EXPLORING COMMUNITY OUTREACH REHABILITATION SERVICES IN KWAZULU-NATAL IN 2019

BY

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DECLARATION

I, **Reevana Harriparsad** declare that:

(i) The research reported in this dissertation, except where otherwise indicated, is my original work.

(ii) This dissertation has not been submitted for any degree or examination at any other university.

(iii) This dissertation does not contain other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons.

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Signed:

Date: 21 November 2019

SUPERVISOR DECLARATION

I, **Thembelihle Dlungwane** hereby confirm that I have read the contents of this dissertation and approve of its submission.

Supervisor: Thembelihle Dlungwane

Signature:

Date: 21 November 2019

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DEDICATION

This study is dedicated to the Almighty for His endless covering over this journey.

I dedicate this study to my supervisor for all her support, guidance and advice throughout the research process.

Lastly, I dedicate my study to my husband, Rishen for his endless encouragement, support and enthusiasm during my research. You provided me with continuous motivation to complete my study.

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ABSTRACT

Introduction

The World Health Organization (WHO) rehabilitation in health system guide mentions rehabilitation services needs to be delivered to Primary Health Care facilities and in community settings. Community outreach rehabilitation services are a strategy to decentralize hospital-based rehabilitation services to community level. Community outreach rehabilitation services form part of Community-Based Rehabilitation (CBR)

In low- and middle-income countries rehabilitation services tend to be available at central or intermediate levels of care but less accessible at community level. Despite more people with disabilities living in rural areas than urban areas, implementing rehabilitation services remains a major challenge. South Africa has previously faced challenges in rehabilitation at community level. The community outreach rehabilitation services in KwaZulu-Natal (KZN) fall under the domain of rehabilitation coordinators who are employed at district and provincial level. The purpose of this study to explore community outreach rehabilitation services in KZN in 2019.

Method

The study employed an exploratory qualitative research design. Data was collected through face-to-face in-depth interviews with rehabilitation coordinators who were employed in provincial and district offices in the KZN Department of Health. Interviews were conducted from March 2019 to June 2019. Each interview was audio-recorded and transcribed verbatim. A thematic analysis was implemented

Results

The findings indicated that the scope of community rehabilitation services comprises services at different types of clinics such as primary health clinics, gate clinics and mobile points, services based in home visits by CBR workers, and partnerships with stakeholders in the community such as local municipalities, old aged homes and day care facilities as well as partnerships within governmental departments such as the Department of Education, Social Development, Sports and Recreation, and South African Police Services. Participants highlighted the positive role played by senior therapists and rehabilitation coordinators, and the stakeholder support in facilitating factors in the delivery of community outreach

rehabilitation services. They also pointed out a number of barriers which include staffing challenges, lack of support for community outreach rehabilitation services, lack of prioritisation of rehabilitation services, transport challenges, negative attitudes in therapists, and inadequate infrastructure.

Conclusion

The delivery of community outreach rehabilitation services is faced with a number of challenges. A multi-faceted approach from all levels of health management is required in order to strengthen the factors facilitating delivery, and to address the barriers preventing it.

Key words: community outreach rehabilitation services, primary health care, rehabilitation coordinators

ACRONYMS AND ABBREVIATIONS

AIDS Acquired Immune Deficiency Syndrome

CEO Chief Executive Officer

CBR Community Based Rehabilitation

CHW Community Health Worker

CSO Community Service Officer

CRPD Convention on the Rights of Persons with Disabilities

DOE Department of Education

HIV Human Immunodeficiency Virus

KZN KwaZulu-Natal

NGO Non-Governmental Organisation

NHI National Health Insurance

NSW New South Wales

PHC Primary Health Care

WBOT Ward Based Outreach Team

WHO World Health Organization

SA South Africa

SAPS South African Police Service

OT Occupational Therapy

UN United Nations

GLOSSARY OF TERMS USED IN STUDY

Allied health: health professionals that do not include medical doctors, nurses and dentists.

Community Outreach Rehabilitation service: Rehabilitation services such as Physiotherapy, Occupational Therapy and Speech and Audiology delivered at Primary Health Care level

Community Based Rehabilitation: A strategy that involves rehabilitation and promoting equal opportunities and social inclusion for people with disabilities. It is the combination of efforts of people with disabilities, their families and communities working with health, education and social services.

Nompilo: An isiZulu name used by people accessing health care services for a Community Care Giver.

Primary Health Care: Health care services that is essential, affordable and accessible to individuals at community level.

Rehabilitation medicine: is concerned with improving function through the means of diagnosis, treatment, reducing impairments and preventing complications.

Rehabilitation services: a wide range of services within health, education, social welfare and labour structures.

Rehabilitation therapists: Health professionals such as physiotherapists, occupational therapists, speech therapists and audiologists.

Rehabilitation Coordinator: A manager responsible for the coordination of the Rehabilitation programme within the district or province.

CHAPTER 1: BACKGROUND TO STUDY

1.1 Introduction

The following chapter presents a background which briefly reviews the current and previous literature pertaining to community outreach rehabilitation services within international and national perspectives. This chapter details the problem statement, the aim and research objectives of the study, the significance of the study and the overview of the dissertation.

1.2 Background

WHO rehabilitation in health system guide mentions rehabilitation services need to be delivered at primary health care facilities and in community settings (1). Community outreach rehabilitation services are a strategy to decentralize hospital based rehabilitation services to community level (2). Outreach services target remote or resource- poor locations which have services that are similar to hospital-based services (3). Community outreach rehabilitation services form part of Community-Based Rehabilitation (CBR) (2).

CBR is also part of the essential package of Primary Health Care (4) and provides client-centered services in their local area (5). Physiotherapists and occupational therapists are highlighted as CBR professionals who deliver specific clinical skills such as: behavioural and cognitive interventions, prescriptions of strengthening exercises, neuro-facilitation techniques, sensory interventions, upper body rehabilitation, prescriptions of stretching programmes, self-care and gait training (5).

Many people living with disabilities reside in remote regions as compared to urban regions (6). The World Health disability action plan notes that rehabilitation centres are usually located in urban areas, whereas basic therapeutic services are lacking in remote areas (7). For rehabilitation services to be a success, effective and efficient communication among those involved is needed (8). Moreover, rehabilitation programmes should be tailor-made to ensure efficient transition into the community (8).

In Canada, rehabilitation therapists used a broad range of skills within their scope and stretched their role as normally expected professionals in order to ensure service delivery to

patients with limited access to health care (9). In this case, improvement of service delivery to communities with limited resources and inaccessible health care was achieved through consideration of the environment and social determinants of health (9).

With the need to address rehabilitation services in remote and rural communities (9, 10) newer therapy delivery models in Australia are developing (10). These models mention the use of the CBR approach and rehabilitation therapists being centrally located in order to deliver services in remote communities (10). Other approaches to extend the coverage of rehabilitation therapists include rehabilitation therapy assistants, collaboration with other disciplines, information technology and working with non-governmental organizations (11)

The need for rehabilitation services in low- and middle-income countries continues to be unmet (1), where services are limited to central and intermediate levels and less accessible at community level (12). Furthermore, shortages of rehabilitation professionals and a lack of expertise in implementing CBR, hamper rehabilitation services in remote and rural regions (13, 14). Research in Sub-Saharan Africa is still lacking in this area (6).

Health services such as rehabilitation, provide intervention suited to ensuring adequate quality of life for those affected by disability (15, 16). However implementing rehabilitation services remains a challenge (8). Rehabilitation services tend to be poorly prioritized by health ministers (1) and are lacking at community level (11). The lack of consistency between governmental organizations, policy-makers and senior rehabilitation managers poses a further challenge (11).

Ineffective management, inaccessibility, transport and resource challenges contribute to difficult decision-making for health service providers (17, 18). Moreover, poorly serviced rural regions are sometimes a result of service prioritization during decision-making among managers (18). Workforce shortages, capacity and capabilities of rehabilitation therapists and public health budget constraints result in lack of prioritization of service delivery in rural and remote communities (18).

Those involved in the rehabilitation process, especially health professionals and patients, carry different responsibilities and obligations in relation to the health system (8). Health services must be provided as close as possible to people's own communities which includes rural areas (19). Strategies, such as the Community Service Officers can deliver, are approaches to addressing rehabilitation services in rural settings or at community level (17).

Moreover, retention strategies for younger health professionals include financial incentives, better work accommodation and future promotions (20).

Delivery of rehabilitation services is shown to be constrained by transportation challenges so adequate transportation would assist in improvement service delivery (21). Improving staff shortages would assist in curbing fatigue and lack of enthusiasm for community rehabilitation services (9, 11, 21). Moreover, incorporating allied health professionals in existing strategies such as Ward Based Outreach Teams (WBOT) would ensure services closer to the client (6, 22).

In order to ensure equitable access to health care, rural areas need to be considered when planning health policies and strategies (23). Furthermore, inaccessibility of health services contributes to denying people with disabilities their constitutional rights (6). Ensuring the provision of health services is included in Article 25 of the United Nations (UN) Convention on the Rights of Persons with Disabilities (CRPD) (19).

Workforce and service delivery are commonly reported in rural health literature but this is limited in the rehabilitation and disability context (11). In addition, understanding the perceptions of policy-makers, managers and senior rehabilitation therapists in terms of client service provision is essential (11). CBR is also poorly acknowledged by rehabilitation managers (4). Rehabilitation managers are therefore central to decision making, policy implementation and identifying challenges in service provision (4, 11, 21).

1.3 Problem statement

Rehabilitation is still poorly understood by health managers and workers in SA (22). Consequently, health service planning tends to overlook rehabilitation services within PHC (22) therefore neglecting services such as community outreach rehabilitation services. In the past, policies that did not incorporate rehabilitation have affected budgets, vehicles to be used for outreach services and staffing of allied health departments (21).

Recently, policies addressing disability and rehabilitation services have been proposed (15, 24). Reports on health service delivery issues in resource limited areas in higher-income countries are found in the literature but are not specifically relating to the allied health context (11).

South Africa (SA) faces challenges in rehabilitation services at a community level (8, 23) which includes community outreach rehabilitation services. Rehabilitation services are few in rural areas (21). Even though, community health care centres in SA are considered as first-line centres for all patients who are seeking health services, rehabilitation professionals are based at the tertiary level of care while the need is at a more primary level of care (8).

KwaZulu-Natal (KZN) has been highlighted as one of the provinces in SA where more than half the population resides in remote areas (25). According to the 2001 Census the prevalence of disability was 5% and grew to 8.6% for both male and female in all age groups (26). Provision of rehabilitation is mentioned as an essential health service for ensuring continuum of care for people with disabilities by a rehabilitation professionals working in KZN (21). One of the provinces with a high prevalence of disability is KZN (15). There is a paucity of literature that focuses on community outreach rehabilitation services.

Rehabilitation coordinators from district and provincial levels were chosen for the study as they oversee the disability and rehabilitation programme as well as coordinating community outreach rehabilitation services within their districts. Organizational structures need to be closely aligned to the strategic service delivery goals of the organization so hospital managers and rehabilitation provincial coordinators are required to provide direction and leadership. This is needed in order to meet the changing needs and priorities of society within the new framework of government policy (27).

The study therefore seeks to explore the current state of community outreach rehabilitation services in KZN.

1.4 Overall research question

What community outreach rehabilitation services are provided in KwaZulu-Natal in 2019?

1.5 Aim of the study

The aim of the study is to explore community outreach rehabilitation services in KwaZulu-Natal in 2019.

1.6 Research objectives

1. To establish the scope of the community outreach rehabilitation services in KZN.
2. To explore barriers to delivering community outreach services rehabilitation in KZN.
3. To identify the facilitating factors for delivering community outreach services rehabilitation in KZN.

1.7 Significance of the study

This study will contribute to understanding the scope, the facilitating factors and the barriers in the implementation of rehabilitation community outreach services in KZN. Rehabilitation services are a growing need among those who are unable to access services at a community level. A means of equitable access to rehabilitation services is needed, such as the rehabilitation community outreach provided by rehabilitation community services officers.

However, in order to ensure that these services reach those in need, an exploration of rehabilitation community outreach services needs to be done. In light of the recent policies put in place to address difficulties in disability and rehabilitation services, the study will contribute to knowledge in areas of success and also in identifying gaps in the policy implementation process. The researcher hopes to achieve a means for better planning and implementation of rehabilitation services at a community level.

1.8 Overview of the dissertation

The dissertation is structured in the following order:

- Chapter One consists of an introduction, the problem statement, the significance, the aim and the objectives of the study.
- Chapter Two presents the literature review.
- Chapter Three details the study methods employed in carrying out the study.
- Chapter Four presents the findings of data collection in a manuscript form according to the African Journal of Disability.

- Chapter Five details the discussion of the results and the literature. It considers the implications of the study as well as suggesting future strategies of improvement.
- The appendices consist of the study instruments used for data collection, the information sheet, consent form and letters of permission for the conduct of the study and the Harvard referencing style guide.

1.9 Conclusion

Community outreach rehabilitation services are a valuable extension of rehabilitation services for regions with strained health services. A significant number of individuals live in remote regions in KZN whom require rehabilitation services. Using the aims and objectives of the study, community outreach rehabilitation services can be explored.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The following chapter aims to explore the literature that defines rehabilitation and disability in the study's context as well as covering topics relating to service delivery of rural rehabilitation. It will discuss the role of rehabilitation services, the global and local context of community outreach rehabilitation services, challenges with implementing community outreach rehabilitation services and facilitating factors of community outreach rehabilitation services. A conceptual framework will be presented in order to guide the study.

The databases used in the literature review for relevant articles include; EbscoHost, PubMed, Science Direct, the African Journal of Disability and Google Scholar. The key terms and words used include: rural rehabilitation, community outreach services, Primary Health Care (PHC), allied health rural rehabilitation, disability and rehabilitation. The search options were limited to "English" and the years of publication from 2008 to 2019.

2.2 Role of Rehabilitation services

Health services such as rehabilitation provide interventions suited to ensuring adequate quality of life for those affected by disability (15). The WHO Report suggests that countries need to focus on organising and strengthening rehabilitation services and programmes at the very onset of care (16). Rehabilitation is further seen as an essential component for people with disabilities to engage fully in education, the labour market and in the community at large (16) .

The definition provided by the report includes "a set of measures that assist individuals who experience, or are likely to experience, disability to achieve and maintain optimal functioning in interaction with their environments" (16). The report further elaborates three categories where rehabilitation can be addressed – Rehabilitation medicine, therapy and assistive technologies (16). Furthermore, based on past and current literature, rehabilitation encompasses allied health teams also referred to as therapists (17).

Allied healthcare providers refers to non-nursing and non-medical practitioners who deliver rehabilitation services (28). According to the Framework and the Strategy for Disability and Rehabilitation in South Africa , an ideal core rehabilitation (allied health) team consists of a physiotherapist, an occupational therapist, a speech therapist, an audiologist, a medical orthotist and a prosthetist, and the related mid-level health workers (15). The aim of rehabilitation therapists is to improve the function and quality of life for those living with disability (29).

Rehabilitation services may fit into the PHC delivery system (30). Provision of rehabilitation services at a community level is emphasized in order to maintain universal health coverage (15, 22). Furthermore, rehabilitation includes addressing activity limitations and overcoming participation restrictions through environmental modifications as well as within the individual. It is named as a core component in PHC which encompasses prevention, promotion and curative care (22).

Rehabilitation plays a significant role in improving function in conditions such as HIV and TB (31). However the lack of inclusion of allied health within some South African PHC clinical guidelines can be noted in clinical guidelines such as adult and child national Tuberculosis or HIV and AIDS in adults and adolescents (31). Conversely, attempts within SA to include disability and rehabilitation within policy formulation are visible in the Framework and Strategy for Disability and Rehabilitation Services in SA (15). These new attempts of rehabilitation services inclusion is a work in progress (22, 28).

2.3 The Global context of Community Outreach Rehabilitation Services

To date much of the literature focuses on factors affecting how patients access rehabilitation services (7, 23, 29, 32). The importance of rehabilitation services is further presented by the World Health Disability Report, which concludes that services need to be appropriate, timely, affordable and ensure high quality rehabilitation interventions in order for rehabilitation services to improve (16).

Even though rehabilitation services at a community level exist, there are several challenges constrain provision of community outreach rehabilitation services (11, 18). A study focusing on addressing new models for delivery of therapy intervention in rural Australia reported challenges such as underfunding of the rehabilitation sector which resulted in long waiting

lists, strict eligibility criteria and prioritisation (10). In New South Wales (NSW), Australia, services such as Speech Therapy were hampered as many clients had to wait so long that they no longer met the eligibility criteria (33).

Furthermore, accessible community-based rehabilitation was not readily available in NSW due to lack of retention and recruitment strategies for therapists in rural and remote regions (33). The allied health professionals in NSW are aging, therefore a need for recruitment of young allied health professionals is imperative (34). Retention strategies suggested that future models need to consider flexible employment conditions and a maintenance of health work and life balance (34).

In a Canadian study, rehabilitation services highlight the need for integrating Occupational and Physiotherapy services at a PHC level in order to address health disparities (9). Many therapists found the need to stretch their role in order to provide the most effective services for their clients due to social determinants of health (9). Interacting with clients and communities assisted in building better partnerships and relationships (9).

An Australian study investigating issues experienced by policy-makers, managers and therapists providing services to people with disabilities in rural areas found inconsistency between stakeholders (11). The needs for outreach rehabilitation services within rural and remote communities are further echoed to ensure timely access to therapy (10). Furthermore, in Australia, rationing of services such as Physiotherapy forms part of rural rehabilitation (18).

2.4 Community Outreach Rehabilitation Services in Low- and Middle- Income Countries

There is limited research on the experiences of rehabilitation managers in rural areas, particularly in Sub-Saharan Africa (6, 29). In developing nations, a study in Madagascar noted rehabilitation services were still minimal for the general population, especially for people with disabilities and people living in rural areas (14).

Services at a PHC level such as CBR are mostly funded by NGOs which reveals the incoherence of the health care system with regard to rehabilitation services (14). A study conducted in three Southern African countries noted that the rural health context is complex

in nature (6). Using CBR and community rehabilitation workers as a means of addressing disability in rural areas is still faced with challenges (6, 35).

Improving service delivery in rural regions requires creating and taking into consideration determinants of health (9). Furthermore, existing research on rehabilitation services in rural regions provides a guide on experiences from a therapist perspective (9, 17, 36). In Uganda and Ghana, a study revealed how involvement of key stakeholders can assist with shaping public policy pertaining to promotion of the rights of people with disabilities regarding community-based rehabilitation (37).

In western India, even though communities were impartial to rehabilitation services, Physiotherapy rehabilitation services proved difficult to implement due to lack of expertise in community-based rehabilitation (13). Moreover, students were more inclined to study in the fields of orthopedics, neurology and pediatrics and less inclined to take up community-based rehabilitation (13). It was found that community physiotherapists with specialized skills and knowledge need to be encouraged to promote the field of community-based rehabilitation (13).

2.5 The current Rehabilitation status in South Africa

In SA, allied health has a significant role in managing and improving functional loss as a result of chronic illness, and lifestyle diseases; as well as providing post-trauma management (31). Therefore, recognition of allied health is needed in the PHC setting to ensure future optimal functionality and capacity in South African communities (31). Furthermore, there are growing numbers of patients who require allied health services in PHC settings (38).

Despite the rights for people with disabilities being supported by the United Nations Convention on the Rights of Persons with Disabilities; WHO and the South African Constitution, rehabilitation services are not viewed as a priority in the South African context however PHC re-engineering can be used to enhance rehabilitation services (22). Primary Health Care (PHC) forms an integral part of South Africa's health policy, providing guidance on health care service delivery (39).

Consequently, rehabilitation services based on the PHC approach will improve accessibility and assist with early interventions for people with disabilities (22). A South African qualitative study aimed at exploring the extent of implementation of PHC principles in rural

and remote settings found that organisation of service delivery, lack of staff, waiting times and treatment protocols were all part of organisation of care (39). The study briefly mentioned the role of community outreach rehabilitation services within PHC but focuses on healthcare professionals such as the medical doctor(39)

According to the Framework and Strategy For Disability And Rehabilitation Services in SA, PHC like clinics and community health centres should provide services such as screening and assessment of impairments as well as home visits for clients by therapists and ward based primary health care outreach teams (15). However, rehabilitation is still poorly understood by health managers and workers in SA (22).

Furthermore, access to rehabilitation services is highly constrained in the public sector as health service planning tends to overlook rehabilitation services within PHC (22). A recent comparative analysis in two provinces in SA, in 2017 noted community-based services are a means of increasing access to health services and complementary to facility based services (40). The study aimed to compare resource implications of the Community Health Workers (CHW) component of the Ward-Based Outreach Teams (WBOT) between rural and urban areas (40).

WBOTs have been implemented in community-based service policies as part of PHC re-engineering (40). These teams ideally consists of six CHWs, a Professional Nurse, an Environmental health practitioner and a Health promotion practitioner, who are all linked to a PHC clinic (41). However, rehabilitation services do not form part of the team. Consequently, SA falls short of implementing the Health and Rehabilitation Articles of the United Nations Convention on the Rights of Persons with Disabilities (42). In addition, SA also faces challenges in implementing rehabilitation at a community level (8).

In the Western Cape Department of Health's Healthcare 2030 draft, rehabilitation was not defined adequately, which resulted in more evaluation of policy regarding rehabilitation due to incoherence in current policy (17). Furthermore, a letter addressed to the Minister of Health by a joint acknowledgement by rehabilitation professional associations noted a discrepancy between the Framework and the Strategy for Disability and Rehabilitation, and current trends in rehabilitation (43).

2.6 Challenges with Implementing Community Rehabilitation Outreach Services

Community level rehabilitation at remote regions is found to be largely dependent on time, resource and skills of therapists (11). Community service, with therapists and other health professionals, is a method to provide health services to under-served or remote areas in order to improve the health status of populations in remote areas (44). Although this has been a mandate to encourage services in rural regions, a large number of community service therapists are still situated at higher levels of health institutions (17).

Consequently, limited therapists in remote regions could be the cause of non-compliance to follow up sessions as well reluctance to rehabilitation interventions (17). Therapists also display reluctance and less motivation for delivering services in rural and remote regions due to lack of cultural knowledge and awareness (29). These may further strain the service delivery of community outreach rehabilitation services.

Globally, studies that used semi-structured interviews on policy makers, managers and senior therapists found that there are difficulties of policy implementation in rural regions; challenges regarding staff shortages/retention; problems with access for people with disabilities as well as a lack of needed support from non-governmental organisations (11). Specifically, in Australia, prioritising services such as physiotherapy was found to be challenging due to work force shortages and a lack of resources (18). Rationing services at micro levels (community) was a method of retaining staff and preventing work overloads (18).

In SA, ineffective management, lack of transport for professionals (Medical Doctors, Dentists, Speech Language-and-Hearing Therapy Professionals and Dieticians) and for patients, as well as human and material resource mismanagement were highlighted as issues faced by community service therapists (17). Staff shortages and lack of resources pose a problem for the successful implementation of CBR (17). CBR is defined as a method of improving accessibility to rehabilitation programmes for people with disabilities at all levels.

In Limpopo, SA, for example, client satisfaction regarding responsiveness was found to be one of the lowest ranked aspects of community based rehabilitation services (35). Moreover it is of concern that service delivery of rehabilitation services was found to be below optimal

client satisfaction standards (35). Service delivery tends to struggle in poorly funded health systems due to global economic recessions and financial demands (6).

In SA, rehabilitation therapists are mainly based at tertiary health institutions whereas the need is seen at a PHC level (8) therefore a gap exists in understanding what rehabilitation services are being delivered at PHC level. Similarly, a study on human resource distribution in Botswana has shown a lower distribution of health professionals within PHC level (45).

Health care professionals including physiotherapists based at rural district hospitals in SA listed accommodation issues, lack of teamwork, lack of recognition of overtime and lack of vacancies as challenges they encountered (46). The average time spent working at rural hospitals for young allied health professionals was just over three years indicating the need for retention strategies (20).

2.7 Facilitating factors of Community Rehabilitation Outreach Services

A study conducted in the United States of America developed a conceptual framework that depicts a positive collaboration between medical and non-medical services within community orientated programmes (24). The conceptual framework showing community health systems identified four factors namely: shared data, shared financing, shared leadership and shared vision of commitment (24).

Shared data includes cooperating to improve decision making, early detection, monitoring and evaluation of programmes in place; shared finances include having a flexible finance payment structure; shared leadership is elaborated as improving governance by incorporating all stakeholders involved and shared vision focuses on a holistic approach of an individual (24).

The following conceptual framework mentioned in the literature incorporates several key areas working together to improve community orientated health programmes. This conceptual framework can therefore be considered in the current study. Figure 1 below shows the relationship of shared data, shared financing, shared leadership and shared vision of commitment with regards to the policy and environmental context and the improved health outcomes.

Figure 1: Community health systems conceptual framework (24)

In SA, a study aimed at identifying what keeps health practitioners working in rural health districts, found five themes similar to the "shared vision" depicted above (47). The retention strategies they considered were having a sense of shared purpose in which health professionals felt they were making a difference in the community, working in a team, a culture of support, having opportunities for growth and maintaining a healthy work-life balance (47).

Other strategies highlighted for retention of professionals in rural areas include financial incentives, flexible work arrangements and new graduate scholarships (11). Financial incentives such as better remuneration and promotions that are easier to obtain have been reported as the perceptions of professional nurses, doctors and allied health professionals in rural hospitals (20). Young allied health professionals have been noted to spend just over three years working in rural areas (20).

Strategies need to be developed specifically for retaining and recruiting younger health professionals. For example, hospital accommodation should be suitable for younger, single

health professionals as well as for families and children (20) therefore there is a need to exploring current and previous strategies which may assist in the facilitation on the delivery of community outreach rehabilitation services.

In addition, placing rehabilitation services as close as possible to client access is encouraged (22) as it facilitates community outreach rehabilitation services. One of the methods needed is WBOTs and CBR workers, as health care services are provided at a community level (6, 22). However a full complement, which includes allied health professionals, needs to be considered and CBR workers require adequate supervision to deliver services to people with disabilities (6). Incorporating Allied Health Primary Health Care Clinical Guidelines for patients living with chronic disease promotes the value of allied health nationally (28).

Service delivery is sometimes met by improvising scope of practise within constrained resources (9). Students had positive experiences and were better in identifying and being involved in health systems policy when rural clinical training formed part of their training (48).

Improving staff shortages would assist in curbing fatigue and lack of enthusiasm for community rehabilitation services (9, 11, 21). Moreover, acknowledgment of community rehabilitation outreach, home, school, workplace and community visits should be seen as a core primary care rehabilitation (22).

2.8 Conceptual framework

A conceptual framework adapted from the one described in the previous section by including the barriers to, and the facilitating factors of, community outreach services is demonstrated below:

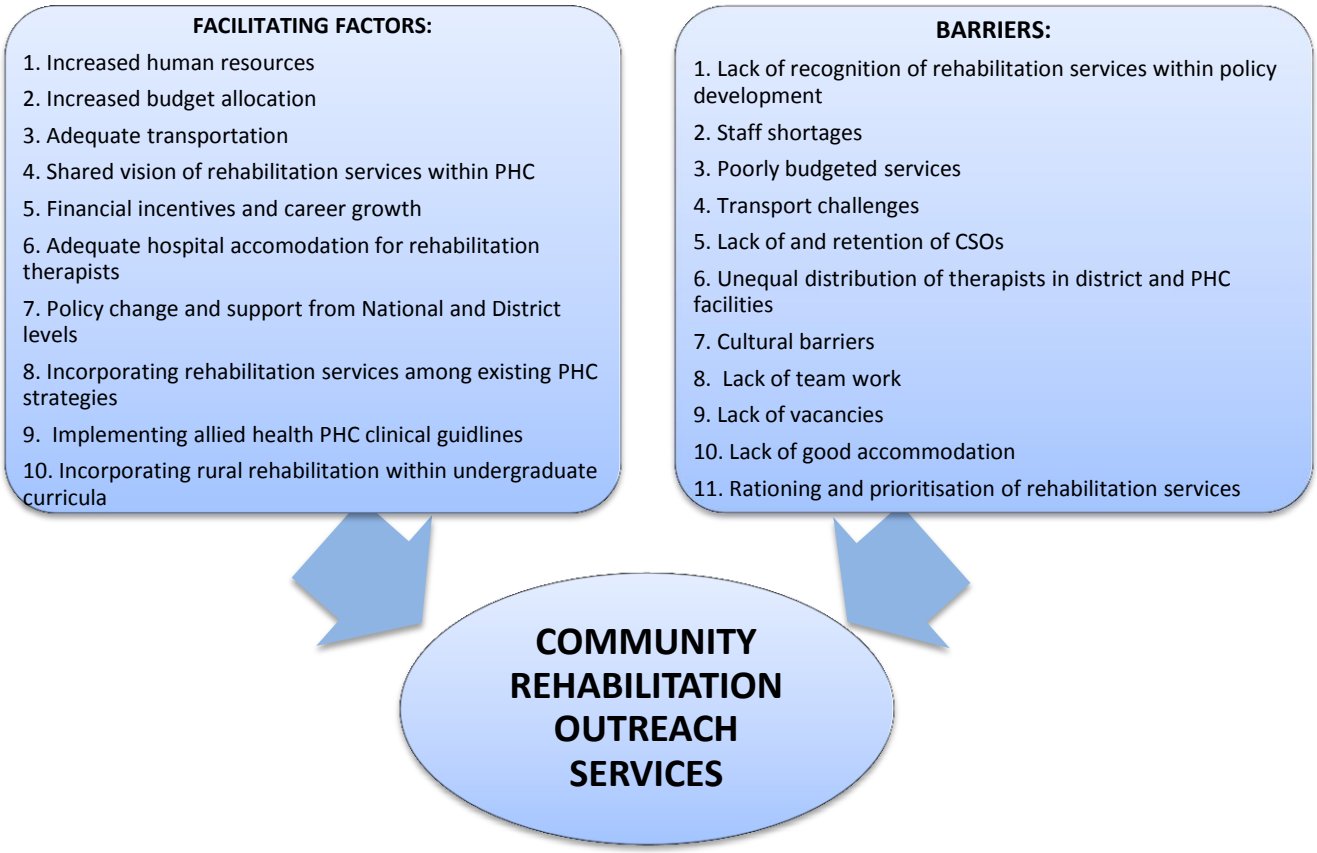

Figure 2: Conceptual framework depicting the facilitating factors of, and the barriers to community rehabilitation outreach services identified in the literature

The conceptual framework set out above is a guide to understanding the main influencing barriers and facilitating factors to the delivery of community outreach rehabilitation services. The barriers and facilitating factors identified in the literature will assist with the interview process in order to probe deeper into these issues. Also, using a hybrid approach during data analysis will include applying the conceptual framework to the findings. Community rehabilitation outreach services are then discussed using the above conceptual framework.

2.9 Conclusion

Rehabilitation is a part of the primary health care aims of preventative, promotive and curative health care. The literature demonstrates the gap between National health strategies and rehabilitation at a community level. The literature mentions that rehabilitation services

are mainly based at tertiary level where as there is a need at PHC level therefore a gap exists in understanding what rehabilitation services are being delivered at PHC level.

Community-based rehabilitation services are needed in rural and remote regions due to socio-economic determinants of health. In SA, attempts have been made to provide health care within rural or resource limited settings but these are insufficient in the area of rehabilitation services.

Several barriers contribute to the poor service delivery of community outreach services in SA. However, suggestions and recommendations have been noted within the literature to better facilitate such a service. The literature review highlights the need to explore factors that contribute to and that hamper the efficiency of providing rehabilitation services at a community level in SA. This research aims to explore such community outreach services in semi-rural KZN in order to provide a picture of the situation.

CHAPTER 3: RESEARCH METHODOLOGY

3.1. Introduction

The following chapter discusses the research methodology utilized for the study. This chapter details the type of research employed, study design, study setting, the phenomenon that was explored, sampling, target and study population, data collection tools and measures to ensure a scientifically rigorous and trustworthy study.

3.2 Type of Research

Qualitative research involves an interpretive and naturalistic approach to the world and seeks to make sense and interpret phenomena which people bring to the world (49). This study employed a qualitative research in order to gain insight from the selected individuals. Qualitative research is employed when a complex and detailed understanding of the issue is needed (50).

3.3 Study Design

This study used an exploratory descriptive qualitative research design with the purpose of describing the experiences of rehabilitation coordinators who are involved in coordinating community outreach rehabilitation services. In an exploratory study design a researcher seeks to explore new knowledge, new ideas, new insights and new understanding and seeks to explore a study that has not been done before (Brink 1998).

The individual in-depth interviews were conducted with district and provincial rehabilitation coordinators to get rich information about community outreach rehabilitation services in KZN. Individual in-depth interviews were chosen because they allowed for a one-on-one interaction. An in-depth interview is a data-collection technique that involves oral questioning of respondents, either individually or as a group. It is useful for obtaining in-depth information on facts, opinions, attitudes and suggestions from participants (51).

3.4 Study setting

The study was conducted in KZN in SA, selecting five districts within the province. The districts were chosen according to the inclusion criteria. The districts were namely, Umgungundlovu, Amajuba, Umzinyathi, Uthukela and Umkhanyakude. District offices were used within each district to conduct the interviews for the study.

1. Umgungundlovu is situated in the capital of the province and includes nine hospitals (Appelsbosch, Edendale, Doris Goodwin, Fort Napier, Grey's, Northdale, Richmond , Townhill , Umgeni) and 46 fixed clinics, 17 Mobile Clinics and one state-aided clinic.
2. Amajuba health district is situated in the north-western part of KZN. The district consists of three provincial hospitals (Madadeni, Newcastle and Niemeyer Memorial), and 49 clinics.
3. Umzinyathi is situated in the central part of KZN and 80% of the population resides in deep rural and under-developed areas. The district covers four hospitals (Charles Johnson Memorial, Church of Scotland, Dundee and Greytown) as well as 38 clinics and nine mobile clinics.
4. Uthukela health district is located within the western borders of KZN and includes three district hospitals (Emmaus, Escourt and Ladysmith) and 36 clinics.
5. Umkhanyakude health district is situated near the Umfolozi River near the borders of Mozambique and Swaziland. Five hospitals are covered by the district namely: Manguzi, Mosvold, Mseleni, Bethesda and Hlabisa., and 52 provincial clinics.

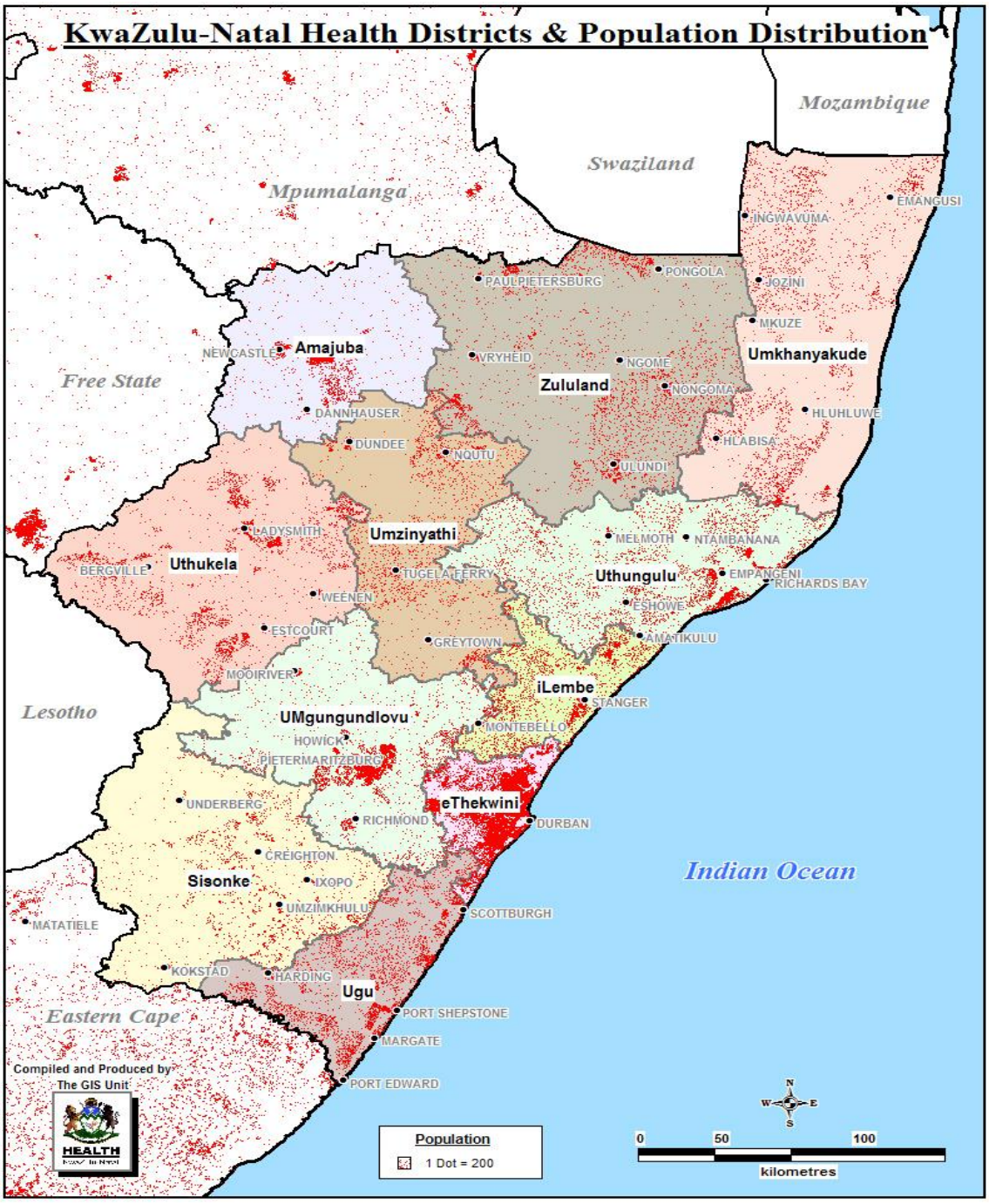

Figure 3: Map showing the selected health districts in KZN (43)

3.5 Phenomena to be investigated

The phenomenon under study is the community outreach rehabilitation services in KZN. Exploring the scope of these services, the barriers to good service and the facilitating factors identified by the coordinators by rehabilitation coordinators aided in understanding the phenomenon under study.

3.6 Study population

The study population consisted of four district health rehabilitation coordinators and one provincial rehabilitation coordinator within KZN. The participants were chosen according to an eligibility criterion for the study represented below. The coordinators that were included in the study had a rehabilitation professional background and were involved in community outreach rehabilitation services. District coordinators that had a nursing or medical background were not included in the study.

3.7 Sampling

The type of sample strategy and sample size is elaborated according to the current study.

3.7.1 Sampling Strategy

Purposeful sampling considers individuals or sites that will purposefully inform an understanding of the research problem and the phenomenon of the study (50). Within purposeful sampling the sampling strategy considered information rich cases and criterion sampling. Information rich cases are imperative in understanding insights and gaining an in-depth understanding of a phenomenon (52). In order to understand a managerial perspective, only those involved and accountable in coordinating outreach rehabilitation services at community level were considered.

Individuals are sampled according to the information they can provide about the phenomenon such as a condition, illness, type of health care or decision making process (53). Therefore criterion sampling can be used as it paves a way of sampling cases that meet predetermined criteria (52). Criterion sampling works well when all participants studied have experienced the phenomenon (50). In this instance, rehabilitation coordinators involved in community outreach rehabilitation services were selected.

3.7.2 Sample size

The health districts in the study included five out of the nine districts in KZN as these met the inclusion criteria. Districts that were not selected were those with district coordinators that did not have a rehabilitation profession background. The table below indicates the professional background and level of management of each participant.

Table 1 Professional sample distribution and level of management

Participant	Professional background	Level of management
1	Physiotherapist	District
2	Speech Therapist	District
3	Physiotherapist	District
4	Physiotherapist	Provincial
5	Occupational Therapist	District

Table 2 Indicating Eligibility criteria of participants

Inclusion criteria	Exclusion Criteria
• The study was carried out with district rehabilitation coordinators of each district as well as the provincial disability and rehabilitation coordinator involved in current and previous community outreach rehabilitation services in KZN. • Rehabilitation coordinators with a professional background of either occupational therapists, physiotherapists, speech therapists or audiology. • Rehabilitation coordinators who provide community outreach rehabilitation services to out-lying clinics which do not have any rehabilitation services. • Rehabilitation coordinators who were involved in community outreach rehabilitation services.	• Rehabilitation coordinators who are not qualified as a rehabilitation therapist (medical doctors or nurses).

3.8 Data collection

In qualitative research, qualitative data collection involves the selection or production of linguistic or visual material for analysing and understanding phenomena, social fields and

subjective and collective experiences (54). Qualitative data allows the researcher to discover or describe the meaning and issues in the field, structure or processes in routines and practices. The aim of data collection is to arrive at materials that allow for producing generalizable statements by analysing and comparing various sources of data (54).

3.8.1 Data collection techniques

An in-depth interview was used as it provides in-depth information regarding the participants' experiences and views about a certain topic (51). An in-depth interview approach was more suited for the study as it allowed coordinators to express their opinions about the phenomenon without reservation (55). Due to the limited number of coordinators in the province, confidentiality and trustworthiness was ensured through individual in-depth interviews. Since there are many interactions at district and provincial levels, individual in-depth interviews were chosen instead of focus group discussions to ensure confidentiality and freedom of opinion.

Interviews are a commonly used method of collecting facts, beliefs, opinions, values and interests of respondents (56). The general interview guide approach was used which allowed the researcher to be in control, but allowed for flexibility based on the participants' responses to prompts. This was useful to the study as there were certain topics that needed to be explored. However, the approach allowed for other topics to be explored within the phenomenon as they arose (51).

The topics that were incorporated included three categories, namely the scope of community outreach rehabilitation services, the barriers to providing good services, and the facilitating factors of community rehabilitation outreach services from a managerial perspective. The categories intended to further illuminate the phenomenon from a macro (policy) and micro (institutional) level. The types of questions covered experience, opinions, feelings, and knowledge and background information.

The questions were structured in an opened-ended format to allow for exploration as per appendix 2. Follow-up questions were on the interview guide to encourage in-depth understanding of the topic being explored. Each individual interview followed the guide but emerging themes were further probed in future interviews for further exploration. The average duration of an interview is between one to two hours (55). The duration of each individual interview was a minimum of one hour for each participant.

3.8.2 The instrument

The general interview guide consisted of seven main questions addressing each objective as well as background questions.

Objective 1 aimed to establish the scope of the community outreach rehabilitation services in KZN and was covered by the following questions:

- Can you describe the scope of community rehabilitation services in the district?
- What is the coverage of community rehabilitation services in the district?
- Can you detail your clinic visits in terms of place?

Objective 2 aimed at exploring the barriers to delivering community outreach services rehabilitation in KZN and was covered by the following question and follow up questions:

- What are challenges in the provision of community rehabilitation outreach services?
- How have these challenges shaped provision of community outreach services?
- How do you feel about these challenges regarding community outreach services as a manager?
- How have you overcome or managed the challenges you have faced?

Objective 3 aimed to identify facilitating factors delivering rehabilitation community outreach services in KZN and was covered by the following main question and follow up questions:

- What do you believe would facilitate community outreach services?
- Why do you think the suggestions you mentioned would assist in the provision of community outreach programmes?
- How do you think these suggestions would influence the provision of community outreach services?

The background questions focussed on experience levels and the professional background of the participant interviewed.

3.9 Data Analysis

The current study employed the Huberman and Miles framework. The framework employs the 5 basic steps of data analysis. The steps in subsequent order include reading, coding, displaying data, data reduction and lastly interpretation (57). The figure below presents the framework.

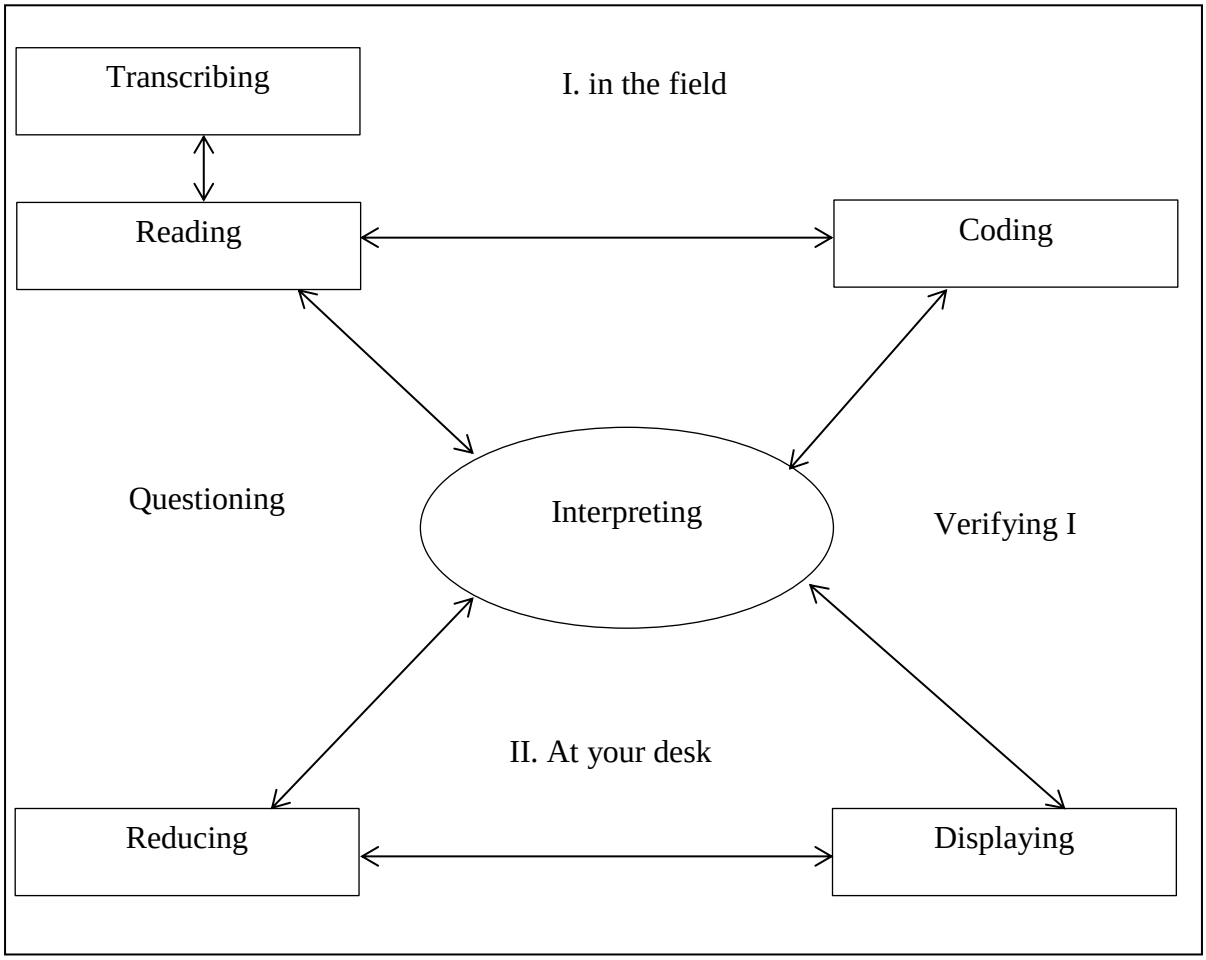

Figure 4: Qualitative analysis Step-by-step (58)

Data analysis consists of preparing and organizing the data for analysis then reducing the data into themes through a process of coding and grouping the codes, then representing the information through figure, tables or through discussion (50). Coding is a process where concepts or themes are identified and named during the analysis (53). During coding, data is converted into categories and given labels (53).

These categories can further be analyzed and integrated (53). Once the recordings were transcribed verbatim, the data was analysed and coding was applied to form categories or subthemes. These subthemes were then analysed and were grouped into emerging themes. Themes in qualitative research are broad units of information that consist of several codes grouped together to form an idea (50).

These themes can further be subdivided into sub-themes which are grouped together to formulate the one larger theme (50). The thematic approach employed in the study used a hybrid approach which included deductive and inductive analysis which was used in order to guide the themes that emerged. An in-depth inductive approach consists of analyzing data, coding, displaying and interpreting the data (59).

Deductive analysis is drawn from a theoretical idea which the researcher brings to the study (60). In this study, a conceptual framework was used to guide the research data collection. The flexibility of the approach allowed the researcher to make notes of areas that needed more exploration as they emerged during the interview process. This approach can be systematically repeated in a similar study which will ensure transferability.

The study employs an interpretive paradigm, therefore the data collection and interpretation constitute an iterative process. Iteration refers to the researcher moving back and forth during data collection and analysis, refining the questions that are asked in the data (53). Analysis was performed after each interview and iteration allowed for other areas to be probed and refined during further data collection.

3.10 Data management and storage plan

The interviews were recorded using an audio-recording device (dictaphone). Once the interview was complete, the audio information was transcribed into a MS Word document. Transcription was done immediately after each interview by the primary investigator in order to facilitate point of information saturation. The transcription included information from the audio files and notes taken by the primary investigator during the interview. Transcriptions included verbatim information from the audio files.

Some forms of keys were used to add to the investigator's comments for example (laughing). The round brackets indicate that the investigator had made an observation of the participant laughing. Approaches such as bracketing and intuiting are processes applied during data

collection and analysis to ensure that the researcher is constantly aware of positionality during each stage (56).

A useful way to manage qualitative data includes using a file name, the date and the participants' locations (61). The way in which the qualitative data was managed or stored was according to the identity number of the participant, institution name, and date conducted. The name of the person and number of the interview was entered in the foot note on each interview document.

All transcriptions were stored on a laptop computer with password control. These were stored separately from the original recordings. The primary researcher and her supervisor who had much qualitative research expertise assessed the data for quality by comparing the transcripts to the audio recordings. The role of the second person enables triangulation analysis. Only the researcher had access to this laptop computer. Audio recordings were stored on a memory device (flash drive). No names were used. A number system was used to identify the respondent. All information (such as interview notes and transcriptions) and storage devices were then stored in a lockable cupboard which only the primary investigator had access to.

3.11 Measures to ensure a scientifically rigorous and trustworthy study

Trustworthiness is seen as whether the researcher has made the practices visible and whether one can audit these practices (62). Trustworthiness can be divided into four categories namely: credibility, transferability, dependability and confirmability (62).

3.11.1 Credibility

Credibility is dependent on three inquiry elements: rigorous techniques or methods for collecting high quality data and analysis, the quality of the researcher and the value of the qualitative inquiry (63). One of the methods of ensuring credibility in qualitative research includes systematically reporting on the formation and finding of themes emerging from the data (64). Verbatim quotes were used to provide supporting evidence of how the theme emerged from the participant's responses.

3.11.2 Transferability

Transferability refers to the researcher being able to contextualise the setting of the study in order for the reader to understand or transfer the idea or setting (65). In order to ensure transferability of the study, a thick description was given about the study participants as well as the environment where the interviews were conducted. This was in order for the study to be transferable in another time and setting.

The table below presents a brief description of the venue of the interview as well as accounts of feelings, observations and occurrences during the interview process.

Table 3 Description of conducting the interviews

Participant	Description of setting of venue	Description of Interview process
1	The venue of the first interview was the office of the Rehabilitation And Disability Coordinator At The District Head Office of the first district selected for the study. The office space was accommodating for two individuals and privacy was maintained. I was seated, at right angles to the participant as the desks were arranged in that manner.	I arrived 30 minutes earlier than the scheduled interview process and opted to notify the participant in order to find an area where I could wait until I could conduct the interview. The participant was very approachable and accommodating. The participant requested to begin the interview as I arrived as she had free time. Initially I was nervous as it was my first interview. However the participant was very interactive and engaged throughout the interview which made it easier to probe further information and details about certain points.
2	The second interview took place at a university, in the office of Participant Two. The office space was smaller than the first participant but was adequate for both researcher and participant. I	I arrived at the office of Participant Two but the participant was out of her office. There was a misunderstanding with the participant's secretary which resulted in a 20-minute delay. The participant was concerned and not keen to continue initially as the participant had another

	was seated across from the participant during the interview.	commitment. I suggested we reschedule but the participant was willing to continue with the interview. I apologised for the misunderstanding as I noticed the participant was reserved in behaviour. As the interview began, I noticed engagement and participation from the participant. The second interview was less intimidating and very interesting.
3	Interview Three was conducted at another district health office, in the office of the Disability And Rehabilitation Coordinator. The office was accommodating, and I was seated across from the participant. There were many books and documents on the floor of the office and everywhere as this was a new office given to the coordinator.	I arrived as scheduled and began the interview. There were many disruptions and interruptions as the coordinator was new to the district and was being orientated. A phone call interrupted the interview but thereafter the coordinator was not distracted. The interview duration was longer due to the interruptions. I was more at ease with the conduction of this interview as I had many areas that I needed to probe into.
4	Interview Four was conducted at a larger district office in the participant's office. This was a larger office and could accommodate four or five people.	I arrived as scheduled but before the interview could commence the participant noted that he had another commitment and that the interview needed to be no longer than an hour. The participant was friendly and interactive. I was slightly intimidated as I was worried about the time but the interview was a full duration and the participant had covered all my questions.
5	I conducted the last interview at a smaller district office in the office of the coordinator. The office was large enough for three or four individuals. I was seated across	I arrived an hour earlier and waited 30 minutes before I could conduct the interview. The participant was friendly and interactive. There was one interruption of a phone call, but the coordinator decided to reject the call to continue

	from the participant.	the interview. The interview lasted one hour and 10 minutes.

3.11.3 Dependability

Dependability refers to research being repeatable and consistent. If the study was repeated using the same methods, participants and setting, the results should be similar (65). The protocol described the data collection methods and the analysis techniques that were be used to ensure dependability. In addition, researcher reflexivity as well as analyst triangulation was applied. Analyst triangulation involves multiple analysts independently analysing and reviewing the findings (66). The primary researcher and supervisor were involved in analyst triangulation during the study.

Personal reflexivity involves the researcher looking inwards to see how they themselves have informed the research (67). Researcher reflexivity entailed describing the role and positionality of the role of the researcher. Being also involved in community outreach services, the role taken as an interviewer was open and transparent. This ensured that the participants understand the researcher role being different from the role of a fellow rehabilitation therapist. This assisted in preventing intimidation or influencing the interviewees by appearing as a colleague.

One method of reflecting is by regular journaling of reflections of the research project (67). A researcher journal was kept by the researcher and was used after each interview to reflect and to note emotions that should be controlled in order to minimise influence the following interviews. Extracts of journal entries has been used under the reflexivity section.

3.11.4 Confirmability

Confirmability ensures that the findings represent the experiences and views of the participants rather than that of the researcher (65). Researcher reflexivity was used to ensure that all influences and positionality of the researcher are presented and accounted for. The triangulation of analysis of themes was confirmed by the supervisor of the researcher to ensure that the findings were a true reflection of the data collected.

3.12 Ethical Considerations

The study involved more than one district health department therefore gatekeeper's permission was obtained from the Assistant Director of the KZN Disability and Rehabilitation Programme on 29th October 2018 (Refer to Appendix 5). Full ethical approval was obtained from the University of KwaZulu-Natal Biomedical Research Ethics Committee on 7th February 2019 – reference number: BE528/18 (Refer to Appendix 4). Approval was also obtained to conduct the study from the KZN Department of Health (Refer to Appendix 3).

Each participant was handed an information sheet detailing information about the study and its implications to ensure autonomy and right of consent to participate in the study. Once read, participants were able to query any areas before signing the consent sheet (Refer to Appendix 1). During the interview, names were not recorded on the dictaphone and information that participants did not want to be recorded was omitted. This ensured confidentiality and privacy for the participant.

3.13 Reflexivity

Reflexivity is mentioned as an invaluable tool that promotes understanding of the phenomenon being investigated and the researcher's role in the study (68). As the primary researcher and with a Physiotherapy background it was important to be reflexive during the entire process. Furthermore, reflexivity is a conscious attempt by researchers to acknowledge their own involvement in the study, and their self-monitoring in relation to the research being conducted (53).

Reflexivity was practised throughout the data collection and analysis phase. It was distinguish to the roles as researcher and as physiotherapist. In the initial in-depth interviews there was a sense of continual switching to the role of a physiotherapist who could relate to the participants. Below is one instance where the interview became emotional when the participant was relaying service delivery issues regarding patients with cerebral palsy.

"Yes it's something that weighs down the mum, the community, and that's when all the disability grants come into play, so ya it's something that should be looked into." (The researcher, 8 March 2019)

Researchers should be aware of and present their own preconceptions and assumptions while attempting to understand the affect they have on the data and be conscious of both structural

and subjective elements in their research (53). It was often necessary to avoid mentioning personal experiences or roles in community outreach rehabilitation services. These thoughts were recorded in a researcher diary prior to an interview in order to maintain a neutral focus.

"I have experienced some of the barriers mentioned in the study but I need to focus on my role as a researcher even if I can relate fully to the participants." (The researcher's thoughts, 14 April 2019)

At times the diary entries assisted in maintaining the position as a researcher. However during the interview process there was a development of greater awareness of how to use experience as both researcher and having a rehabilitation background to advantage the interview by asking pertinent questions. The following is an example of a discussion with a provincial coordinator about rehabilitation services within PHC-reengineering.

"*Yes and its really going to have an effect that really rehab is not important because we are not moving that way so it really doesn't leave us in a position to move forward."* (The researcher, 22 May 2019)

Reflexivity is also a means of ensuring confirmability. Confirmability ensures that the findings represent the experiences and views of the participants rather than that of the researcher (65). During data analysis and formation of themes, this was evident as the themes that emerged were based on the verbatim data and supported accordingly.

3.14 Conclusion

Chapter 3 highlighted the rationale of the study design, setting and study population. Data collection was elaborated by means of the study instrument. This chapter details how the data was analysed and the process of ensuring a scientifically rigorous and trustworthiness study. Ethical considerations were explicitly detailed as well.

CHAPTER 4: RESULTS

The results of the study are presented in this chapter in manuscript format. The manuscript will be submitted to the *African Journal of Disability*.

EXPLORING COMMUNITY OUTREACH REHABILITATION SERVICES IN KWAZULU-NATAL IN 2019

Background

The WHO rehabilitation in health system guide mentions rehabilitation services needs to be delivered to Primary Health Care facilities and in community settings. Community outreach rehabilitation services are a strategy to decentralize hospital-based rehabilitation services to community level. Community outreach rehabilitation services form part of Community-Based Rehabilitation (CBR).

In low- and middle-income countries rehabilitation services tend to be at central or intermediate levels of care and less accessible at community level. South Africa (SA) faces a number of challenges in rehabilitation at community level. KwaZulu-Natal (KZN) has been highlighted as one of the provinces in SA where more than half the population resides in remote areas

The community outreach rehabilitation services in KZN fall under the domain of rehabilitation coordinators who are employed at district and provincial level. The purpose of this study to explore community outreach rehabilitation services in KZN in 2019.

Objectives

The study aimed to establish the scope of, explore the barriers to, and identify the facilitating factors in community outreach services rehabilitation in KZN.

Method

An exploratory descriptive qualitative research design was employed. Data was collected using semi-structured in-depth interviews. Data was analysed using thematic analysis with sub-themes and major themes.

Results

The findings indicated that the scope of community rehabilitation services is comprised of a range of areas. Firstly, there are services at different types of clinics such as primary health clinics, gate clinics and mobile points, as well as services based at home visits with CBR workers. There are also partnerships with stakeholders in the community, such as local municipalities, old age homes and day care facilities. Finally, partnerships were found within

governmental departments, such as the Department of Education, Social Development, Sports and Recreation and the South African Police Services. Participants highlighted three aspects. Firstly, that there must be a positive role played by the senior therapist, and additionally a positive role is required by the rehabilitation coordinators. Thirdly, stakeholder support is important to provide facilitating factors in the delivery of community outreach rehabilitation services. They also revealed a number of barriers which include, staffing challenges, a lack of support for community outreach rehabilitation services, a lack of prioritisation of rehabilitation services transport challenges, negative attitudes in therapists, and an inadequate infrastructure**.**

Conclusion

There are several barriers that exist, preventing the full use of community outreach rehabilitation services. Community outreach rehabilitation services can be facilitated to improve service delivery. However, a multi-faceted approach from all levels of management is required.

Introduction

Community outreach rehabilitation services are a strategy to decentralize hospital-based rehabilitation services to community level (Olaogun, Nyante & Ajediran 2009). Access to rehabilitation services is a good strategy for building an effective health system that addresses social determinants for health and well-being (Ned, Cloete & Mji 2017). Rehabilitation services is named a core component of PHC and incorporates preventative, promotive and curative approaches (Sherry 2014).

In Sub-Saharan Africa many people living with disabilities reside in resource limited regions than in urban regions (Booyens, van Pletzen & Lorenzo 2015). The WHO disability action plan notes that rehabilitation centres are usually located in urban areas whereas basic therapeutic services are lacking in rural areas (WHO 2015). Ensuring the provision of health services everywhere is included in Article 25 of the United Nations (UN) Convention on the Rights of Persons with Disabilities (CRPD) (United Nations 2011).

In Australia newer models of service delivery are developing with the use of the CBR approach and rehabilitation therapists being centrally located in order to deliver services in remote communities (Veitch, Dew, Bulkeley, Lincoln, Bundy, Gallego and Griffiths 2012). Rehabilitation in remote or rural Australia was noted to be underfunded which resulted in long waiting lists, strict eligibility criteria and prioritisation (Veitch *et al*. 2012). Dew, Bulkeley, Lincoln, Bundy, Gallego, Veitch and Griffiths (2012) found that issues experienced by policy-makers, managers and therapists providing services to people with disabilities in rural areas were inconsistent between stakeholders.

There is limited research on the experiences of rehabilitation managers in Sub-Saharan Africa (Booyens, van Pletzen & Lorenzo 2015, Wegner & Rhoda 2015). Workforce shortages, capacity and capabilities of rehabilitation therapists and public health budget constraints result in lack of prioritization of service delivery in rural and remote communities (Adams, Jones, Lefmann & Sheppard 2015).

In South Africa (SA) rehabilitation is still poorly understood by health managers and workers. Consequently, health service planning tends to overlook rehabilitation services within Primary Health Care (PHC) in SA (Sherry 2014). According to the Framework and Strategy for Disability and Rehabilitation Services in South Africa, PHC facilities such as clinics and community health centres should provide services such as screening and

assessment of impairments, as well as home visits for clients by therapists, and ward based PHC outreach teams (National Department of Health 2015).

Community health care centres in SA are considered as first-line centres for all patients who are seeking health services rehabilitation. However, professionals are based at tertiary level of care while the need is at a more primary level of care (Mlenzana & Frantz 2017). In order to explore rehabilitation services at community level understanding, the perceptions of policy-makers, managers and senior rehabilitation therapists, in terms of client service provision, is essential (Veitch *et al*.).

KwaZulu-Natal (KZN) was highlighted as one of the provinces in SA where more than half the population resides in rural areas (Rural Health Advocacy Project 2013). KZN is among one of the provinces with a high prevalence of disability (National Department of Health 2015). There is a growing need for community rehabilitation services among those who are unable to access services at district and regional hospitals. A means of equitable access to rehabilitation services is provided by rehabilitation community services officers but there is paucity of literature that focuses on the scope and depth of community rehabilitation services.

The aim of the study was to explore the implementation of community outreach rehabilitation services in KZN in 2019. The objectives were to establish the scope of the community outreach rehabilitation services in KZN, explore barriers that these services are faced with, and to identify facilitating factors delivering community outreach services rehabilitation in KZN.

Research Methodology

Study Design

This study used an exploratory desciptive qualitative research design with the purpose of describing the experiences of rehabilitation coordinators who are involved in coordinating community outreach rehabilitation services. This study employs qualitative research in order to gain in-sight from the intended individuals.

Setting

The study was conducted in KZN in SA in five districts within the province. The districts were chosen according to the inclusion criteria. The districts were namely, Umgungundlovu, Amajuba, Umzinyathi, Uthukela and Umkhanyakude. District disability and rehabilitation offices were used within the majority of the districts to conduct the interviews for the study.

Study Population

The study population consisted of four out of nine district health rehabilitation coordinators and one provincial rehabilitation coordinator within KZN. The coordinators that were included in the study had a rehabilitation profession background and were involved in community outreach rehabilitation services. There were three coordinators who had a Physiotherapy background, one Occupation Therapy and one Speech Therapy background. District coordinators that had a nursing or medical background were not included in the study.

Sampling strategy

Patton (2002) notes that information rich cases are imperative in gaining insight and in-depth understanding of a phenomenon. Therefore, in order to understand a managerial perspective, only those involved and accountable in co-ordinating outreach rehabilitation services at community level were considered.

Holloway and Galvin (2016) mention that individuals are selected according to the information they can provide about the phenomenon, such as a condition, illness, type of health care or decision making process. Therefore, criterion sampling is used as it uses a way of selecting cases that meets predetermined criteria (Patton 2002). The sample size was therefore based on information rich cases and criterion sampling.

Data collection

A semi-structured interview guide was used to collect data. An individual in-depth interview was used as it provides in-depth information regarding the participants' experiences and views about a certain topic (Turner 2010). Semi-structured interviews were chosen over focus group discussions as the study population included district rehabilitation coordinators. This ensured confidentiality of opinions and experiences allowing the coordinators to be free to share their experiences in an anonymous manner.

Data analysis

Individual in-depth interviews were recorded on an audio-recording device and then transcribed verbatim using a MS Word document format. The verbatim transcript was then analysed through inductive thematic analysis where sub-themes and major themes were found. Themes in qualitative research are broad units of information that consist of several codes grouped together to form an idea (Creswell & Poth 2017).

Ethical considerations

Gatekeeper approval was obtained from the provincial disability and rehabilitation department (Refer to Appendix 5). KwaZulu-Natal Department of Health (KZ_2018_048) also provided permission to conduct research in the province (Refer to Appendix 3). Full ethical approval was obtained from the UKZN Biomedical Research Ethics Committee (BE528/18) (Refer to Appendix 4). District or provincial rehabilitation coordinators who participated in the study were requested to sign a consent form which was included in the participation information sheet (Refer to Appendix 1). The identity of the participants was protected since the interviews did not require the names of participants. Numbers were assigned to interviews for identification purposes.

Results

Demographic data of participants

The table below (Table 4) presents the demographic data of the participants according to profession, office, gender and years of experience age, history of experience and professional background.

Table 4 Research participants' demographic profile

Participant	Profession	Office	Gender	Years of experience
AA	Physiotherapist	District	Female	12
AB	Speech Therapist	District	Female	4
AC	Physiotherapist	District	Female	15
AD	Occupational therapist	District	Male	15
AE	Physiotherapist	Provincial	Male	7

Themes

The table below (Table 5) presents the objective, major themes and sub-themes in the study. The table summarises the results as sub-themes and major themes according to each objective.

Table 5 Major Themes and Sub-themes according to Objectives

Objective	Major theme	Sub-themes
Establishing the scope of community outreach rehabilitation services	Community outreach rehabilitation services within the health sector	• Services at primary health clinics, gate clinics and mobile points • Services based in home visits with CBR workers
	Partnerships with stakeholders	• Community level partnerships with local municipalities, old age homes and day care facilities • Partnerships between departments such as Department of Education, Department of Social Development, Department of Sports and Recreation and South African Police Service
Exploring barriers to delivering community outreach services rehabilitation	Staffing challenges	• Impact of staff shortages • Challenges with retention of staff • Lack of vacancies • Incomplete community outreach rehabilitation team
	Lack of support for community outreach rehabilitation services	• Lack of support from senior therapists • Lack of support from the multidisciplinary team
	Lack of prioritisation of rehabilitation services	• Lack of Prioritisation of rehabilitation policies • implementation • Lack of support from Provincial and National Levels
	Transportation challenges	• Prioritisation of vehicles • Safety concerns over vehicles
	Negative attitudes of therapists	• Hospital based attitude • Demotivation of rehabilitation therapists
	Inadequate infrastructure	• Lack of treatment space • Unsuitable infrastructure to deliver services

Identifying the facilitating factors of community outreach rehabilitation services	Positive role of senior therapists	• Initiative • Senior community outreach rehabilitation posts
	Stakeholder support	• Supportive relationships with other health programmes • Increasing support from management
	Positive role of rehabilitation coordinator	• Positively engaged coordinators • Influence of Rehabilitation background

Establishing the scope of community outreach rehabilitation services

This section describes the major themes and sub-themes of the scope of community outreach rehabilitation services in KZN found in the data collection. Two major themes were identified and sub-themes that were identified under these major themes are represented by the summary in figure above.

Community outreach rehabilitation services within the health sector

The theme "Community outreach rehabilitation services within the Health sector" was used to identify the scope of services to include those facilities or personnel which were part of the health sector environment. The sub-themes identified below elaborate how services were delivered within the Health sector.

Services at different types of clinics

A team of rehabilitation therapists deliver outreach rehabilitation services at several clinics. The number of clinics serviced is based on the number of hospitals found in the district.

"…therapist team in each hospital visits each of our clinics once a month… when we have a full rehab team…" (P1)

"…the multidisciplinary team… each institution had a number of clinics under them that they would go and service…" (P2)

The frequencies of delivering services to the clinics were dependent on several factors.

"…*Yes, frequency – we would have loved to have more frequency but we are working with small numbers..." (P3)*

"…We always say the coverage is 100% (laughs) which in the true sense of outreach services is not really 100% because of limited resources…" (P5)

The participants elaborated on the different types of clinics that they cover such as primary health care clinics, gate clinics and mobile points.

"…*They went to the primary health clinics…" (P2)*

"… We have about 57 clinics in this district including a number of mobile points…" (P5)

"…two of them were gate clinics…" (P3)

Services based in home visits with CBR workers

Home visits included rehabilitation services delivered at clients' homes. The home visits varied among districts. CBR workers assisted with identifying clients and with assisting the rehabilitation team to locate the homes of the clients. Most of the coordinators found that working with the CBR workers added to service delivery and made the services more efficient. Home visits were also conducted by senior therapists. Senior therapists provided supervision and more experience.

"…the home visits sometimes the permanents (therapists) *will go on home visits if it's something that needs someone with more experience but that will be arranged with the WBOT teams you know so (laughs)…" (P1)*

"…the healthcare workers or Nompilos (Community Health Workers)*…going into the houses and tracking them, and seeing that they get whatever they needed"(P2)*

In one of the districts a senior physiotherapist was responsible for community outreach rehabilitation services as well as follow ups.

"*…specialised person like a physiotherapist who was dedicated to outreach. She would partner with the mobile services… be in charge of doing the home visits as well and following up…" (P2)*

Resource challenges, socio-economic factors of clients and the type of environment of the district affected the rehabilitation team when delivering services.

"…the one in… is the farms so they were doing more driving and its more mountainous so we had major problems with that there wasn't enough transport to bring patients to the clinics so it meant that therapists had to do a whole a lot of home visits..." (P3)

"…some of the districts like …it's a very vast district and the population is scanty …and scattered you have to travel sometimes long distance to get to the clients …you have to have a lot of money and a lot of resources." (P4)

Partnerships with stakeholders

The rehabilitation team worked closely with different stakeholders in order to achieve their goals for the delivery of community outreach rehabilitation services.

Community level partnerships

The rehabilitation team formed partnerships with members of the community which improved service delivery. The rehabilitation team partnered with local municipalities, old age homes or day care facilities in order to conduct services.

"Imbizos is where …is when we go out into the community to do health promotion that we usually partnered with the municipality… Place of Care leave at the end of the day…" (P2)

"…they were doing outreach for like bases…like old age homes …" (P3)

One coordinator spoke of mobile points which were an innovative way of bringing services closer to poorly accessible areas.

"The mobile points – we have remote areas in this district where we don't have any clinics … staff from the hospital will go as the multidisciplinary team …visit certain points – the people in that community to go to that certain point. Sometimes it's a community hall…a crèche. Sometimes …under the tree so it depends…" (P5)

Partnerships between departments

There were different stakeholders involved in achieving the goals of community outreach rehabilitation services. The coordinators found that therapists worked closely with the Department of Education (DOE) for screening the learners as well as assisting the school as there were no appointed therapists based at those schools.

"…we have a special school called …they don't have therapists at that school so the comm serves [*community service officers*] *also do assist at that school…" (P1)*

"…working together to say we will pick up a school who has a highest volume of disability if it's learning disabilities we will pick it up and work with them, teach the kids, teach the teachers…" (P3)

"They go to some crèches but not every time not if there's nothing identified there. They work closely with DOE." (P4)

One of the platforms which were used to address the needs of people with disabilities was disability forums. Disability forums included therapists, DOE, the Department of Social Development as well as the Department of Sports and Recreation.

"…Disability forums comprising of other departments like Department of Basic Education and Department of Social Development, local municipality, ya and also the Premier." (P4)

"…all of the comm serves you come in but we will be meeting with Department of Education, meeting with Sports and Recreation, municipality so if there was something they picked up at disability forums…" (P3)

People with disabilities were part of the forum discussions and were often given an opportunity to voice their concerns.

"In the disability forum they come across as frustrated. You can understand but they will have tangible things as to why they are frustrated with all of the departments…" (P5)

Although several departments have been working together with the therapists, a coordinator mentioned that other stakeholders need to be engaged in order to ensure better service delivery of community outreach rehabilitation services.

"You have to make sure the areas where –high risk of crime we work with the other key stakeholders like the police or the SAPS so that they start helping us to curb crime in those areas and also to involve the politicians the local muni…the local councillors and the traditional healers in those communities." (P4)

Exploring barriers to delivering community outreach services rehabilitation in KZN

Themes identified as barriers included staffing challenges, lack of support structures, lack of rehabilitation within policy implementation, transport challenges, negative attitudes of therapists, inadequate infrastructure and misinterpretation of statistics.

Staffing challenges

Staffing challenges was one of the major concerns for the majority of coordinators. There were many issues surrounding this barrier to delivering services. Several sub-themes were identified within the staffing challenges such as the impact of staff shortages, challenges with retention of staff, and a lack of vacancies.

Impact of staff shortages

Coordinators described how staff shortages impacted delivery of community outreach rehabilitation services in their districts. It was interesting to note that the shortage of staff affected outreach services in all districts. The coordinators expressed their concerns regarding how staff shortages affected the MDT team structure, the frequency of outreach services and the difficulty of managing rehabilitation departments.

"We are just lacking speech therapy a bit in some of the district… staffing are always an issue and all my speech therapists are comm serves. We still haven't been able to get permanent speech therapy posts for 10 years now." (P1)

"…but to get actual therapy like once a week at home, that we don't have the staff …and people take leave and the department is left running with one comm serve…ya …so (laughs)…" (P1)

"…based on their resources on personnel if people are available to …go out there into the community…" (P2)

"…some of the permanent therapists with regard to outreach they have been a little resistant. –Why? because they are short staffed and in their facilities…" (P4)

One of the coordinators however, felt that shortages of staffing were inflicted by permanently employed therapists. The coordinator expressed that staffing could not be improved if the general perception of rehabilitation was poorly viewed by higher structures.

"…the staffing is a problem because the therapists that are there, they sit there and do nothing and nobody's ever going to put in a post when the therapist that is here just sits on her phone and does nothing…" (P3)

Challenges with retention of staff

The coordinators that were in remote or rural districts described how retaining staff, either community service officers or senior therapists, was always challenging because of the lack of career progression available, accommodation issues and the lack of a social setting.

"…progression – going out like there was an issue last year…Department of Education had better posts so we had a lot of therapists that were leaving for DOE…" (P5)

The coordinators expressed that the lack of social life for the younger professionals eventually drew them out of the districts.

"…We are a rural district and it's difficult to get people to stay…" (P1)

"…So it's too far I think that has …a bigger impact for us for trying to maintain the staff here especially your young professionals… they want buzzing, they are still young, they still want to enjoy their lives things like... It's a big, big problem, if we get them they stay two or three years and then they leave…" (P5)

Also, they noted that community service officers had a lack of continued education as well as a lack of better opportunities.

"…They don't give the comm serves, erm, continued education, opportunities…"(P1)

One of the coordinators expressed the unfairness of the allocation of accommodation to the rehabilitation therapists, as compared to medical doctors. Complaints have been made over the accommodation. However, there has been minimal change seen.

"…they don't give them decent accommodation… We have situations at Church of Scotland Hospital where the doctors get given a three bedroom house – one doctor, whereas a park home is shared by three therapists, so you see…" (P1)

"…Some of them have been complaining about accommodation…" (P5)

Lack of vacancies

The participants reported that the lack of vacancies of rehabilitation services posed a barrier to outreach services in each district. The coordinators mentioned how vacant posts become frozen even if motivations are done.

"…when someone leaves a post it's closed. They don't fill it they just close it…posts have been not filled for about the last seven years. We have had this moratorium" (P1)

"…Every time someone leaves we are writing a motivation to say what the needs are and it just goes up and never comes back so it goes and the posts are frozen…" (P5)

One of the coordinators explained that a possible reason for posts being frozen and not being re-advertised could be to reduce expenditure by the government.

"…the government is trying to cut back on the number of employees in the government so that's one of the contributing factors, so seeing most of the posts being frozen in government and few posts being advertised…" (P4)

Rehabilitation is not seen as a critical post therefore this contributes to the lack of vacancies.

"…we didn't make it to that list (laughs) of critical staff. I think that is what causes the whole thing with the posts…" (P2)

One of the means therapists described how they cope with the lack of vacancies by using the community service officers to cover hospital workloads, which in turn reduces community outreach services.

"…Can one Physio be really be able to cover this much? - and with the mind-set of, oh, comm serves are going to cover because we taught them that comm serves are coming to do hospital work…" (P3)

Incomplete community outreach rehabilitation team

The coordinators noted that at times the rehabilitation team does not include all rehabilitation disciplines that should make up the team for community outreach rehabilitation services.

"…We are just lacking speech therapy a bit in some [areas] of the district…" (P1)

The coordinator found there was an increase in patients seen at one of the designated clinics with the additional rehabilitation service of occupational therapy.

"…CHC they started OT services which were not there before… occupational therapy services and you could see the pick up like when there was nothing [occupational therapy services] to when you got patients…" (P2)

Lack of support for community outreach rehabilitation services

Lack of support structures includes lack of support within rehabilitation, lack of support from the multidisciplinary team, lack of support from stakeholders, lack of support from provincial and national levels of government.

Lack of support from senior therapists

At the rehabilitation departmental level, a coordinator mentioned that outreach services are seen as a function of a community service therapist. Senior therapists do not view outreach services as part of their job description.

"…the mind-set also became that the comm serves are also supposed to only do the clinics and who came up with that idea... therapists within the hospital are supposed to be doing community work but they don't think it's their job." (P3)

Lack of supervision of community service therapists by senior therapists affected service delivery

"…will sit and do nothing and say there were no patients and because there is no supervision at clinic level they can get away with that for the whole year and so it's not ideal that only comm serves that are doing outreach." (P1)

Lack of support from the multidisciplinary team

Lack of support from medical managers was highlighted as well as strained working relationships between therapists and their supervisors (medical managers)

"…They don't get any support from their medical managers or the hospital management…" (P1)

"….senior therapists are supervised by medical managers – you will see that they do not have a good relationship with the medical manager…" (P5)

Sometimes, structures at clinics were lacking during outreach visits. The coordinators expressed their confusion over the constant challenges at clinics.

"…Some clinics are very supportive… At other clinics, when you arrive there they say "Anyone want Physio?" (Laughs)…" (P1)

"…I don't know what's wrong with nurses sorry to say… [laughs]. It's like you will run these programmes for years but you will still find that patients are still not booked…" (P3)

Lack of prioritisation of rehabilitation services

A further two sub-themes emerging were the lack of prioritisation of policies and the lack of support from provincial and national levels for community outreach rehabilitation services.

Lack of prioritisation of rehabilitation policies

Rehabilitation is viewed as a low priority health programme. Therefore, it is difficult to implement rehabilitation successfully.

"…mistakes they made with NHI is they did not put an emphasis on mental health and rehabilitation." (P1)

"…cannot run away from that we are not seen as a priority programme." (P2)

"Rehab as a whole is a low priority area, unfortunately, in the department." (P4)

Lack of support from Provincial and National Levels

The coordinators voiced that rehabilitation is not a priority health programme. It was interesting to note that one of the coordinators felt that rehabilitation is misinterpreted at these higher levels.

"…Rehab as a whole is a low priority area… nationally it's a low priority programme." (P4)

"…it's very difficult to argue with a politician at provincial level or national level… for all they know you are doing [supplying] wheelchairs and hearing aids." (P5)

Transportation challenges

Prioritisation of vehicles and safety concerns over vehicles posed as transportation challenges experienced by community outreach services.

Prioritisation of vehicles

The coordinators reported that they faced transport difficulties. Some expressed that there were a number of vehicles but rehabilitation was not prioritised.

"…main challenge is definitely transport but that's not only in rehab, it's across the board in outreach services." (P1)

"…prioritisation of fleet… sometimes you will find four cars are going to Durban and three cars are going to Pietermaritzburg, so sometimes it's bad management" (P5)

"…Transport Department has a pool of vehicles… transport will be the problem because it's only dedicated to PHC visits." (P2)

Safety concerns over vehicles

Some of the transport vehicles used were poorly maintained or were not roadworthy. Other safety concerns reported by a coordinator was the high rate of hijackings of government vehicles

"…safety issues have been unroadworthy vehicles and things like that." (P1)

"…due to financial constraints, our therapists or clinicians are provided with transport that is not suitable, another thing is poor [maintenance]… or negligence – the vehicles are not maintained… high number of vehicle hijackings." (P4)

Negative attitudes of therapists

The attitudes of therapists which are barriers to service delivery include hospi-centric model of care and demotivation of therapists.

Hospi-centric Model of Care

The coordinators expressed that they have found therapists to be resistant to conducting outreach services. Most of the therapists have a hospital-based mind-set.

"*We are still institution-based as therapists… outreach becomes the outskirts or the afterthought." (P2)*

"Therapists are still fighting to be kept within the hospital." (P3)

"…permanent therapists with regard to outreach…have been a little resistant." (P4)

Demotivation of rehabilitation therapists

Many coordinators expressed how therapists have become demotivated over the years as they lack job satisfaction.

"I have had many, many countless moments where I said I cannot do this anymore… my permanents don't want to go out because they are demotivated." (P1)

"… we as coordinator, it was our duty…to say it to management and to voice it out over and over, like a broken record." (P2)

"I think the people at national office are failing us, [the] same like [as] provincial office – they are failing us in our profession." (P5)

"…I cannot waste my time doing so much work and not getting paid for it." (P3)

"…they are so discouraged such that they don't take their work seriously, they like to report to work very late and leave their work stations early…" (P4)

Inadequate infrastructure

The lack of treatment space and unsuitable infrastructure to deliver services were sub-themes identified.

Lack of treatment space

The coordinators found that it was difficult to conduct all rehabilitation services in the clinics as there was not enough space for each discipline. Therapists had to utilize space that was provided and had to often share the limited space.

"…difficulty of the space at the clinics …all four disciplines … in one room…so that's not ideal (laughs)." (P1)

"…at the clinics…there are no rooms available …people have to work in one room in a group…" (P2)

"Physio and the OT must use one room…speech and audio must use another room." (P3)

Unsuitable infrastructure to deliver services

Another challenge with infrastructure was the unsuitability to deliver services as some of the disciplines such as Speech Therapy and Audiology require a specific environment. One of the other concerns was inaccessibility. The coordinator noted that there are no ramps in areas for wheelchair users.

"…it's still very much a challenge, especially with Audiology and Speech Therapy… where you need a certain environment." (P2)

"…this district is not wheelchair-friendly so when they come there are no ramps." (P5)

Identifying the facilitating factors of community outreach rehabilitation services

The themes identified for the facilitating factors of community outreach rehabilitation services included the positive role of senior therapists, stakeholder support and the positive role of a rehabilitation coordinator.

Positive role of senior therapists

The sub-themes identified included who take initiative and senior community outreach rehabilitation posts.

Senior therapist who take Initiative

Coordinators felt that there were some senior therapists who engaged in outreach services facilitated the service.

"…is well…you find that even senior therapists are leading the outreach teams…" (P4)

"She would partner with the mobile services and go to the mobile points." (P2)

"…senior therapists are very strong, and they advocate and they demand things from management…" (P5)

"…we had the supervisors' numbers at our disposal." (P2)

Senior community outreach rehabilitation posts

The coordinators' general feeling towards senior therapists and outreach was that there should be context specific posts and higher posts at community level which would encourage the service as there are therapists who enjoy outreach services.

"…I think it would be ideal if there was a permanent that was in charge of outreach services…" (P1)

"…it was a person of higher function …it's actually a big role that needs to be done at the outreach or the community level that needs someone, ya, who has more capacity." (P2)

"…most of them are positive and enthusiastic…" (P5)

Stakeholder support

The sub-themes identified under stakeholder support included supportive relationships with other health programmes and increasing support from management.

Supportive relationships with other health programmes

Coordinators mentioned that their collaboration with other programmes such as the WBOT, CBR workers and School health teams worked well.

"…We work very well with the WBOT teams" (P1)"…the Nompilos (Community Care Giver) *– the health workers, ya, obviously she* (Physiotherapist) *got the majority of her referrals from them based on their visits because obviously they* (Community Care Givers) *would go from door to door so they know everyone in that ward, so they would know who needs a wheelchair…"(P2)*

"…working with the school health teams, working together to say we will pick up a school who has a high volume of disability…" (P3)

Increasing support from management

The coordinators expressed that more support from management levels such as from hospital to national levels would facilitate outreach rehabilitation services.

"…some hospitals are better than others it depends on the management of the hospital and CEOs (Chief Executive Officers)*…" (P5)*

"…a buy-in from district offices …a buy-in from province to put money also for assistive devices at clinic..." (P3)

"…support as being seen as a priority, from all the management levels…" (P2)

Positive role of rehabilitation coordinator

The sub-themes identified included positively engaged coordinators and the influence of a rehabilitation background.

Positively engaged coordinators

During the interviews, many coordinators noted their engagement of service delivery. Many persisted for resources as well as actively engaged in service delivery if required.

"…So we didn't get support but we pushed for it and then we pushed for a vehicle allocated for rehab and we got that and so it was a long road…" (P1)

"There is no way, if ever there is no transport [that] we will send a car from district to take them…" (P3)

"The problem was with the added outreach …I had to make a plan as a coordinator where I would have to drive …to the facility." (P2)

Influence of a rehabilitation background

Coordinators explained that having a rehabilitation background assisted in their management of coordinating community outreach rehabilitation services.

"…some regions managed to work it out if you have a coordinator that understands how therapy works…" (P3)

"…we need someone to coordinate and usually we lobby for the district rehab coordinators to be appointed and to appoint the right person…" (P4)

Discussion

The purpose of the study was to establish the scope, to explore the barriers surrounding, and to identify the facilitating factors of community outreach rehabilitation services in KZN. Rehabilitation coordinators based at district and provincial levels were interviewed in order to gain an in depth understanding of the delivery of community outreach rehabilitation services.

The scope of community outreach rehabilitation services:

The scope of community outreach rehabilitation services includes aspects of PHC and CBR approaches. This is in line with the action guide of the WHO Rehabilitation in health system, which states that policies and interventions are required to address the scope for rehabilitation services in various population groups and geographical areas in order to promote accessible and affordable services to those that require them (World Health Organization 2019).

Rehabilitation is noted as complex, it is a person-centred process and can be clinic based and involve community settings (Sherry 2014). The current study identified the scope of Community Outreach Rehabilitation Services which included community outreach rehabilitation services at primary health clinics, gate clinics and mobile points. This is in line with a study done in SA which noted that rehabilitation at PHC settings is important for the welfare of patients with physical disabilities (Mlenzana, Frantz, Rhoda & Eide 2013).

Home visits done by the community outreach rehabilitation team with CBR workers were reported as the drivers of deliverance of community outreach rehabilitation services within the health sector. The findings of this study are similar to a study which was conducted in Kenya which concluded that CBR is a link between people with disabilities, their families, and rehabilitation services in less accessible regions (Khasnabis, Heinicke, Motsch Achu, Al Jubah, Brodtkorb, Chervin, Coleridge, Davies, Deepak & Eklindh 2010). Similarly, in Australia, CBR approaches were used in a clinic-based setting for occupational therapy rehabilitation to achieve individual goals among clients with traumatic brain injuries (Doig, Fleming, Cornwell & Kuipers 2009)

The scope of community outreach rehabilitation services also includes stakeholders' partnerships at a community level, such as local municipalities, old age homes and day care

facilities. These findings are similar to a Canadian study which found community-based rehabilitation practice include active participation in the community building relationships and partnerships with individuals (Roots, Brown, Bainbridge& Li 2014). There are also intergovernmental partnerships such as with the Department of Education, Department of Social Development, Department of Sports and Recreation and the South African Police Service. Furthermore, Mlenzana and Frantz (2017) have noted that success of the process of rehabilitation is dependent on effective and efficient communication among all the identified parties.

A notable finding of this study was participants found that their scope was limited and felt community outreach rehabilitation services were not reaching all clinics, inaccessible communities. They were also not reaching other relevant stakeholders, such as traditional leaders in the community, and local politicians like the local counsellors. This finding is comparable to a study conducted in Western India which noted that there is a need to develop a bigger pool of physiotherapists to cater to the requirements of home-bound communities (Rajan 2012). A study in South Africa suggested that the WHO collaborate with relevant global CBR stakeholders to develop more comprehensive policies to improve service delivery of mid-level CBR workers (Chappell & Johannsmeier 2009).

The barriers to implementing community outreach rehabilitation services:

The barriers identified in the current study include lack of support for community outreach rehabilitation services. Examples are lack of support from senior therapists and lack of support from the multidisciplinary team, such as the medical managers and nurses. Effective rehabilitation depends on input from a variety of skilled, multi-professional team members (Mlenzana & Frantz 2017).

In the current study lack of supervision of community service therapists by senior therapists affected service delivery of community outreach rehabilitation services. A study conducted in SA among health care professionals, including rehabilitation professionals, found that lack of supervision contributed to their challenges (Ross 2014). In an Australian study, supervision of young rehabilitation professionals contributed to enhancement of clinical skills, knowledge and confidence (Ducat, Martin, Kumar, Burge, & Abernathy 2016).

The participants reported that the lack of prioritisation of rehabilitation services such as having to rely on outdated rehabilitation policies, together with a lack of support from provincial and national levels posed as a barrier. Sherry (2014) reiterates that access barriers include serious system limitations in programme design and widespread absence of planning and resourcing for rehabilitation. The findings of the current study are similar to a South African study which found that even though disability and rehabilitation policies exist at national and provincial level, there is no uniformity in provincial government organisations supporting PCH rehabilitation services (Dizon, Grimmer, Machingaidze, Mclaren, & Louw, 2016).

Staffing challenges were highlighted as a barrier to implementation of community outreach rehabilitation services by the participants in the current study. A shortage of human resources for health has been reported in South Africa (Sherry 2014). Rehabilitation professionals, like most health workers in the public health sector, are subject to emigration, migration to the private sector, and freezing of posts (Sherry 2014). Furthermore, in SA a large number of community service therapists are still situated at higher levels of health institutions (Ned, Cloete & Mji 2017).

The impact of staffing challenges has resulted in poor service delivery of community outreach rehabilitation services. This is similar to a study in Australia which found that workforce shortages lead to prioritization of physiotherapy services (Adams, Jones, Lefmann & Sheppard 2015). The current study also found that incomplete community outreach rehabilitation teams were a barrier to successful service delivery. Similarly, a study in Madagascar found that there is no accurate data on all rehabilitation professionals required for providing services at community level, therefore posing a challenge to implement the WHO disability action plan (Khan, Amatya, Mannan, Burkle & Galea 2015).

The participants reported that therapists had a hospi-centric model of care as compared to having an approach towards community outreach rehabilitation services. A study in SA found that health services which adopt a hospi-centric and curative approach give insufficient attention to disease prevention, health promotion and community participation (Mahomed, Freeman & Asmall 2014). The findings in the current study are similar to a study done in SA which found rehabilitation professionals based at the hospital follow an individual, medical approach as compared to employing community based rehabilitation (Dayal 2010).

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The participants reported that therapists were demotivated. This is similar to an Australian study which found that the emotions experienced by rehabilitation therapists working at community level were frustration and recognition of inequity, dismay or underlying anger (Adams, Jones, Lefmann & Sheppard 2015). A South African study found that therapists also display reluctance and less motivation for delivering services in rural and remote regions due to a lack of cultural knowledge and awareness (Wegner & Rhoda 2015).

Inadequate infrastructure at clinics was also reported as one of the barriers affecting community outreach rehabilitation services. This finding is similar to results found in a South African study which note that improper planning of rehabilitation within PHC services resulted in a lack of commitment to infrastructural needs (Ned, Cloete & Mji 2017). Also, the UN CRPD in SA found that health facilities were described as being old and out of line with universal design and accessibility (United Nations 2011).

Transport challenges were highlighted by the participants as a barrier for delivering community outreach rehabilitation services. In several districts, the topography and environment required adequate transport. However, coordinators reported transport challenges when delivering community outreach rehabilitation services. Similarly, a South African study found that rough terrains often posed as challenges for vehicles (Bateman 2012). Even though transport is recommended for rehabilitation services to be accessible and effective, transport for rehabilitation staff is still difficult to attain (Visagie & Schneider 2014:1-10, Sherry 2014).

In the current study participants described inadequate infrastructure, such as lack of treatment space and unsuitable infrastructure to deliver services are a barrier in delivering effective community outreach rehabilitation services. This is similar to a study in SA which found poor clinic infrastructure and lack of adequate treatment space were reported by community service therapists conducting community outreach rehabilitation services (Khan, Knight & Esterhuizen 2009). Improper planning of rehabilitation within PHC services results in lack of commitment to infrastructural needs (Ned, Cloete & Mji 2017).

Facilitating factors to community outreach rehabilitation services:

Facilitating factors of community outreach rehabilitation services include the positive roles of senior therapists, such as their initiative in creating senior community outreach rehabilitation

posts. Similarly, in a study by Veitch *et al.* (2012) the role of experienced senior therapists was explained as being able to provide supervision, mentoring and support for less experienced therapists. Supervising therapists are regarded as agents of CBR and their activities when working with community rehabilitation workers have been seen to contribute positively towards persons with disabilities (Luruli, Netshandama & Francis 2016).

The participants highlighted that the positive role of rehabilitation coordinators proved to be helpful in facilitating community outreach services due to their rehabilitation background and their engagement in service delivery. This is similar to findings of a study done in Australia which found that district rehabilitation advisors prioritised policy development, supported department managers, and represented their rehabilitation professions outside the organisation (Schmidt, Kurtz& Davidson 2017). A study in SA noted organizational structures need to be aligned to the strategic service delivery goals. Therefore, hospital managers and rehabilitation provincial coordinators are required to provide direction and leadership (Dayal 2008).

Stakeholder support was identified as a key facilitator in the implementation of community rehabilitation services. This is in line with a study that was conducted in Australia which reported that collaboration of peer support and service delivery as well as working in a team yielded positive results (Veitch *et al.* 2012, Jenkins *et al*. 2015). A recent study done in SA mentions that National and Provincial Departments of Health primary care and Rehabilitation and Disability portfolios were key stakeholders for rehabilitation at community level (Dizon, Grimmer, Machingaidze, Mclaren, & Louw, 2016).

Collaboration of peer support and service delivery as well as working in a team was found in previous studies (Dayal 2010, Veitch *et al*. 2012). In addition, community service officers who became familiar with the other services provided by other sectors and collaborated in terms of referrals and case discussions also assisted in community outreach rehabilitation services (Ned *et a*l. 2017).

Limitations

This was a qualitative study performed in one province in SA with rehabilitation coordinators. The findings of this study will not be transferrable to other contexts. Further research should be conducted amongst rehabilitation therapists who are involved in

delivering community rehabilitation services in order to establish their perspective on this issue.

Recommendations

The findings of the current study suggest the scope of community outreach rehabilitation services works well with community level partnerships and with inter-governmental departments. It therefore is recommended that these partnerships be strengthened by the Departmental of Health and the rehabilitation programme. The study also found that primary health clinics are included in the scope of community outreach rehabilitation services. However, participants mentioned they are not able to deliver services to all clinics in their districts. It is recommended that the district and provincial rehabilitation programmes consider improving community outreach rehabilitation service coverage in all districts.

The study found both barriers and facilitating factors to delivering community outreach rehabilitation services. The barriers and facilitating factors were found across different levels of management. The participants expressed how their challenges with senior therapists included lack of support, senior therapists adopting a hospi-centric model of care and demotivation found among senior therapists. It is recommended that awareness and engagement regarding community outreach rehabilitation services be strengthened among senior therapists by the district and provincial rehabilitation coordinators.

One of the facilitating factors of community outreach rehabilitation services includes the positive role of senior therapists with regards to senior therapists taking initiative for community outreach rehabilitation services. The participants also noted that creating senior community outreach rehabilitation posts would serve as a facilitator. Therefore, it is recommended that community outreach rehabilitation posts should be created by the Department of Health. It is recommended that therapists who take initiative over community outreach rehabilitation services be encouraged to engage other therapists as well.

The study found barriers also stemmed from internal and external support structures. There was a lack of support for conducting community outreach rehabilitation services from the multidisciplinary team such as from medical managers and nursing staff. The researcher recommends frequent multidisciplinary discussions and meetings to facilitate support of community outreach rehabilitation services by all medical personnel involved.

The participants highlighted barriers that were out of their domain such as staffing challenges, transportation challenges, a lack of prioritisation of rehabilitation services and inadequate infrastructure. It is recommended that vital resources such as staffing, transportation and infrastructure required for the adequate delivery of community outreach rehabilitation services be reviewed and restructured at a Provincial and National level in order for alignment of the PHC approach and CBR.

The study revealed that engaging with other health programmes such as School Health, WBOT and CBR facilitated community outreach rehabilitation services. The researcher recommends engagement with all community-based programmes within the health sector should be employed. The study also found that when a rehabilitation coordinator plays a positive role, such as being engaged with therapists and having a rehabilitation background, this served as a facilitator for community outreach rehabilitation services. It is recommended that the disability and rehabilitation management consider future rehabilitation coordinators to be rehabilitation professionals.

Lastly, the study found that more research is needed regarding community outreach rehabilitation services in all districts of KZN and nationally. The study highlights that there are senior therapists who are positively engaged in community outreach rehabilitation services. More research is therefore recommended to explore the special interest among senior therapists. The study also found there are successful supportive relationships with other health programmes working with community outreach rehabilitation services. Therefore, the researcher recommends further research is needed to understand this success and the implications of incorporating community outreach rehabilitation within health programmes.

Conclusion

The study aimed to explore community outreach rehabilitation services within KZN. The scope of community outreach rehabilitation services in KZN included primary health settings as well as working with different stakeholders.

The rehabilitation coordinators expressed several barriers they experienced with the delivery of community outreach rehabilitation services. The barriers included staffing challenges, lack of support for community outreach rehabilitation services, lack of prioritisation of

rehabilitation services, transportation challenges, therapist attitudes and inadequate infrastructure.

While community outreach rehabilitation services are implemented in KZN, the staff struggle to implement these services successfully. The rehabilitation coordinators do not have the authority to influence some of the barriers mentioned. For the successful implementation of community outreach rehabilitation services, higher authorities such as at Provincial and National levels need to review and address the challenges experienced by the rehabilitation coordinators. Challenges such as staffing, transportation, prioritisation of services and infrastructure should be addressed when planning community outreach rehabilitation services.

The facilitating factors of community outreach rehabilitation services delivery found in this study are the positive role of senior therapists, stakeholder support and the positive role of rehabilitation coordinators. These facilitating factors need to be strengthened in other districts and provinces in order to create more awareness and better delivery of community outreach rehabilitation services.

The researcher's recommendations are thus based on each level of service delivery and management. The recommendations highlight the influence that senior therapists, the multidisciplinary team, relevant stakeholders; provincial and national structures can have on community outreach rehabilitation services.

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Competing interests

The authors declare that they have no financial or personal relationship(s) that may have inappropriately influenced them in writing this article.

Author contributions

The author of the study devised and carried out the study with supervision from Dr T. Dlungwane.

Disclaimer

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CHAPTER 5: DISCUSSION OF FINDINGS

5.1 Introduction

This chapter will present the study's findings in reference to the objectives of the study in relation to similar studies. The participant's experiences informed the exploring of community outreach rehabilitation services in KZN, South Africa. The chapter will also feature key findings, study limitations, the author's recommendations and the conclusion.

5.2 Review of findings

The first objective of the study aimed to establish the scope of community outreach rehabilitation services in KZN. The current study identified the scope of community outreach rehabilitation services within the health sector as including community outreach rehabilitation services at primary health clinics, gate clinics and mobile points. This finding considers the WHO guidelines for Rehabilitation in the health system which mention that policies and interventions are required to address the scope and intensity of the needs for rehabilitation services in various population groups and geographical areas (1). Rehabilitation is noted as complex as it is a person-centred process and can be clinic based and involve community settings (22). Furthermore a study done in South Africa noted rehabilitation at PHC settings are important for the welfare of patients with physical disabilities (69).

Home visits done by the community outreach rehabilitation team with CBR workers were also reported as the drivers in delivering community outreach rehabilitation services within the health sector. The findings of this study are similar to a study which was conducted in Kenya which concluded that CBR is a link between people with disabilities, their families and rehabilitation services in less accessible regions (70). Similarly, in Australia, CBR approaches were used in a clinic-based setting for occupational therapy rehabilitation to achieve individual goals among clients with traumatic brain injuries (71).

Partnerships with stakeholders outside the health sector also form part of the scope of community outreach rehabilitation services. The participants mentioned that these partnerships were at community level as well as between other governmental departments. Community level partnerships included local municipalities, old age homes and day care facilities. A Canadian study found the community based rehabilitation practise included active participation in the community building relationships and partnerships with individuals (9). These findings are similar to another Canadian study which found community based rehabilitation practise included active participation in the community, and building relationships and partnerships with individuals (9).

There are also intergovernmental partnerships such as with the Department of Education, Department of Social development, Department of Sports and Recreation and the South African Police Service. This is similar to a finding that noted that the success of the process of rehabilitation is dependent on effective and efficient communication among all the identified parties (8).

A notable finding of this study was that the participants found that their scope was limited and felt community outreach rehabilitation services were not reaching all clinics, inaccessible communities and relevant stakeholders. This finding is comparable to a study conducted in Western India which noted that there is a need to develop a bigger pool of physiotherapists to cater to the requirements of home-bound communities (13). A study in South Africa suggested that the WHO should collaborate with relevant global CBR stakeholders to develop more comprehensive policies to improve service delivery of mid-level CBR workers (72).

The scope was shaped by several barriers to delivering community outreach rehabilitation services. The participants felt there were several staffing challenges such as the impact of staff shortages, as well as challenges with retention of staff and unfilled vacancies, thus making incomplete community outreach rehabilitation teams. Recruitment, support, workloads and retention are some of the issues highlighted in other studies (11). Prioritisation of services due to staff shortages has also been reported in previous studies (18).

In a SA study, rehabilitation professionals in the public health sector are often lost due to emigration, migration to the private sector and the freezing of posts (22). Another South African study noted that there is a large number of community service therapists still situated at higher levels of health institutions rather than at community level (17). The problem of incomplete community outreach teams is also found in a study in Madagascar where there is

no accurate data on all rehabilitation professionals required for providing services at community level. This poses a challenge to the implementation of the WHO disability action plan (14).

The barriers identified in the current study included a lack of support for community outreach rehabilitation services. This includes a lack of support from senior therapists and a lack of support from the multidisciplinary team such as the medical doctors and nurses. It is emphasised that effective rehabilitation depends on input from a variety of skilled, multi-professional team members (8).

A study conducted in South Africa among health care professionals, including rehabilitation professionals, found that lack of supervision attributed to their challenges (46). In an Australian study, supervision of young rehabilitation professional contributed to the lack of enhancement of clinical skills, knowledge and confidence (73).

The participants found the lack of prioritisation of rehabilitation services such as prioritisation of rehabilitation policies and support from provincial and national levels posed are a barrier. These findings are also similar to a study in SA which reiterates that some access barriers include serious system limitations in programme design and widespread absence of planning and resourcing for rehabilitation (22). A study in SA found that even though disability and rehabilitation policies exist at national and provincial level, there is no uniformity in provincial government organisations supporting PCH rehabilitation services (31).

In the current study participants described inadequate infrastructure such as the lack of treatment space and unsuitable infrastructure to deliver services posed as a barrier in delivering effective community outreach rehabilitation services. This is similar to a study in SA which found poor clinic infrastructure and lack of adequate treatment space were reported by community service therapists conducting community outreach rehabilitation services (44). Improper planning of rehabilitation within PHC services results in lack of commitment to infrastructural needs (17).

Even though it has been recommended that transport for rehabilitation workers needs to be considered for rehabilitation services to be accessible and effective (22) it is still a major challenge (39). In several districts, the topography and environment required adequate transport. However, many coordinators faced challenges providing adequate transport for community outreach rehabilitation services. Appropriate transport and prioritisation of

transport for rehabilitation was mentioned by coordinators as a challenge. A study in SA noted that clinic-based outreach in the form of school, workplace and community visits needs to be considered and appropriate transport needs to be available (22)..

The participants reported that therapists had a hospi-centric model of care as compared to having an approach favouring community outreach rehabilitation services. A study in SA found that health services which adopt a hospi-centric and curative approach leave insufficient attention to disease prevention, health promotion and community participation (74). The findings in the current study are similar to a study done in SA which found rehabilitation professionals based at the hospital follow an individual, medical approach as compared to employing community based rehabilitation (4).

The participants reported that therapists were demotivated. This is similar to an Australian study which found that some of the emotions experienced by rehabilitation therapists working at community level were frustration and recognition of inequity, dismay and underlying anger (18). A South African study found that therapists also display reluctance and less motivation for delivering services in rural and remote regions due to lack of cultural knowledge and awareness (29).

On the positive side, facilitating factors of community outreach rehabilitation services included the roles of senior therapists who showed initiative for community outreach rehabilitation services. In addition, the creation of more senior community outreach rehabilitation posts is required. Supervising therapists are regarded as agents of CBR and their activities, working with community rehabilitation workers, have been seen to contribute positively towards persons with disabilities (35). Similarly, a SA study found the role of experienced senior therapists was to provide supervision, mentoring and support of less experienced therapists (11).

The participants highlighted that the positive role of rehabilitation coordinators proved to be a facilitator to community outreach services due to their rehabilitation background as well as being positively engaged in service delivery. This is similar to findings of a study done in Australia which found that district rehabilitation advisors prioritised policy development, supported department managers, as well as represented their rehabilitation professions outside the organisation (75). A study in SA noted organizational structures need to be aligned to the strategic service delivery goals. Therefore hospital managers and rehabilitation provincial coordinators are required to provide direction and leadership (27).

Stakeholder support was identified as a key facilitator in the implementation of community rehabilitation services. Stakeholder support which included the sub-themes of supportive relationships with other health programmes and increasing support from management were found as facilitating factors. This is in line with a study that was conducted in Australia which reported that collaboration of peer support and service delivery as well as working in a team yielded positive results (11, 47).

A recent study done in SA mentions that National and Provincial Departments of Health primary care and Rehabilitation and Disability portfolios were key stakeholders for rehabilitation at community level (31). Furthermore, collaboration of peer support and service delivery as well as working in a team was found as positive, in previous studies (4, 11). Similarly it was found that community service officers who became familiar with the other services provided by other sectors and collaborated in terms of referrals and case discussions assisted in community outreach rehabilitation services (17). Community service officers were able to collaborate with social development services and school nurses in order to access resources for community outreach rehabilitation services (17).

5.3 Study limitation

Limitation	Explanation of limitation
This was a qualitative study performed in one province in SA by interviewing rehabilitation coordinators.	The study was conducted in the researcher's province due to convenience.
The findings of this study will not be transferrable to another context.	The study was conducted in semi-rural KZN which may not be similar to other contexts.

Further research should be conducted amongst rehabilitation therapists who are involved in delivering community rehabilitation services in order to establish their perspective on this issue.

5.4 Recommendations

The researcher's recommendations emanated from each level of management required for the successful implementation of community outreach rehabilitation services.

5.4.1 Recommendations for rehabilitation professionals

- Senior therapists who are currently involved in community outreach rehabilitation services or who have a special interest in the field should be encouraged to promote the service to other therapists.
- The study found that there is a hospi-centric model of care being adopted by therapists. Therefore job descriptions and responsibilities need to include community outreach rehabilitation services in order to promote CBR.

5.4.2 Recommendations for District management

- The study found that primary health clinics were included in the scope of community outreach rehabilitation services. However, participants mentioned they are not able to deliver services to all clinics in their districts. The scope of community outreach rehabilitation services needs to be reviewed at district level in order to generalise coverage and service delivery.
- Community outreach rehabilitation services are supported by stakeholders in the community. Therefore it is recommended that stakeholders whom are involved with CBR and PHC should be engaged for integrating rehabilitation and working together to achieve similar goals.
- There was a lack of support for conducting community outreach rehabilitation services from the multidisciplinary team such as medical managers and nursing staff. The researcher recommends frequent multidisciplinary discussions and meetings to facilitate greater support of community outreach rehabilitation services by all medical personnel involved and District management.
- The rehabilitation coordinators expressed their challenges with senior therapists which included a lack of support, and much demotivation found amongst them. It is recommended that awareness of and engagement in community outreach

rehabilitation services be strengthened amongst senior therapists by the district and provincial rehabilitation coordinators.

5.4.3 Recommendations for Provincial and National management

- Barriers to delivering community outreach rehabilitation services include staffing challenges such as difficulties in retention of staff, lack of vacancies and incomplete community outreach rehabilitation teams. The researcher recommends that staffing should be improved by creating community outreach rehabilitation specific posts, creating incentives for retaining staff and ensuring that each institution has a complete community outreach rehabilitation team.
- Transportation was highlighted as a challenge. The study found prioritisation of vehicles for community outreach rehabilitation and safety concerns over vehicles to be the major challenges with transport. It is recommended that provincial and national management consider adequate planning and delegation of vehicles to be used for rehabilitation and specifically for community outreach rehabilitation.
- Lack of prioritisation of rehabilitation services was also highlighted in the study. Therefore it is recommended that national management should review the way rehabilitation services and community outreach rehabilitation is currently being implemented.
- Inadequate infrastructure was a barrier to delivering community outreach rehabilitation services. It is recommended that national management consider infrastructural needs by consulting rehabilitation professionals for future planning of health care establishments.

5.4.4 Recommendations for further studies

- The study found there is a need for more research regarding community outreach rehabilitation services in all districts of KZN, and nationally, to explore the service further.
- The study highlighted that there are senior therapists who are positively engaged in community outreach rehabilitation services. Therefore, more research is recommended to explore the special interests amongst senior therapists.

- There are successful supportive relationships between other health programmes and community outreach rehabilitation services. Therefore, the researcher recommends further research is needed to understand the success, and the implications of incorporating community outreach rehabilitation within health programmes.
- A quantitative study is suggested across all levels of personnel for a broader exploration of the services.

5.5 Conclusion

The study aimed to explore community outreach rehabilitation services within KZN. The scope of community outreach rehabilitation services in KZN includes PHC settings as well as working with different stakeholders.

The rehabilitation coordinators expressed several barriers they experienced with the delivery of community outreach rehabilitation services. The barriers include staffing challenges, lack of support for community outreach rehabilitation services, lack of prioritisation of rehabilitation services, transportation challenges, negative attitudes of therapists and inadequate infrastructure.

While community outreach rehabilitation services are implemented in KZN, the service struggles to be successfully implemented. The rehabilitation coordinators do not have the authority to influence some of the barriers mentioned. For the successful implementation of community outreach rehabilitation services, higher authorities such as Provincial and National levels need to review and address the challenges experienced by the rehabilitation coordinators. Challenges such as staffing, transportation, prioritisation and infrastructure should be addressed when planning of community outreach rehabilitation services.

The facilitating factors of community outreach rehabilitation services include the positive role of senior therapists, stakeholder support and the positive role of rehabilitation coordinators. These facilitating factors need to be strengthened in other districts and provinces in order to create more awareness and better delivery of community outreach rehabilitation services.

The researcher's recommendations are thus based on each level of service delivery and management. The recommendations highlight the influence of senior therapists, the

multidisciplinary teams, relevant stakeholders; and provincial and national structures on community outreach rehabilitation services.

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Appendices

Appendix 1: Information of study and Informed Consent

Information about the study:

I am Reevana Harriparsad working at Richmond Chest Hospital in Umgungundlovu district as a physiotherapist. I am currently doing a part time post graduate Master's Degree in Public Health at UKZN. I am conducting a qualitative study and the title of the study is the Exploring **community outreach rehabilitation services in semi-rural KwaZulu-Natal in 2018**. In order for me to invite you to participate in this study I will firstly provide you with what the study entails and relevant information.

Once I have provided you with all relevant information you are free to make a decision if you would like to participate or not. You are also welcome to ask any questions at any time or for clarity.

Purpose of the study:

I am interested in exploring Community Outreach Services within the rehabilitation sector. You may be involved or were previously involved in overall management of these services. Therefore I am seeking to understand the holistic picture of the management of community outreach services from your perspective as a Rehabilitation Manager.

Type of research study:

An in-depth interview will be used for duration of approximately one hour. I will be conducting the interview with you.

Participant selection:

You were invited to participate in the above research as you have experiences and knowledge that would be useful for the research topic.

Voluntary participation:

Your participation in this research is completely voluntary and your choice will have no influence on your job.

Procedure:

The interview will be conducted by me. If you do not wish to answer any question in the interview you are not obligated to. I will ask you other questions from my planned interview guide. The information recorded is confidential. The interview will be tape recorded but there will be no names mentioned.

Duration:

The research will take place over a minimum period of six months in total. The interview that I intend to conduct will take a maximum of one hour. Should there be any queries or requests for further clarity by me, I wish to contact you telephonically. These arrangements will be made at your convenience.

Risks:

There are no known risks associated with this research. You are welcome to stop me during the interview for clarity or concerns. If any of the questions make you uncomfortable you are welcome to stop the interview.

Benefits:

Your participation in this study will assist in further research and better planning strategies for Community Outreach Services which will directly affect you with regards to management of these services.

Reimbursements:

You will not get any incentives for taking part in the research.

Confidentiality:

No information will be shared about you outside the research team. The information collected in this research will be kept private.

Sharing the results:

All information will be confidential, the information you provide me with will only be used for research purposes. Your details will not be included in any reports.

Right to refuse or withdraw:

You are not expected to participate in this research against your will. If you choose to participate, your job will not affected. You can withdraw from the study whenever you wish to.

Who to contact:

If you have any questions you can ask them now or later. If you wish to ask questions later you can ask me via email at Reevana.h@gmail.com or call me at 0713620500.

INFORMED CONSENT

I _____ have read and understood the information regarding this study. I consent to participate voluntary in this study.

Signed

_____at_____On_____

_____ 2019.

Witness _____.

Appendix 2: Interview Schedule

Interview Schedule Guide

Good day, my name is Reevana Harriparsad.

I would like to thank you for taking the time to meet with me today. This interview is being conducted to understand your experiences of managing community outreach services in your institution.

If it is okay with you, I will be tape recording our conversation. The purpose of this is so that I can get all the details but at the same time be able to carry on an attentive conversation with you. I assure you that all your comments will remain confidential. After I have explained to about what the study entails and if you agree to this interview and the tape recording, please sign this consent form.

1. Can you describe the scope of community rehabilitation services in the district?
2. What is the coverage of community rehabilitation services in the district?
3. Can you detail your clinic visits in terms of place?

   3.1 How often are these clinics visited?

4. Who is involved in community outreach?

   4.1 Can you describe how staffing arrangements affect delivery of community rehabilitation services?

5. What are challenges in the provision of community rehabilitation outreach services?

   5.1 How have these challenges shaped provision of community outreach services?

   5.2 How do you feel about these challenges regarding community outreach services as a manager?

5.3 How have you overcome or managed the challenges you have faced?

6. What do you believe would facilitate community outreach services?

   6.1 Why do you think the suggestions you mentioned would assist in the provision of community outreach programmes?

   6.2 How do you think these suggestions would influence the provision of community outreach services?

Thank You.

Do you any questions or queries for me?

Background questions:

Age

Gender

Professional background

Number of years as a manager

Do you have any questions?

This is the end of our interview. Thank you for your time. Should you have any questions, feel free to email me at Reevana.H@gmail.com or call me on 0713620500.

Appendix 3: Letter Requesting Permission from the Provincial Department of Health

Richmond Chest Hospital

P.O.Box 133

Richmond

3780

1 June 2018

Health Research & Knowledge Management

Natalia Building 10 - 102 South Tower

330 Langalibalele Street

Pietermaritzburg

3201

Dear Madam/Sir

REQUEST FOR PERMISSION TO CONDUCT RESEARCH

My name is Reevana Harriparsad working at Richmond Chest Hospital as a physiotherapist. I am a registered Master's student in the Department of Public Health at the University of KwaZulu-Natal under the supervision of Dr T. Dlungwane. I am hereby seeking your consent to conduct research at the district offices using the rehabilitation coordinators and rehabilitation managers. The proposed topic of my research is: **Exploring community outreach rehabilitation services in KwaZulu-Natal in 2018.**

To assist you in reaching your decision I have attached to this letter:

a) A copy of an ethical clearance certificate issued by the University

b) A copy of the research instruments that I will be using

c) A copy of the protocol

Should you require any further information please do not hesitate to contact me on:

Email address: Reevana.h@gmail.com contact number 0713620500.

Your permission to conduct this study will be greatly appreciated.

Kind Regards

Reevana Harriparsad

Signature…….

Appendix 4: Letter of Full BREC ethics permission

UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

07 February 2019

Ms R Harriparsad (209501138)
School of Nursing and Public Health
College of Health Sciences
Reevana.h@gmail.com

Protocol: Evaluation of community outreach rehabilitation services in semi-rural KwaZulu-Natal, 2018.
Degree: MPH
BREC Ref No: BE528/18

EXPEDITED APPLICATION: APPROVAL LETTER

A sub-committee of the Biomedical Research Ethics Committee has considered and noted your application received 20 August 2018.

The study was provisionally approved pending appropriate responses to queries raised. Your response received on 10 January 2019 to BREC correspondence dated 18 September 2018 has been noted by a sub-committee of the Biomedical Research Ethics Committee. The conditions have been met and the study is given **full ethics approval** and may begin as from 07 February 2019. Please ensure that site permissions are obtained and forwarded to BREC for approval before commencing research at a site.

This approval is valid for one year from **07 February 2019.** To ensure uninterrupted approval of this study beyond the approval expiry date, an application for recertification must be submitted to BREC on the appropriate BREC form 2-3 months before the expiry date.

Any amendments to this study, unless urgently required to ensure safety of participants, must be approved by BREC prior to implementation.

Your acceptance of this approval denotes your compliance with South African National Research Ethics Guidelines (2015), South African National Good Clinical Practice Guidelines (2006) (if applicable) and with UKZN BREC ethics requirements as contained in the UKZN BREC Terms of Reference and Standard Operating Procedures, all available at http://research.ukzn.ac.za/Research-Ethics/Biomedical-Research-Ethics.aspx.

BREC is registered with the South African National Health Research Ethics Council (REC-290408-009). BREC has US Office for Human Research Protections (OHRP) Federal-wide Assurance (FWA 678).

The sub-committee's decision will be **noted** by a full Committee at its next meeting taking place on **12 March 2019.**

We wish you well with this study. We would appreciate receiving copies of all publications arising out of this study.

Yours sincerely

Professor V Rambiritch
Chair: Biomedical Research Ethics Committee

Supervisor: Dlungwane@ukzn.ac.za
Postgrad admin: arumugamd@ukzn.ac.za

Appendix 5: Letter of Gatekeeper's Permission

health
Department:
Health
PROVINCE OF KWAZULU-NATAL

DIRECTORATE: NON COMMUNICABLE DISEASES

12 Chief Albert Luthuli Street
Pietermaritzburg, 3200
Tel: 033 846 7247 Fax: 033 846 7273 Email: daniel.simbeye@kznhealth.gov.za
www.kznhealth.gov.za

DISABILITY AND REHABILITATION

Date: 29 October 2018

University of KwaZulu-Natal
Westville Campus
Durban

Dear Reevana Harriparsad

RE: PERMISSION TO CONDUCT RESEARCH IN AMAJUBA, UTHUKELA, UMZINYATHI, ILEMBE, ETHEKWINI, UMGUNGUNNDLOVU, KING CETSHWAYO, UMKHANYAKUDE, UGU, HARRY GWALA AND ZULULAND DISTRICTS.

I have pleasure in informing you that permission has been granted to you by the Disability and Rehabilitation Programme to conduct research on "**Evaluation of community outreach rehabilitation services in semi-rural KwaZulu-Natal in 2018"** in the above stated health districts of KwaZulu-Natal.

Please note the following:

1. Please ensure that you adhere to all the policies, procedures, protocols and guidelines of the Department of Health with regards to this research.
2. This research will only commence once this office has received approval of your study from the Provincial Health Research and Ethics Committee (PHREC) in the KZN Department of Health.
3. Please ensure this office is informed before you commence your research.
4. The Disability and Rehabilitation Programme will not provide any resources for this research.
5. You will be expected to provide feedback on your findings to the Disability and Rehabilitation Programme in the Department of Health KwaZulu-Natal
6. You are required to contact this office regarding dates for providing feedback when the research has been completed.

Thank you.

29/10/2018.

MR. D. SIMBEYE
ASSISTANT DIRECTOR:
DISABILITY AND REHABILITATION

Fighting Disease, Fighting Poverty, Giving Hope

Appendix 6: Letter of Permission from Department of KZN Health Office

health
Department:
Health
PROVINCE OF KWAZULU-NATAL

Physical Address: 330 Langalibalele Street, Pietermaritzburg
Postal Address: Private Bag X9051
Tel: 033 395 2805/ 3189/ 3123 Fax: 033 394 3782
Email:
www.kznhealth.gov.za

DIRECTORATE:
Health Research & Knowledge Management

Ref: KZ_201810_048

Dear Ms R Harriparsad
(UKZN)

Subject: Approval of a Research Proposal:

1. The research proposal titled **'Evaluation of community outreach rehabilitation services in semi-rural KwaZulu-Natal in 2018'** was reviewed by the KwaZulu-Natal Department of Health (KZN-DoH).

   The proposal is hereby **approved** for research to be undertaken at all districts at KZN-DoH.

2. You are requested to take note of the following:

   a. *Kindly liaise with the facility manager BEFORE your research begins in order to ensure that conditions in the facility are conducive to the conduct of your research. These include, but are not limited to, an assurance that the numbers of patients attending the facility are sufficient to support your sample size requirements, and that the space and physical infrastructure of the facility can accommodate the research team and any additional equipment required for the research.*
   b. *Please ensure that you provide your letter of ethics re-certification to this unit, when the current approval expires.*
   c. *Provide an interim progress report and final report (electronic and hard copies) when your research is complete.*

3. Your final report must be posted to **HEALTH RESEARCH AND KNOWLEDGE MANAGEMENT, 10-102, PRIVATE BAG X9051, PIETERMARITZBURG, 3200** and e-mail an electronic copy to hrkm@kznhealth.gov.za

For any additional information please contact Ms G Khumalo on 033-395 3189.

Yours Sincerely

Dr E Lutge
Chairperson, Health Research Committee
Date: 21/11/18

Appendix 7: Ethics Certificates

Zertifikat Certificado Certificat Certificate

TRREE

Promouvoir les plus hauts standards éthiques dans la protection des participants à la recherche biomédicale
Promoting the highest ethical standards in the protection of biomedical research participants

Clinical Trials Centre
The University of Hong Kong

Certificat de formation - Training Certificate

Ce document atteste que - this document certifies that

Reevana Harriparsad

a complété avec succès - has successfully completed

Introduction to Research Ethics

du programme de formation TRREE en évaluation éthique de la recherche
of the TRREE training programme in research ethics evaluation

February 9, 2018

Professeur Dominique Sprumont
Coordinateur TRREE Coordinator

FMH Continuing Education Programs

FPH

Ce programme est soutenu par - This program is supported by :

European and Developing Countries Clinical Trials Partnership (EDCTP) (www.edctp.org) - Swiss National Science Foundation (www.snf.ch) - Canadian Institutes of Health Research (http://www.cihr-irsc.gc.ca/e/29891.html) - Swiss Academy of Medical Sciences (SAMW/ASSM/SAAM) (www.samw.ch) - Commission for Research Partnerships with Developing Countries (www.kfpe.ch)

[REV : 20170310]

Zertifikat
Certificat
Certificado
Certificate

TRREE

Promouvoir les plus hauts standards éthiques dans la protection des participants à la recherche biomédicale
Promoting the highest ethical standards in the protection of biomedical research participants

Clinical Trials Centre
The University of Hong Kong

Certificat de formation - Training Certificate

Ce document atteste que - this document certifies that

Reevana Harriparsad

a complété avec succès - has successfully completed

Good Clinical Practice (GCP-E6(R2) 2016)

du programme de formation TRREE en évaluation éthique de la recherche
of the TRREE training programme in research ethics evaluation

February 26th, 2018
CID : BAg5pJPG6

Professeur Dominique Sprumont
Coordinateur TRREE Coordinator

FMH Continuing Education Program (5 Credits)
Programme de Formation continue (5 Crédits)

Foederatio Pharmaceutica Helvetiae FPH Programmes de formation continue
Continuing Education Programme
Programmes de formation continue

Ce programme est soutenu par - This program is supported by :
European and Developing Countries Clinical Trials Partnership (EDCTP) (www.edctp.org) - Swiss National Science Foundation (www.snf.ch) - Canadian Institutes of Health Research (http://www.cihr-irsc.gc.ca/e/2891.html) - Swiss Academy of Medical Science (SAMS/ASSM/SAMW) (www.samw.ch) - Commission for Research Partnerships with Developing Countries (www.kfpe.ch)

[REV : 20170310]

Zertifikat
Certificat
Certificado
Certificate

TRREE

Promouvoir les plus hauts standards éthiques dans la protection des participants à la recherche biomédicale
Promoting the highest ethical standards in the protection of biomedical research participants

Clinical Trials Centre
The University of Hong Kong

Certificat de formation - Training Certificate

Ce document atteste que - this document certifies that

Reevana Harriparsad

a complété avec succès - has successfully completed

Research Ethics Evaluation

du programme de formation TRREE en évaluation éthique de la recherche
of the TRREE training programme in research ethics evaluation

February 12, 2018
CID : 84BFNwEyN2

Professeur Dominique Sprumont
Coordinateur TRREE Coordinator

FMH Continuing Education Program (5 Credits)
Programme de Formation continue (5 Crédits)

Foederatio Pharmaceutica Helvetiae FPH Programmes de formation continue
Continuing Education Programme
Programme de formation continue

Ce programme est soutenu par - This program is supported by :
European and Developing Countries Clinical Trials Partnership (EDCTP) (www.edctp.org) - Swiss National Science Foundation (www.snf.ch) - Canadian Institutes of Health Research (http://www.cihr-irsc.gc.ca/e/2891.html) - Swiss Academy of Medical Science (SAMS/ASSM/SAMW) (www.samw.ch) - Commission for Research Partnerships with Developing Countries (www.kfpe.ch)

[REV : 20170310]

TRREE

Zertifikat
Certificat
Certificado
Certificate

Promouvoir les plus hauts standards éthiques dans la protection des participants à la recherche biomédicale
Promoting the highest ethical standards in the protection of biomedical research participants

Clinical Trials Centre
The University of Hong Kong

Certificat de formation - Training Certificate

Ce document atteste que - this document certifies that

Reevana Harriparsad

a complété avec succès - has successfully completed

Informed Consent

du programme de formation TRREE en évaluation éthique de la recherche
of the TRREE training programme in research ethics evaluation

February 13, 2018
CID : PZIa0o09ml

Professeur Dominique Sprumont
Coordinateur TRREE Coordinator

FMH Continuing Education Program (5 Credits)
Programme de Formation continue (5 Credits)

Foederatio Pharmaceutica Helvetiae FPH Programmes de formation continue
Continuing Education Programme
Programmes de formation continue

Ce programme est soutenu par - This program is supported by :
European and Developing Countries Clinical Trials Partnership (EDCTP) (www.edctp.org) - Swiss National Science Foundation (www.snf.ch) - Canadian Institutes of Health Research (http://www.cihr-irsc.gc.ca/e/2891.html) - Swiss Academy of Medical Science (SAMS/ASSM/SAMW) (www.samw.ch) - Commission for Research Partnerships with Developing Countries (www.kfpe.ch)

[REV : 20170310]

TRREE

Zertifikat
Certificat
Certificado
Certificate

Promouvoir les plus hauts standards éthiques dans la protection des participants à la recherche biomédicale
Promoting the highest ethical standards in the protection of biomedical research participants

Clinical Trials Centre
The University of Hong Kong

Certificat de formation - Training Certificate

Ce document atteste que - this document certifies that

Reevana Harriparsad

a complété avec succès - has successfully completed

Introduction to Research Ethics

du programme de formation TRREE en évaluation éthique de la recherche
of the TRREE training programme in research ethics evaluation

February 9, 2018
CID : pUsLlmf7ug

Professeur Dominique Sprumont
Coordinateur TRREE Coordinator

FMH Continuing Education Program (5 Credits)
Programme de formation continue (5 Crédits)

Foederatio Pharmaceutica Helvetiae FPH Programmes de formation continue
Continuing Education Programme
Programmes de formation continue

Ce programme est soutenu par - This program is supported by :
European and Developing Countries Clinical Trials Partnership (EDCTP) (www.edctp.org) - Swiss National Science Foundation (www.snf.ch) - Canadian Institutes of Health Research (http://www.cihr-irsc.gc.ca/e/2891.html) - Swiss Academy of Medical Science (SAMS/ASSM/SAMW) (www.samw.ch) - Commission for Research Partnerships with Developing Countries (www.kfpe.ch)

[REV : 20170310]

Appendix 8: Letter of editing confirmation

LANGUAGE INSTITUTE

33 Alan Paton Avenue
Scottsville
Pietermaritzburg
3201
Tel: 033 345 6844
Email: admin@kznlanguageinstitute.com
Website: www.kznlanguageinstitute.com

Registration number: 131 804 NPO

Editing Confirmation

12/11/2019

Author: Reevana Harriparsad

Document title: Evaluation of community outreach rehabilitation services in KwaZulu-Natal in 2019

This serves to confirm that the above document (references excluded) was edited substantively by members of the KZN Language Institute's professional English language editing team. The document was returned to the author with tracked changes and comments intended to correct errors, and to clarify meaning. It was the author's responsibility to accept or reject changes and to attend to issues raised in the comments.

Please note that the final, corrected version of the document was neither seen nor proofread by an editor from the KZN Language Institute.

Ms G. Coertze *MSocSc (Culture, Communication and Media Studies)*
Communications Manager

Ms J. Kerchhoff *BEd (Hons), MA (Applied Language Studies), CELTA*
Executive Director

KWAZULU-NATAL LANGUAGE INSTITUTE
(REG. NO: 131-804 NPO)
23 CORONATION ROAD, SCOTTSVILLE
PIETERMARITZBURG 3201
KWAZULU-NATAL, SOUTH AFRICA
TEL: +27 (0) 33 345 6844

KZN Language Institute – Transforming Words

Official

Appendix 9: Harvard referencing used in Results Section

Harvard Reference Style Guide

Introduction

Notes: Please 'copy' the title of a book, an article or whatever (as far as the spelling of words such as 'behaviour' or 'behavioural' are concerned (and this also goes for direct quotations) exactly as in the original:

- When referring to any work that is NOT a journal, such as a book, article, or Web page, capitalise only the first letter of the first word of a title and subtitle, the first word after a colon or a dash in the title, and proper nouns. Do not capitalise the first letter of the second word in a hyphenated compound word.
- Capitalise all major words in journal titles, full names for journal titles, not abbreviations.
- If within the same paragraph, reference is made to the same author(s) for a second and further time(s), the year of publication is omitted in the second and further references – as long as it does not lead to confusion
- Always cite page numbers within in-text citation – even if paraphrasing - example: Hallinan (2000:66)

Multiple publications; same author:

- Same author; different years
  Normal conventions (author, year, title, etc).
- Same author; same year
  More than one reference by an author in the same year: these are distinguished in order of publication using a lower-case alphabetical suffix after the year of publication (e.g. 1988a, 1988b, 1988c, etc). The same suffix is used to distinguish that reference for the in-text citations.

Order of Listing

The List of References is ordered alphabetically by primary authors' surnames.

- Multiple authors.
  - Use the sequence of authors' surnames exactly as given in the publication. The primary author, i.e., major contributor, is listed first by the publisher.

- Same author:
  - different years: list the author's references chronologically, starting with the earliest date.
  - same year: use an alphabetical suffix (e.g. 1983a, 1983b).

If you are going to use the abbreviation for USA state names then please make sure the abbreviation is correct, for example:

- Doss, G., 2003, IS project management handbook, Prentice Hall, Upper Saddle River, NJ. (No full stops between the abbreviations).

Compiled by AOSIS

Physical Address: 15 Oxford Street, Durbanville, 7550.
Postal Address: Postnet Suite 110, Private Bag X19, Durbanville, 7551.
Phone: 086 1000381 or +27 21 975 2602 | Fax: +27 21 975 4635 | Email: info@aosis.co.za | URL: www.aosis.co.za
African Online Scientific Information Systems (Pty)Ltd t/a AOSIS Reg No: 2002/002017/07

Updated by AOSIS

Books

Books	In-Text Example	Reference List Example
Single Author	(Doss 2003)	Doss, G., 2003, IS project management handbook, Aspen Publishers, New York. Karskens, G., 1997, The rocks: Life in early Sydney, Melbourne University Press, Carlton.
Two Author	(Laudon & Laudon 2003)	Laudon, K.C. & Laudon, J.P., 2003, Essentials of management information systems: Managing the digital firm, Prentice Hall, Upper Saddle River.
Three authors	In-text: initially (Coveney, Ganster & King 2003) In-text: thereafter (Coveney et al. 2003)	Coveney, M., Ganster, S. & King, D., 2003, The strategy gap: Leveraging technology to execute winning strategies, Wiley, Hoboken.

Corporate author	In-text: initially (Department of Foreign Affairs and Trade 2002) In-text: thereafter (DFAT 2002)	Department of Foreign Affairs and Trade, 2002, Connecting with Asia's tech future: ICT export opportunities, Economic Analytical Unit, Commonwealth Government, Canberra.
Book Editor	(ed. Shaw 2003) Shaw (ed. 2003:87) indicates that '… Current essays edited by Shaw (2003) suggest …	Shaw, M.J. (ed.), 2003, Ebusiness management: Integration of Web technologies with business models, Kluwer Academic, London. Schuman, N.A., 2001, 'Psalm 91: Tekst, context, en een diversiteit aan herlezingen', in P. Post, G. Rouwhorst, T. Sheer, R. Steensma & L. Tongeren (reds.), Jaarboek voor liturgieonderzoek deel, vol. 17, pp. 237–256, Instituut voor Liturgie-wetenschap, Groningen. Spieckermann, H., 2003, 'Hymnen im Psalter – Ihre Funktion undn ihre Verfasser', in E. Zenger (Hrsg.), Ritual und poesie, pp. 90–136, Herder, Freiburg.
Book collection or One volume of multi-volume work	(eds. Hudson & Bolton 1997) Hudson and Bolton (eds. 1997:32) stated that '…'.	Hudson, W. & Bolton, G. (eds.), 1997, Creating Australia: Changing Australian history, Allen & Unwin, Sydney.
Chapter: single author	(Howard 1998)	Howard, S., 1998, 'Verbal Protocol Analysis', in B. Henderson-Sellers, A. Simons & H. Younessi (eds.), The open process specification, pp. 272– 274, Addison Wesley, Sydney.

Chapter: three authors	In-text: initially (Johnston, Mak & Kurnia 2001) In-text: thereafter (Johnston et al. 2001)	Johnston R.B., Mak H.C. & Kurnia S., 2001, 'The contribution of Internet Electronic Commerce to advanced supply chain reform - a case study', in S. Barnes & B. Hunt (eds.), E-Commerce and V-Business, pp. 232–249, Butterworth-Heinemann, Oxford.
Four or more authors but equal to six. See reference on how to cite more than 6 authors in this reference guide below	A comprehensive study conducted in 1998 indicated that business in Australia is growing exponentially (Jones et al. 1999). Or Jones et al. (1999:34) suggested in their comprehensive study that '…'. Note: If there is another reference starting with Jones, for example, Jones, Larsen, Green and Matthews, the names of all the authors should be given in both cases to avoid confusion.	Jones, P., Smith, A., Hudson, T., Etherton, J., Connelly, W. & Gardener, J., 1999, Business management for the new era, Wyland Publishing, Adelaide. Note: Use et al. in all in-text entries. Include all of the authors in the reference list.
Article cited in a book		Oppenheim, P.L., 1981, 'Power politics', Journal of Power Engineering 1(3), 19–26, quoted in K. Strong, 1985, Advances in power engineering, SpringerVerlag, Berlin, p. 70.
Second, further or revised editions		Dyson, G.G.H., 1977, The mechanics of athletics, 7th edn., Homes and Meier, New York. Cohen, J., 1977, Statistical power analysis for the behavioural ciences, rev. edn., Academic Press, New York.
Translated works		Bakhtin, M., 1984, Rabelais and his world, transl. H. Iswolsky, Indiana University Press,
		Bloomington. Izedinova, S.V., 1977, A few months with the Boers: The war reminiscences of a Russian nursing sister, transl. C Moody, Perskor,

		Johannesburg.
Multiple works – same author	University research (Brown 1982, 1988) has indicated that … or Recent reports (Napier 1993a, 1993b) indicate that … Note: When using two studies by the same author in different years, paraphrasing is essential. Place in chronological order—oldest first. Ideas by Napier (1993b) were implemented … Note: You may use direct quotes when using the sources separately. Add a, b, c, etc. to differentiate between works in the same year by using the alphabetical order of the title.	Brown, P., 1982, Corals in the Capricorn group, Central Queensland University, Rockhampton. Brown, P., 1988, The effects of anchors on corals, Central Queensland University, Rockhampton. Napier, A., 1993a, Fatal storm, Allen & Unwin, Sydney. Napier, A., 1993b, Survival at sea, Allen & Unwin, Sydney.
Works by different authors—same family name—same year	A. Carter (1999) proposed that class size seriously limited creativity in the lower school. Further investigation proved there were notable weaknesses in this claim (Carter, T 1999). Note: As a general rule, it is advisable to paraphrase in this instance.	Carter, A., 1999, Issues in Australian education, Cherokee Publications, Brisbane. Carter, T., 1999, Creativity in the classroom, Watkins & O'Hara Publishers, Darwin.
Second or later edition with an author	Group dynamics has been identified as … (Johnston 1993). Or A recent theory (Johnston 1993:5) on group dynamics states that '…'.	Johnston, K., 1993, Surviving the first year experience, 2nd edn., Macmillan, Melbourne.

Several sources are cited at once	Bradford (1992), Curtis (1983), and Graham (1997) all agree … Or Recent studies (Bradford 1992; Curtis 1983; Graham 1997) agree that …	Bradford, C., 1992, Genre in perspective: A whole language approach, Bookshelf, Gosford. Curtis, A., 1983, Practical math for business, Houghton Mifflin, Boston. Graham, A., 1997, Managing
	Note: Paraphrasing is essential if you are going to cite the essence of what the authors all agree upon. Alphabetise according to the name of the first author in each source. Separate entries by using semicolons.	more postgraduate research students, Oxford Centre for Staff Development, Oxford. Note: Each author will appear as a separate entry in the reference list.
No date can be established	Bridging courses are studied by students who have not previously … (Lansdown n.d.). *Or* Lansdown (n.d.:13) found that '…'	Lansdown, M., n.d., *Bridging courses*, Central Queensland University, Rockhampton.
The date can be established but only approximately	In a draft policy release, the Queensland Education Department (c. 1995) suggests… or 'Disciplining a child should not invoke …' (Queensland Education Department c.1995:xxii).	Queensland Education Department, c. 1995. Draft policy on school discipline, Author, Gladstone.

Journals

Journals	In-Text Example	Reference List Example
Single author	(Hammer 1990:104–112)	Hammer, M., 1990, 'Reengineering Work: Don't Automate, Obliterate', Harvard Business Review, July–August, 104–112. Kozulin, A., 1993, 'Literature as a psychological tool', Educational Psychologist 28(3), 253–265.
Two authors	(Lamb & Kling 2003:197)	Lamb, R. & Kling, R., 2003, 'Reconceptualizing users as social actors in information systems research', MIS Quarterly 27(2), 197.
No volume or issue number	Sprague and Shameen (1999) indicate that alternatives to continual economic growth… Or It has been suggested that '[g]rowth at all cost is no longer a viable option' (Sprague & Shameen 1999: 50).	Sprague, J. & Shameen, A., 1999, 'Boosting growth, courting disasters?', Asiaweek, 31 July, 50–51.

Journal articles and book chapters from books of readings		Kuebler, S.A., 2004, 'OSHA's enforcement strategy', Occupational Health & Safety 73(12), 12–3, in I. Eddington (ed.), MGT 8015 Corporate occupational health and safety: Selected readings, 2005, University of Southern Queensland, Toowoomba, Reading 4.1, pp. 71–72. Hancock, L., 2002, 'Australian federalism, politics and health', in H. Gardner & S. Barraclough (eds.), Health policy in Australia, 2nd edn.,
		Oxford University Press, South Melbourne, in I. Eddington (ed.), MGT 8015 Corporate occupational health and safety: Selected readings, 2005, University of Southern Queensland, Toowoomba, Reading 1.2, pp. 28–35.
Non-English journal article		Give the original title, as well as an English translation in brackets. Ising, M., 2000 ,'Intensitätsabhängigkeit evozierter Potenzial im EEG: Sind impulsive Personen Augmenter oder Reducer?' [Intensity dependence in eventrelated EEG potentials: Are impulsive individuals augmenters or reducers?], Zeitschrift für differentielle und diagnostische Psychologie 21, 208–217.

Back dating articles		The volume number should be provided in Arabic numeral, without the preceding abbreviation ‘v’, ‘vol.’ or ‘jrg.’. Full page numbers must be given. If the date or place of publication is missing, the abbreviation ‘n.d.’ is used instead of referring to the date of publication and ‘s.l.’ instead of referring to the place of publication. The date is placed in square brackets if the date of publication is known to the user but is not explicitly mentioned in the book or journal. Pont, A.D., [1978], ‘Die herderlijke brief van die sinode van 1837’, HTS
		Teologiese Studies/Theological Studies 34(4), 91–105.
Supplement journal		Fisk, B.N., 2001, 'Do you not remember? Scripture, story and exegesis in the rewritten Bible of PseudoPhilo', *Journal for the Study of the Pseudepigrapha*, suppl. ser. 37.

Proceedings

Proceedings	In-Text Example	Reference List Example

Published Conferences, seminars and meetings	(Eidenberger et al. 2002)	Eidenberger, H., Breiteneder, C. & Hitz, M., 2002, 'A framework for visual information retrieval', in S-K. Chang, Z. Chen & S-Y. Lee (eds.), Recent advances in visual information systems: 5th International conference, VISUAL 2002 proceedings, Hsin Chu, Taiwan, March 11–13, 2002, pp. 105–116.

Unpublished material

Unpublished material	In-Text Example	Reference List Example
Unpublished conference paper	(Fitzsimmons 2005)	Fitzsimmons, D., 2005, 'Who chooses who belongs: Tactics and strategies and migrant literature', paper presented at the AULLA & FILLM conference, James Cook University, Cairns, 15–19th July.
Theses and Reports	(Rouse 2002)	Rouse, A.C., 2002, 'Information technology outsourcing revisited: success factors and risks', PhD thesis, Dept. of Information Systems,

		University of Melbourne.

Encyclopedias and Dictionaries

Encyclopedias and Dictionaries	In-Text Example	Reference List Example
Encyclopedias and Dictionaries	(Karlof 2002)	Karlof, B., 2002, 'Benchmarking', in H. Bidgoli (ed.), Encyclopedia of information systems, Academic Press, New York, vol. 1, pp. 65–80.

Newspaper

Newspaper	In-Text Example	Reference List Example
Print unattributed	(Sydney Morning Herald 7 March 1994:8)	'UNSW gains top ranking from quality team', Sydney Morning Herald, 30 February, 1994, p. 21.
Print attributed	(Barker 2004)	Barker, G., 2004, '$54m Deal To Heat Up Broadband War', The Age, Business, 24 February, p. 2. Donaghy, B., 1994, 'National meeting set to review tertiary admissions', Campus News, 03–09 March, p. 3.
Online	(Varghese 2004)	Varghese, S., 2004, 'The
		Linux desktop is here', The Age, viewed 01 March 2004, from http://www.theage.com.au/articles/2004/02/13/1076548215848.html.

Magazine

Magazine	In-Text Example	Reference List Example
Single author	(Knight 2004)	Knight, W., 2004, 'How to second guess the next hack attack', New Scientist, 24 January, p. 19. Note: Always evaluate information found in magazines for 'scholarliness'– including bias, validity, trustworthiness of the authors etc. Magazines are not generally considered scholarly pieces of work for research.

Software

Software		
Named author	(Rawson-Tetley 2005)	Rawson-Tetley, R., Animal Shelter Manager, computer software, viewed 11 January 2005 from http://sheltermanager.so urceforge.net.
No named author	(OpenOffice.org 2005)	OpenOffice.org, computer software, viewed 11 January 2005, from http://www.openoffice.o rg.
Corporate publisher	(MATLAB 2003)	MATLAB version 6.5.1, 2003, computer software, The MathWorks Inc., Natick, Massachusetts. 1. Title of software - in italics: MATLAB 2. Version of

		software: version 6.5.1, 3. Year of publication: 2003, 4. Identifier: computer software, 5. Publisher: The MathWorks Inc., 6. Place of publication: Natick, Massachusetts.

World Wide Web

World Wide Web		
Document on the WWW (author or sponsor given but not dated)	According to Greenpeace (n.d.), genetically modified foods are … or Greenpeace (n.d.:1 of 2) recommends that 'fewer genetically …'.	Greenpeace n.d., The future is GE free, viewed 28 September 2005, from http://www.greenpeace.org.au/ge/farming/canol a.html. Note: The title of a webpage is treated like the title of a book. It is written in italics in the reference list.
Identifiable, personal author	(Arch & Letourneau 2002)	Arch, A. & Letourneau, C., 2002, 'Auxiliary Benefits of Accessible Web Design', in W3C Web Accessibility initiative, viewed 26 February 2004, from http://www.w3.org/WAI/bcase/benefits.html.
E-book	(Eck 2002)	Eck, D.J., 2002, Introduction To Programming Using Java, 3rd edn., OOPWeb.com, viewed 26 February 2004, from http://www.oopweb.com/Java/Documents/IntroToProgrammingUsingJava/VolumeFrames.html.

E-journal: single author	(Lenoir 2003)	Lenoir, L., 2003, 'Response of the
		foraging behaviour of red wood ants (Formica rufa group) to exclusion from trees', Agricultural and Forest Entomology 5(3), 183–189, viewed 10 September 2003, from http://www.blackwellsynergy.com/links/doi/10.1046/j.1461-9563.2003.00176.x/full/.
E-journal: three authors	(Mueller et al. 2003)	Mueller, J.K., Heckathorn, S.A. & Fernando, D., 2003, 'Identification of a chloroplast dehydrin in leaves of mature plants', International Journal of Plant Sciences 164(4), 535–542, viewed on 10 September 2003, from http://www.journals.uchicago.edu/IJPS/journal/no.s/v164n4/164053/1640 53.html.
E-journal: Abstract and more than 6 authors	(Wolter et al. 2003)	Wolter, B.F., Ellis, M., Corrigan, B.P., DeDecker, J.M., Curtis, S.E., Parr, E.N. et al., 2003, 'Effect of restricted postweaning growth resulting from reduced floor and feeder-trough space on pig growth performance to slaughter weight in a wean-to-finish production system', Journal of Animal Science, (abstract), vol. 81, viewed 11 September 2003, from http://buffy.lib.unimelb.edu.au:2148/jas/abs/2003 /a0340836.htm..

Other References

Other References		

CD-ROM	(World Atlas & Almanac 1995)	World Atlas & Almanac, 1995, CD-ROM, Mindscape Inc., Novato, California, USA.
Video & Audio Recordings: named	(Grumpy meets the orchestra 1992)	Grumpy meets the orchestra, 1992, video recording, Australian Broadcasting Corporation, Sydney, Featuring the Sydney Symphony Orchestra.
Video & Audio Recordings: named performer	(Sangare 1997)	Sangare, O., 1997, 'Dugu Kamalemba', in The divas from Mali, audio CD, Network Medien GmbH, D-60316 Frankfurt. Track #10. 1. Author (performer): Sangare, O., 2. Date (year): 1997, 3. Title (piece) - in single quotes: 'Dugu Kamalemba', 4. Title (collection) - in italics: in *The divas from Mali,* 5. Identifier: audio CD, 6. Publisher: Network Medien GmbH, 7. Place: D-60316 Frankfurt. 8. Qualifier: Track #10.
Personal Communication: individual	• When interviewed on 15 May 2001, Mr R. Forbes stated... OR • Mr R. Forbes confirmed his statement by fax on 15 May 2003... OR • The statement claimed that Martians had landed in Moonee Ponds (R. Forbes [Australian UFO Society] pers. comm., 15 May 2003). Not included in the Reference list.	

Personal Communication: email	(Milnthorpe 2002)	Milnthorpe, R.Q., 2002, email, 26 November, milnthorpe@scraggemback.com.au 1. Author: Milnthorpe, RQ 2. Date (year): 2002, 3. Identifier: email, 4. Date: 26 November, 5. Address: milnthorpe@scraggemback.com.au
Personal Communication: lectures	• 'There is no need to panic', stated Mr R. Forbes at his public lecture on 18 May 2003 ... OR • The Chair (Seminar on the Moonee Ponds Phenomena 11 June 2003) drew attention to the unexplained spontaneous combustion of Mr Ron Forbes ... Not included in the Reference list.	
Maps: print	(Viking O'Neil 1991:32–33)	Viking O'Neil, 1991, Australian Road Atlas, 10th edn., Penguin Books Australia, Melbourne, pp. 32–33. 1. Author: Viking O'Neil 2. Date: 1991, 3. Title - in italics: Australian Road Atlas, 4. Edition: 10th edn., 5. Publisher: Penguin Books Australia, 6. City: Melbourne, 7. Pages: pp. 32–33.

Maps: online	(maps.com 1999)	maps.com, 1999, Bhutan, viewed 11 September 2003, from http://www.maps.com/cgi-bin/search/hyperseek.cgi?search=CAT&Category=Asia%3ABhutanP&Qualifier= 1. Author: maps.com, 2. Date: 1999, 3. Title - in italics: Bhutan, 4. Viewed: viewed 11 September 2003, 5. URL: from http://www.maps.com/cgibin/search/hyperseek.cgi?search=CAT&Category=Asia%3ABhutanP&Qualifier=

Government

Government		
Media Releases	(Alston 2003)	Alston, R., (Australian Minister for Communications, Information Technology) 2003, Australian Government to ban spam, media release 122/03, National Office for Information Economy, Canberra, viewed 23 July, from http://www.noie.gov.au/publications/media_releases/2003/Jul/spam.ht m

Government media releases	According to the Commonwealth Scientific and Industrial Research Organisation (CSIRO) (1997–2004:5 of 12), 'the benefits of the new sheep weighing technology …'.	Commonwealth Scientific and Industrial Research Organisation (CSIRO), 1997–2004, Revolutionary sheep weigher on trial, media release Ref PRO 4_168, 15 Sept 2004, viewed 16 September 2004, from http://www.csiro.au/index.asp?type=mediaRelease&id=sheepweigher&style=mediaRelease
Government publication and regulations	(Department of Education, Science & Training 2000) When citing government, legal or standards documents, it is recommended that for citing divisions of Acts and Ordinances, use s. or ss. for citing sections. For example: • in ss. 4–7 of the Copyright Act 1968 • the Copyright Act, ss. 4–7 • in s. 4 of the Casino Control Ordinance. When citing regulations, use r. and rr. For example: • the Copyright Regulations, rr. 18–19 • the Commonwealth's Copyright Regulations, r. 18 • in r. 4 of the Copyright Regulations. When citing legal authorities, the following details are necessary: • name of case	Department of Education, Science & Training, 2000, Annual Report 1999-2000, AGPS, Canberra. Department of Immigration and Multicultural Affairs 2001, Immigration: Federation to century's end 1901-2000, Statistics Section, Business Branch, Department of Immigration and Multicultural Affairs, Canberra.
	year or volume number or both abbreviated name of the report series • the page on which the report of the case begins. For example: The State of New South Wales vs The Commonwealth (1915) 20 CLR 54	

Legislation	It must be realised that intent must be established before a prosecution can proceed concerning underage drinking (Queensland Government 1962, s. 12, ss. 5). Or Intent must be established before a prosecution can '…' (Queensland Government 1962, s. 12, ss. 5).	Queensland Government, 1962, Queensland State Liquor Act, Author, Brisbane. Note: Author refers back to the sponsor who is also the publisher.
Standards	According to the Standards Association of Australia (1997), …	Standards Association of Australia, 1997, Australian standard: Pressure equipment— manufacture, (AS4458-1997), Standards Australia, North Sydney.
Patents	Tan and Arnold (1993) formalised and protected their ideas … Or Tan and Arnold (1993, n.p.) protected their ideas by '…'	Tan, I.S. & Arnold, F.F., (US Air Force) 1993, In situ molecular composites based on rigid-rod polyamides, US patent 5 247 057.

Brochure	(New South Wales Dept of Primary Industries 2005)	New South Wales Dept of Primary Industries, 2005, Saltwater recreational fishing in New South Wales: Rules & regulations summary, brochure, NSWDPI, New South Wales. Include as much information as available. The publisher's name may be abbreviated if it is also the author.
To cite a work reproduced in a book (image, poem, painting etc.)	De Kooning's 1952 painting 'Woman and Bicycle' (Hughes 1980:295) is an example of ...'	Hughes, R., 1980, The shock of the new: Art and the century of change, British Broadcasting Corporation, London.
Study Guide (author known)	Reports by Hallinan (2000) indicate that… Or Similarly, Hallinan (2000:66) reported that '…'.	Hallinan, P., 2000, EDED48102 Development and disability: Study guide, Central Queensland University, Rockhampton.
Study Guide (author unknown)	A recent report (Central Queensland University (CQU) 2000) has suggested that … Or Findings from a 1999 study indicate that '…' (Central Queensland University (CQU) 2000:5).	Central Queensland University (CQU), 2000, EDE48201 Development and disability: Study guide, Author, Rockhampton.
Tutorial or workshop handout (unpublished)	The importance of aerobic exercise … (The respiratory system 2000). Or Aerobic exercise is valuable because of its '…' (The respiratory system 2000:1).	The respiratory system, Tutorial handout distributed in the unit, HHM72160 Human anatomy, Central Queensland University, Gladstone on 2 March 2000. Note: No italics or quotation marks are shown because class handouts are unpublished sources.

Lecture notes (unpublished)	Thompson (2001) found that the first teaching day may result in mixed emotions for many first year teachers. Or It has been found that beginner teachers, on their first day in the class room, will '… ' (Thompson 2001:1).	Thompson, R., 2001, The first day experience, Lecture notes distributed in the unit, EDED48314 Professional practice III, Central Queensland University, Bundaberg on 21 April 2001.
The Bible	These particular lines (Psalm 23:6–8) refer the reader to …	Note: Bible references are not included in a reference list.
Atlas (with an editor)	The position of the new city is to be in south-east Queensland (ed. Eales 2003, Map 34).	Eales, S. (ed.), 2003, The Jacaranda atlas, 3rd edn., John Wiley & Sons, Brisbane.
Atlas (with no editor)	The position of the new city is to be in south-east Queensland (The Jacaranda	The Jacaranda atlas 2003, 3rd edn., John
	atlas 2003, Map 34).	Wiley & Sons, Brisbane.
Books in press	(Bloggs in press)	Bloggs, J., (in press), 'A new book that I have written', Vanity Press, London.

Abbreviations:

art.	article
app.	appendix
c.	about, approximately (from Latin circa)
cf.	compare (from Latin confer)
ch.	chapter
col., cols.	column(s)
div.	division
ed., eds.	editor(s)
edn.	edition
et al.	and others (from Latin et alii)
fn., fnn.	footnote(s)
ill., ills.	illustrator(s)
l., ll.	line(s)
MS., MSS.	manuscript(s)

n., nn.	Notes
n.d.	no date
n.p.	no place
p., pp.	page(s)
para., paras.	paragraph(s)
pl.	plate (photograph)
pt., pts.	part(s)
rev.	revised
ser.	series
suppl.	Supplement
transl.	Translated
v.	verse (Bible)
vv.	verses (Bible)
vol., vols.	volume(s)

Abbreviations for Bible Books (as recommended by NTSWA English):

Use abbreviation of Bible Book when in parenthetical citation [example: (Mt 28:19)], but the full book name when in a sentence [example: According to Matthew 28:19]

Gn	Ex	Lv	Nm	Dt	Jos		Jdg
Rt	1 Sm	2 Sm	1 Ki	2 Ki	1 Chr		2 Chr
Ezr	Neh	Es	Job	Ps	Pr		Ec
Can	Is	Jr	Lm	Ezk	Dn		Hs
Jl	Am	Ob	Jnh	Mi	Nah		Hab
Zph	Hg	Zch	Ml				
Mt	Mk	Lk	Jn	Ac	Rm		1 Cor
2 Cor		Gl	Eph	Phlp	Col	1 Th	2 Th

1	Tm	2 Tm	Tt	Phlm	Heb	Ja		1 Pt
2	Pt	1 Jn	2 Jn	3 Jn	Jude	Rv		

Abbreviations for Bible Books (S A Academy of Science and Art, Afrikaans):

Gen	Eks	Lev	Num	Deut	Jos			Rig
Rut	1 Sam		2 Sam		1 Kon	2 Kon	1 Kron	2 Kron
Esra		Neh	Est	Job	Ps	Spr		Pred
Hoogl		Jes	Jer	Klaagl		Eseg	Dan	Hos
Joël	Am	Ob	Jona	Miga	Nah			Hab
Sef	Hag	Sag	Mal					
Matt		Mark	Luk	Joh	Hand	Rom		1 Kor
2 Kor		Gal	Ef	Fil	Kol	1 Tess		2 Tess
1 Tim		2 Tim	Tit	Filem	Heb	Jak		1 Pet
2 Pet		1 Joh	2 Joh	3 Joh	Jud	Op		

Other resources:

http://www.lc.unsw.edu.au/onlib/ref2.html
http://www.lib.monash.edu.au/tutorials/citing/harvard-government.html
http://www.lib.unimelb.edu.au/cite/harvard_dis/index.html#Example
http://www.usq.edu.au/library/help/referencing/harvard.htm#Books_print_and_online