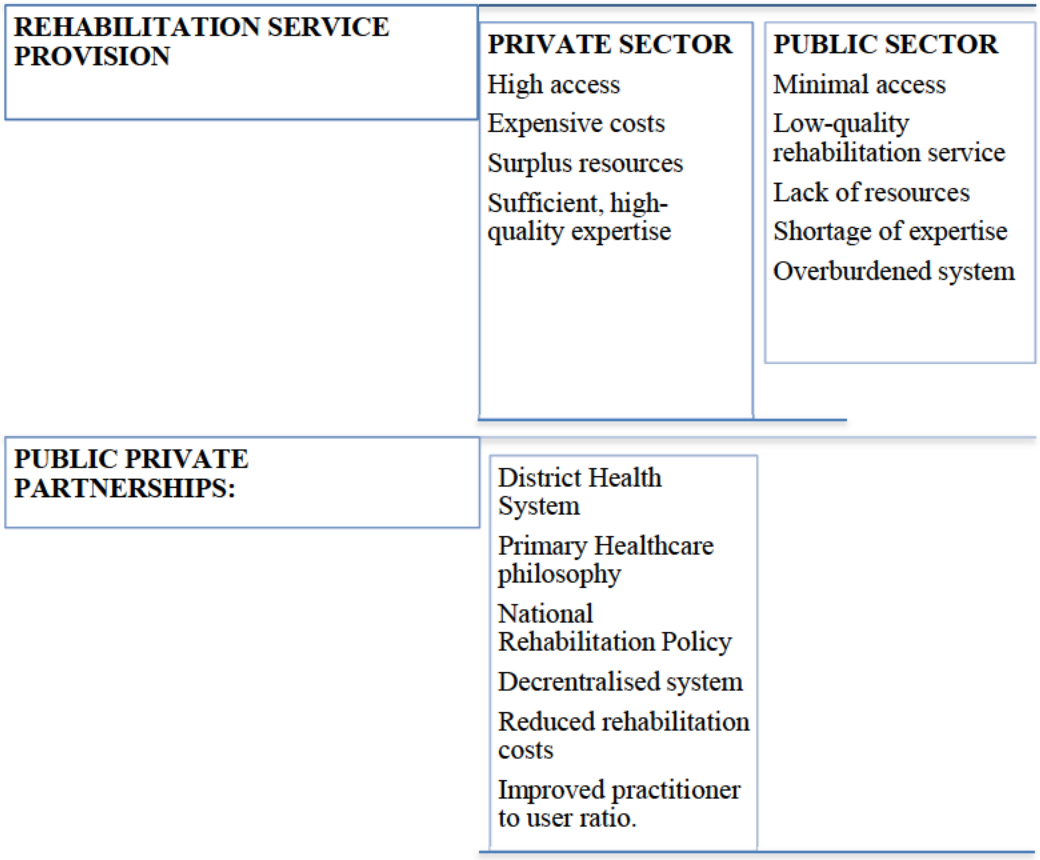
Rehabilitation is a key driver that allows people with disabilities to attain optimal physical and functional independence (Integrated National Disability Strategy,1997). Rehabilitation discourse is characterised by constant change of policy objectives, both locally and globally. This environment of changing policy has been galvanised by the persons with disabilities rights movement (Dayal, 2010; Mji *et al*., 2013). Seeking rehabilitation redress, this movement has advocated for a philosophical change in how South Africa dispenses its rehabilitation services (Dayal, 2010; Mji *et al*., 2013). The rights movement has led to international health bodies like the UN and WHO promoting tailor-made rehabilitation policies. These policies include the UNCRPD, CBR and the UNMDG (Mji *et al*., 2013). As a UN member, South Africa has, since the advent of democracy, ratified these global policies to the local context. This has led to the adoption of the INDS and the NRP. Both the INDS and NRP agitate for a much more client-centred rehabilitation service provision among all participants in the rehabilitation process. In addition to this philosophy are equity, community participation, socio-economic development, integrated rehabilitation referral systems, and multidisciplinary rehabilitation teams that are trained in the biopsychosocial model of health provision. The South African government has made PHC and the DHS the bedrocks of health service provision. PHC and the DHS are aligned to the South African government's goal of accelerated infrastructural development, or ASGISA. To fund this rise in infrastructure, the South African government has incrementally adopted the mechanism of PPPs since 1994 (National Treasury, 2007; Bruchez, 2014). Despite the health sector's potential as a suitable candidate for PPPs, implementation has been slow, minimal and unsatisfactory; with PPPs being plagued by issues of mistrust among partners to agreements and accountability issues. These shortcomings have not however dampened the enthusiasm from government to make PPPs workable, effective, and efficient tools for institutional service delivery such as health and rehabilitation for persons with disabilities in rural settings such as uThungulu district (Fombad, 2013; Prussing, 2015).The following chapter presents the conceptual framework the current study.

CHAPTER THREE: CONCEPTUAL FRAMEWORK

3.1 Introduction

Chapter three presents the current study's conceptual framework. The following framework is a self-produced theoretical perspective from which the study is conducted. The conceptual framework considers rehabilitation service to be provided by two sectors, namely the public and private sectors. The conceptual framework additionally posits that rehabilitation services are unequal when it comes to access, availability and equity between the two sectors. The private sector has high access to an expensive, high-quality rehabilitation service system, where rehabilitation service resources are sufficient and there is a surplus of resources. The public sector has minimal access to a low-quality rehabilitation service system, where rehabilitation services are short-staffed, there is a lack of resources, and are overburdened. Public Private Partnerships (PPPs) are a possible solution to equalising rehabilitation service provision. This can occur if these PPPs are grounded on the philosophy of PHC, working a decentralised DHS. These partnerships can additionally decrease the ratio between rehabilitation service providers and rehabilitation patients by being centred on CBR. Figure 3.1 is a presentation of a summary of the conceptual framework.

Figure 3.1: Conceptual framework of the study



3.2 Conceptual framework

Public rehabilitation service is low in South Africa (Mji, *et al*., 2013; Visagie & Schneider, 2014). Low public access to rehabilitation services is linked to a shortage of rehabilitation professionals and a lack of resources (Mji, *et al*., 2013; Visagie & Schneider, 2014). As there is a shortage of professionals in most public hospitals, sometimes the patients are catered by nurses with no knowledge about rehabilitation and most of the patients do not get the care after being discharged from in-patient care. The professional care that these patients at least get is from professionals who have finished university and are doing community service with very limited experience.

Eighty-four percent of South Africa's health service is provided by the public sector, while the private sector provides 16% of the health service (Abuzaineh, *et al*, 2018).

However total costs spent on rehabilitation service are shared equally between the public and private sector (Abuzaineh, *et al*, 2018). A small portion of people are provided rehabilitation by private institutions, this isdue to the high cost of access to high-quality rehabilitation (Abuzaineh, et al, 2018). Private sector rehabilitation service provision has the financial resources to provide services to a small number of users.

The uThungulu district has a limited range of rehabilitation service. A majority of residents in uThungulu cannot afford rehabilitation service as the District is a low-income area. Public Private Partnerships (PPPs) can be a solution to increasing public access to rehabilitation services and lowering the costs thereof. Public Private Partnerships that are made up of agreements founded on PHC, a decentralised DHS that focuses on CBR and the NRP can improve access to rehabilitation services. Only one province has a formal multidisciplinary rehabilitation service for long-term rehabilitation, the Western Cape Rehabilitation Centre in Cape Town that functions as a PPP facility. The aim of this study is to explore the feasibility of PPPs as an alternative method in rendering rehabilitation service in uThungulu district.

3.3 Conclusion

Chapter three has outlined the conceptual framework of the current research study. Rehabilitation service is conceived by the study as being provided by the private and public sector. Due to endemic structural challenges of availability, equity, and access in rehabilitation service in the public sector; this study considered the attitudes HCWs have towards PPPs as a method of healthcare service in low-resource areas such as uThungulu. The following chapter, chapter four, details the methodology that used by the researcher in gathering data.

CHAPTER FOUR: METHODOLOGY

4.1 Introduction

This section details how the study was conducted. Inclusive of this section are study design, research setting, case selection, population and sample size, data collection instruments, data collection, data analysis, and the relevant ethical considerations.

4.2 Research setting

This study was conducted in the uThungulu district municipality in the province of KwaZulu-Natal. The uThungulu district has six local municipalities. The uThungulu District has the third-highest population in the province. The N2 highway links the district to other significant economic centres such as Durban and Johannesburg. The Richards Bay Industrial Development Zone is boosting economic activities and attracting international investors. The study was conducted in all of the nine hospitals around the uThungulu district municipality. Seven of these hospitals are public and two are private. The majority of these public hospitals are located in rural areas and only one located in a semi-urban area, the tertiary hospital Ngwelezane while the two private hospitals were in an urban area.

Rehabilitation services were offered by all the public hospitals as both in and out-patient settings. Most patients receiving rehabilitation services who visit public sector hospitals use public transport. In South Africa, public transport is notoriously inaccessible (Emmet, 2006). The private sector setting is different when compared to the public. Privately paying patients have access to two private hospitals that are based in uMhlathuze, this being the only developing local municipality out of four that make up uThungulu district. The area of uMhlathuze is predominately industrial and people are classified as middle to high income earners. Most people afford to pay for service with assistance from medical aids. The rest of the local municipalities have a population classified as low to middle income groups and are in the rural areas (Stats SA, 2014).

4.3 Study design

This exploratory case study used a mixed method of quantitative and qualitative design to evaluate rehabilitation services offered by rehabilitation service officials at the department of health provincial office, personnel responsible for rehabilitation services, the uThungulu district officials in charge of rehabilitation services, managers at hospital level, and rehabilitation professionals involved in rehabilitation services across uThungulu district in all nine hospitals. The participants listed above also gave information about PHC visits of all the rehabilitation service providers. A mixed method design was used, with the quantitative phase followed by a qualitative phase (Creswell, *et al*, 2003).

Qualitative data is in the form of words and is more information-rich than quantitative data, thus in this study the former was used to enhance the latter (De Vos, *et al.*, 2005). Qualitative data can provide subtle description and multiple perspectives, in addition, to the factual evidence gathered through the quantitative data, and thus, assist the reader to gain a sense of the subjective world of the respondents (De Vos*et al.*, 2005). Therefore, in the case of this study, numerical counts and level of function scales were used to quantify participation restrictions and the magnitude of environmental barriers, while related experiences were explored and underscored through data gathered from approximately 40-minute-long semi-structured interviews and focus groups.

4.4 Selection of participants

Participants were selected from all levels of care, including the primary, secondary, and tertiary levels of rehabilitation service. KwaZulu-Natal health provincial rehabilitation officers, rehabilitation managers at the district office, facility managers, and all rehabilitation professionals involved in the delivery of rehabilitation services which included physiotherapists, occupational therapists, speech therapists, audiologists, psychologists, social workers, dietician, and orthotics.

Managers were selected for their role in human resource management, policy implementation and decision making. Rehabilitation service professionals are the key to service provision and they are mostly affected by hospital human resources, environment, policies from government, and professional boards such as the Health Professions Council of South Africa.

4.5 Population and sample size

4.5.1 Primary population

Stratified purposeful sampling was used on participants involved in rehabilitation in the uThungulu district, all seven public and two private hospitals. All managers and officials involved in rehabilitation at provincial office, district and primary levels, hospital CEOs, rehabilitation managers, all rehabilitation professionals and rehabilitation assistance from seven public hospitals. The private sector participants were from the two hospitals and all the rehabilitation service providers in private practices working in the two private hospitals in uThungulu district. The sample size (n=50) was extracted from both public and private hospitals. The sample excluded those rehabilitation service providers who practice independently.

4.5.2 Sample size

The sample size was 50. This study used non-random convenience sampling to select the number of participants in the study. No statistical criteria were used to determine the number of participants chosen for the study's sample. The researcher selected the 50 participants according to his convenience as possible participants became available to participate in the study.

4.5.2.1 Inclusion criteria

- All professionals who were involved in rehabilitation at the time of data collection. Those who were directly involved as Physiotherapists, Occupation Therapist, Psychologists, Dieticians, Speech Therapists, Audiologist, Dieticians, social workers and their assistants in each discipline.
- All managers at the nine institutions that were involved in the provision of rehabilitation services.
- Officials at the district office and provincial office who were running rehabilitation programmes as well as decision makers.

4.5.2.2 Exclusion criteria

- All other service providers such as doctors, nurses and pharmacists as they were not available to participate in the study during the researcher's scheduled fieldwork at the various institutions where the study was conducted.
- Rehabilitation service providers not servicing the nine identified hospitals.

- Any officials not involved in rehabilitation within that particular hospital/institution.
- Patients

4.6. Data collection instruments

4.6.1 Focus group for rehabilitation service providers

Focus groups are a form of group interview that capitalises on communication between research participants in order to generate data. This means that instead of the researcher requesting each person respond to a question in turn, participants are encouraged to talk to one another. The information was gathered using audiotapes after seeking permission from the participants, and these interviews tookapproximately40 minutes. To avoid researcher bias, a moderator was allocated to each focus group interview.

Focus groups are widely used to examine peoples' experiences of disease and health services, which makes them an effective technique for exploring the attitudes of participants (Kitzinger, 1995). Open ended questions were employed by the researcher in each focus group. The researcher grouped rehabilitation service providers based on the hospital where they render rehabilitation services.

Six focus groups were conducted for the current study. One group comprised of five participants, four groups comprised of four participants, and one group had three participants. Most participants in the focus groups were either occupational therapist or physiotherapists. There was a single social worker; dietician and audiologist in each of three groups respectively, the rest of the participants were occupational therapists and physiotherapists.

4.6.2 Semi-structured interview schedule for participants

The researcher used the questionnaire as a guide in asking open-ended, discursive questions for six interviews with practitioners who were in rehabilitation management positions at hospitals, the district office, and provincial office at the department of health (see Appendix 3). The six interviewed were either occupational therapists or physiotherapists tasked with rehabilitation management. Rehabilitation service professionals were selected conveniently for interviews. The interview schedule was also

used to gather information on practices, the perception on accessibility, availability, and participant's knowledge of the PPP model. The researcher modified and used a self-developed semi-structured questionnaire which took approximately 45 minutes to an hour to answer (see Appendix 3). Seven interviews were conducted with two PTs, two occupational therapists two dieticians and a single social worker. The questionnaire included Section A: Demographic characteristics of managers and rehabilitation service providers, Section B: questions on the rehabilitation practices, Section C: Questions on perceptions and attitudes towards rehabilitation and Section D: questions on the knowledge of the PPPs.

4.6.3 Data coding for relevant programme statistics

The researcher coded the questionnaire (Appendix 3) responses according to the aims and objectives of the study. Sections A to D were then transformed into numeric measurements of demographic characteristics of participants, rehabilitation practice, participants' perceptions and attitudes towards rehabilitation, and the knowledge of the PPPs respectively.

4.7 Pilot study

It was important to do a pilot study because questionnaires might fail due to the fact that participants did not understand them, were unable to complete them, got bored or felt offended by the questions (Boynton&Greenhalgh, 2004). This was done to raise the researcher's awareness of the above problems in order to address them. The pilot study was conducted at Enkonjeni District Hospital in the Zululand District. None of these participants were included in the final study.

The researcher further used the pilot study to ensure that the gathering of data was sufficient to answer the research questions, aims and objectives (Leedy&Ormrod, 2005). The pilot study also determined how long it took to complete the instruments in order for this information to be provided to prospective participants and also to assist the researcher with planning the data collection phase of the study.

Before the pilot study was performed, the researcher asked colleagues who are knowledgeable in the field of rehabilitation to critically review the data collected and to indicate which of the questions were unclear, vague or repetitive or if any aspects relevant to the study were not covered by the questions.

4.8 Data collection

4.8.1 Rehabilitation service provision data collection

Appointments were made with all rehabilitation service providers for times and dates that suited them. The interviews were conducted in offices or consulting rooms of those institutions partaking in the research. The purpose of the interview was explained to the rehabilitation service provider before pursuing with the interview. Written consent was then requested from the rehabilitation service provider. Once the rehabilitation service provider gave the written consent and the permission to audiotape the interview, the researcher continued with the interview.

4.9 Data Analysis

4.9.1 Quantitative data

Quantitative data (self-administered questionnaires) were entered into an Excel spread sheet with the cases (i.e. unique respondent codes) entered in rows and the respective responses entered. The data was exported and analysed using IBM SPSS Statistics version 22. Descriptive statistics were run to present basic features of the study sample in the form of frequencies, percentages, and means. The normality of distribution was examined and the Kolmogorov-Smirnov as well the Shapiro-Wilk tests showed the data significantly deviated from a normal distribution ($p<0.05$). Therefore, non-parametric statistical methods were used in the subsequent bivariate and multivariate analysis. Pearson's chi-square test of association was performed to compare perceptions on the sufficiency of the rehabilitation services by participants' gender, professional status, length of employment and type of institution. For the responses measured on a continuous scale (i.e. management support, ease of administrative processes, and effectiveness of rehabilitation) the comparisons were run using the Mann-Whitney U as well as the Kruskal Wallis tests. Spearman's rank-order correlation was performed to determine the relationship between management support, ease of administrative processes, and effectiveness of the rehabilitation programme.

4.9.2 Qualitative data

Qualitative data was analysed through the thematic analysis approach. Thematic analysis is identifying and reporting on patterned themes illustrated by the collected data, i.e. focus

groups and interviews (Braun & Clarke, 2006). The thematic analysis method organises and describes responses gathered and interprets the multitude of features of whatever research question is asked (Braun & Clarke, 2006). A theme is anything that is of importance within the raw data that relates to the nexus of the research questions and aims; themes also show a patterned response or meaning within the cumulative data. There are six core guides to the phases of executing thematic analysis these are (Braun & Clarke, 2006):

1. Becoming familiar with the data by reading transcript multiple times.
2. Generating initial codes.
3. Searching for themes.
4. Reviewing themes.
5. Defining and naming themes.
6. Producing the report.

The type of thematic analysis used in the study was inductive thematic analysis. With inductive thematic analysis, thematic patterns are presented in a bottom-up manner and are strongly related to the data itself (Boyatzis, 1998; Braun & Clarke, 2006). Themes identified were subjected to a scholastic theoretical and empirical comparison discussion analysis guided by the literature reviewed.

The analysis of the focus groups draws together and compares discussions of similar themes and examines how these relate to the variables within the sample population. All interviews were audio recorded. The researcher listened to the recordings multiple times to familiarise himself with the data. Audio-recordings were then transcribed by the researcher. To assist with the organisation of the data the researcher used identification codes that enabled the researcher to identify and locate where a piece of data came from in the transcribed document.The data was coded with the aid of Atlas.ti version 8, a computer software program that facilitates the creation and assignment of codes to text.

Overall data analysis used triangulation by collecting qualitative data to enhance quantitative findings related to:

- The rehabilitation practices,
- The perception and attitudes towards the existing rehabilitation programme,

- rehabilitation service provider`s perception on availability, accessibility, and equitability of the rehabilitation services provision in the uThungulu district,
- Knowledge and perception towards the Public Private Partnership model.

4.9.3 Data verification and trustworthiness

Since data on the same subject was collected from various sources, the data was verified through a process of triangulation where clients on the rehabilitation programme compared the information gathered from interviewed rehabilitation service providers. Qualitative data was verified through telephonic checking of transcript data with a few participants. The researcher used member checking after data had been analysed to ensure that the information was analysed correctly and to clarify any uncertainties in the meaning of data (Domholt, 2005).

4.10 Ethical clearance considerations.

Ethical clearance was obtained from the UKZN Ethics Research Committee, and the KZN health district office. Permission from hospital managers (both public and private sectors) was also requested and accordingly granted. All participants in the study were provided with an informed consent information sheet (see Appendix 2), which gave them the opportunity to decline participation before or at any point after the study has commenced. A copy of the original consent form was provided to all participants while the researcher kept the originals. The permission to audiotape the interviews was requested and obtained from participants; all of whom were given a copy of the signed informed consent form. Data obtained from participants was treated anonymously and confidentially. Sites were entered in a respectful manner and did not disrupt the flow of activities. Standardized procedures for collecting data were adhered to on checklist and public documents.

All participants were informed that their participation in the research was voluntary and that the right to decline participation would be open at all stages of study. The researcher explained that the only people that would have access to the information would be the researcher, the researcher's supervisors and the statistician.

After the interviews with the participants were conducted, the tapes and notes were stored in the researcher's office in a locked safe until the researcher destroys the data after five years. The data will be kept at the researcher's office until the researcher graduates and has published an article on the research.

This study was conducted with strict adherence to the ethical principles for health related research involving human participants. The Helsinki Declaration on ethical research promote, among other things, physician's responsibility over the client's wellbeing; rights of patients, and research undertaken to understand causes and effects of disease (World Medical Association, 2013).

4.11 Conclusion

This chapter provided the method in which the study was conducted. The study took place in uThungulu District using a mixed method of design. Focus groups and a self-produced questionnaire were used to collect data from 50 participants. This chapter has reported the method of participant selection and inclusion, described the data collection instruments, and data analysis. In addition, all ethical considerations that were considered before the study was conducted have also been described. The following chapter, Chapter Five, includes a presentation of the results generated from the analysed data of the current study.

CHAPTER FIVE: RESULTS

5.1 Introduction

The following section presents the results from the data analysis of the current study. Results set herein reflect both the qualitative and quantitative data. In this section results for the demographics of the participants are presented first, before data for rehabilitation practise. Results for the knowledge participants in the uThungulu case study have of PPPs is presented last. Applying the principles of triangulation, quantitative, and qualitative results are presented in unison to enhance the richness of data collected.

5.2 Demographic profiles of participants

In this section the institutions from which the sample was drawn is presented. This section also presents the demographic profile of the participants (gender, home language, professional status, level of income and work experience).

5.2.1 Gender of the participants

Numbering at a total of 33 (69%), females made up the majority of participants as shown in Table 5.2.

5.2.2 Home language

The overwhelming majority of participants (70%) were Zulu home-language speakers compared to 16% whose home language was English, while the rest (14%) spoke other languages at home, as shown in Table 5.2.

5.2.3 Professional status categories

Table 5.2 shows the professional status of the participants in the study. Table 5.2 represents the percentage distribution of participants' professional status. Physiotherapists made up nearly half of the case study participants, 48% or 24 out of 50 respondents named physiotherapy as their profession. Physiotherapists were followed by occupational therapists, who at 11, made up 24% of the participating sample. The least represented rehabilitation-related professions within the sample were speech and audio therapists (audiologists). In fact, only 7 out of 50 respondents were either a speech therapist or an audiologist. A shortage of a full complement of rehabilitation professions is a recurring theme reported in the study, which is discussed in more detail in the next chapter.

Table 5.1 - Institutions from which the study sample was drawn (n=50)

Name of hospital/institution	Number of respondents	Percentage
Benedictine	2	4%
DoH (unspecified institution)	1	2%
Queen Nandi Regional	7	14%
Mbongolwane	4	8%
Ngwelezane	17	34%
Nkandla	3	6%
Private	13	26%
St Mary's	3	6%

Table 5.2 - Demographic profile of study participants (n=50)

	Categories	Frequency	Percentage
Gender	Female	33	66%
	Male	17	34%
Home language	Zulu	35	70%
	English	8	16%
	Other	7	14%
Profession	Physiotherapy	24	48%
	Occupational therapy	12	24%
	Dietetics	5	10%
	Audiology	5	10%
	Speech therapy	2	4%
	Social Work	2	4%
Income	R0-R15 000	2	4%
	R15 001-R30 000	35	72%
	R30 001-R45 000	4	8%
	R45 001-R100 000	8	16%

5.2.4 Work experience

Table 5.3 shows the descriptive statistics of respondents' work experience. Participants' work experience ranged from 1 year to 35 years, with an average (mean) of 7.3±7.72 years' experience. Figures 5.1 and 5.2 represent the category into which participants predominantly fall into according to the nature of work they perform and levels of experience (in years) respectively. According to Figure 5.1, the majority of participants have completed their community service in the public sector rehabilitation service provision. Out of 50 respondents, 25 (or 50%) of them are in the public sector and have completed their community service. Only 24% of the participating respondents in the case study were doing their community service. The rest of the participants (26%) reported being employed in the private sector or having a diverse employment history. For the purposes of this study, 'public practice' refers to participants who have served their community service and are now working in a public sector institution or hospital in the uThungulu district as a qualified rehabilitation discipline practitioner. Public practice practitioners make up 25 of the 50 participants (50%). Thirteen, or 26% of the participants were what the study deemed to have a 'diverse employment history'; these were participants who have an extended career as a qualified rehabilitation practitioner in both the public and private sectors.

Although community service officers made up a minority of the participants, Figure 5.2 illustrates that 54% of the respondents have five years' experience or less (two participants did not respond to this question). The most experienced members of the case study (those with 12+ years' or more experience) made up 27% of the sample, with participants with 6 to 10 years' experience making up 19% of the sample.

Table 5.3 - Average work experience of the participants (n=48)

	N	Mean	Std. Error	Std. Deviation	Minimum	Maximum
Years in employment	48	7.72	1.115	7.724	1	35

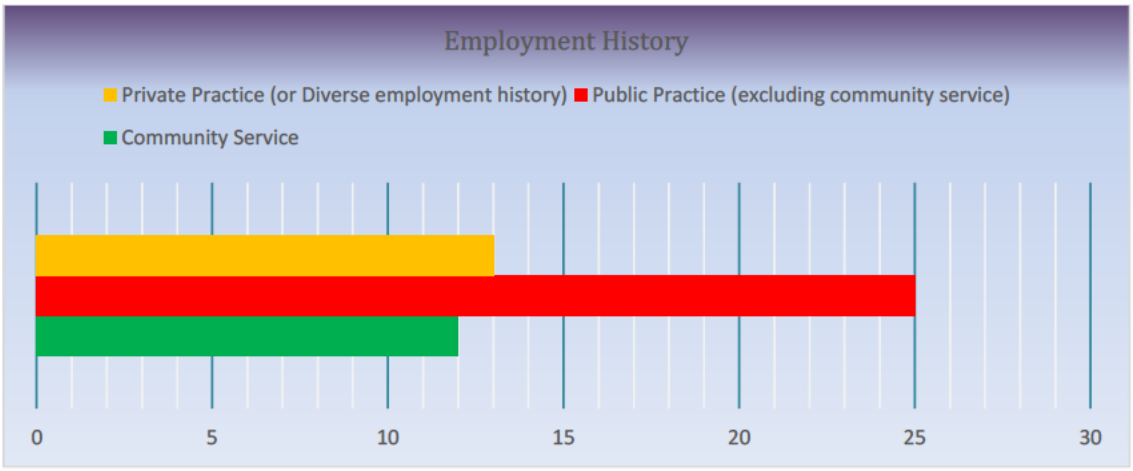


Figure 5.1: Employment types among participants (n=50)

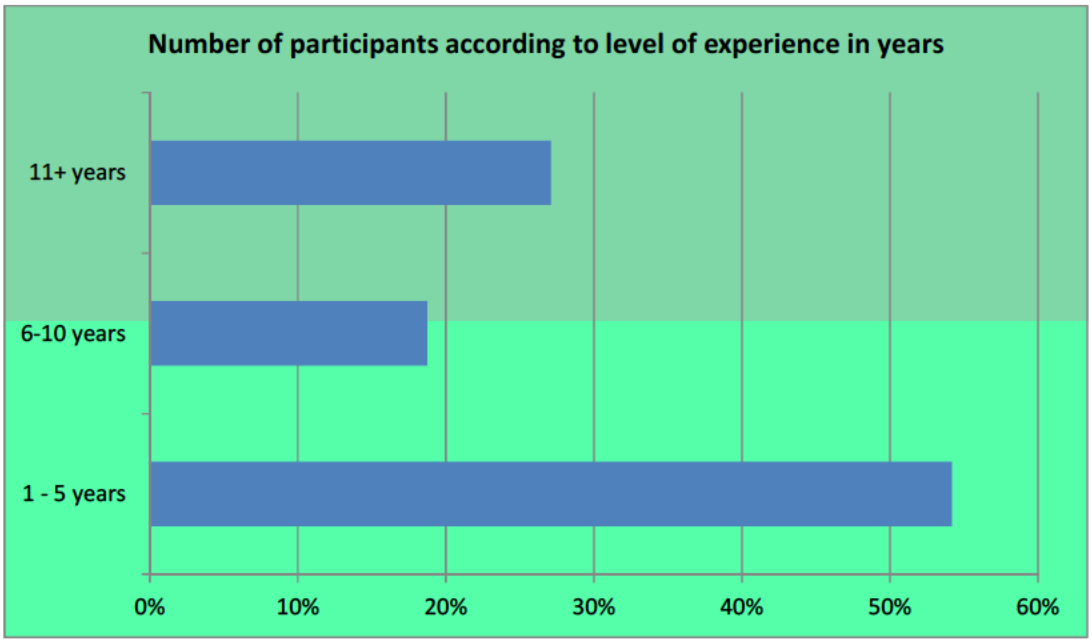


Figure 5.2: Proportion of participants according to level of experience (n= 48)

5.3 Practices in rehabilitation services

The following section shows the results for the current rehabilitation practices in uThungulu. Figure 5.3 shows information on the areas of rehabilitation service provision and Figure 5.4 illustrates results for multidisciplinary rehabilitation practices. Current rehabilitation practice was also assessed according to the availability of designated rehabilitations units in Figure 5.5. Figure 5.6 shows the results for practice according to whether rehabilitation sessions were performed individually or in groups. This section also shows the frequency of rehabilitation sessions (Figure

5.7) and the duration of each rehabilitation session (Figure 5.8). Lastly, this section shows the number of rehabilitation referrals per day in Table 5.4.

5.3.1 Participating institutions/hospitals

Table 5.1 (page 44) presents results on the participating health institutions. Most of the participants (34%) came from Ngwelezane hospital in Mpangeni; 26% of participants were from private institutions. The least represented uThungulu hospitals were St Marys', Nkandla, and the Queen Nandi Regional Hospital.

5.3.2 Areas of rehabilitation service

Figure 5.3 shows the areas of service the participants are involved in. There were differences in areas where participants provided rehabilitation service; Outreach (20), Clinic (24) and ICU/Healthcare (28). Rehabilitation service within the ward and outpatient areas of institutions predominated, with each having a frequency of 48 respectively. Meaning, nearly all participants selected "outpatient" and "ward" as areas where they work.

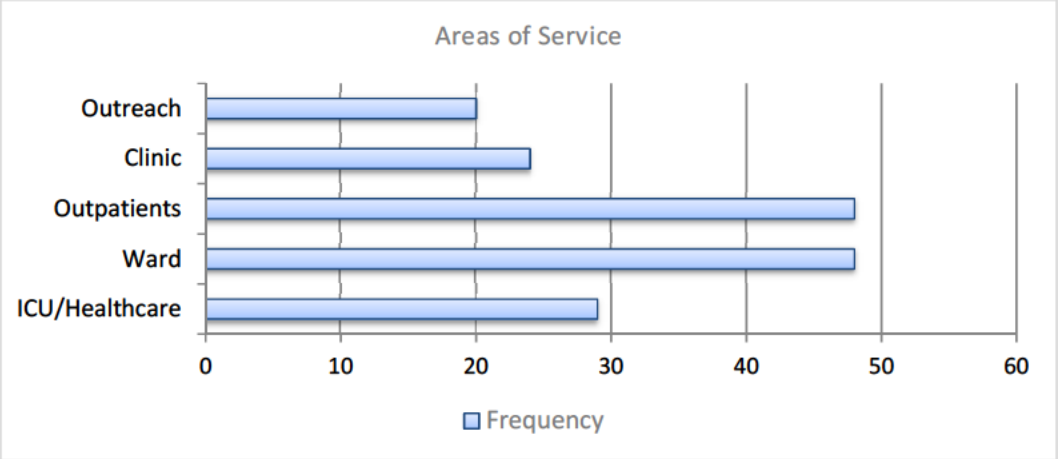


Figure 5.3: Areas of rehabilitation service

5.3.3 Working with other disciplines

Nearly all of the respondents (92%) reported that they practised as a multidisciplinary team for rehabilitation purposes compared to only 8% who did not, as presented in Figure 5.4.

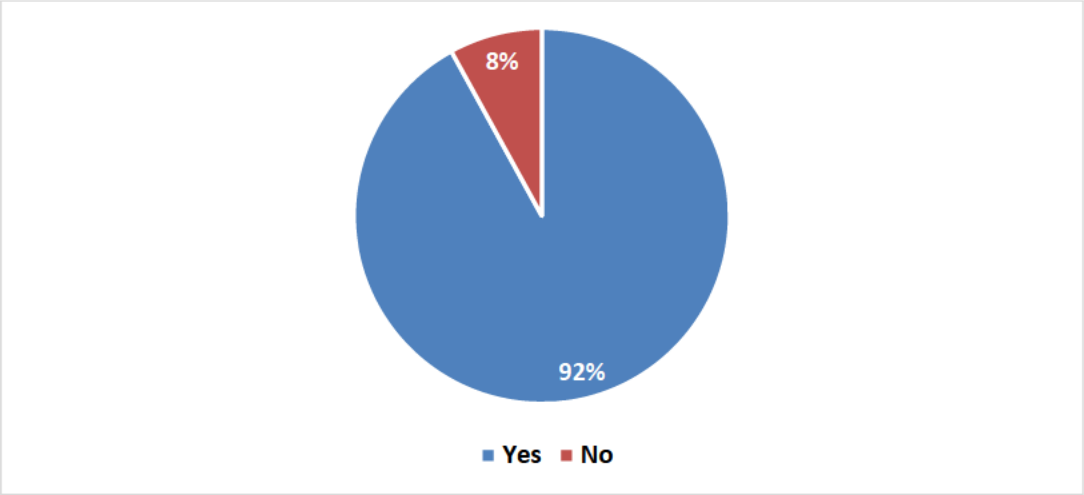


Figure 5.4 – Multidisciplinary practice (n=50)

5.3.4 Availability of designated rehabilitation units/centres

The majority of the participants (69%) said their institutions did did not have a designated rehabilitation centre compared to 31% whose institutions did have such designated centres.

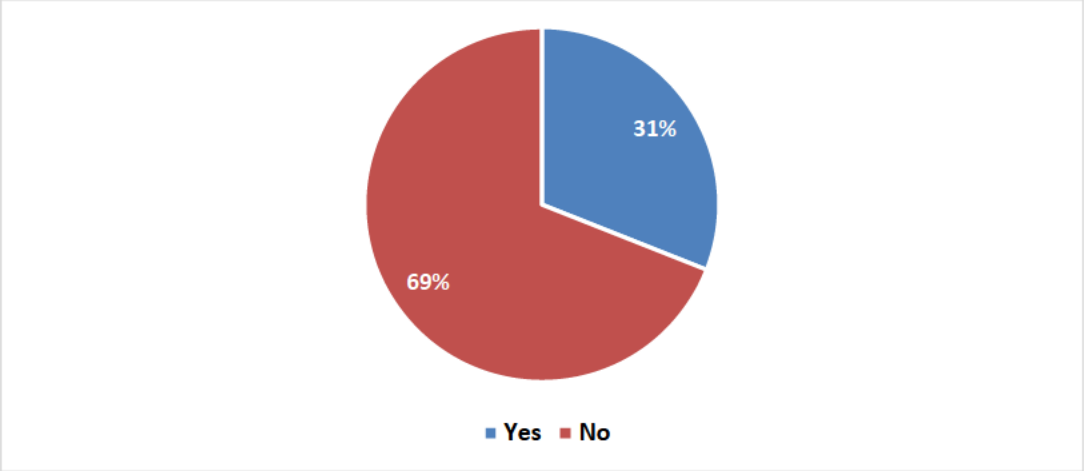


Figure 5.5 – Availability of designated rehabilitation units (n=49)

5.3.5Individual and group rehabilitation sessions

While 8% of the study participants did not specify if the sessions were held in groups or individually, the rest (92%) indicated the rehabilitation consultations were individually administered.

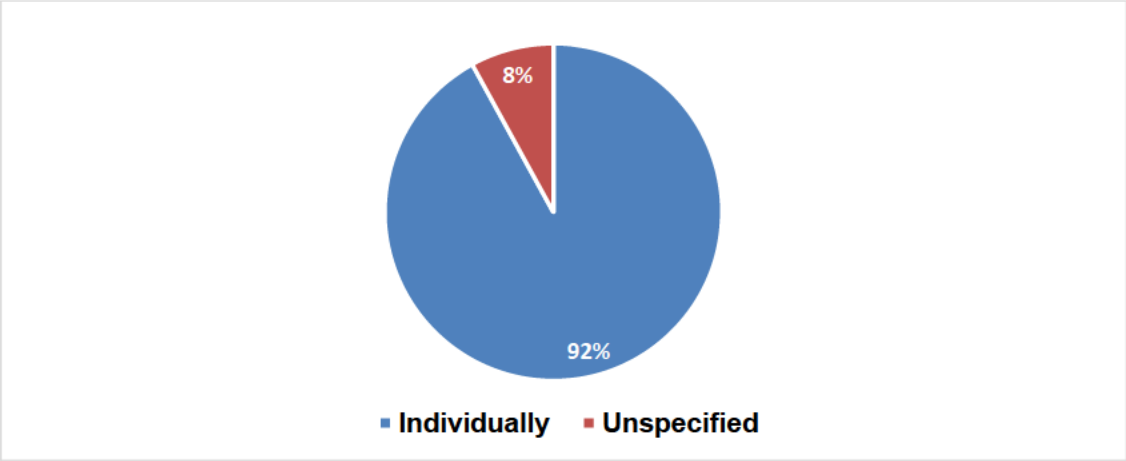


Figure 5.6 – Individual versus group sessions (n=50)

5.3.6 Frequency of rehabilitation sessions

The frequency with which practitioners execute rehabilitation related sessions is depicted in Figure 5.7. The sessions occurred daily for 40% of the participants and another 31% reported seeing rehabilitation patients between once and three times a week. The sessions were only once in two weeks for 9% of the participants and once a month for 4% of them.

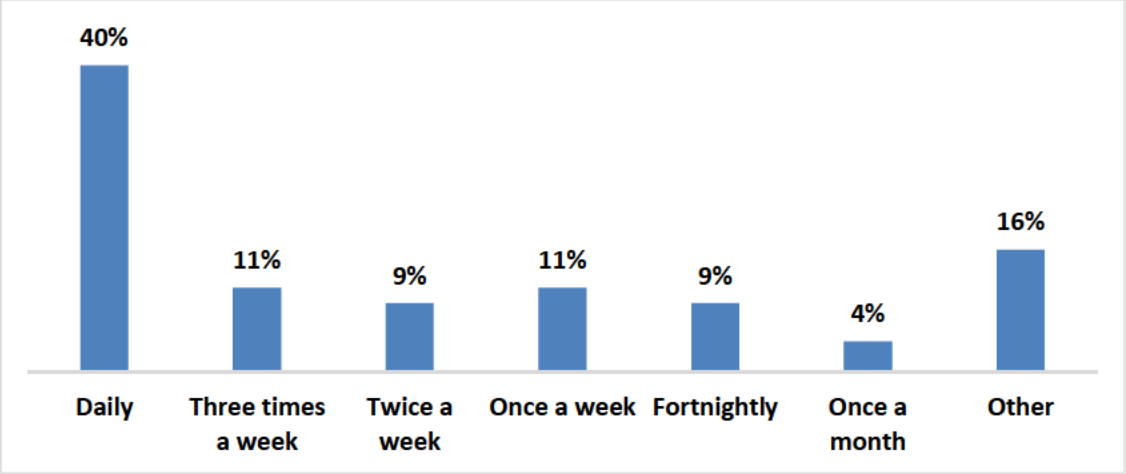


Figure 5.7– Frequency of rehabilitation sessions (n=45)

5.3.7 Rehabilitation referrals per day

Participants were requested to indicate, through estimation, the average number of rehabilitation consults conducted per day. Table 5.4 shows the average number of referrals made per day and this ranged from between 1 and 15 referrals. The average (mean) was about 5.37±4.79 referrals per day.

Table 5.4 - Average daily rehabilitation referrals (n=27)

	N	Mean	Std. Error	Std. Deviation	Minimum	Maximum
Rehabilitation referrals per day	27	5.37	0.922	4.789	1	15

5.3.8Duration of rehabilitation sessions

Figure 5.8 shows that 71% of the participants reported that rehabilitation sessions last between 15 to 45 minutes, on average. Rehabilitation consultation durations seldom exceeded 60 minutes, with only 6% of the practitioners citing that amount of time.

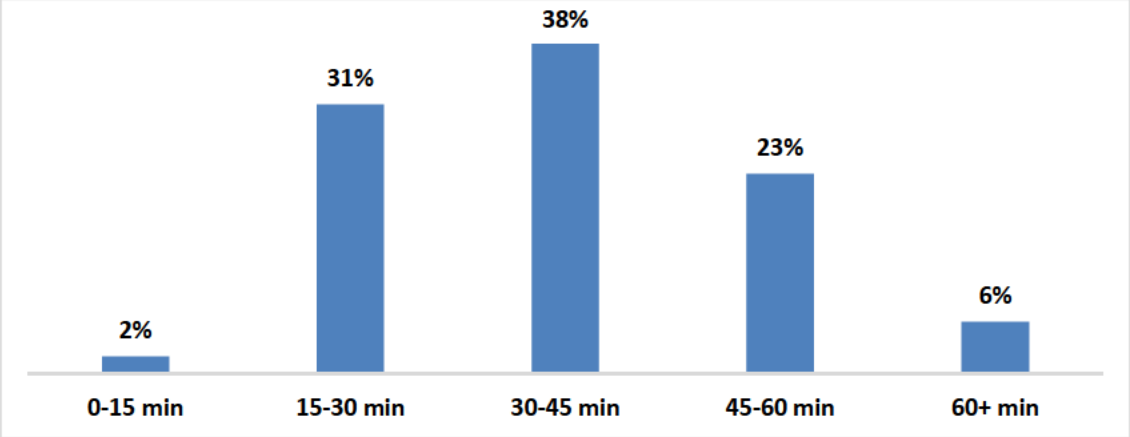


Figure 5.8 – Duration of rehabilitation sessions (n=48)

5.4 Participants' perception of rehabilitation service

The following section shows the results for the participants' perceptions on rehabilitation services in uThungulu. Participants' perception of the sufficiency of rehabilitation, management support, ease of administrative processes, and perceptions on the effectiveness of rehabilitation are presented.

5.4.1 Perceptions on sufficiency of rehabilitation at the institutions

In Figure 5.9, participants were probed for their perception of the level of sufficiency of their institution's rehabilitation service provision. 64% of participants reported that their institution in uThungulu did not have a sufficient rehabilitation service, compared to 36% who thought otherwise.

The perceptions on the sufficiency of the rehabilitation services are presented according to the participants' gender, professional status, length of employment, and type of institution, in Table 5.5. The results of the Chi-square test in Table 5.6 show that the perceptions on sufficiency of rehabilitation services did not differ significantly by any of the demographic categories ($p>0.05$).

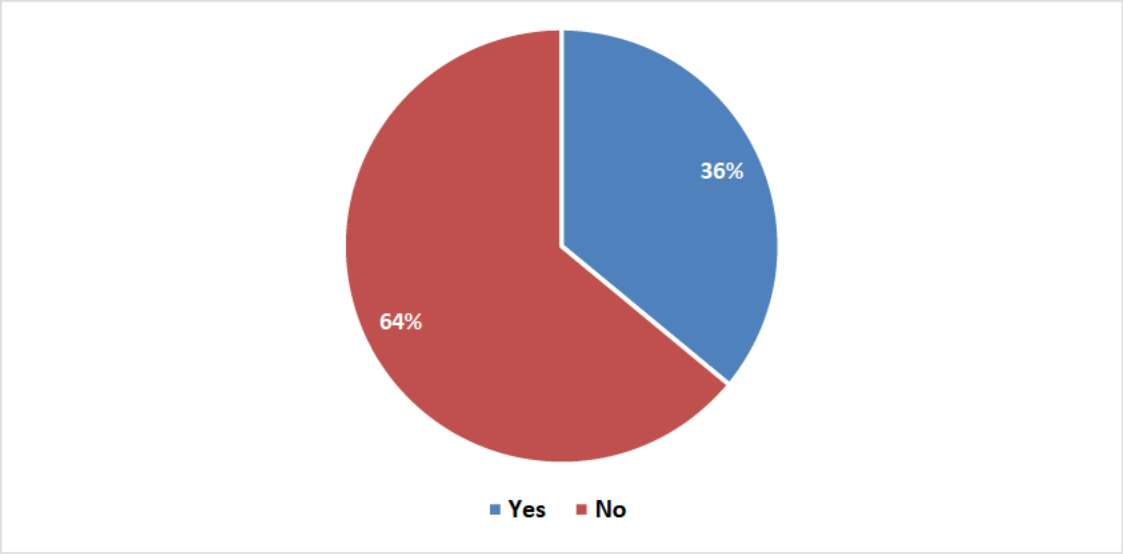


Figure 5.9 – Perceived sufficiency of rehabilitation (n=50)

Table 5.5 - Perceptions on sufficiency of rehabilitation by demographics (n=50)

		N	Yes	No
Gender	Female	33	31%	69%

	Male	17	29%	71%
Profession	Audiology	5	0%	100%
	Dietetics	5	40%	60%
	Occupational Therapy	12	25%	75%
	Physiotherapy	24	46%	54%
	Speech Therapy	2	0%	100%
	Social Work	2	100%	0%
Years employed	Less than 10 years	34	38%	62%
	10 years or more	13	31%	69%
Type of institution	Public institutions	37	43%	57%
	Private institutions	13	15%	85%

Table 5.6 - Comparison of participants' perceived sufficiency of rehabilitation by demographics

	Pearson Chi-Square Value	**df**	**Asymptotic Sig. (2-sided)**
Gender	0.485	1	0.49
Profession	9.165	5	0.10
Years employed	0.227	1	0.63
Type of institution	3.241	1	0.07

5.4.2 Perceptions on management support

Figure 5.10 shows results of participants' perception of the managerial support when required. Only 2% of respondents had complete managerial support when they required it. Up to 20% got substantial support, while another 20% got moderate support. About a third (34%) of the participants said they received little managerial support while about a quarter (24%) said they received no managerial support at all.The Mann-Whitney U test was run to compare perceptions on management support by the participants' gender, length of employment and type of institution. As shown in Table 5.7 there were no statistically significant differences in this regard by any of these demographic variables ($p>0.05$).The perceptions on management support are presented according to the participants' gender, professional status, length of employment and type of

institution in Table 5.7. The Mann-Whitney U test results in Table 5.8 show that the perceptions on management support did not differ significantly by the listed demographic categories ($p>0.05$).

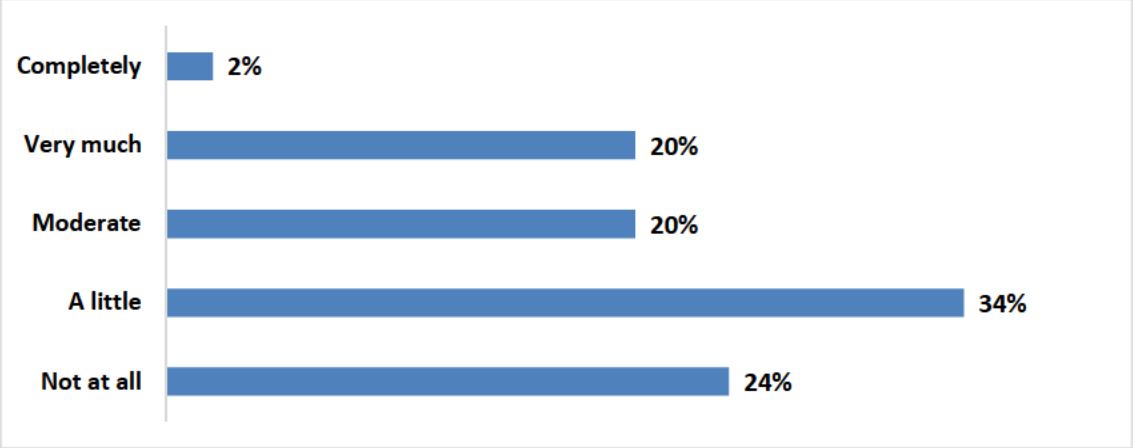


Figure 5.10 – Perceptions of management support (n=50)

Table 5.7 - Perceptions of management support by demographics (n=50)

	N	Mean	Median	Standard Deviation
Gender				
Female	33	2.30	2.00	1.13
Male	17	2.65	3.00	1.11
Years employed				
Less than 10 years	35	2.51	2.00	1.12
10 years or more	13	2.31	2.00	1.18
Type of institution				
Public institutions	37	2.57	2.00	1.07
Private institutions	13	2.00	2.00	1.22

Table 5.8 – Mann-Whitney U test on perceived management support by demographics

	Gender	Years employed	Type of institution
Mann-Whitney U	229.00	203.50	165.50

Wilcoxon W	790.00	294.50	256.50
Z	-1.09	-0.58	-1.72
Asymp. Sig. (2-tailed)	0.27	0.56	0.09

*p<0.05

5.4.3 Perceptions on ease of administrative processes

The majority of the respondents (37%)also felt that the ease of doing rehabilitation administration was non-existent; meaning according to them, administration at their institutions was difficult and bureaucratic. Once again, only 2% felt that the administration was completely easy and 16% said it was very easy. The remainder (42%) felt ease of the processes was little to moderate.

The Mann-Whitney U test was used to compare perceptions on the ease of the administrative processes by the participants' gender, length of employment, and type of institution and, as presented in Table 5.10, there were no statistically significant differences by any of these demographic variables (p>0.05).

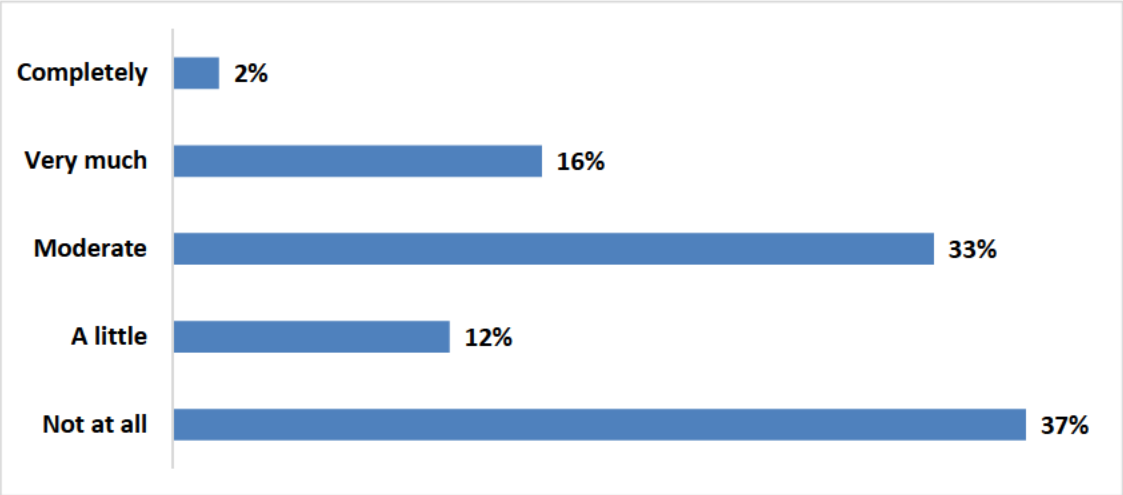


Figure 5.11 – Perceptions on ease of administrative processes (n=49)

Table 5.9 - Perceptions on ease of administrative processes by demographics (n=49)

	N	Mean	Median	Standard Deviation
Gender				
Female	32	2.31	2.50	1.20

Male	17	2.41	3.00	1.23
Years employed				
Less than 10 years	35	2.31	3.00	1.18
10 years or more	12	2.42	2.50	1.24
Type of institution				
Public institutions	37	2.22	2.00	1.18
Private institutions	12	2.75	3.00	1.22

Table 5.10 – Mann-Whitney U test on perceived ease of administrative processes by demographics

	Gender	Years employed	Type of institution
Mann-Whitney U	256.50	197.50	164.00
Wilcoxon W	784.50	827.50	867.00
Z	-0.34	-0.32	-1.41
Asymp. Sig. (2-tailed)	0.73	0.75	0.16

***p<0.05**

5.4.4 Perceptions on effectiveness of rehabilitation programme

In relation to the effectiveness of the rehabilitation programme at the institutions, about a quarter (26%) of the professionals felt the programme was not effective at all. A further 46% adjudged the effectiveness to be a little to moderate. At the other extreme, 28% viewed the programme as very to completely effective. The Mann-Whitney U test was used to compare perceptions on effectiveness of the rehabilitation programme by the participants' gender, length of employment, and type of institution. As presented in Table 5.12, there were no statistically significant differences by any of these demographic variables (p>0.05).The perceptions on the rehabilitation services were also compared by profession of the participants using the Kruskal Wallis Test. There were no statistically significant differences in relation to participants' perceptions on management support (Chi-square=1.13, p=0.95), ease of administrative processes (Chi-square=5.83, p=0.32) or effectiveness of the rehabilitation (Chi-square=2.23 p=0.82). As reported earlier, some of the institutions covered in the study had centres or units designated for rehabilitation while others did not. A Mann-Whitney U test was run and showed (in Table 5.16) that respondents working at institutions with designated rehabilitation units evaluated effectiveness of the rehabilitation programme significantly more positively (Median=4.00) than those working at institutions without such designated units (Median = 2.00), U=98.50, p=0.01.

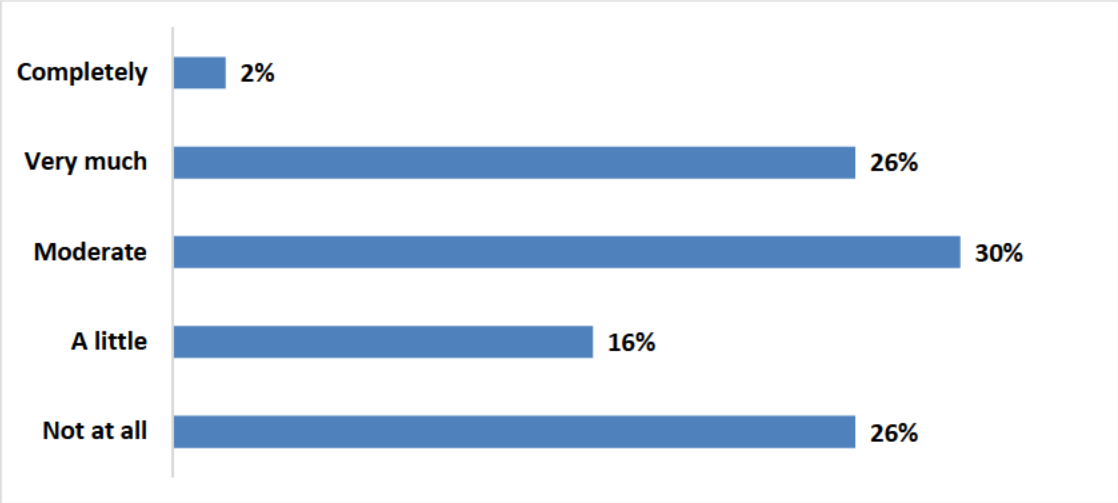


Figure 5.12 – Perceptions on effectiveness of the rehabilitation programme (n=50)

Table 5.11 - Mann-Whitney U test on perceived effectiveness of rehabilitation programme by demographics (n=50)

			U	p-value
Gender	**Male (n = 33)**	**Female (n = 17)**	**248**	**0.49**
Median	**3.00**	**3.00**		
Year Employed	**< 10 years (n = 35)**	**≥ Years (13)**	**227**	**0.99**
Median	**3.00**	**3.00**		
Type of Institution	**Public (37)**	**Private (13)**	**170.5**	**0.11**
Median	**3.00**	**2.00**		

***p<0.05**

Table 5.12 - Perceptions of rehabilitation services by participants' professions (n=50)

		Management support			Administrative processes			Rehabilitation effectiveness		
	N	**Mean**	**Median**	**SD**	**Mean**	**Median**	**SD**	**Mean**	**Median**	**SD**
Audiology	5	2.40	2.00	1.14	2.20	3.00	1.10	2.80	3.00	0.84
Dietetics	5	2.40	3.00	1.34	2.20	3.00	1.10	3.20	4.00	1.30
Occupational Therapy	12	2.58	2.50	1.16	2.08	1.50	1.38	2.42	3.00	1.16
Physiotherapy	24	2.33	2.00	1.17	2.70	3.00	1.18	2.54	3.00	1.32
Speech Therapy	2	2.00	2.00	0.00	2.00	2.00	0.00	2.50	2.50	0.71
Social Work	2	3.00	3.00	1.41	1.00	1.00	0.00	3.00	3.00	1.41

Table 5.13 – Kruskal Wallis test on perceived rehabilitation services by participants' professions

	Management support	Administrative processes	Rehabilitation effectiveness
Chi-Square	1.13	5.83	2.23
df	5.00	5.00	5.00
Asymp. Sig.	0.95	0.32	0.82

***p<0.05**

Table 5.14 - Perceptions on rehabilitation effectiveness by availability of designated units (n=49)

	N	Mean	Median	Standard Deviation
Designated unit at the institution	15	3.53	4.00	0.92
No designated unit at the institution	34	2.26	2.00	1.08

Table 5.15 – Mann-Whitney U test on perceived effectiveness by availability of designated units

Mann-Whitney U	98.50
Wilcoxon W	693.50
Z	-3.51
Asymp. Sig. (2-tailed)	**0.01***

***p<0.05**

5.4.5 Relationship between management support, ease of administration and rehabilitation effectiveness

Spearman's rank-order correlation was performed to examine the relationship between management support and the effectiveness of the rehabilitation programme. There was a moderate but statistically significant positive correlation between participants' perceptions of management support and how and they perceived the effectiveness of the rehabilitation programme (r_s= 0.45, p=0.01). The more positive the evaluation of management support, the more effective the rehabilitation programme was adjudged to be by the participants and vice-versa. Similarly, there was a weak but statistically significant positive correlation between participants' perceptions of the administrative processes and how and they perceived the effectiveness of the rehabilitation

programme (r_s= 0.29, p=0.04). The more positive the evaluation of administrative processes, the more effective the rehabilitation programme was adjudged to be by the participants.

Table.5.16–Spearman's rho correlation between management support, ease of administrative processes and rehabilitation effectiveness.

		Rehabilitation effectiveness
Management support	Correlation Coefficient	0.45
	Sig. (2-tailed)	**0.01***
	N	50
Administrative processes	Correlation Coefficient	0.29
	Sig. (2-tailed)	**0.04***
	N	49

***p<0.05**

5.5 Knowledge about Public Private Partnership

The following section represents the results regarding participants' knowledge of Public Private Partnerships (PPPs).Figure 5.13 shows that as much as two thirds (66%) of the participants did not know about PPP and only a third (34%) knew about it.

Table 5.19 shows the participants' awareness of Private Public Partnership by gender, professional status, length of employment, and type of institution. The Chi-square test results in Table 5.19 indicate that knowledge of PPP did not vary significantly by the listed demographic categories (p>0.05).

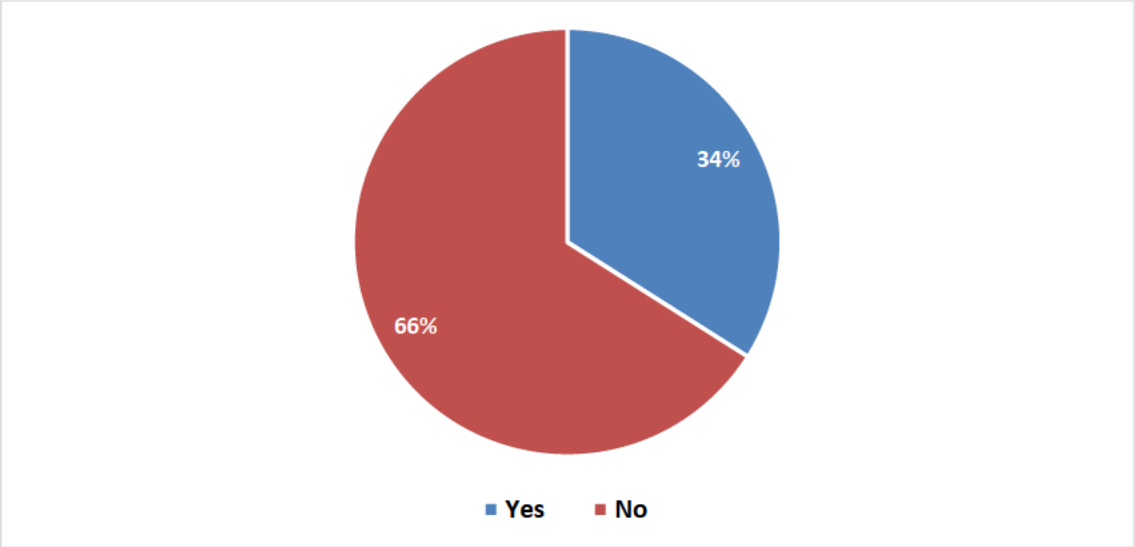


Figure 5.13 – Knowledge of Public Private Partnerships (n=50)

Table 5.17 – Knowledge of Private Public Partnerships by demographics (n=50)

		N	Yes	No
Gender	Female	33	33%	67%
	Male	17	35%	65%
Profession	Audiology	5	0%	100%
	Dietetics	5	60%	40%
	Occupational Therapy	12	33%	67%
	Physiotherapy	24	33%	67%
	Speech Therapy	2	50%	50%
	Social Work	2	50%	50%
Years employed	Less than 10 years	34	29%	71%
	10 years or more	13	54%	46%
Type of institution	Public institutions	37	32%	68%
	Private institutions	13	38%	62%

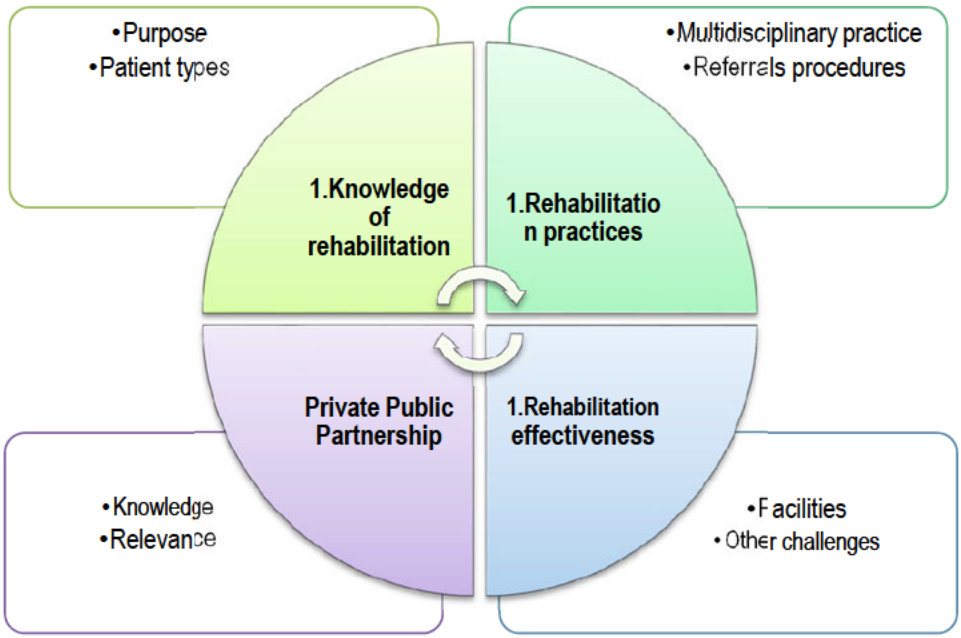
Table 5.18 – Comparisons on awareness of Private Public Partnership by demographics

	Pearson Chi-Square Value	df	Asymptotic Sig. (2-sided)
Gender	0.019	1	0.89
Profession	4.545	5	0.47
Years employed	2.432	1	0.12
Type of institution	0.156	1	0.69

5.6 Qualitative results

The list of themes and codes identified and created from the analysis are as illustrated below.

Figure 5.14- Identified themes of the study



5.6.1 Knowledge of Rehabilitation

5.6.1.1 Purpose of rehabilitation

The discussions opened with the researcher asking the participants to explain what they understood about rehabilitation. The dominant theme was that rehabilitation was a health restorative process.

"Basically, what I understand about rehabilitation it's like you are trying to restore the basic functioning of an individual who has been injured or has been suffering from a certain illness that has caused limitations of the person's functioning daily functioning". (Participant – A)

The point was made too that to be regarded as true rehabilitation, the process had to be guided by a specific goal, as opposed to just generalised physical exertions.

"So, you don't just do exercises for the sake of doing exercises, you're doing it to achieve a particular function so that's what I think that's makes it like rehabilitative because you are doing it to achieve a function. So, if they can't bend their knee you want them to be able to". (Participant – A)

While most of the responses highlighted the physiotherapy related aspects of rehabilitation, the respondents also highlighted the importance of adopting a holistic approach in rehabilitation. Therefore, while a patient could be having mobility challenges, for example, optimal restoration of their functioning required a multi-disciplinary approach. It is in this regard that some of the participants highlighted the role of social workers, among other professional categories, in the rehabilitation programmes.

"As a social worker…you are giving therapy to patients that have different disabilities so you're trying to make them cope or survive that disability or whatever". (Participant – C)

5.6.1.2 Types of patients

The study participants went on to detail the common cases they dealt with in the rehabilitation programme. These ranged widely in nature and included the following:

- Spinal cord injuries
- Head injuries
- Fractures
- Orthopaedic
- CVAs
- Neurological problems
- Stroke
- Cerebral palsy
- Hypertension
- TB
- Meningitis
- Burns
- Cancer

"I see like stroke patients, head injury cases, cerebral palsy kids…who present with peripheral of neurological problems". (Participant – D)

5.6.2 Rehabilitation practices

5.6.2.1 Multidisciplinary practices

The participants acknowledged, and indeed valued, working in consultation with other health professionals in delivering rehabilitation.

"We also join with maybe the doctor, nursing staff and social worker and dietician to do certain cases". (Participant – B)

Among the professional categories mentioned as being key to such multidisciplinary practice were the following:

- Physiotherapists
- Occupational therapists
- Dieticians
- Social workers
- Psychologists

The professionals however emphasized that their institutions were not adequately staffed across the key specialities.

"We don't have a full team…We don't have a speech therapist, but we refer to Eshowe". (Participant – B)

5.6.2.2 Referrals procedures

The participants confirmed doing referrals, mostly depending on the condition of the patient and availability of specialists.

"If I identify that there's a problem that could be solved by speech or audiologist or occupational therapy, I make calls and refer accordingly". (Participant – D)

One way of identifying cases that needed to be referred was said to be via ward visits by doctors. However, in some cases, the specialists also referred to other professionals without the prior involvement of doctors.

"Internal, we don't necessarily wait for a doctor or anyone. If we see that this patient deserves treatment, then we refer". (Participant – D)

5.7 Rehabilitation effectiveness

5.7.1 Availability of facilities

One of the discussion points in the assessment of effectiveness of the rehabilitation services was on the availability of units or centres designated specifically for rehabilitation at the various institutions. The most prevalent feedback from the participants was that there were no such facilities at their institutions.

"Well I mean they do talk about rehab like we fall under rehab services but there's no like place where we bring our patients together. But we are classified under rehab services". (Participant – A)

Due to a lack of such dedicated centres, the rehabilitation professionals often resorted to attending to patients within the general wards. Some of the participants were quick to add that this was not ideal for effective rehabilitation.

"Ideally, from what I've seen in other places, the rehabilitation services are all… (done from a centralised place?), but for us here we're scattered all over". (Participant – A)

Another drawback with not having designated units was that it limited interaction and full case reviews between the professionals.

"Like I'll see "Cindy" in the passage and be like 'oh that patient that you referred to me I saw them in this and this you know', instead of us sitting down and being like ok this is what I did as a dietician, what have you done as a speech therapist. So, we don't have that place to come together and discuss patients". (Participant – A)

5.7.2 Other rehabilitation challenges

Apart from non-availability of units or centres designated specially for rehabilitation, several other barriers to the delivery of optimal rehabilitation services were mentioned and these included inadequate space as well as facilities that were not user friendly. Some participants also highlighted lack of adequate support from management as a big impediment.

"The management don't give much support, because when I came here I had a space and then I was moved to the dining hall and the owners of the dining hall decided to take the place back, now I'm stranded". (Participant – C)

There were general resource constraints too that became a barrier to optimal services.

"I would also say in our department we have low resources…we don't have everything that we need to do every condition that we see". (Participant – B)

In support of the above point, there was a view that knowledge and skills were not the real challenge but resources instead.

"I wouldn't say our knowledge is lacking…we may not have much resources as private (but) we also know what we're doing". (Participant – B)

The relatively poor socioeconomic background of the patients that the institutions dealt with was another barrier to effective rehabilitation. This was because some patients tended to default on necessary follow-ups due to affordability constraints.

"Sometimes when you've seen a patient, especially outpatients, you want them to come back they will tell you…I will not have money". (Participant – B)

Basic non-compliance by some patients was yet another hindrance to effective rehabilitation.

"They are given medication, but they are not taking it as they are supposed to take it". (Participant – C)

5.8 Public Private Partnerships

5.8.1 Knowledge about PPPs

Finally, the participants were probed on their knowledge about the Private Public Partnership (PPP). Most of the respondents said they had never heard of it before, making such proclamations as, *"There's nothing that I know"*. Some respondents were aware of certain programmes or activities but were not sure if these were part of PPP.

"The only partnership I see is the NHLS and the department of health". (Participant – A)

Ultimately, only a few of the participants were certain they knew about PPP but, even then, some claimed this knowledge was just "in theory" rather than from seeing it from actual practice.

"I've seen it on the internet; I've seen this document on the internet about Public Health". (Participant – A)

5.8.2 Perceived relevance and benefits of PPPs

The discussions terminated on whether the professionals saw any relevance or value in the PPP and the views on this tended to be mixed. Among those who felt the partnership was beneficial, one of the arguments was that it would make a huge difference as patient needs would be better met because they would be treated on time and fully.

"I think it's a good idea especially…at least if there was a private practitioner going at least once- if they can't create a post for a physio". (Participant – B)

The partnership was seen as a way of solving some staff constraints, and thus helping improve the quality of health care.

"It will be far better if we were allowed a chance to go to public institutions to render our services as well…because you find that sometimes you are short-staffed, and they have enough people to see patients and they do not come to us. So, it would help us here". (Participant – D)

There was an understanding among the participants that the partnership only allowed referrals and movement of staff from private to public, but not the other way, and some felt this hampered full effectiveness of the PPP

"Well, in fact we're blocked a lot you know they don't really want us to feel you're going to make money in the private sector. If you're in government, they don't want you to be employed privately". (Participant – A)

There was also a sentiment among those who were familiar with the PPP, that it currently worked well and/or favoured patients in prisons but was not being sufficiently practiced and benefiting patients in normal hospitals.

"I can say that, and I don't think it's fair when you look at the services that our patients get, you can almost say prisoners get a better service I promise you". (Participant – A)

CHAPTER SIX: DISCUSSION

6.1 Introduction

This study sought to explore current practices among rehabilitation providers, managers and policy makers in rendering rehabilitation services in uThungulu district municipality in Northern KwaZulu-Natal. Using the case study methodology; this research intended to ascertain perceptions providers have regarding the availability, accessibility and equitability of rehabilitation services provision in uThungulu. Another objective of this study was to assess uThungulu rehabilitation service providers' level of knowledge on PPPs. This PPP knowledge is sought with the intention of learning about what providers think about PPPs being viable rehabilitation service delivery in rural areas similar to the uThungulu district. The researcher sought to find out whether the delivery of rehabilitation services in uThungulu (Northern KwaZulu-Natal) is effective. The above-mentioned aims and objectives of the current study were undertaken by the researcher to seek possible recommendations for the disjointed and unevenly distributed rehabilitation services in Northern KwaZulu-Natal, particularly in its rural areas such as the uThungulu District municipality.

6.2 Rehabilitation knowledge

Central to understanding contemporary practice in the rehabilitation service industry in uThungulu district is the understanding participants have about rehabilitation itself. As far as defining rehabilitation is concerned, there were different views among focus group participants about what constitutes rehabilitation. The Integrated National Disability Strategy (INDS) defines rehabilitation as ways of helping people with disabilities to be fully participating members of society with access to all the benefits and opportunities of that society (Mbeki, 1997).

Participant responses in the focus groups conducted conveys an un-uniform definition of rehabilitation. However, the different definitions amongst participants of rehabilitation do share common themes that can be interpreted as rehabilitation being a restorative process of health. Several participants spoke of rehabilitation as the restoration of physical function.

"Promotion of physical strength, fitness, exercise and overall physical independence."(Participant-E)

"I know that rehabilitation services has to do with the restoration of optimal functioning…" (Participant- F), and

"It's somebody who's had like, like you say an illness who's now got a disability it's helping them to try and do things as independently as possible" (Participant- B).

Other participants echoed the INDS' conception of rehabilitation as physical restoration related to impairment.

"You are giving therapy to patients may have... different disabilities so you're trying to make them survive after having…that disability…" (Participant- A).

The INDS' conception of rehabilitation further implies an improvement of quality of life. Other themes which prevailed in the participant's responses with regard to what constitutes rehabilitation are physical exercise and the improvement of quality of life.

"It's basically improving a patient's quality of life and functioning after an injury or a stroke or anything that has limited them from being able to function like they would before." (Participant- A).

Participants' knowledge of rehabilitation illustrated that rehabilitation is a goal-oriented, multi-disciplinary and holistic behavioural change (Wade, 1998). Participants' knowledge of rehabilitation co-aligns with the view that rehabilitation is comprehensive and vitally important to the retention of physical and functional ability, which helps patients with psychosocial adjustment post-injury or physical impairment (Manderson & Warren, 2010).

6.3Rehabilitation practice in uThungulu District

In establishing the nature of current practices with rehabilitation services in the uThungulu District, this study used the following factors: areas where participants provided service, multidisciplinary practice, availability of a designated institutional rehabilitation unit or centre, individual or group rehabilitation sessions, frequency of rehabilitation consultations, average number of rehabilitation patients seen, duration of rehabilitation consultation sessions, the types of patients seen, and referral procedures. Data was collected and triangulated from both the qualitative focus groups and the quantitative questionnaire.

6.3.1 Areas of rehabilitation service

Figure 5.3 (page 46) shows the frequency distribution of the areas of service participants worked in. Although there is uniformity among participants' areas of rehabilitation service, the most selected areas among participants were ward and outpatient services. The least selected areas of service were outreach and rehabilitation service at clinic level. This indicates incongruence between rehabilitation practice in the uThungulu District and the tenants of CBR. CBR advocates for a more decentralised and less institutional rehabilitation service provision mechanism (Visagie & Schneider, 2014). The case study of uThungulu reveals that rehabilitation service is still institutional, as wards and outpatients are in institutions/hospitals.

This result could be affected by the fact that most case study participants came from Ngwelezane Hospital which is in the city of uMhlathuze (see Table 5.1, page 43). uMhlathuze (eMpangeni) is a semi-urban setting that is unlike the rest of the uThungulu District which is largely rural. More than half of the participants (60%) either came from Ngwelezane hospital or a private institution (which are all located in uMhlathuze). The other towns in uThungulu are eShowe, Melmoth and eNkandla, yet the least number of responders (40%) came from these towns combined. This case study suggests that available rehabilitation practitioners are situated more in urban areas than rural areas, and indeed significant portions of eShowe, Melmoth and eNkandla are rural.

Rehabilitation service equity is advocated by CBR (Mji, *et al*., 2013). CBR further demands for the inclusion of persons with disabilities to be included at all levels of rehabilitation (Mji, *et al*., 2013). The South African government is intent on PHC, CBR, decentralisation and giving effect to the UNCRPD. Yet this case study illustrates stagnant implementation of these policy objectives in UThungulu. Rehabilitation is largely urban and least provided at community-based healthcare centres (CBHCCs), which go against the mentioned policies.

6.3.2 Multidisciplinary rehabilitation

Good-quality rehabilitation involves multiple disciplines, including physiotherapists, occupational therapists, speech therapists and audiologists (Mlezana *et al*, 2013). Rehabilitation requires expert coordination of goals and good communication between patients and practitioners to augment a more positive likelihood of success in the implantation of the rehabilitation process (Mlezana *et al*, 2013). Figure 5.8 (page 44) shows that 92% of respondents affirmed that they work in a multidisciplinary team.

However, participants reported that this requirement of a full quota of rehabilitation practitioners is never complete. Participants reported a constant shortage of the full quota of rehabilitation professions; particularly speech therapists and audiologists. Respondents indicated an endemic shortage of human resources for the dispensation of adequate rehabilitation.

The interdisciplinary practice that exists is within hospital wards and not in a designated rehabilitation area. Though all participating hospitals in the study do possess multidiscipline personnel, the quota is rarely complete, particularly the absence of physiotherapists, audiologists and speech therapists. Although there is multi-disciplinary practice in the visited uThungulu hospitals, it is neither sufficient nor efficient because rehabilitation practitioners work in an environment that does not foster proper rehabilitative care.

Human resource capital for certain rehabilitation professions is poor in uThungulu. Physiotherapists made up the bulk of the participants (48%). The least represented rehabilitation professions were audiology, speech therapy, and social work. The DHS requires acquisition of skills needed for an effective and efficient rehabilitation programme (Dayal, 2010; Mji*et al*., 2013).

6.3.3 Rehabilitation referrals

This deficiency in multidisciplinary practice is tide to an extent to how rehabilitation service providers refer patient cases to one another. This was the common theme from the focus groups conducted in uThungulu. In almost all of the institutions visited, the referral procedure is usually intra-referral among rehabilitation service providers.

"I can explain it this way, this is how we work here some cases you'd find that they need me the OT more working with a physio rather than with a dietician you understand. You'd find that I'm seeing a CP child that requires more of the physio and the OT, and then I realised later that actually this child would benefit from a dietician then I would refer. It's not that I would go with the child to the dietician because I'm no longer needed in that particular intervention only the dietician is needed (Participant- A).

Referral occurs among rehabilitation practitioners according to what the patient is presenting with. Referral from private to public practice does occur, however the reverse seldom happens. One participant in private practice pointed out that private rehabilitation practitioners receive public referrals if the latter is experiencing infrastructural shortfalls.

For private practicing participants, multidisciplinary practice arises on an ad-hoc basis where the practitioner recognises the need of a different rehabilitation specialist and thus refers appropriately. Referral procedure at one participating hospital depended on what the patient was presenting with.

If the patient comes in, presents with speech impairment, mostly strokes, then I know I need to refer to my fellow speech (Participant- Queen Nandi Regional Hospital).

The principles of CBR emphasise that for proper rehabilitation to be provided, the health system must have an effective and well-integrated referral system (Visagie & Schneider, 2014).

6.3.4 Availability of designated rehabilitation units

Within the DHS system, a hospital can incorporate a rehabilitation centre into its system or a rehabilitation centre can be a free-standing organ (Dayal, 2010). Only 31% of questionnaire responders reported having a designated rehabilitation centre at their institution. The overwhelming majority of participants, 69%, reported an absence of a designated rehabilitation centre at their institution. Of the institutions that did have a rehabilitation centre, none were from any of uThungulu District's rural area hospitals.

6.3.5 Individual versus group rehabilitation

The nature of consultation is also a good indicator of current rehabilitation practice. In this study nature of consultation refers to whether the consultation(s) are conducted individually or in groups. According to the participants, all rehabilitation consultations are individually administered. However, subtle nuances do seldom occur where group consultations exist which feature both individual and group consultation. The nature of consultation is also influenced by the injury the client or patient is presenting with.

6.3.6Typesofrehabilitationpatients

The data illustrates that rehabilitation patients present with diverse cases. These diverse cases primarily include: traumatic head injuries, strokes, tuberculosis, spinal cord injuries, cancer, orthopaedic fractures, tuberculosis, burns, cerebral palsy, hypertension and patients with neurological problems such as strokes.

6.3.7 Frequency, duration and number of rehabilitation consultations

Figure 5.11 on page 45 shows that rehabilitation consultations occur daily most of the time (40%). The results also show that rehabilitation sessions usually take between 15 and 45 minutes. The descriptive statistics Table 5.4 (page 46) shows that participants on average receive 5 rehabilitation consultations on a daily basis. The number of daily rehabilitation consultations varies from a case to case basis and according to institutional context. The nature of a patient's injury or level of impairment influences the amount of cases practitioners see on a daily bases. This in turn affects the duration of each individual consultation session. On average, participants in the case study report that 69% of rehabilitation sessions last between 15 to 45 minutes. Figure 5.12 shows the time duration distribution of rehabilitation consultation sessions. Rehabilitation consultation durations seldom exceed 60 minutes, depending on the client's condition and motivation during a given session. Predominantly, practitioners field consultations that can last anywhere between 15, 30, 45 and 60 minutes.

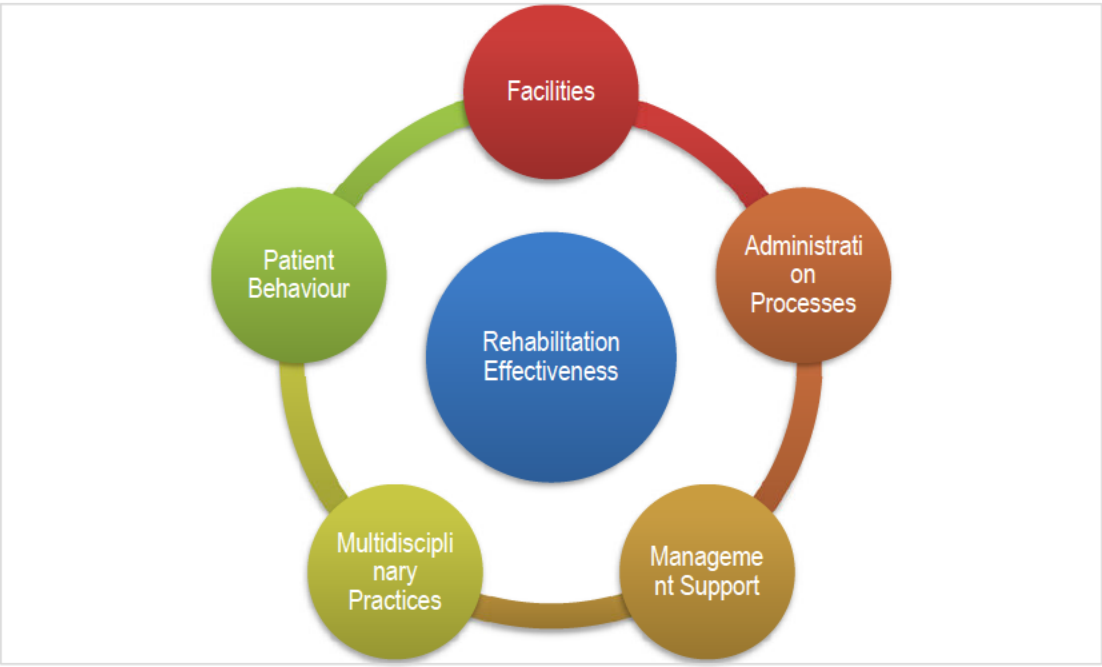
6.4 Participants' perceptions on rehabilitation service

In exploring the availability, accessibility and equity of rehabilitation services in uThungulu district, this study sought participants' perception on rehabilitation practice in their institutions. Participants were probed on the perceived sufficiency of their institution's rehabilitation programme; on the receipt of managerial support when required; and the ease of institutional administration. Participants' perception of the effectiveness of their institution's rehabilitation programme was also explored.

6.4.1 Rehabilitation: Sufficiency, managerial support and effectiveness

The majority of the questionnaire respondents, 64%, reported that rehabilitation service provision in their institution was not sufficient. A majority of participants (58%) reported that they receive little or no support at all from management. Similarly, 37% of responders said they find the rehabilitation administration process at their institutions to be cumbersome. Only 2% of respondents found their institution's rehabilitation programme effective, while a quarter thought that their institution's rehabilitation programme did not do what it set out to do. Dayal (2010), Visagie and Schneider (2014) noted that effective and sufficient rehabilitation service provision is difficult to promote under contexts of cumbersome institutional behaviour such as poor management.

Figure 6.1: Rehabilitation effectiveness summary



As mentioned, the availability of rehabilitation service units/centres is poor in uThungulu, with practitioners working mostly within hospital wards.

"Well I mean they do talk about rehabilitation like we fall under rehabilitation services but there's no like place where we bring our patients together. But we are classified under rehabilitation services" (Participant- A).

Respondents felt hindered and stifled in dispensing adequate rehabilitation service because they were *"scattered all over" (Participant- A)* the hospital.

Not having a single area to work under for rehabilitation practitioners is undermining the optimal level at which they could work. Participants also charged that the absence of designated rehabilitation units/centres limits their intra-disciplinary interaction regarding patients.

"...because it also limits our interaction about the patient you know. Like I'll see 'Cindy' in the passage and be like 'oh that patient that you referred to me I saw them in this and this you know', instead of us sitting down and being like ok this is what I did as a dietician, what have you done as a speech therapist. So, we don't have that place to come together and discuss patients" (Participant- A).

This study found that there was a statistically significant difference between effective rehabilitation service provision and an available rehabilitation unit/centre. Participants

from institutions with designated rehabilitation units rated their institution's rehabilitation more effectively than participants from institutions without designated rehabilitation units. Designated rehabilitation units would be beneficial both for staff and patients, who will not be compelled to walk long distances moving from one rehabilitation practitioner to the next. This benefit could be more attractive since most patients have problems related to their physical mobility.

6.4.2 Barriers to rehabilitation service provision equity

Understanding the barriers that rehabilitation service providers face can be used as an indicator of the availability, accessibility of such services in the uThungulu district area. Barriers to proper rehabilitation service exist in uThungulu and are various. Participants cited a number of reasons why they held this perception.

One of the reasons reported by participants is infrastructural barriers. Shortage of space that is necessary for effective rehabilitation service provision was reported as one factor that strains rehabilitation provision.

"Space number one, the management they don't give much support, because when I came here, I had a space and then I was moved to the dining hall and the owners of the dining hall decided to take the place back, now I'm stranded" (Participant- C).

Barriers such as infrastructural problems seriously undermine the roll-out of rehabilitation services in uThungulu. Respondents noted that shortages of rehabilitation equipment and minimal space were due to budgetary shortfalls. This does not bode well for the wellbeing of patients since rehabilitation requires maximum oversight. Intense medical monitoring is vital at the early stages of recovery, especially traumatic brain injuries (Powell, 2002). The poor nature of rehabilitation service provision found by Werner (1993) in rural areas risks patients recovering poorly or worse. The inadequate facilities are incongruent to the requirements of the South African Society of Physiotherapists which names quality nurses, stroke and spinal rehabilitation equipment being essential to essential rehabilitation provision (Frantz, 2007).

Respondents were asked to state whether their institution's rehabilitation was sufficient as well as give reasons for their view. The 64% of responders who reported an insufficient rehabilitation service at their institution cited a number of reasons for this. These reasons included a lack of rehabilitation equipment, limited financial and human resources, insufficient time to see all patients, language barriers, and a huge workload.

The uThungulu rehabilitation service barriers are characterised by aforementioned health system barriers (Kahonde, *et al.*, 2010). Rehabilitation sessions in UThungulu are mostly carried out individually, frequent, and are lengthy induration. Participants reported a shortage in rehabilitation skills resources and manpower that leads to insufficient time for seeing all rehabilitation patients. The shortage of staff at institutions in uThungulu (particularly in the public hospitals) leads to rehabilitation providers being over-burdened with work.

A shortfall in rehabilitation human capital also leads to an imbalanced doctor to patient ratio, meaning the number of patients exceeds that of practitioners. Turn-around and follow ups by patients are poor due to insufficient human resources. Responders report that this shortage is detrimental to rehabilitation outcome goals, particularly in outpatient service provision.

The study found that there is a statistically significant relationship between managerial support and the effectiveness of an institution's rehabilitation. Respondents from institutions where managerial support was good significantly had better rehabilitation. This study also found a moderate positive correlation between an institution's rehabilitation administration and rehabilitation programme effectiveness. This evidence shows that health system barriers such as disjointed rehabilitation governance and political policy undermine the proper implementation of effective rehabilitation (Kahonde, *et al.*, 2010).

Another rehabilitation service provision barrier that undermines rehabilitation equity in uThungulu is that participants reported that family member of users were either not involved or had very minimal involvement in the rehabilitation process. The objectives of CBR, UNCRPD, NPR, PHC and the DHS stress the importance of involving rehabilitation service users and their families/caregivers in all aspects of achieving rehabilitation treatment goals (Kahonde, *et al.*, 2010; Visagie & Schneider, 2014). Barriers to rehabilitation service provision lead to quality service provision being only open to individuals who can pay for it. The private sector is much more well-equipped and competitive and also provides greater financial remuneration for practitioners who elect to ply their trade independently.

Rehabilitation service inequity in uThungulu is compounded by the catalyst of socio-economic barriers. Rehabilitation patients in uThungulu do not have equitable access to adequate rehabilitation services due to their socioeconomic status. Rehabilitation in rural

areas is minimal (Kautzky&Tollman, 2008) because most rehabilitation services in rural areas (similar to uThungulu) are provided mostly by the public sector (National Rehab Policy, 2000). Rehabilitation service provision is affected by social context and patient characteristics (Hoening, *et al*. 1999).

As such, participants in this study reported that poverty greatly affects rehabilitation dispensation and access.

"Sometimes when you've seen a patient, especially out patients, you want them to come back they will tell you 'at this time of the month I will not have money' so sometimes you try to see them at least once a month maybe" (Participant- B). This does not bode well for patient treatment success, particularly since a number of rehabilitation cases related to behavioural or lifestyle diseases.

"Most people in this area have uncontrolled HPT (hypertension) so they tend to have a stroke due to hypertension" (Participant- C).

Acute care for rehabilitation patients is necessary, especially for stroke patients, however, South Africa has struggled as far as this area is concerned (Fritz, 1995; Hale &Wallner, 1996).

The uThungulu District is a rural area with healthcare centres situated far from human dwellings. These factors make for poor equity, accessibility and availability of rehabilitation in uThungulu. Core philosophies that are promoted by rehabilitation policy such as social inclusion, equal opportunity and client-centred rehabilitation are thus appearing to not be satisfactorily adhered to in uThungulu District. Health system barriers that are policy and finance-related need to be mended so that rehabilitation service provision in uThungulu is aligned and not disjointed; and that fiscal consideration prioritises a multi-sectorial remedy to improving rehabilitation service provision in the uThungulu District (Dayal, 2010; Mji, *et al.*, 2013).

6.5. Public Private Partnership(s) knowledge.

There was almost unanimous ignorance of what the PPP is among participants, with 64% of participants reporting that they were not aware of what PPPs were. The participants who did know about PPPs accounted for 34% of the respondents, however their knowledge was either theoretical, insufficient or from the internet, *"I've seen it on the internet; I've seen this document on the internet about Public health-" (Participant- A).*

There were participants who recognised the relevance of PPPs in rehabilitation dispensation that could be beneficial to patients. The health sector has been identified as a long-term candidate for the long-term infrastructural development of South Africa (National Treasury, 2007; Bruchez, 2014; KPMG, 2018). For potential economic opportunities to be realised within this sector through PPPs, the South African government needs to undertake widespread education, training and awareness campaigns in order to develop the knowledge rehabilitation practitioners, and other health practitioners, lack regarding PPPs (National Treasury, 2007; Bruchez, 2014; KPMG, 2018).

6.6 Limitations and recommendations

The research sought to establish the practices of research practitioners, managers and policy makers. This pursuit was coupled with an investigation into the availability, accessibility and equitability of rehabilitation services in the greater uThungulu municipality in Northern KwaZulu-Natal. Limitations that stymied this research are primarily linked to the sample size of the study. The number of participants used in similar studies in the future must be greater in order to increase internal validity of results gained. The low sample size undermined the multiplicity of rehabilitation practitioners who could have been part of the participants. The low sample size of the study undermined the diversity of rehabilitation practitioners (including doctors and nurses) whose input would have been important. This as a major limitation of you study which should be given prominent consideration by future studies .Major implications of low sample size are that it limits the extent to which results can be generalised and also undermines the statistical power of the study. The current study's application of research are open to improvement, future research similar to the current study would benefit in having sound methods of selecting and recruiting the appropriate candidates. A more helpful method of data collection in future is individual, one-on-one audio interviews. A further limitation of the study was the poor finding on HCWs' awareness of PPPs. Participants' insight into their attitudes towards PPPs was integral to the study.

6.7 Conclusion

The study revealed that rehabilitation practitioners in uThungulu have a sound understanding of what rehabilitation is. The nature and type of rehabilitation patients seen by interviewed practitioners in uThungulu reflected a diverse range of injuries and diseases. Participants decried the quality of rehabilitation service they are able to provide

for their patients. An incomplete quota of rehabilitation service providers (particularly the absence of physiotherapists) and infrastructural short-comings are core factors that participants felt undermines quality rehabilitation. Participants also were critical of the equity of the proper dispensation of rehabilitation, This is largely due to the poverty of the uThungulu municipality.

REFERENCES

Abuzaineh, N., Brashers, E., Foong, S., Feachem, R., &Da Rita, P. (2018). PPPs in healthcare: Models, lessons and trends for the future. Healthcare public-private partnership series, No. 4. San Francisco: The Global Health Group, Institute for Global Health Sciences, University of California, San Francisco and PwC. Produced in the United States of America. First Edition, January 2018 https://globalhealthsciences.ucsf.edu/sites/globalhealthsciences.ucsf.edu/files/pub/ppp-report-series-business-model.pdf

Benatar, S., Sullivan, T., & Brown, A. (2018). Why equity in health and in access to health care are elusive: Insights from Canada and South Africa. *Global public health*, ***13***(11), 1533-1557.

Bovaird, T. (2004). Public–private partnerships: from contested concepts to prevalent practice. *International review of administrative sciences*, *70*(2), 199-215.

Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*.sage.

Boynton, P. M., &Greenhalgh, T. (2004). Selecting, designing, and developing your questionnaire. *Bmj*, ***328***(7451), pp 1312-1315.

Brainin, M., Teuschl, Y., &Kalra, L. (2007).Acute treatment and long-term management of stroke in developing countries. *The Lancet Neurology*, *6*(6), 553-561.

Braun, V., & Clarke, V. (2006).Using thematic analysis in psychology. *Qualitative research in psychology*, ***3***(2), pp 77-101.

Bruchez, N. (2014). Public Private Partnerships (PPPs) in South Africa to what extent are PPPs suitable for the long-term development of infrastructure in South Africa?http://www.rechtswissenschaft.unibe.ch/unibe/portal/fak_rechtwis/content/e6024/e6025/e118744/e144658/e271902/files271934/BruchezNathanael_Masterarbeut_ger.pdf

Bury, T. (2003). Primary Health Care and Community Based Rehabilitation: Implications for physical therapy based on a survey of WCPT's Member Organisations and a literature review. *WCPT briefing Paper, 1*.

Bury, T. (2005). Developmental articles primary health care and community based rehabilitation: implications for physical therapy. *Asia Pac DisabilRehabil J, 16*, 29-61.

Bury, T., Molde Hagen, E., Grasdal, A., Eriksen, H.R. (2003). Does early intervention with a light Mobilization program reduce long-term sick leave for lower pain: a 3 year follow up study, spine 28: pp. 2309-2316.

Cobbing, S., Hanass-Hancock, J., &Myezwa, H. (2017).Assessing home-based rehabilitation within the development of an integrated model of care for people living with HIV in a resource-poor community. *African journal of primary health care & family medicine*, ***9***(1), pp.1-8.

Creswell, J. W., Plano Clark, V. L., Gutmann, M. L., & Hanson, W. E. (2003). Advanced mixed methods research designs. *Handbook of mixed methods in social and behavioral research*, ***209*,**pp.240.

Dayal, H (2009). Capacity of the SA Public Health sector to deliver rehabilitation services: An Institutional service. http://hdl.handle net/20.500.11910/2974

Dayal, H. (2010).Provision of rehabilitation services within the District Health System-the experience of rehabilitation managers in facilitating this right for people with disabilities. *South African Journal of Occupational Therapy*, ***40***(1), pp.22-26.

De Vos, A.S. Strydom, H., Fouchè, C.B. and Delport, C.S.L., (2005)*Research at grass roots for the social science and human service profession 3rd ed. Pretoria: Van Schaik*, p 357-366.

Devreux, I., Jacquerye, A., Kittel, F., Elsayed E, and Al-wa B. 2012.Benchmarking of patient satisfaction.With physical rehabilitation services in various hospitals of Jeddah. Life Science Journal **9**(3): pp.73- 78.

Domholdt, E. (2005). Rehabilitation research: principles and applications. *St Louis, MO: Elsevier Saunders*, 3rd ed, pp 17-28.

Emmett, T. (2006).Disability, poverty, gender and race. *Disability and social change: A South African agenda*, pp.207-233.

Fleminger, S., Oliver, D. L., Williams, W. H., & Evans, J. (2003).The neuropsychiatry of depression after brain injury. *Neuropsychological Rehabilitation*, *13*(1-2), 65-87.

Fombad, M. (2013).Accountability challenges in public–private partnerships from a South African perspective. *African Journal of Business Ethics* 7(1).

Frantz, J. M. (2007). Challenges facing physiotherapy education in Africa.http://hdl.handle.net/10566/2078

Fredericks, P.J., (2012). Description and evaluation of the rehabilitation programme for persons with lower limb amputation at Elangeni, Stellenbosch university scholar.

Fritz, V. (1995).Stroke, including rehabilitation. *Chronic Diseases of Lifestyle.MRC Technical Report. Cape Town: MRC.*

Grut, L., Mji, G., Braathem, S.H., &Iyngstad.B. (2012).Accessing Community health service: Challenges faced by poor people with disabilities in the rural community in South Africa.*African Journal of Disability* ***1****(1)*

Hale, L. A., &Wallner, P. J. (1996). The challenge of service provision in South Africa for patients with hemiplegia. *Physiotherapy*, ***82***(3), pp.156-158.

Hardcastle, T. (2011). The 11 P's of an Afrocentric trauma system for South Africa: time for action!. *SAMJ: South African Medical Journal*, *101*(3), 160-162.

Hoenig, H., Horner, R. D., Duncan, P. W., Clipp, E., & Hamilton, B. (1999).New horizons in stroke rehabilitation research. *Journal of Rehabilitation Research and Development*, ***36***(1), pp.19-31.

Hussey M, MacLachlan M, &Mji G. (2017).Barriers to the implementation of the health and rehabilitation articles of the United Nations convention on the rights of persons with

disabilities in South Africa.*Int J Health Policy Manag.***6**(4): pp.207–218. doi:10.15171/ijhpm.2016.117

KPMG International.(2018). What Works.*The triple win: Rethinking public private partnerships for universal healthcare.*
https://assets kpmg/content/dam/kpmg/xx/pdf/2017/08/what-works-the-triple-win.pdf

Johnston, J., &Gudergan, S. P. (2007). Governance of public—private partnerships: lessons learnt from an Australian case?. *International Review of Administrative Sciences*, *73*(4), 569-582.
Kahonde, C. K., Mlenzana, N., & Rhoda, A. (2010).Persons with physical disabilities' experiences of rehabilitation services at Community Health Centres in Cape Town. *South African Journal of Physiotherapy*, *66*(3), 2-7.

Kautzky, K., &Tollman, S. M. (2008). A perspective on Primary Health Care in South Africa: Primary Health Care: in context. *South African health review*, ***2008***(1), pp.17-30.

Kitzinger, J. (1995). Qualitative research: introducing focus groups. *Bmj*, ***311***(7000), pp.299-302.

Krahn, G. L. (2011). WHO World Report on Disability: a review. *Disability and health journal*, *4*(3), 141-142.

Kuwait (2011). New Physical Medicine and Rehabilitation and Related Facilities: Request for expression of interest lower Limb amputation at Elangeni. Paarl, South Africa.

Leedy, P. D., &Ormrod, J. E. (2005). *Practical research*.Pearson Custom.

Livneh, H., &Antonak, R. F. (1999).Psychosocial aspects of chronic illness and disability. *Health care and disability case management*, 121-168.

De laCornillere, W (2007). Participants experience of the Bishop Lavis Rehabilitation Centre stroke group. Centre for rehabilitation studies http://hdl.handle.net/10019.1/1695

Manderson L & Warren N (2010). The Art of (Re) Learning to walk: *Trust on the rehabilitation Ward. Quad Health Res **20**(10),* pp.*1418 – 1432.*

McIntyre, D. (2010). Private sector involvement in funding and providing health services in South Africa: implications for equity and access to health care. *EQUINET, Harare: Health Economics Unit*.http://www.equinetafrica.org/sites/default/files/uploads/documents/DIS84privfin%20mcintyre.pdf

Mji, G. Chappell, P., Statham S., Mlenzana N., Goliath C., DeWet C., & Rhoda A. (2013). Understanding the current discourse of rehabilitation: With reference to disability models and rehabilitation policies for evaluation research in the South African Setting. *South African Journal of Physiotherapy* 69 (2).http://hdl handle net/10566/2102

Mlamobo-Ngcuka, P. (2006). Accelerated and Shared Growth Initiative for South Africa (ASGISA). *Media briefing by deputy president, 6.*

Mlenzana, N. B., Frantz, J. M., Rhoda, A. J., &Eide, A. H. (2013). Barriers to and facilitators of rehabilitation services for people with physical disabilities: A systematic review. *African journal of disability*, *2*(1): 22 https://dx.doi.org/10.4102%2Fajod.v2i1.22

Nanjwan, J. D.; Plang, J. P., (2014).Rehabilitation Process and Persons with Physical Dysfunctions*Journal of Sports and Physical Education. Volume 1, Issue* (3), PP 19-23

National Rehabilitation Policy South Africa (2007). Position paper, *Rehabilitation Document: The role of Physiotherapy in Rehabilitation.*

National Treasury of the Republic of South Africa (2007).Introducing Public Private Partnerships in South Africa.http://www.ppp.gov.za/Documents/Final%20Intro%20to%20PPP%20in%20SA%2021%2009%2007.pdf

Ned, L., Cloete, L., &Mji, G. (2017). The experiences and challenges faced by rehabilitation community service therapists within the South African Primary Healthcare health system. *African Journal of Disability (Online)*, *6*, 1-11.

Office of the Deputy President TM Mbeki, & Mbeki, T. (1997). *White paper on an integrated national disability strategy*.Office of the Deputy President TM Mbeki.https://www.gov.za/sites/default/files/disability_2.pdf

.

Partnership Project of the Department of Health, Provincial Government of the Western Cape (1996).*Constitution of the Republic of South Africa no: 108. Chapter 2. 27.*

Powell, J., Heslin, J., & Greenwood, R. (2002). Community based rehabilitation after severe traumatic brain injury: a randomised controlled trial. *J NeurolNeurosurg Psychiatry*, *72*(2), 193-202.

Prussing, T. (2015).*Public-Private Partnership Financing in South Africa*.Submitted to the Faculty of Commerce of the University of Cape Town in partial fulfilment of the requirements for the degree of Masters in Commerce in Financial Management http://hdl.handle net/11427/15713

Rhoda, A., Mpofu, R., De Weerdt, D (2009). The rehabilitation of stroke patients at community health centers in the Western Cape. *South African Journal of Physiotherapy 65(3): 1-6.*

Roman, D (2010). Experience of the LeutegeurPsychatric Hospital and Western Cape: Rehabilitation Centre for the persons with physical disability. Public Private

Rule S, Lorenzo T, Walmarans M. (2006) Community based rehabilitation new challenges, Disciplinary and social change: *A South African Agenda. Edited by Watermayer B, Schwartz L. Schneider M, Priestley M. Cape Town: HSRC: 273-290.*

Scheffler, E., Visagie, S., & Schneider, M. (2015).The impact of health service variables on healthcare access in a low resourced urban setting in the Western Cape, South Africa. *African journal of primary health care & family medicine*, *7*(1), 1-11.

Shuping, S., &Kabane, S. (2007). Public-private partnerships: A case study of the pelonomi and universitas hospital co-location project. *South African Health Review*, 151-58.

South African Medical Association.(2011). Submission of Comments on National Health Insurance (NHI) Green Paper.https://www.mm3admin.co.za/documents/docmanager/f447b607-3c8f-4eb7-8da4-11bca747079f/00030252.pdf

Stats, S. A. (1999).October household survey. *Pretoria: Statistics South Africa*, *2000* https://www.isr.umich.edu/davidl/southafrica/OHS1999%20statistical%20release.pdf

Statistics, S. A. (2014). Report-03-10-06-Poverty trends in South Africa: An examination of absolute poverty between 2006 and 2011.

Thadani, K. B. (2014). Public private partnership in the Health Sector: Boon or Bane. *Procedia-Social and Behavioral Sciences*, *157*, 307-316.

Trialists'Collaboration, S. U. (2013). Organised inpatient (stroke unit) care for stroke. *Cochrane database syst rev*, *9*(9).http://ontariostrokenetwork.ca/wp-content/uploads/2014/01/Cochrane-Review-Organised-Stroke-Unit-Care-2013.pdf

Vilchinsky, N., Findler, L., & Werner, S. (2010). Attitudes toward people with disabilities: The perspective of attachment theory. *Rehabilitation Psychology*, *55*(3), 298.

Visagie S, Schneider M.,(2014).Implementation of the principles of primary health care in a rural area of South Africa.*Afr J Prm Health Care Fam Med*.6(1), Art. #562, 10 pages. http:// dx.doi.org/10.4102/phcfm. v6i1.562

Wade, Derick T. "Evidence relating to goal planning in rehabilitation." (1998): 273-275.

Wasserman, S., De Villiers, L., &Bryer, A. (2009).Community-based care of stroke patients in a rural African setting. *South African Medical Journal*, *99*(8).

Werner, W. (1993).A brief history of land dispossession in Namibia. *Journal of Southern African Studies*, *19*(1), 135-146.

Status, W. P. (1995).The use and interpretation of anthropometry. *WHO technical report series*, *854*(9)

APPENDIX 1

Gatekeeper permission letter

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Cell: 0823663594
Email: senzelwe@icloud.com

November 2015

10

Empangeni

3880

To whom it may concern

My name is Senzelwe Mazibuko and I am a Masters student enrolled at the University of KwaZulu-Natal in Durban (student number: 9701850). With this letter I hereby request permission to conduct my Masters researchstudy at_____ (hospital/institution).

This hospital/institution has been selected by the researcher for participation in the study. The aim of the study is to explore the current rehabilitation health provision service practices in the uThungulu district municipality. The research further intends to explore the current knowledge and attitudes rehabilitation service providers in the uThungulu district have towards Public-Private Partnerships in delivering rehabilitative healthcare. The study will require the participation of hospital staff.
The research has been approved by the committee for Human research at the University of KwaZulu-Natal (Ethical Clearance number: HSS/0684015). The researcher would greatly appreciate for permission to conduct the study were to be granted.

Regards
Mr. S.M. Mazibuko

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School/ institution: UKZN- Westville

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APPENDIX 2

INFORMED CONSENT FORM FOR STUDY PARTICIPANTS

TITLE OF THE RESEARCH PROJECT:

Rehabilitation service in the Northern KwaZulu-Natal, uThungulu and service providers' knowledge and attitudes towards Public Private Partnerships.

STUDENT NUMBER: 9701850
PRINCIPAL INVESTIGATOR: MR S.M MAZIBUKO

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Dear prospective participant

This letter serves as an invitation to participate in a research study. Kindly read the following information, which explains the details of the study. It is important that you clearly understand what this research entails and how you could be involved. Your participation is **entirely voluntary** and you are free to decline to participate or withdraw from participating in the study at any point in the research. Refusal to participate will not result in any negative outcomes for you. Should you agree to participate in the study, you will not be rewarded in any form where monetary or otherwise.

This study has been approved by the Committee for Human Research at University of KwaZulu-Natal and will be conducted according to the ethical guidelines and principles of the international Declaration of South African Guidelines for Good Clinical Practice and the Medical Research Council (MRC) ethical Guidelines for Research**.** This study will additionally be informed by the ethical principles of the Helsinki declaration of medical research involving human beings.

Why have you been invited to participate?

You have been invited to participate, because you are a rehabilitation service practitioner currently working at a hospital/health institution in the uThungulu District municipality. The researcher intends exploring the knowledge and practices of rehabilitation services which you render in uThungulu. The study will additionally explore your knowledge of and attitude towards Public Private Partnerships in rendering rehabilitative healthcare in uThungulu.

What will your responsibilities be?

Your responsibilities will be, to answer the questions to the best of your ability. The study will require you to devote your time to complete the data collection. The study will require you to share your personal knowledge, views, emotions, feelings, and opinions on what you have experienced during the period of providing rehabilitation services in the institution of your employment in uThungulu district.

You will chose to participate in the study in different forms of data collection, namely: focus groups, individual audio-recorded interview or the completion of a questionnaire designed by the researcher.

Will you as a rehabilitation service provider benefit from taking part in this research?

There will be no benefit for your participation in the study whether in the form of money or otherwise. Your refusal to participate in the study will not negatively affect you in any way.

Are there any risks involved in your taking part in this research?

There are no risks involved.

Should you have any questions regarding any aspect of this study, you may contact the following:

- You can contact the researcher Senzelwe Mazibuko on 035 792 4034 / 082 366 3594 if you have any further questions or encounter any problems.

- ❖ You can contact the Committee for Human Research on 031 260 4557 if you have any concerns or complaints that have not been adequately addressed.
- ❖ You will receive a copy of this information and consent form for your own records.

Declaration by participant

By signing below, I (name)_____agree to take part in the research study titled: *Rehabilitation service in the Northern KwaZulu-Natal, uThungulu and service providers' knowledge and attitudes towards Public Private Partnerships*

I declare that:

- I have read the information and consent form and that it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions and all my questions have been adequately answered.
- I understand that taking part in this study is voluntary and I have not been coerced to take part.
- I know that I have the full right to withdraw from the study at any time and will not be penalised or prejudiced should I do so.
- I may be asked to leave the study before it has finished if the researcher feels it is in my best interest to do so.

Signed at (place)_____on the_____day of _____(month) 20___ (year).

_____

_____

Signature of participant

Signature of witness

Declaration by investigator

I _____declare that:

- I explained the information in this document to _____
- I encouraged him / her to ask questions and took adequate to answer them.
- I am satisfied that he / she adequately understand all aspects of the research, as discussed above.
- I did / did not use a translator (if translator is used, then the translator must sign the declaration below).

Signed at (place)_____on (date)_____20_____.

_____

_____

Signature of investigator

Signature of witness

- I conveyed a factually correct version of what was related to me.
- I am satisfied that the parent / guardian fully understands the content of this informed consent document and has had all his / her questions satisfactorily answered.

Signed at (place)_____on (date) _____20_____.

_____

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Tel: 031 260 7939

Email: nadasan@ukzn.ac.za

School/ institution: UKZN- Westville

Qualification: PhD

APPENDIX 3

SECTION A: DEMOGRAPHIC PROFILE OF THE PARTICIPANTS.

1 Sex	Male	
	Female	

2. Home language:

Afrikaans	
IsiZulu	
English	
Other	

3. Educational qualification:

4. Employment history:

5. Income:

R5 000 – R15 000	
R15 000 – R30 000	
R30 000 – R50 000	
R50 000 – R100 000	

6. Institution where you are currently working:

7. Areas where you service:

ICU/Healthcare	
Ward	
Outpatient	
Clinic	
Outreach	

8. Do you work with other disciplines e.g. Physiotherapists, Occupational therapists, speech therapists and or audiologists?

Yes	
No	

9. Does your institution have a designated rehabilitation unit/centre?

Yes	
No	

If yes, how many service providers? _____

10. Do you see patients needing rehabilitation as a multidisciplinary team e.g. stroke, paraplegia?

Yes	
No	

If yes, how many times do you see them?

Daily	
Once a week	
2x a week	
3x week	
Once every second week	
Once a month	
Other	

11. Howmany are referred to you?

12.On average, how long does each rehabilitation at the hospital/institution take?

0 – 15 minutes	
15 – 30 minutes	
30 – 45 minutes	

45 – 60 minutes	
45 – 60 minutes	
60+ minutes	

13. Are the sessions carried out individually or in a group?

Individually	
Group	

14. In your opinion, is the rehabilitation you give at the hospital/ institution sufficient?

Yes	
No	

If not, explain your reasons in detail.

15.Do you receive support from the management if necessary?

Not at all	
A little	
Moderate	

Very much	
Completely	

16.Is the administration process at the hospital/institution easy?

Not at all	
A little	
Moderate	
Very much	
Completely	

17.In your opinion, is the rehabilitation programme at your hospital/ institution effective?

Not at all	
A little	
Moderate	
Very much	
Completely	

18.Do you know about Private Public Partnership?

Yes	
No	

If yes above, have you seen it in operation in other sectors?

Yes	
No	

19.If yes above, do you see it as a vehicle for rehabilitation services in the near future?

APPENDIX 4

Physiotherapy, College of Health Sciences,

University of Kwa-Zulu Natal

Westville Campus

Dear Participant

PERMISSION TO AUDIOTAPE INTERVIEW

My name is Senzelwe Mazibuko, I am studying towards obtaining my Masters in Physiotherapy. I am studying at the University of Kwa-Zulu Natal, Westville campus, South Africa. I am conducting a research study on Rehabilitation services, a case study of public, private partnership in the Northern Kwa-Zulu Natal UThungulu District. As a health professional you are best suited to take part in this study and I would like to ask you a few questions.

Please note that:

- If you agree to participate in my research, I will conduct at interview at a time and location that will be given to you, by me as the researcher.
- The interview will consist of questions that are centred around, ”Rehabilitation services”. The interview should last for about 45 minutes to an hour. With your permission, I will audiotape and take notes during the interview. The recording is to accurately record the information you provide, and will be used for transcription purposes only if accurate.
- If you choose not to be audiotaped I will take notes instead. If you agree to being audiotaped but feel uncomfortable at any time during the interview, I can turn off the recorder at your request. Or if you do not wish to continue, you can stop the interview at any time.
- Interviews will be conducted in a group setting, only one interview is expected to be conducted, however follow-ups may be needed for added clarification. If so, I will contact you by email/phone to request this.
- Your confidentiality is guaranteed and your input will not be personally attributed to you but will be reported only as a population member opinion.

	Willing	Not Willing
Audiotaped Interview		

I can be contacted on the following:

Cell: 082 366 3594

Email: senzelwe@icloud.com

My supervisor is Dr T. Nadasan who is located at the Department of Physiotherapy, College of Health Sciences, Westville Campus, University of Kwa-Zulu Natal.

Contact details, email: nadasant@ukzn.ac.za

Phone number: (031) 260 7939.

My Co-supervisor is Mr O.M Olagbegi who is located at the Department of Physiotherapy, College of Health Sciences, Westville Campus, University of Kwa-Zulu Natal.

You may also contact the Research Office through,

Research Office, Westville Campus

Govan Mbeki Building

Private Bag X 54001

Durban

4000

Kwa-Zulu, Natal, South Africa

Tel: 031 260 4557

Fax: 031 260 4609

Thank you for your contribution to this research.

DECLARATION

I _____ (full name of participant) agree and give my permission for the interview to be audiotaped and recorded to assist with the research study that is being conducted.

I hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participating. I understand that I can withdraw from the project at any time, should I desire to do so.

_____ (Signature) _____ (Date)

UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

18 June 2015

Mr Senzelwe Mazibuko 9701850
School of Health Sciences-Physiotherapy
Westville Campus

Dear Mr Mazibuko

Protocol reference number: HSS/0684/015M
Project title: Rehabilitation services: A case study of Public Private Partnership in the Northern KwaZulu-Natal UThungulu district

Provisional Approval – Expedited Application

This letter serves to notify you that your application received 9 June 2015 in connection with the above, has been provisionally approved, subject to the following:

1. Please indicate your sample size for the study
2. Permission must be obtained for Audio-recording (Template attached)
3. Gatekeeper permission letter(s) required

This approval is granted provisionally and the final approval for this project will be given once the above condition has been met. In case you have further queries/correspondence, please quote the above reference number.

Please note that the research study cannot start until Full Approval has been granted.

Kindly submit your response to the Chair: Dr Shenuka Singh, Research Office as soon as possible

Yours faithfully

[redacted]

Dr S
On Behalf of Dr Shenuka Singh (Chair)
Humanities & Social Sciences Research Ethics Committee

/pm

Cc Supervisor: Dr I Nadasan & Mr N Pefile
Cc Academic Leader Research: Professor . van Heerden
Cc School Administrator: Ms P Nene

Humanities & Social Sciences Research Ethics Committee
Dr Shenuka Singh (Chair)
Westville Campus, Govan Mbeki Building
Postal Address: Private Bag X54001, Durban 4000
Telephone: +27 (0) 31 260 3587/8350/4557 Facsimile: +27 (0) 31 260 4609 Email: ambaa@ukzn.ac.za / snymanm@ukzn.ac.za / mohanp@ukzn.ac.za
Website: www.ukzn.ac.za

1910 - 2010
100 YEARS OF ACADEMIC EXCELLENCE

Founding Campuses: Edgewood, Howard College, Medical School, Pietermaritzburg, Westville

APPENDIX 5: Ethical Clearance certificate